WEST VIRGINIA
SECRETARY OF STATE
JOE MANCHIN, III
ADMINISTRATIVE LAW DIVISION

Form #5

Do Not Mark In This Box

FILED

2004 MAY 14 P 4:03

OFFICE WEST VIRGINIA SECRETARY OF STATE

NOTICE OF AGENCY ADOPTION OF A PROCEDURAL OR INTERPRETIVE RULE OR A LEGISLATIVE RULE EXEMPT FROM LEGISLATIVE REVIEW

AGENCY: Workers' Compensation Commission TITLE NUMBER: 85

CITE AUTHORITY: Ch.23, Art.1§§1(b),1a(j),1b,13, Art.4§§1,1d,1g,3b(b),3c,6,7,7a,8,8b,8c & 16

RULE TYPE: PROCEDURAL _____ INTERPRETIVE _____

EXEMPT LEGISLATIVE RULE X

CITE STATUTE(s) GRANTING EXEMPTION FROM LEGISLATIVE REVIEW

W. Va. Code §23-1-1a(j)(3)

AMENDMENT TO AN EXISTING RULE: YES ____ NO X

IF YES, SERIES NUMBER OF RULE BEING AMENDED: _____

TITLE OF RULE BEING AMENDED: *This rule repeals and replaces 85CSR 13, -16, -20, -21 & portions of 85CSR1, Sections 11, 14 and 20

IF NO, SERIES NUMBER OF RULE BEING PROPOSED: 20

TITLE OF RULE BEING PROPOSED: Medical Management of Claims, Guidelines for Impairment Evaluations, Evidence & Ratings, and ~~Ranges of Permanent Partial Disability Awards~~

THE ABOVE RULE IS HEREBY ADOPTED AND FILED WITH THE SECRETARY OF STATE. THE EFFECTIVE DATE OF THIS RULE IS June 14, 2004

Authorized Signature

85 CSR 20

TITLE 85

EXEMPT LEGISLATIVE RULE

WORKERS' COMPENSATION COMMISSION

SERIES 20
MEDICAL MANAGEMENT OF CLAIMS, GUIDELINES FOR IMPAIRMENT EVALUATIONS, EVIDENCE, AND RATINGS, AND RANGES OF PERMANENT PARTIAL DISABILITY AWARDS

I. INTRODUCTION

§85-20-1. General.

1.1. Scope.— West Virginia Code Section 23-4-3b(b) requires the Workers' Compensation Board of Managers to promulgate a rule establishing the process for the medical management of claims and awards of disability which includes, but is not limited to, reasonable and standardized guidelines and parameters for appropriate treatment, expected period of time to reach maximum medical improvement and range of permanent partial disability awards for common injuries and diseases or, in the alternative, which incorporates by reference the medical and disability management guidelines, plan or program being utilized by the commission for the medical and disability management of claims, with the requirements, standards, parameters and limitations of such guidelines, plan or program having the same force and effect as the rule promulgated in compliance herewith. This Rule satisfies this statutory requirement. See also, West Virginia Code Sections 23-1-1(b); 23-1-1a(j)(2), (3), (9), and 13); 23-1-1a(j)(13); 23-1-1b(g)(25); 23-1-13; 23-4-1(c), (d), (f), and (i); 23-4-1g; 23-4-3; 23-4-1d;23-4-3c; 23-4-6; 23-4-7; 23-4-7a; 23-4-8; 23-4-8b; 23-4-8c; and 23-4-16.

1.2. Authority.— Pursuant to W. Va. Code, §23-1-1a(j)(3), rules adopted by the Workers Compensation Board of Managers are not subject to legislative approval as would otherwise be required under W. Va. Code, § 29A-3-1 et seq. Public notice requirements of that chapter and article, however, must be followed.

1.3. Filing Date -

1.4. Effective Date –

1.5. Repeal of former rules. – This exempt legislative rule repeals and replaces the following: 1) 85 C.S.R. 13, " Protocals and Procedures for Performing Medical Evaluations in Noise-Induced Hearing Loss Claims," filed in the Secretary of State's Office January 24, 1996 and made effective February 22, 1996; 2) 85 C.S.R. 16, "Guidelines for Permanent Impairment Evaluations, Evidence, and Ratings," filed in the Secretary of State's Office January 24, 1996 and effective February 26, 1996; 3) 85 C.S.R. 20, "Guidelines for the Treatment of Workers'

Compensation Injuries" filed in the Secretary of State's Office August 23, 1995 and effective October 1, 1995; 4) 85 C.S.R. 21, "Guidelines for Controlled Substances," filed in the Secretary of State's Office August 23, 1995 and made effective September 22, 1995; and 5) 85 C.S.R. 1, "Administration of the Workers' Compensation Fund," Sections 11, 14, and 20.

§85-20-2. Purpose of Rule.

2.1. The purpose of this rule is to implement the provisions of W. Va. Code. Section 23-4-3b(b) and the other provisions of the Code that are identified in Section 1.1 above.

§85-20-3. Definitions.

As used in these rules, the following terms have the stated meanings unless the context of a specific use clearly indicates another meaning is intended.

3.1. "Code of West Virginia" and "West Virginia Code" means the West Virginia Code of 1931 as amended.

3.2. "Executive Director" means the Executive Director of the West Virginia Workers' Compensation Commission as provided pursuant to the provisions of W.Va. Code §23-1-1b.

3.3. "Commission" means the West Virginia Workers' Compensation Commission as provided for by W. Va. Code §23-1-1, et seq.

3.4. "Health Care Vendor" or "Health Care Provider" refers to health care providers, including providers of rehabilitation services within the meaning of W. Va. Code §23-4-9, both in- and out-of-state who have signed provider agreements with the West Virginia Workers' Compensation Commission to provide health care for injuries or illnesses covered by Chapter 23 of the Code. For this Rule, the terms shall mean any person, firm, corporation, partnership, association, agency, institution, or other legal entity providing any kind of services or equipment. The terms include, but are not limited to, hospitals, medical doctors, dentists, chiropractors, vocational rehabilitation counselors, vocational rehabilitation service providers, qualified rehabilitation professional, osteopathic physicians, pharmacists, podiatrists, physical therapists, occupational therapists, massage therapists, psychologists, naturopathic physicians, and durable medical equipment suppliers.

3.5. "Office of Judges" refers to the Office of Judges, as set forth in W. Va. Code §23-5-8.

3.6. "This rule" means the present exempt legislative rule that is designated in the caption here as title 85, series 20.

3.7. The following will be referred to throughout the rule by the abbreviation indicated.

a. Magnetic resonance imaging - MRI

b. Encephalogram - EEG

c. Computer Assisted Tomogram - CT scan

d. Electromyelogram – EMG

3.8. "Guides Fourth" means the "Guides to the Evaluation of Permanent Impairment," (4th ed. 1993), as published by the American Medical Association.

3.9. "Maximum medical improvement" means a condition that has become static or stabilized during a period of time sufficient to allow optimal recovery, and one that is unlikely to change in spite of further medical or surgical therapy.

3.10. "Permanent impairment" means a permanent alteration of an individual's health status and is assessed by medical means and is a medical issue. An impairment is a deviation from normal in a body part or organ system and ~~it's~~ its functioning. An ~~Injured~~ injured worker's degree of permanent whole body medical impairment is to be determined in keeping with the determination of whole person permanent impairment as set forth in the applicable Guides. For the purposes of this Rule, the Guides' use of the term "whole person" impairment is the equivalent of the term "whole body" impairment.

3.11. Chart Notes: This type of documentation may also be referred to as "office" or "progress" notes or "narrative report." Providers must maintain charts and records in order to support and justify the services provided. "Chart" means a compendium of medical records on an individual patient. "Record" means dated reports supporting bills submitted to the department or self-insurer for medical services provided in an office, nursing facility, hospital, outpatient, emergency room, or other place of service. Records of service shall be entered in a chronological order by the practitioner who rendered the service. For reimbursement purposes, such records shall be legible, and shall include, but are not limited to:

a. Date(s) of service;

b. Patient's name and date of birth;

c. Claim number;

d. Name and title of the person performing the service;

e. Chief complaint or reason for each visit;

f. Pertinent medical history;

g. Review of medication

h. Pertinent findings on examination;

i. Medications and/or equipment/supplies prescribed or provided;

j. Description of treatment (when applicable);

k. Recommendations for additional treatments, procedures, or consultations;

l. X rays, tests, and results; and

m. Plan of treatment/care/outcome.

3.12. "Injured worker" means an individual seeking to received benefits available under Chapter 23 of the Code and/or has received and/or is receiving benefits under Chapter 23 of the Code.

§85-20-4. Adoption of Standards and Acceptance of Rules.

4.1. The treatment guidelines, standards, protocols, and limitations thereon provided for the injuries and diseases listed in this section are designed to assist health care providers in the evaluation and treatment of injured workers. The provisions of this Rule are not intended to strictly dictate results and it is recognized that there may be extraordinary cases that require treatments in addition to the treatments set forth in this Rule. However the treatments and limitations on treatments set forth in this Rule are presumed to be medically reasonable and treatments in excess of those set forth in this rule are presumed to be medically unreasonable. A preponderance of evidence, including but not limited to, detailed and documented medical findings, peer reviewed medical studies, and the elimination of causes not directly related to a compensable injury or disease, ~~It will require clear and convincing evidence~~ must be presented to establish that treatments in excess of those provided for in this Rule are medically reasonable. To receive reimbursement from the Commission for treatment in excess of that provided for in this Rule, all providers must thoroughly document and explain the action taken and the basis for the deviation from this Rule and shall receive authorization before providing said treatment.

4.2. Except as provided for in section 5.911 of this Rule, ~~Providing~~ providing treatment to an injured worker, filling prescriptions for an injured worker, and/or acceptance of payment for treatment, devices, or medications provided to an injured worker constitutes acceptance by the medical provider of the Commission's rules and fee schedules.

4.3. Failure of the medical provider to timely submit appropriately completed forms, failure to comply with this Rule or any fee schedule or billing guideline, as may be from time to time amended, and any attempt to seek reimbursement in excess of the levels provided for in this Rule may be considered as an abusive practice for purposes of West Virginia Code Section 23-4-3c and may be considered as evidence of conduct in violation of West Virginia Code Section 61-3-24g. All medical reports and fee bills must be signed by the medical vendor rendering the services or his authorized representative. If the report or bill is not submitted electronically, the medical vendor's name must be legibly printed or typed beneath the signature.

II. PROVIDERS

§85-20-5. Qualified Providers and Registration

5.1. To receive payment as a health care provider, a provider must be enrolled as an active vendor with the Commission. Providers may be reimbursed only for services actually provided or supervised and for which the vendor is duly licensed. To enroll, the provider must submit the applicable application to the Commission, completed in its entirety, along with all documentation requested by the Commission, including, but not limited to, all professional licenses, board certificates, business licenses, accreditation certificates, and/or operating permits held by the provider in this or any other state. Providers must advise if their license to practice medicine has ever been suspended or terminated by the appropriate authority in West Virginia or any other state and whether the provider has been convicted of any crime in relation to his or her practice, or any felony. Providers with address or telephone number changes must advise the Commission in writing (by mail or facsimile), providing both old and new information and their tax identification number on letterhead.

5.2. Any provider who has had his or her license to practice medicine suspended or terminated by the appropriate authority in West Virginia or any other state, any provider who has been convicted of any crime in relation to his or her practice, or any felony, and/or any provider who has been suspended or terminated by the Commission pursuant to West Virginia Code Section 23-4-3c, or any other provision, may be excluded by the Commission in any managed care plan created by the Commission.

5.3. Providers must submit their usual and customary charges for commonly billed codes when applying for enrollment. If the provider is ultimately enrolled, the provider shall only be permitted to charge the provider's usual and customary charges, and not the maximum amount allowed under ~~Workers' Compensation's~~ the Commission's fee schedule.

5.4. Licensed practitioners are eligible to treat injured workers to the extent of the practitioner's license certification. Providers not independently licensed must practice under direct supervision of a licensed health care professional whose scope of practice and specialty training includes service provided by the paraprofessional.

5.5. Reimbursement for care will only be authorized if the provider has provided documentation of credentialing consistent with the type of care provided.

5.6. A new Application is required if a provider's name or tax identification number changes. The Application must have the original signature of an authorized person and may be faxed initially to the Commission's Provider Registration unit. Activation is not official until a complete signed application has been received and a confirmation letter is sent at that time. The hard-copy original must be sent to:

Workers' Compensation Commission
ATTN: Provider Registration
P.O. Box 4228
Charleston, WV 25364-4228

5.7. Registration as a Commission provider ~~is~~ constitutes an agreement to:

a. Accept the Commission's fee schedule, as amended from time to time by the Commission;

b. Submit reports and to make continuing reports in a timely manner and as otherwise required and on forms required by the Commission, as from time to time amended;

c. Retain medical records, including, but not limited to, general medical records and X-Ray's, for ten (10) years and invoices, electronic or paper, for three years;

d. Timely and fully participate in all physical and vocational rehabilitation efforts of the Commission;

e. Accept all provisions of this Rule, and all policies, procedures, and other requirements adopted from time to time by the Commission; and

f. To remain updated and familiar with all medical billing instructions, and other rules, regulations, and procedures of the Commission.

5.8. ~~Chiropractors~~Health Care Providers . Certain procedures performed by ~~chiropractors~~health care providers are reimbursable by the Commission only when providers have certification in accordance with W. Va. Code §30-16-20. ~~Chiropractors~~Health care providers must provide evidence of certification if they wish to perform videofluroscopy, diagnostic ultrasound, electromyography, nerve conduction velocity studies, somatosensory testing, neuromuscular junction testing, and any other diagnostic testing identified by the Commission.

5.9. Independent Medical Examiners. Registered providers may apply to be recognized by the Commission as independent medical examiners, who provide independent examinations and recommend impairment ratings of injured workers. A separate application, Independent Medical Examiner Application, must be submitted and approved by the Commission. Approval shall only be granted if the applicant is board certified or board eligible, where such board exists. The Commission reserves the right, in its sole discretion, to direct the examinee to the examiner of its choosing. All independent medical examiners shall comply with all Commission policies and procedures as a pre-requisite to payment.

5.10. Out-of-State Providers. If an injured worker elects or is directed to receive health care services from an out-of-state provider, and that provider does not accept ~~Workers'~~

~~Compensation's~~ the Commission's fee as payment in full, then the injured worker may be liable for the difference between ~~Workers' Compensation's~~ the Commission's payment and the amount charged by the out-of-state health care provider.

5.11. Given the above, it is essential that all physicians be aware of the injured worker's potential liability when selecting a referral, consulting, surgical, or other provider located in another state. Accordingly, all referrals should be to providers registered with the Commission and referrals to non-registered providers requires pre-authorization from the Commission. Unless the following exceptions apply, referral to an out-of-state provider will put the injured worker at risk for out-of-pocket payment for medical service.

a. Emergencies: Where there is an urgent need for immediate medical attention to prevent death or serious and permanent harm, the injured worker will not be personally liable for the difference between fee schedule and the amount charged by the out-of-state provider. The exception no longer applies when, after emergency admission, the injured worker attains a stable medical condition and can be transferred to either a West Virginia health care provider or an out-of-state health care provider who has agreed to accept the scheduled fee as payment in full. If the injured worker refuses to be transferred, then he or she will be personally liable for the difference in costs between the fee schedule amount and the amount charged by the provider for services after attaining medical stability.

b. No Nearby Qualified Provider: If no health care provider qualified to provide needed medical services and who has agreed to accept the Commission's fee schedule as payment in full is reasonably near to the injured worker's home, the injured worker may request authorization for an out-of-state provider. If the Commission authorizes medical services from the out-of-state provider, the injured worker will not be personally liable for the difference between fee schedule and the amount charged by the out-of-state provider.

III. PROVISION OF SERVICES

§85-20-6. The Role of the Treating Physician

6.1. Each injured worker selects a treating physician of record who will treat the injured worker and be responsible for coordinating all subsequent health care. The treating physician of record may be a medical doctor, osteopath, podiatrist, or chiropractor. Any treating physician who is limited in number of treatments by another provision of this Rule shall, upon exhaustion of that limit, only seek reimbursement as a treating physician for services provided in intervals consistent with those of other treating physicians. The injured worker should not seek care from more than one provider without contacting the Commission, requesting the designation of a different attending physician, and having that request approved. Injured workers whose employer's managed care plans have been approved by the Commission or who are covered by a managed care plan adopted by the Commission shall chose a treating physician offered under the applicable plan.

6.2. Whenever possible, the treating physician should use the least costly mode of treatment. This generally will require that outpatient services be used in lieu of inpatient care and the avoidance of referring injured workers to hospital emergency rooms for care that can be rendered in the office. The Commission will approve payment for initial use of emergency room facilities and services such as routine dressings, routine tests, routine medications and routine local anesthesia. Subsequent use of the emergency room for services will not be approved without a statement from the physician explaining the necessity for the services rendered. Routine visits to the emergency room shall not be approved or reimbursed by the Commission.

6.3. Treating physicians should request referral of an injured workers who continues to report pain and dysfunction while showing no significant measurable or objective signs of improvement for a Permanent Partial Disability evaluation. Such injured workers may also be discharged or referred to a different, appropriate specialty for evaluation and possible modification of treatment.

6.4. When the treating physician finds the injured worker to be at maximum medical improvement, the treating physician may provide an impairment rating pursuant to applicable *Guidelines* for the injured worker. If the rating exceeds fifteen percent (15%), the Commission may accept or reject the rating and may order an independent evaluation of the injured worker. The treating physician may also report a finding of Maximum Medical Improvement without making an impairment rating, reported on Form WC-219a, "Notice of Maximum Medical Improvement."

6.5. The treating physician of record shall provide a treatment plan for the medical care being considered in narrative form as set forth in section 3.11 of this Rule.

6.6. It is the responsibility of the treating physician to notify the Commission of the injured worker's most accurate and current condition. The initial diagnosis reported when a claim is filed often requires updating based on diagnostic tests and clinical objective findings. Changes, additions and revisions of the injured worker's condition must be reported using the applicable Commission form. All changes related to a diagnosis code shall submitted to the Commission and must be approved by the Commission, unless the new diagnosis is otherwise accepted by the Commission as being causally related to the compensable injury. Bills submitted for treatment that is clearly unrelated to the compensable diagnosis shall be denied and may serve as evidence of abuse under West Virginia Code Section 23-4-3c and/or fraud under West Virginia Code Section 61-3-24g. The Commission may, in its sole discretion, recognize and identify the change, addition, or revision as a compensable condition.

6.7. Injured workers must request authorization from the Commission to change the treating physician of record in their claim. This rule does not apply in the following cases:

a. Care transferred after initial emergency or first aid treatment if done so within 30 days of the date of injury;

b. Care transferred to a specialist by the original treating physician; or

c. Care where an unforeseen emergency develops which requires special facilities and skills are not available to the treating physician or hospital.

6.8. Any change of treating physician that does not require authorization by the Commission will require a detailed explanation to ensure that the change is documented on the claim file. Failure to do so may result in the delay of benefits and will result in the denial of payment for medical services.

6.9. When a change of physician is authorized, the previous treating physician must file a final report of the injured worker's physical status on the effective date of change. The new treating physician of record must file an initial narrative report of his/her findings. It is the responsibility of every provider to make reasonable effort to ascertain whether there was a prior treating physician.

6.10. Except in cases where a consultant, anesthetist or surgical assistant is required, or the necessity for treatment by a specialist is clearly shown, fees not pre-authorized by the Commission will not be approved for treatment by more than one medical vendor for the same condition over the same period of time.

§85-20-7. Initial Reporting of Injury

7.1. It is the responsibility of the injured worker to notify the employer, Commission, and medical provider when there is reason to believe the injury or condition is industrial in nature. Conversely, if the medical provider discovers a condition which he or she believes to be work related or has reason to believe an injury is work related, he or she must so notify the injured worker. Once such a determination is made by either the injured worker or the medical provider, the appropriate form(s) must be immediately submitted. Failure of the medical provider to timely submit the appropriately completed forms may be considered as an abusive practice for purposes of West Virginia Code Section 23-4-3c. Failure of the injured worker to timely submit appropriately completed forms may be considered and given appropriate weight by the Commission in determining compensability or any other matter.

7.2. It is the medical provider's responsibility to ascertain whether he or she is the first attending practitioner. If so, the medical provider will take the following action:

a. Give emergency treatment.

b. Immediately complete and forward the Initial Report of Injury to the Commission and the employer.

c. Instruct and give assistance to the injured worker in completing his or her portion of the report of accident. The Initial report of Injury shall include a narrative report containing the following information so there is no delay in adjudication of the claim or payment of compensation:

1. Complete history of the industrial accident or exposure.

2.–___Comprehensive description of physical findings and prognosis.

3.–___Specific diagnosis with ICD-9-CM code(s) and narrative definition relating to the injury.

4. ___Type of treatment rendered.

5. ___Known medical, emotional or social conditions which may influence recovery or cause complications.

6. ___Estimated time loss due to the injury.

d. To the extent the information called for in (c)(1) – (c)(6) is not required on the Initial Report of Injury in use by the Commission on the effective date of this Rule, the medical provider shall complete the appropriate form in its entirety and provide the additional information in the form of a narrative report.

§85-20-8. Additional Reporting Requirements

8.1. __Whenever requested by the Commission, and at least every ninety (90) days in situations regarding the continuation of temporary total disability benefits, the medical provider shall report on the condition and treatment of the injured worker. The following information must be included in this type of report.

a. The condition(s) diagnosed including ICD-9-CM codes and the objective and subjective findings.

b. Their relationship, if any, to the industrial injury or exposure.

c. Outline of proposed treatment program, its length, components, and expected prognosis including an estimate of when treatment should be concluded and condition(s) stable. An estimated return to work date should be included. The probability, if any, of permanent partial disability resulting from industrial conditions should be noted.

d. If the worker has not returned to work, the attending doctor should indicate whether a vocational assessment will be necessary to evaluate the worker's ability to return to work and why.

e. If the worker has not returned to work, a doctor's estimate of physical and functional capacities should be included with the report. If further information regarding physical and functional capacities is needed or required, a performance-based functional capacity ~~physical capacities~~ evaluation can be requested. Functional capacity evaluations ~~Performance based physical capacities evaluations~~ shall be conducted by a licensed health care provider approved by the Commission to perform this testing. ~~occupational therapist or a licensed physical therapist.~~

8.2. To the extent the information called for in ~~Rule~~Section 8.1 is not required on Attending Physician's Report in use by the Commission on the effective date of this Rule, the medical provider shall complete the Attending Physician's Report in its entirety and provide any additional information set forth in Rule 8.1 in the form of a narrative report.

8.3. The Commission may request, and the medical provider shall provide all chart notes relating to the evaluation and treatment of an injured worker.

8.4. The Commission, in its sole discretion, may require additional reporting on forms and in intervals as it deems necessary. Medical providers shall comply with the requests of the Commission in this regard. Failure to make reports promptly may result in the delay of payments of benefits to the injured worker and denial of payment to the medical vendors for services rendered.

8.5. By application for benefits, an injured worker irrevocably waives patient-physician confidentiality and agrees that treatment providers may release and discuss the injured worker's medical history and medical reports pertaining to the compensable injury or disease to the injured worker's employer, employer's representative, or representatives of the Commission, assuming such discussions are otherwise permissible under applicable law. Such discussion includes the injured worker's condition, treatment, prognosis, anticipated period of disability and dates when the injured worker will reach maximum medical improvement or be released to return to work. Any prior injury or disease of the injured worker which impacts the alleged injury or treatment is covered by this agreement.

8.6 In any claim where only medical benefits are being paid, the medical provider shall provide the report described in section 8.1 within thirty (30) days of being requested to do so by the Commission.

§85-20-9. Coverage and Billing Provisions

9.1. The Commission will pay for health care services, durable medical and other goods and other supplies and medically related items as may be reasonably required. The Commission will only pay for those services or items that have a direct relationship to the work related injury or disease, as determined in the sole discretion of the Commission.

9.2. A medical coverage decision is a general policy decision to be made in the sole discretion of the Commission, to include or exclude a specific health care service or supply as a covered benefit. These decisions are made to insure quality of care and prompt treatment of workers. Medical coverage decisions include, but are not limited to, decisions on health care services and supplies rendered for the purpose of diagnosis, treatment or prognosis, such as:

a. Ancillary services including, but not limited to, home health care services ambulatory services, specific rehabilitative modalities;

b. Devices;

c. Diagnostic tests;

d. Drugs, biologics, and other therapeutic modalities;

e. Durable medical equipment;

f. Procedures;

g. Prognostic tests;

h. Supplies; and

i. Inpatient hospital stays and associated charges

9.3. The Commission, with some exceptions, uses these nationally-accepted standardized code sets for reporting medical conditions and treatment and may adopt successor code sets without amendment to this rule:

a. Common Procedure Terminology (CPT-4) codes (HCPCS Level I codes), for provider professional services

b. Alpha-numeric codes (HCPCS Level II codes) for supplies, equipment and other medical services

c. Local Codes (HCPCS Level III) for unique Workers'-Compensation-specific services (NOTE: Use of these non-standardized codes is limited as much as possible)

d. International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) for reporting diagnoses of work-related injuries and occupational illnesses

e. Diagnostic related groups (DRG for in-patient hospital services)

f. Revenue codes for outpatient hospital based services

g. National drug codes (NDC) for pharmaceuticals

9.4. –CPT-4 Codes (HCPCS Level I).

The Commission updates the vendor bill processing system to accept many of the new codes that are implemented nationally on an annual basis. This coding system, which uses a five-digit numeric code and allows for a two-digit modifier, is used to report most professional services, including Evaluation and Management, surgical intervention, anesthesia services related to surgery, physical medicine and other professional services.

9.5. HCPCS Level II National Alpha-numeric Codes.

The Commission accepts many of the codes developed by CMS for reporting those medical services and supplies not addressed by the CPT-4 code set. This coding system uses a five-digit alpha-numeric code, which consist of one alphabetic character (a letter between and including A and V), followed by four digits. The codes all begin with a single letter and are followed by four-digits. HCPCS codes also use modifiers, either two digits or two letters.

9.6. HCPCS Level III Local Codes.

The Level III codes are assigned and maintained by individual carriers. Like the HCPCS II National Codes, these codes begin with a letter (W through Z) followed by four numeric digits. The most notable difference is that these codes are not common to all carriers. Since 1999, the Commission has been eliminating the use of Local Codes wherever possible; however, there are still some local codes utilized by the Commission for services not normally reported by Medicare carriers.

9.7. ICD-9-CM Diagnosis Codes.

The Commission uses the ICD-9-CM coding system to report injured worker conditions in work-related injuries and occupational illnesses. Standard coding conventions shall be followed in reporting diagnosis. Payment will be denied for diagnosis judged, in the sole discretion of the Commission, to not be causally related to the compensable injury.

9.8. Written descriptions of procedures alone will not be accepted. Billing may be submitted on the CMS-1500 (formerly, HCFA 1500) and the CMS-1450 (formerly, UB-92), or the most current forms utilized by the Commission. Pharmacy charges should be submitted using the on-line Point-of-Sale system, but can also be reported on the Universal Claim Form, or the most current form utilized by the Commission. Certain non-standard services unique to the Commission require Service Invoice, Form WC-400, or the most current form(s) utilized by the Commission.

9.9. Pre-authorization. Written authorization must be obtained from ~~Workers' Compensation~~ the Commission in advance for the procedures and services listed below, except in emergencies or where the condition of the patient, in the opinion of the medical vendor, is likely to be endangered by delay. Failure to comply with this rule will result in disapproval of the medical vendor's bill. The vendor shall not seek reimbursement from the injured worker if payment is denied under this provision. This rule does not apply in cases involving initial treatment.

9.10. The following services *require* prior review and authorization before services are rendered and reimbursement made:

a. Inpatient hospitalizations subsequent to the Date of Injury (emergency admissions are reviewed on a retrospective basis);

b. Transfers from one hospital to another hospital (emergencies do not require authorization);

c. Reconstructive and restorative surgeries;

d. All surgeries;

e. Purchase of TENS unit above the amount of $50.00;

ef. Treatment/supplies used in excess of three (3) months for TENS units;

gf. Psychiatric treatment (does not include the initial psychiatric consultation);

gh. Physical Medicine treatment in excess of this Rule;

ih. Outpatient pain management procedures (epidural steroids, facet injections, etc.);

ij. Medication not normally used in injury treatment and medication not listed on the preferred drug list, if applicable;

jk. Medication - Controlled Substance (in excess of this Rule);

kl. Durable Medical Equipment in excess of $500.00;

lm. Brainstem evoked audiometry;

mn. Repeat diagnosistic studies (Workers' Compensation no longer requires approval for the initial MRI, CAT scan, Myelogram, EMG, and Nerve Conduction Studies);

no. Standard/analog hearing aids;

op. Programmable/digital hearing aids;

pq. Replacement hearing aids;

qr. Repair of hearing aids over the price of $250.00;

rs. Hearing Aid batteries over the allowed quantity of 50 per 6 months;

st. Telephone amplification devices;

~~t~~u. Hearing aid assistance products (V5299);

~~u~~v. Non-emergency ambulance transportation;

~~v~~w. Non-emergency air transportation;

~~w~~x. All vision services and items associated with vision;

~~x~~y. All physical and vocational rehabilitative services;

~~y~~z. Retraining expenses;

~~z~~aa. All oxygen equipment, supplies, and related services;

~~aa~~bb. All nursing, nursing home, and personal care services;

~~bb~~cc. Home or vehicle modifications;

~~cc~~dd. Work hardening; ~~and~~

~~dd~~ee. Work conditioning~~.~~; and

~~ee~~ff. Dental procedures.

9.11. Prior-authorization requests shall be made in writing or electronically to the Commission for approval.

9.12. Medical services not specified above do not require prior approval but will be reviewed retrospectively to determine medical necessity. Services provided on an emergency basis are also subject to retrospective review to validate that the service was truly an emergency, and to determine medical necessity and relationship to the compensable injury.

9.13. Disposable/Non-reusable Supplies.

The Commission will reimburse for supplies prescribed by the authorized physician for use by the injured worker in the home setting which are reasonably required, as determined in the sole discretion of the Commission. Supplies include dressings, colostomy supplies, catheters, and other similar items. The injured worker's related diagnosis must be stated on the prescription form.

9.14. Durable Medical Equipment Exceptions.

The following durable medical equipment require prior-authorization, although reimbursed at less than $500:

a. E0585 Nebulizer with compressor;

b. E0607 Home blood glucose monitor;

c. E0610 Pacemaker monitor;

d. E0730 TENS, name brand;

e. E0731 Garment for TENS/neuromuscular;

~~d~~f. E0745 Neuromuscular stimulator, electronic shock unit; and

~~e~~g. E0935 Passive motion exercise device.

9.15. The Commission shall deny bills for services rendered in violation of these Rules. Injured workers may not be billed for services denied pursuant to this provision.

9.16. Bills must be itemized on department or self-insurer forms or other forms which have been approved by the Commission. Bills may also be transmitted electronically using Commission file format specifications. Providers using any of the electronic transfer options must follow Commission instructions for electronic billing.

9.17. Bills must specify the date and type of service, the appropriate procedure code, the condition treated, and the charges for each service.

9.18. Bills submitted to the Commission must be completed to include the following:

a. Injured worker's name and address;

b. Injured worker's claim number;

c. Date of injury;

d. Referring doctor's name;

e. Area of body treated, including ICD-9-CM code(s), identification of right or left, as appropriate;

f. Dates of service;

g. Place of service;

h. Type of service;

i. Appropriate code to report services provided (including CPT, DRG, NCD, revenue codes, etc.);

j. Description of service;

k. Charge;

l. Units of service;

m. Tooth number(s);

n. Total bill charge;

o. The name and address of the practitioner rendering the services and the provider account number assigned by the Commission;

p. Date of billing;

q. Submission of supporting documentation required by the Commission.

9.19. Responsibility for the completeness and accuracy of the description of goods and/or services and charges billed rests with the provider rendering the good or service, regardless of who actually completes the bill form.

9.20. Bills must be received within six (6) months of the date of service to be considered for payment. Injured workers cannot be billed for any invoice denied under this provision.

9.21. The following supporting documentation is required to have been received by the Commission before reimbursement for a service is made:

a. Laboratory and pathology reports;

b. X-ray findings;

c. Operative reports;

d. Office notes;

e. Consultation reports;

f. Special diagnostic study reports; and

g. Special or closing exam reports.

9.22. Requirements for payment of fees.

Fees for examination or treatment are approved only when made by the ~~medical vendor~~ health care provider duly licensed to make such examination or to render such

treatment, and then only when the medical vendor actually sees and examines the patient and actually renders or directly supervises such treatment.

9.23. Additional services and accommodations not reasonably required for treatment of the compensable injury but requested by the injured worker shall be the responsibility of the injured worker.

9.24. Failure on the part of the ~~medical vendor~~ health care provider or other person, firm or corporation to submit fee bills to the Commission for services rendered within the statutory period prohibits collection thereof from the injured employee, the employer or the Commission.

9.25. Payment for drugs or medicine. The Commission may approve payment for drugs or medicines furnished to the injured worker as part of routine treatment rendered by the medical vendor. If unusual treatment is necessary, or if drugs or medicines are to be used by the injured worker at his home in the absence of the medical vendor, payment for a reasonable quantity of such drugs or medicines may be approved. Application for such payment must be accompanied by a statement of the medical vendor setting forth the necessity and purpose of the use of such drugs or medicines.

9.26. Use of appropriate codes to report services is required and up coding (reporting a higher level of service than can be substantiated or actually was performed) is prohibited. Reimbursement shall not be made for such billing and up coding may be considered evidence of abuse under West Virginia Code Section 23-4-3c and evidence of fraud under West Virginia Code Section 61-3-24g.

9.27. Prosthetics and ~~Orthodics~~ Orthotics. Upon receipt of the attending medical vendor's report, the Commission may refer the injured worker to a medical vendor or a Rehabilitation Center for evaluation to determine the type of prosthesis most beneficial for the particular injured worker involved and whether the injured worker is in need of training in use of the prosthesis. Upon receipt of the medical recommendations, the Commission shall authorize the fitting of the recommended prosthesis. Payment shall not be approved until the prosthesis is determined to be serviceable and satisfactory. The requirement for prior approval for prosthesis shall not apply when the attending medical vendor utilizes the procedure of immediate amputation prosthetic application.

9.28. A durable medical equipment supplier is required to exercise due diligence to verify that equipment is in use, that supplies are needed, and that a valid request for supplies has been made. Due diligence requires, but is not limited to, a personal contact with the injured worker. Reimbursement shall be denied for failure to exercise this required due diligence and may be evidence of fraud or abuse under Chapters 23 and 61 of the West Virginia Code.

§85-20-10. Supplies.

HCPCS code A4550 (Surgical Trays) is a status B code and is not reimbursable for office procedures. Codes with a status B are bundled services for which no separate payment may be made. Supply costs are included in the global fee allowance for surgical procedures performed in an office setting. Code 99070 continues to be a non-covered, bundled code.

§85-20-11. Vision Care

Ophthalmologists and optometrists may use CPT codes for reporting procedures and professional services. Reimbursement for vision care equipment such as spectacles, contact lenses, etc., should be requested using appropriate HCPCS Level II codes. Repair or replacement of vision care equipment damaged in an accident will not be approved for payment unless the injured worker suffers a compensable physical injury in the accident.

§85-20-12. Psychiatric/Psychological Services

12.1. Services may be approved to treat psychiatric problems only if they are a direct result of a compensable injury. As a prerequisite to coverage, the treating physician of record must send the injured worker for a consultation with a mental health care professional who shall examine the injured worker to determine 1) if a psychiatric problem exists; 2) whether the problem is directly related to the compensable condition; and 3) if so, the specific facts, circumstances, and other authorities relied upon to determine the causal relationship. The mental health care professional shall provide this information, and all other information required in section 8.1 of this Rule in his or her report. Failure to provide this information shall result in the denial of the additional psychiatric diagnosis. Based on that report, the Commission will make a determination, in its sole discretion, whether the psychiatric condition is a consequence that flows directly from the compensable injury.

12.2. A Diagnosis Update Form WC-214 must be attached to the treating physician's report in order to request the psychiatric condition be added as an approved diagnosis.

§85-20-13. Coverage Medication Checks.

Medication checks may be billed if needed, but should be reported using the appropriate Evaluation and Management or Drug Management procedure codes. Medication checks for psychiatric medication require the use of an ICD-9-CM code to identify the compensable mental health condition.

§85-20-14. Medication/Injections.

Professional services for administering injections to an injured worker in an office setting for the treatment of a compensable injury may be reimbursable. Effective January 1, 2003, the cost of medication administered through other-than-oral method may be billed as a separate line item using appropriate HCPCS II "J" codes. Legend drugs dispensed by physicians will not be reimbursed except in emergency situations.

§85-20-15. Dental Services.

15.1. Standard dental treatment necessary as a result of a compensable injury to the face or head is covered under the Workers' Compensation program. Repair or replacement of dentures and other dental appliances damaged in an accident will not be approved for payment

unless the injured worker suffers a compensable physical injury in the accident. Except in cases of emergency, prior authorization must be obtained for any and all dental services provided.

15.2. The Commission will not approve payment for treatment of a preexisting dental deficiency or disease, unless it is clearly established that such preexisting condition is prohibiting treatment of or recovery from an industrial injury. In such cases the Commission must be provided with a complete report of the preexisting condition and authorization granted prior to rendering treatment.

§85-20-16. Experimental Procedures.

16.1. Services investigative or experimental in nature or unsafe and not accepted by the general medical community are not reimbursable by the Commission.

16.2. To be considered for reimbursement by the Commission, medical devices must have gone through FDA pre-market notification submission or pre-market approval application or be exempt for commercial distribution on the national level. Pre-market approval designation is preferred because this designation requires sufficient information to reasonably assure the safety and effectiveness of the device.

§85-20-17. Unusual treatment.

17.1. In cases requiring unusual treatment not contemplated under ordinary circumstances, the medical vendor must inform the Commission immediately of the condition or complications present. If the necessity for additional treatment and its causal relationship with the compensable injury is clearly indicated, authorization for such treatment may be granted by the Commission if it otherwise is deemed to be medically reasonable and additional professional fees may be paid at a rate commensurate with the services rendered in addition to the fee specified by the Commission.

17.2. New or experimental therapies always require prior authorization from the Commission. The Commission will require a detailed, credible and otherwise sufficient explanation of the anticipated outcomes of the proposed therapy. The Commission may authorize a ~~trail~~ trial of the therapy, for a duration identified by the Commission, prior to acceptance of any modality. Approval of new or experimental therapies is within the sole discretion of the Commission.

§85-20-18. Organ Transplants.

18.1. Transplants are not generally accepted or reimbursed by the Commission~~Workers' Compensation program~~; however, requests are reviewed on a case-by-case basis. All transplants must be pre-approved by the Office of Medical Management prior to issuance of authorization.

18.2. Transplants which are needed, in whole or in part, because of an intervening cause, such as long term alcohol consumption, smoking, or other tobacco use shall be declined coverage by the Commission.

§85-20-19. Other Non-Covered Services.

19.1. Diagnostic Studies. No payment is allowed for:

a. Plethysmography;

b. Temperature gradient studies;

c. Fomentation;

d. Thermography;

e. Routine lab studies in back injury claims; or

f. Routine X-rays which the Commission determines, in its sole discretion, are medically ~~unnecessary~~ unreasonable or medically unsupported as defined under 85 C.S.R. 28.

19.2. Payment to Complete Reports. No payment is allowed for routine status reports, Attending Physician's Report WC-219 Form, other routine reports requested by the Commission relating to care that has already been provided, or for completion of the medical portion of the report of injury. Providers shall not charge injured workers or any others for completion of the WC-219 form.

19.3. Miscellaneous. No payment will be made for the following services:

a. Telephone calls;

b. Telephone consultations by providers;

c. Writing or phoning prescriptions;

d. Education materials;

e. Babysitting;

f. Lost or stolen items;

g. Vitamins;

h. Diet pills;

i. Dietary supplements;

j. Weight loss programs;

k. Physical fitness programs;

l. Acupuncture;

m. Swimming therapy/aquatic therapy (unless under direct supervision of a physical therapist);

n. Homeopathy;

o. Massage therapy, except that up to 3 sessions of massage therapy will be allowed if massage therapy is not the sole means of treatment;

p. Copying or supplying needed records;

q. Costs associated with office audits; and

r. Saunas.

§85-20-20. Payment for appearance at hearings.

~~A medical vendor appearing at a hearing to give testimony regarding an examination of an injured worker will be paid a fee commensurate with the service rendered for such appearance and testimony: Provided That, the examination was made at the request of the Commission. If the medical vendor appears to give testimony on behalf of the injured worker or employer regarding an examination made at the instance of such injured worker or employer, payments must be made by the party requesting the testimony.~~ A party causing the cancellation of an examination of a medical doctor, osteopath, or chiropractor may be charged a $100 cancellation fee by said provider if forty-eight (48) hours notice of said cancellation is not provided.

§85-20-21. Treatment of unrelated conditions.

The Commission may pay for treatment of a condition which was not caused by the injury only if the Commission determines, in its sole discretion, that the unrelated condition is preventing recovery by aggravating the occupational injury. Any unrelated condition must be reported to the Commission before payment is considered. Pre-existing conditions which prevent recovery but do not aggravate the compensable injury shall not be covered.

§85-20-22. Consultations

22.1. The treating physician may refer an injured worker for a first-time consultation without prior authorization when the need can be clearly documented and has been reported to the Commission. The first-time consultation to a specialist does not require prior authorization; however, should additional consultations in the same specialty field be performed, Commission approval is required.

22.2. The consultant must submit a written report to the Commission after the exam has been carried out. The report shall contain the information required in Rule 8.2 and 8.1 above. Invoices from providers, other than the attending physician, should specify the name of the referring physician. In billing those services, the appropriate consultation procedure code from the Evaluation and Management section of the AMA CPT coding system shall be utilized.

22.3. If a specialist will be providing continuing care, the Commission must be notified so that an approval for a transfer or concurrent care may be considered.

22.4. The Commission reserves the right to arrange a consultation prior to authorizing any services, equipment, or supplies. Requests for treatment will be approved or denied upon review of the entire medical record.

22.5. Consultation Versus Referral. A consultation is considered to include those services rendered by a specialist whose review and opinion of the evaluation and/or treatment of an injured worker's condition is requested by another provider, or an official party in the claim, such as the injured worker's attorney, the employer, the Commission, etc. The consulting provider must submit a written report that becomes part of the Commission's claim record on the injured worker. When the consulting provider assumes the continuing care of the injured worker, any subsequent services rendered by this provider are no longer considered a consultation.

22.6. A referral is considered to be the transfer of the total or specific care of a patient from one provider to another. If this involves a change of treating physician, an authorization is required from the Commission. A referral for specialty services, such as surgery, requires approval by the Commission.

§85-20-23. Miscellaneous Coverage and reimbursement Issues

23.1. Hernia. The Commission shall not approve payment for conservative treatment of an otherwise compensable hernia condition, except for the initial examination for diagnostic purposes, and except where it is shown that the employee has some chronic disease or is otherwise in such physical condition that it is considered unsafe for him to undergo such operation. Payment for surgical repair of a hernia cannot be considered until all required forms have been filed and the claim determined compensable.

23.2. Amputation reports. In cases involving amputations, the physician must mark the exact line of amputation on the prescribed form (Amputation Chart). To avoid error, the exact point of amputation must also be described in the written report and the Amputation Chart and report must be carefully checked to be certain that they agree.

IV. SPECIFIC TREATMENT GUIDELINES

The following are treatment guidelines for specific conditions. However, the usage of the term "guidelines" should not be interpreted to suggest that the guidelines are to be given any less legal weight than an exempt legislative rule is otherwise given. The provisions of Section 4 of this Rule apply in their entirety to these guidelines.

§85-20-24. Treatment Guidelines: Post Concussion Syndrome.

24.1. Post concussion syndrome is a clinical syndrome characterized by a variety of vague symptoms including a headache, dizziness, memory dysfunction and depression, following head trauma. There is little relationship between the serious nature of the trauma and the severity and duration of the symptoms.

24.2. The diagnostic criteria consists of a persistent dysfunctional state following head trauma without clinical or laboratory sign of serious intracranial or cervical spine disorder.

24.3. The appropriate diagnostic tests and evaluations are as follows:

a. Neurological examination;

b. MRI;

c. EEG;

d. Electronystagmyogram; and

e. Neuropsychological testing if no improvement after four weeks.

24.4. Symptomatic therapy for post concussion syndrome includes:

a. Analgesia;

b. Medication for labyrinthine dysfunction;

c. The use of narcotic medications is not indicated; and

d. Severe dizziness or mental/emotional problems may require hospitalization for acute care rehabilitation.

24.5. While the estimated duration of care is variable, a return to work is anticipated in four weeks or less.

24.6. The anticipated outcome is full recovery. In some cases there may be residual symptomatology such as dizziness or mental/emotional changes. These conditions may be disabling and may be permanent.

§85-20-25. Treatment Guidelines: Corneal Abrasion.

25.1. Corneal abrasion is usually caused by a foreign body striking the eye resulting in a disruption of the corneal epithelium. The foreign body does not remain in the eye.

25.2. The diagnostic criteria consists of complaints of pain and blurred vision. Photophobia may or may not be present.

25.3. Appropriate diagnostic tests and evaluations include a determination of visual acuity, a slit lamp examination and, when indicated, a dilated ~~fungus~~ fundus examination.

25.4. Treatment is administered on an outpatient basis and consists of topical antibiotics, cycloplegics, and a pressure patch. For severe pain analgesics may be indicated.

25.5. The duration of care consists of daily visits up to 72 hours with a return to work within two days unless there are complications.

25.6. The anticipated outcome is full recovery.

§85-20-26. Treatment Guidelines: Corneal Foreign Body.

26.1. Corneal foreign body generally occurs when striking stone; hot metal may perforate the cornea and enter the eye. Contaminated foreign bodies pose a risk for corneal ulcers or systemic toxicological effect.

26.2. The diagnostic criteria consists of pain which occurs either immediately after the injury or within the first twenty-four hours, accompanied by a sensation of something in the eye, and photophobia. The pain is aggravated by blinking or moving the eye. Vision may be affected if the foreign body is in the visual axis.

26.3. The appropriate diagnostic tests and examinations consist of a comprehensive examination, including determination of visual acuity, a slit lamp examination and dilated fundus examination when indicated to rule out intraocular foreign bodies. An orbital x-ray or CT scan may be indicated if there is a suspicion of ocular or orbital penetration.

26.4. Treatment is administered on an outpatient basis and consists of the following:

a. Removal of embedded foreign body;

b. Topical antibiotics, cycloplegics, and pressure patch;

c. Analgesics for the first several days;

d. Daily visits until the cornea is healed; and

e. If a scar remains in the visual axis, corrective lenses or surgery may be required to attain optimal vision.

26.5. In uncomplicated cases the injured worker is expected to return to full work within one to two days.

26.6. Full recovery is expected unless the foreign body leaves a significant scar in the visual axis, in which case decreased visual acuity may be permanent.

§85-20-27. Treatment Guidelines: Hyphema.

27.1. Hyphema is bleeding within the anterior chamber of the eye, typically caused by a severe blunt trauma to the eye rupturing intraocular blood vessels. Hyphema may be associated with disruptions of the trabecular meshwork and lead to angle recession glaucoma.

Early complications include elevated intraocular pressure causing blood staining of the cornea, vision loss, and most significantly, rebleeding which will occur in up to 30% of the cases within the third to fifth day. Rebleeding may cause marked elevation of intraocular pressure, corneal blood staining and visual loss. Late complications may include angle - recession glaucoma and cataract. Injured workers at considerable risk for complications include those with sickle cell or other coagulopathy.

27.2. Diagnostic criteria consist of a history of a blunt trauma to the eyes. The physical findings may include red blood cells visible within the anterior chamber, a layered clot filling the entire anterior chamber and/or intraocular pressure elevation.

27.3. The appropriate diagnostic tests and examinations are as follows:

a. Immediate referral to an opthalmologist as this is an ocular emergency;

b. A comprehensive examination by an ophthalmologist including a slit lamp exam, determination of the intraocular pressure, and a dilated fundus examination if possible;

c. Orbital x-rays may be indicated to rule out other orbital injuries; and

d. A platelet count and coagulation study as indicated as well as a sickle prep, and hemoglobin electrophoresis as indicated.

27.4. Appropriate treatment is as follows:

a. Outpatient treatment is indicated if the hyphema is not severe, there are no complications present and the injured worker is reliable. Treatment consists of the following:

1. Strict bed rest for five days;

2. Daily eye examination;

3. Medication, which may include the following: topical cycloplegics, steroids, ocular hypotensive and oral ~~predni- sone~~ prednisone and/or aminocaproic acid;

4. Hard shield to be worn day and night; and

5. A gonioscopy after 2-3 weeks.

b. Inpatient treatment is indicated for significant hyphema, marked intraocular pressure elevation, complication or unreliable care and consists of the following:

1. Medication as noted for outpatient care;

2. Hospitalization with strict bed rest for five days; and

3. Surgical evacuation of the clot.

27.5. Return to full work is anticipated in three weeks for uncomplicated cases. Evidence of disruption of intraocular structures dictates lifetime monitoring for glaucoma and cataracts.

27.6. The anticipated outcome is resolution of the hyphema with return of visual acuity.

§85-20-28. Treatment Guidelines: Eyelid Laceration.

28.1. Eyelid lacerations may occur from blunt injuries or from laceration by a sharp object. They may involve only skin, eyelid muscles, eyelid margin, and the lacrimal drainage system and may be associated with an orbital foreign body.

28.2. The diagnostic criteria consists of laceration and bleeding, which may be profuse.

28.3. The appropriate diagnostic tests and examinations consist of a comprehensive examination including a visual acuity and a slit lamp examination to rule out an additional injury. A dilated fundus examination may be conducted when indicated.

28.4. Appropriate treatment is as follows:

a. Outpatient treatment is appropriate for uncomplicated lacerations. Sutures are generally removed in one to two weeks and medication may include antibiotics and analgesics.

b. Inpatient treatment is appropriate for injuries involving the lacrimal drainage system or those penetrating the orbit. The surgical repair may or may not require general anesthesia. Intravenous antibiotics are often indicated. Depending on the severity of the injury and overall condition of the injured worker, a one to two day hospital stay may be required. Medications may include topical, oral or parenteral antiobiotics and analgesics.

28.5. In uncomplicated cases the injured worker is expected to return to full work within two weeks with medical follow- up in four weeks. Damage to the eyelid muscles resulting in traumatic ptosis may require six to twelve months to resolve, or may ultimately require surgical repair.

28.6. The anticipated outcome is full recovery.

§85-20-29. Treatment Guidelines: Canalicular Laceration.

29.1. Laceration in the medial eyelid may injure the upper or lower canaliculus or lacrimal sac, resulting in constant tearing or abscess in the lacrimal sac (dacryocystitis). The presence of an infection within the lacrimal system usually requires surgical repair.

29.2. The appropriate diagnostic criteria consists of a laceration in the medial eyelid. Any laceration to the punctum may include canalicular laceration. Tearing or bloody tears and laterally displaced punctum may be present.

29.3. The appropriate diagnostic tests and examinations consist of a comprehensive examination, including visual acuity, slit lamp, examination, dilated fundus examination and

probing of the canaliculus. Orbital x-rays or CT scan is appropriate if a fracture or foreign body is suspected.

29.4. Appropriate treatment is as follows:

a. Outpatient treatment is appropriate for simple lacerations and repair. Treatment consists of surgical repair including stent placement and topical drops and oral antibiotics as indicated.

b. Inpatient treatment is appropriate for contaminated or complicated wounds. Treatment consists of the following:

1. Surgical repairing; may include complex reconstruction;

2. Antibiotics and topical medications as indicated; and

3. Lacrimal bypass surgery if repair is unsuccessful.

29.5. The estimated duration of care in uncomplicated cases is two weeks with follow-up in 3 - 6 months.

§85-20-30 Treatment Guidelines: Orbital Contusion.

30.1. An orbital contusion is usually a result of blunt trauma causing swelling and ecchymosis of the orbit not associated with any fractures or significant lacerations.

30.2. The diagnostic criteria consists of a history of a blunt trauma to the ocular area, with progressive swelling of the lids, ptosis, proptosis of the eye and diplopia.

30.3. The appropriate diagnostic tests and examinations consist of:

a. Comprehensive examination, including an assessment of visual acuity, slit lamp examination, and a dilated fundus examination;

b. Orbital x-rays; and

c. CT scan may be indicated.

30.4. The appropriate treatment is as follows:

a. Outpatient treatment is appropriate in injuries without complications. Treatment includes analgesics, ice packs and systemic antibiotics as indicated.

b. Diminished visual acuity or severe pain may indicate a more extensive injury and may warrant inpatient treatment for further evaluation and treatment.

30.5. In uncomplicated cases the estimated return to work is one to two days. Disability may be longer if diplopia or ptosis persists.

30.6. The anticipated outcome is resolution of the swelling and diplopia with return of normal ocular motility.

§85-20-31. Treatment Guidelines: Orbital Fracture.

31.1. Fractures of the orbit may be indirect, resulting in a "blowout" of the orbital floor or medial wall, or direct involving fractures of the orbital rims.

31.2. The appropriate diagnostic criteria consists of a history of blunt trauma to the eye, usually by an object larger then the bony orbital opening. The eye may appear proptosis or enophthalmic. Ocular motility is usually diminished. There is usually numbness over the cheek due to injury to the infraorbital nerve. There may be a palpable fracture of the orbital rim. There may also be a fracture of the zygomatic arch.

31.3. The appropriate diagnostic tests and examinations are as follows:

a. A comprehensive examination by an ophthalmologist is necessary, including a visual acuity, slit lamp examination and dilated fundus examination;

b. X-ray of the orbits; and

c. Coronal CT scans.

31.4. Appropriate treatment is as follows:

a. In uncomplicated cases outpatient treatment is appropriate and consists of the following:

1. Outpatient follow-up for 1 - 2 weeks;

2. Oral antibiotics; and

3. Analgesics may be required.

b. Inpatient treatment is appropriate for severe fractures or other complicated injuries. Treatment consists of the following:

1. Surgical repair;

2. Medications include antibiotics and analgesics; and

3. Hospitalization from 1 - 3 days.

31.5. The estimated duration of care is as follows:

Diplopia may resolve spontaneously within one to two weeks with small fractures not requiring repair. Double vision generally resolves within two to three weeks after surgical repair unless there is intrinsic damage to the extraocular muscles.

Modified work may be required with diplopia resolved. Heavy work can generally be resumed three weeks after injury if surgery is not required, or three weeks after surgical repair.

31.6. The anticipated outcome is resolution of diplopia and normal functioning of the eye. Numbness over the cheek may persist for one year or longer and is not affected by surgical repair.

§85-20-32. Treatment Guidelines: Corneoscleral Lacerations.

32.1. Corneoscleral lacerations are potentially severe injuries resulting from sharp objects making forceful contact with the globe.

32.2. The appropriate diagnostic criteria consists of:

a. A detailed examination by an ophthalmologist including visual acuity, slit lamp exam, intraocular pressure and dilated fundus exam.

b. CT scan of orbits may be required.

32.3. Appropriate treatment is as follows:

a. Small partial thickness lacerations:

1. Follow-up and/or patching; and

2. Bandage contact lens application and follow-up.

b. Full thickness corneal lacerations:

1. Bandage lens application;

2. Cyanoacrylate tissue adhesive and protective shield;

3. Surgical repair under general anesthesia and hospitalization;

4. Cycloplegic, steroid and antibiotic drops; and

5. Hospitalization: 0 - 7 days.

32.4. The estimated duration of care and anticipated outcome:

a. Partial thickness laceration: The injured worker should wear a protective shield for three to six weeks. Modified work may be done after several days. Normal visual function should be restored after six weeks.

b. Full thickness simple corneal lacerations: Treatment lasts from two to four months. Protective shield should be worn for six weeks. Return to full work after suture removal is normally in three to four months if vision is adequate for fusion.

c. Lacerations involving lens, uveal tissue and retina: Six months are normally required to achieve stability after which contact lens correction of the aphakic condition may allow good visual recovery.

§85-20-33. Treatment Guidelines: Chemical Ocular Injuries.

33.1. Chemical injuries may result from an almost infinite variety of agents contacting the ocular surface, with the extent of the injury largely a function of the nature of the substance involved, how much ocular surface is involved, and duration of exposure.

33.2. The appropriate diagnostic criteria is as follows: A detailed examination is performed after copious irrigation (see treatment). It is vitally important to know the chemical causing the injury, its concentration and amount of exposure.

In alkali burns, the Hughes classification (grading or corneal haziness and loss of blood vessels at limbus) is helpful in assessing long term prognosis.

33.3. The appropriate treatment is as follows:

a. Acute phase (0 to 7 days).

1. Immediate copious irrigation using any nontoxic irrigating solution;

2. Detailed ophthalmologic exam, including pH level of eye secretions;

3. Topical steroids, antibiotic drops, topical ascorbate and cycloplegic agents;

4. Follow-up outpatient for 3 weeks;

5. Immediate referral to ophthalmologist for alkaline burns; and

6. Monitoring for systemic effect of toxin.

b. Severe chemical injuries should be hospitalized for treatment for several days.

33.4. The estimated duration of care depends on the extent of the initial injury. Milder injuries may permit return to work after several days. Moderate chemical injuries (if bilateral) may need several weeks to recover. Severe burns (if bilateral) may be blinding. In many cases corneal transplants may be able to restore vision.

§85-20-34. Treatment Guidelines: Functional Capacity Evaluations and Work Hardening Programs

By July 1, 2004 ~~May 1, 2004,~~ the Commission shall introduce to the Board of Managers a Treatment Guideline on functional capacity evaluation standards and procedures, work hardening programs, and other related matters.

§85-20-35. Treatment Guidelines: Cervical Musculoligamentous Injury (Sprain/Strain).

35.1. Symptoms are believed to be related to a partial stretching or tearing of the soft tissues (muscles, fascia, ligaments, facet joint capsule, etc.). Neck pain may be accompanied by vague upper extremity complaints. The recovery period is of variable duration, but generally is less than three or four weeks.

35.2. The appropriate diagnostic criteria consists of the following:

a. Pertinent historical and physical findings documenting the mechanism and degree of force and the time sequence before the onset of symptoms is important. The onset of neck pain and paraspinal muscle spasm begins either suddenly after the injury occurs or develops gradually over the next 24 hours. This pain is usually aggravated by motion of the neck and frequently is relieved by rest. It can be accompanied by paresthesia or a sense of weakness in the upper extremities related to the muscle spasm in the neck. Physical findings include tenderness to palpation, spasm of the paravertebral muscles and aggravation of the pain with motion.

35.3. The appropriate diagnostic tests and examinations are as follows:

a. If indicated by examination, anteroposterior, lateral, lateral flexion and extension x-rays of the spine and open mouth view to visualize the odontoid process are appropriate. Other x-rays may be added to the roentgenographic series as indicated. Straightening of the cervical spine is frequently observed on the lateral x-ray.

b. Further imaging may be indicated depending upon clinical course.

35.4. The appropriate treatment is as follows:

a. Outpatient treatment:

1. Nonoperative treatment:

A. Indications: Almost all injured workers with cervical musculoligamentous (sprain/strain) can be treated conservatively. However, disruption of intervertebral ligaments with subluxation is an indication for surgery.

B. ____Treatment options:

1. Analgesics;

2. Muscle relaxants;

3. Anti-inflammatory drugs, non-steroidal;

4. Physical modalities and/or rehabilitative procedures may be helpful;

5. Occasional trigger point injections may be helpful; and

6. Manual manipulation and mobilization.

b. Inappropriate treatment:

1. Operative treatment is inappropriate for cervical strain;

2. Narcotic medication for prolonged period of time; and

3. Inpatient treatment.

35.5. The estimated duration of care is 1 to 4 weeks; not to exceed 8 weeks.

35.6. A diagnosis of sprain/strain exceeding this 8 week period requires detailed re-evaluation. The Commission may require an IME to verify the diagnosis and will authorize continued treatment/coverage in its sole discretion.

35.7. The anticipated outcome:

a. Resumption of normal activity without residual symptoms in most cases.

35.8. Modifiers (age, and co-morbidity). If the injured worker has not responded to the above-outlined treatments within four weeks, the injured worker must be referred to an appropriate specialist.

§85-20-36. Treatment Guidelines: Acute Herniated Cervical Disc.

36.1. A cervical disc syndrome is a condition in which there is a bulging or rupture of the intervertebral disc. This may be lateral, compressing a root and causing a radiculopathy, or midline, compressing the spinal cord and causing a myelopathy. This most often occurs at the C4-5, C5-6 and the C6-7 disc levels. When the C4-5 disc ruptures there is pressure on the C5 root. This may cause pain over the top of the shoulder in the "epaulet" distribution. Tingling is not common. There may be weakness of the deltoid muscle. Occasionally the biceps reflex is diminished. When the C5-6 disc ruptures there is pressure on the C6 root with pain as well as tingling and decreased sensation over the thumb and index finger, weakness of elbow flexion, and diminution of the biceps and brachial radialis reflexes. When the C6-7 disc ruptures there is pressure on the C7 root with pain and tingling in the index and middle fingers, weakness of elbow extension, and diminution of the triceps reflex. There can be more extensive weakness than noted above, although the description is that of the classic syndrome. There may be changes in other reflexes, and the sensory abnormalities may be somewhat variable. Pain, sensory changes or weakness may predominate because of ill-defined differences in sensibility of the different components of the nerve. Over time the pain may resolve due to permanent damage to pain fibers, leaving the injured worker with motor and sensory dysfunction, which still may merit decompression.

Myelopathic symptoms may occur due to central disc protrusion and cause sensory (particularly posterior column) and motor dysfunction in the arms and legs, and bladder and bowel symptoms.

36.2. The appropriate diagnostic criteria is as follows:

The onset may be sudden or insidious. Neck pain is common, especially at night and with the neck in extension. Neck motions are frequently limited and cause an exacerbation of pain. The hallmark is arm pain and/or paresthesia. The pain is often described as a sharp, shooting pain that radiates from proximal to distal along the anatomic course of the nerve.

The Spurling test (neck extension and tilting the head toward the painful arm followed by axial compression of the cervical spine) is often positive. The neurological exam may be normal if compression is not too severe or there may be weakness, sensory impairment and/or altered reflexes.

36.3. Appropriate diagnostic tests and treatments are as follows:

a. In the face of a typical history and physical examination, plain spine x-rays are indicated since treatment may be altered if there are associated problems such as ostephytes.

b. Non-operative treatment:

1. Cervical traction;

2. Cervical collar may be used; not to exceed one week;

3. Use of analgesics, mild relaxants, and non-steroidal anti-inflammatory drugs; ~~and~~

4. Appropriate physical medicine referral to include physical agents; exercise, and manipulation/mobilization.; and

5. Indications for inpatient admission:

A. ____Inability to control pain; and

B. ____Progressive neurological deficit.

c. Injured workers with significant neurologic deficit, uncontrollable pain, or who fail to improve after two to four weeks should be referred for consultation to a surgeon who does cervical operations.

d. Neuro-Imaging examinations:

1. Myelography followed by CT scan with contrast medium in place. Myelography with CT scan is the established test for evaluating the presence of nerve root compression. To warrant treatment, abnormalities must relate to the clinical problems of the injured worker. There is no reason to admit an injured worker to a hospital overnight for a

myelogram. Persistent post-myelogram syndrome should be treated by hydration, caffeine, and/or blood patch as an outpatient procedure;

2. MRI, although occasionally it may not provide complete information about root compression or bony anatomy; and therefore,

3. EMG and nerve conduction velocity studies may be required to determine exact level of compression and rule out peripheral nerve compression, but should be delayed 21 days from onset of symptoms.

~~d.~~e. Inappropriate diagnostic tests and examinations:

1. Computed tomography without myelographic dye, although this may be helpful for other conditions such as infection or tumor;

2. Myeloscopy;

3. Dermatomal somatosensory evoked potentials;

4. Thermography; and

5. Spinoscopy.

f. Operative treatment:

1. Failure of non-operative treatment to relieve symptoms;

2. Quality of injured worker's life significantly impaired; or

3. Presence of significant or progressive neurologic deficit, either radiculopathy or myelopathy diagnosis confirmed by myelogram with CT scan, or by MRI.

g. Procedure options:

1. Laminectomy with excision of disc or arthritic spur or foraminotomy. Fusion is not indicated for a simple disc. Discharge 2 - 4 days post op. Posterior fusion is not indicated unless approved.

2. Anterior cervical diskectomy, especially in cases where there is medial compression. Discharge 1-3 days post op.

3. Complicated - after wound infection, thrombophlebitis, spinal fluid leak, or other significant complication has been controlled; and

4. ~~Rehabilitation may be required~~Additional physical and/or vocational rehabilitation may be required.

36.4. The estimated duration of care is as follows:

a. Non-operative treatment - if still symptomatic by six weeks, must be referred for surgical consultation; and

b. Operative treatment - depending on degree of neurological impairment and persistent pain. If pain persists over three months after surgery, the injured worker should be referred for ~~comprehensive~~ multidisciplinary pain management. If a disabling neurological deficit persists more than three months, vocational guidance should be considered. If a fusion has been done, the injured worker may require short and/or long term modified work.

§85-20-37. Treatment Guidelines: Low Back Musculoligamentous Injury (Sprain/Strain).

37.1. Strains and sprains are a common cause of acute low back pain encountered in the general population. These injuries often are the result of the mechanical stresses and functional demands placed on the low back area by everyday activities. Symptoms are believed to be related to a partial stretching or tearing of the soft tissues (muscles, fascia, ligaments, facet joint capsule, etc.) The conditions, for the vast majority of injured workers, are of short duration and complete recovery is the general rule. Most injured workers with a musculoligamentous injury to the low back recover rapidly, with 50% to 60% of injured workers recovering within one week.

37.2. The appropriate diagnostic criteria consist of:

Onset of low back pain and paraspinal muscle spasm begins either suddenly after the injury occurs or develops gradually over the next 24 hours. The pain is usually relieved by rest and aggravated by motion of the back. The pain usually does not radiate below the knee, and the strain is not accompanied by paresthesias or muscle weakness in the legs. Physical findings include low back tenderness to palpation, loss of normal lumbar lordosis, and spasm of the paravertebral muscles. Straight leg raising and other tests that cause spinal motion may increase low back pain. The injured worker may stand with a list to the side or in a flexed position. The neurological examination and nerve root stretch tests usually are negative.

37.3. Appropriate and inappropriate diagnostic tests and examinations are as follows:

a. Although the diagnosis of a musculoligamentous injury is not based on radiographic criteria, plain x-rays may be indicated based on mechanism of injury (actual trauma, hyperextension, compression), a high index of clinical signs of pathology, or treatment plan for manipulative therapy. Pain, which persists (no improvement) longer than 2-4 weeks or worsens may also be criteria for x-rays.

b. Inappropriate diagnostic tests and examinations during the acute phase of the first four weeks:

1. CT scan;

2. MRI;

3. Bone scans;

4. Myelography;

5. EMG;

6. *Thermogram;

7. *Evoked Potentials;

8. *Myeloscopy; and

9. *Spinoscopy;

*Never appropriate

c. Failure to improve in four weeks warrants an appropriate second opinion ~~is obtained~~.

37.4. Treatment considerations are as follows:

a. Non-operative treatment:

1. Indications: Almost all injured workers with low back musculoligamentous (sprain/strain) can be treated satisfactorily. No indications exist for the use of surgery in the treatment of low back musculoligamentous injuries.

2. Treatment options:

A. Short-term bed rest for approximately 2 days with appropriate positioning;

B. Analgesics;

C. Muscle relaxants as needed;

D. Anti-inflammatory nonsteroidal medication;

E. Referral for physical medicine (PT, OT, DC, DO, and physiatrist);

F. Physical modalities in conjunction with proper body mechanics and flexibility, endurance, and strength reactivation exercises;

G. Manipulation of spine;

H. Occasional trigger point injections; and

I. Lumbosacral corset or brace.

b. Inappropriate treatment:

1. Operative treatment is inappropriate for low back strain;

2. Prolonged bed rest beyond two days;

3. Narcotic medication for prolonged period;

4. Home traction; and

5. Inpatient treatment.

37.5. The estimated duration of care: 0 to 4 weeks; not to exceed 8 weeks.

37.6. A diagnosis of sprain/strain exceeding this 8 week period requires detailed re-evaluation. The Commission may require an IME to verify the diagnosis and will authorize continued treatment/coverage in its sole discretion.

37.7. The anticipated outcome is resumption of normal activity without residual symptoms in most cases. Transitional activities may be required.

37.8. Modifiers (age, and co-morbidity). Co-morbidity (e.g., degenerative disc disease, spondylolisthesis, segmental instability, osteoporosis, spine deformity) may be associated with a higher incidence of persistent symptoms but are not compensable conditions.

§85-20-38. Treatment Guidelines: Herniated Lumbar Disc.

38.1. Injured workers under treatment by their own physician who fail to improve after two to four weeks - refer to ~~an~~ qualified orthopedic surgeon or neurosurgeon for consultation and/or treatment.

Herniations occur most commonly through a posterolateral defect, but midline herniations may occur. Resulting compression of the spinal nerve root causes inflammation and pain, usually along the anatomic course of the nerve. In the lumbar spine, this most often occurs at the L4 and L5 disc levels, causing pressure on the corresponding L5 and S1 nerve roots. As a result of both mechanical and biochemical changes around the nerve root, the injured worker will experience pain, paresthesia, and possibly weakness in the leg or legs usually below the knee. The rare herniations at the L1, L2 and L3 levels are usually associated with pain, paresthesia, and weakness above the knee. Back pain may or may not be a presenting complaint with any herniated lumbar disc.

38.2. The appropriate diagnostic criteria consist of:

Back pain is usually the first symptom and may or may not abate as the pain and paresthesias begin to radiate down the leg. The leg pain is often described as a sharp, shooting pain that radiates along the anatomic course of the nerve from proximal to distal. The onset may be sudden or insidious. The injured worker often has difficulty getting up from sitting or supine positions and commonly leans or lists to one side or the other. Motion of the spine is limited due to pain and muscle spasm. The neurological examination may be normal if the compressed nerve is still functional, or it may yield objective evidence of impaired nerve function (e.g. atrophy, weakness, sensory alteration or diminished reflex) depending upon the nerve root affected. Signs of nerve root tension (e.g. positive straight leg raising) may also be present.

When the L4 disc herniates, it usually causes pressure on the L5 nerve root resulting in weakness of the great toe extensor or other dorsiflexor muscles of the foot and sensory loss along the medial aspect of the foot to the great toe, but it is usually not associated with reflex abnormality. When the L5 disc herniates, it usually causes pressure on the S1 nerve root, resulting in a sensory deficit in the posterior calf area and lateral aspect of the foot in addition to a diminished Achilles' reflex and occasional weakness of the plantar flexors of the foot.

38.3. Diagnostic test and examination considerations are as follows:

a. Clinical diagnosis is supported by these studies:

1. Plain spine radiographs (and on rare occasions bone scans) to rule out other conditions such as tumor, infection, fracture and congenital anomalies, if not previously done;

2. MRI; and

3. Myelography with CT scans.

b. Inappropriate diagnostic tests and examinations:

1. Myeloscopy;

2. Dermatomal somatosensory evoked potentials;

3. Thermography; and

4. Spinoscopy.

c. Supporting evidence. EMG may be helpful in rare cases. Discography can occasionally be helpful. Selective lumbar nerve block may be helpful for diagnosis.

38.4. The appropriate treatment is as follows:

a. Outpatient treatment:

1. Non-operative treatment:

A. ____Short period of bed rest, up to 10 days with analgesics, mild relaxants, and non-steroidal anti-inflammatory drugs;

B. ____Physical medicine and/or rehabilitation; and

C. ____Orthotics.

The value of periods of bed rest has not been demonstrated. Complete bed rest for prolonged periods may be deleterious to the body and should be closely monitored. A significant number of injured workers will respond to a nonoperative treatment program for herniated lumbar disc. The physician should be aware that those injured workers who have marked, early limitation of straight leg raising and those injured workers who have symptoms or physical findings

suggestive of cauda equina syndrome may need early surgery. Close monitoring is indicated in those settings.

b. Inpatient treatment.

1. Non-operative treatment.

A. Indications for admission.

1. Inability to control pain; and

2. Severe or progressive neurologic deficit.

B. Treatment options.

1. Monitored bed rest with parenteral medications.

C. Indications for discharge.

1. Uncomplicated - relief or improvement of leg and/or back pain.

2. Exceptions:

(a) No response to nonoperative treatment options requiring consideration of surgical intervention; and

(b) Spinal headache after myelogram requiring IV fluids or blood patch.

2. Operative treatment:

A. -Indications: diagnosis confirmed by myelography with CT scan, or MRI, plus one of the following three.

1. Failure of nonoperative treatment to relieve symptoms;

2. Quality of injured worker's life significantly impaired; and

3. Presence of significant or progressive neurologic deficit.

B. Procedure options:

1. Open removal; and

2. Percutaneous diskectomy by special approval.

C. Indications for discharge:

1. Uncomplicated - One to three days after diskectomy.

2. -Complicated - after wound infection, thrombophlebitis, spinal fluid leak, or other significant complication has been controlled.

D. Home health care may be required for a short period.

E. Physical modalities and/or rehabilitative procedures.

1. Some monitoring of the injured worker's activities may be necessary;

2. General fitness, flexibility, and simple spinal muscle strengthening are all important;

3. Injured worker should be instructed in walking program with a gradual increase in physical activities; and

4. Strengthening exercises or work simulation activities may be indicated for some injured workers.

F. Supporting evidence. Diskectomy has been proven to be a safe and effective procedure in some injured workers with herniated disc. Such surgical intervention remains elective (in the absence of a severe neurologic deficit) and the decision is based on the surgeon's clinical judgment and the injured worker's personal assessment of the extent to which quality of life has been impaired.

38.5. The estimated duration of care is as follows:

a. Nonoperative treatment - maximum medical improvement 0 - 12 weeks.

b. Operative treatment - 0 - 12 weeks.

38.6. Modifiers (age, and co-morbidity). Injured workers with symptoms suggestive of cauda equina syndrome will require a different approach to treatment. Cauda equina syndrome is a surgical emergency. Symptoms include low back pain and paralysis with loss of bladder and bowel control. Once this diagnosis is suspected, the injured worker should undergo prompt referral and neurodiagnostic evaluation.

§85-20-39. Treatment Guidelines: Lumbar Fusion.

39.1. Indications of compensable lumbar fusion:

a. Injuries to bone or soft tissue that cause instability;

b. For a second or third time disc surgery, the injured worker must have a second medical opinion and prior approval from the Commission

39.2. Lumbar fusion may also be appropriate treatment for other noncompensable conditions for which treatment will not be authorized:

~~a~~b. Cancer;

~~b~~e. Symptomatic spondylolisthesis; and

~~d~~c. Documented instability for other cause.

d. ~~1. For first surgery only, d~~Degenerative disc disease with pre-operative documentation of instability.

e.~~2~~ Pseudoarthrosis.~~3. For second or third time disc surgery, must have second, medical opinion and prior approval.~~

39.~~2~~3. Contraindications for lumbar fusion.

a. Primary surgery for a new, acute disc herniation with unilateral radiation leg pain.

39.~~3~~4. Surgical procedures.

a. Bony fusion with or without instrumentation. A second concurring surgical opinion must be obtained before surgery unless clear evidence of a medical emergency exist.

§85-20-40. Treatment Guidelines: Shoulder Injury Guidelines.

40.1. The term "shoulder complex" refers to the humerus, clavicle, scapula and the surrounding supporting connective tissue and emphasizes their interdependent relationship. Articulations of the "shoulder complex" are the sternoclavicular, acromioclavicular, scapulothoracic, glenohumeral, and subacromial arch.

Fractures, separations, or subluxations/dislocations of components within the "shoulder complex" result from trauma to the shoulder girdle or upper extremity. Soft tissue strains or sprains may result from either trauma or longstanding accumulative microtrauma. The rotator cuff is particularly vulnerable to overuse pathology.

Treatment of "shoulder complex" injuries is directed to restoring balanced motion in the entire complex. Because of the importance of the soft tissues, physical therapy is very important and can be lengthy. On the other hand, because the shoulder complex is so

adaptable, most individuals can find alternative patterns of function in their work, home, or recreational needs while they are undergoing physical rehabilitation.

40.2. The appropriate diagnostic criteria are as follows:

a. History and physical.

1. Mechanism of injury - single episode or repetitive microtrauma.

2. Pain pattern - pain at rest, pain related to work, activities of daily living, or recreational activities, night pain; painful arc of motion; position of comfort; relative position of the pain; relative position of the neck; referred pattern (pain below the elbow suggests a radicular component).

3. Range-of-motion - active glenohumeral and scapulothoracic balance; passive forward flexion, external rotation, internal rotation, and abduction compared to the opposite side.

4. Palpation - point or zone of maximum tenderness.

5. Neurological - motor, sensory, muscle stretch reflexes for C5, C6, C7, C8 and T1 roots.

6. Special tests - apprehension; drop arm; impingement; Yergason; posterior apprehension; sulcus sign; clunk; AC spring; Adson; Awinged scapular; lateral scapular slide.

40.3. The appropriate diagnostic tests are as follows:

a. Routine imaging:

1. Shoulder series - internal, external, and transaxillary or transcapular lateral (a transthoracic lateral is of no benefit except in humeral shaft fractures, posterior dislocations of the shoulder may be missed).

2. Special imaging - requires pre-authorization and specialty referral.

A. ____CT scan;

B. ____MRI;

C. ____Arthrogram; and

D. ____EMG/NCV.

40.4. The guidelines for appropriate specialty referral are as follows:

a. Failure of improvement or resolution of symptoms with conservative treatment in four weeks;

b. Radiographic evidence of fracture, subluxation, or dislocation;

c. Initial presentation of hemarthrosis;

d. Significant lack of motion compared to opposite side; and

e. Suspected neurologic injury.

40.5. Appropriate treatment is as follows:

a. Fracture - subluxation/dislocation (requires specialty referral).

1. Nonoperative or operative:

A. ___One to four weeks of immobilization; and

B. ___Physical therapy beginning in one to four weeks and continuing up to six months.

b. Sternoclavicular or acromioclavicular strain or grade 1 (non-displaced sprain).

1. Non-operative:

A. One to seven days of immobilization;

B. Physical therapy, modalities and range-of-motion, one to six weeks;

C. Duration of care - one to six weeks;

D. Anticipated results - resolution of symptoms and resumption of normal activities. May develop degenerative arthritis at a later date.

2. Operative (specialty referral) - no indication except evidence of degenerative changes after prolonged conservative management.

c.____Rotator cuff tendinitis/bursitis.

1. Nonoperative.

A. ___Local steroid injections at three to six week intervals (not to exceed three);

B. ___Physical therapy - up to three months at decreasing intervals;

C. ___Job activity modification if indicated; and

D. ____NSAIDs.

2. Operative (specialty referral).

A. Indications.

1. -Failure of improvement after three to six months of conservative care;

2. -Positive impingement sign; and

~~3.~~3. Arthrogram or MRI to determine integrity of rotator cuff.

B. ____Physical therapy following surgery, three to six months at decreasing intervals.

d. Rotator cuff tear.

1. History - sudden onset of pain and inability to initiate active abduction; passive abduction relatively normal; plain x-rays revealed not acute bony changes.

2. Nonoperative.

A. Physical therapy one to three weeks;

B. ____Specialty referral if no improvement.

~~4.~~3. ____Operative (specialty referral).

A. Arthrogram or MRI confirms tear; and

B. Physical therapy following surgery, three to six months at decreasing intervals.

e. Adhesive capsulitis (frozen shoulder).

1. History - insidious pain and loss of motion in the glenohumeral joint.

2. Nonoperative.

A. Physical therapy tried one to six weeks;

B. Glenohumeral joint injection with saline distention using short acting steroids plus Xylocaine - limit two at three week intervals; and

C. Specialty referral if no improvement after six to eight weeks.

3. Operative (specialty referral).

A. ___Manipulation if no improvement after three months.

4. Other conditions which (require specialty referral).

A. ___Thoracic outlet syndrome;

B. ___Brachial plexus injuries; and

C. ___Ruptured biceps tendon, proximally or distally.

§85-20-41. Treatment Guidelines: Carpal Tunnel Syndrome.

41.1. The purpose of the Carpal Tunnel Syndrome ("CTS") Rule is to provide the treating physician with treatment guidance and treatment parameters so that the treating team can:

a. Determine if the illness is work-related; that is, determine causality.

b. Properly diagnose the illness through a careful history, physical examination and appropriate diagnostic tests and examinations.

c. Initiate timely and proper treatment; and

d. Keep the injured worker in the workplace, through modified or restricted duty if necessary, as much as possible during the treatment plan.

41.2. Background. CTS is one of several nerve compression/entrapment syndromes of the upper extremity. This condition occurs when pressure increases in the canal and disrupts the normal flow of nerve impulses to the hand. The exact cause of this condition is unclear. It is often bilateral. The prevalence of CTS in the general population is approximately 3.1%. Half of CTS cases are idiopathic. Providers considering the diagnosis and compensability of CTS are advised to assess several factors, diagnostic accuracy, confounding conditions, work setting and duration of symptoms in assigning causality.

41.3. Diagnostic Accuracy. Hand symptoms may be produced by tendonitis, arthritis, tumor, interrupted blood flow, trauma or nerve entrapment at levels from the neck to the hand. Symptoms suggesting CTS include numbness and paresthesia (especially at night), weakness, uselessness and pain in a median nerve distribution. Clinical examination findings are frequently difficult to interpret. Tinel's and Phalen's tests have limited sensitivity and

specificity. Thenar atrophy is a late sign. ~~EMG/NCS is the standard diagnostic modality and has high sensitivity and specificity.~~

41.4. Confounding Conditions. Medical conditions frequently produce or contribute to CTS. Recognition of these conditions is important for good outcomes. Diabetes mellitus, hypothyroidism, obesity, alcohol abuse, rheumatoid arthritis, postural abnormalities and other conditions can precipitate CTS symptoms. Pregnancy is a well-established risk factor for reversible CTS. Sleep disorders significantly aggravate CTS for some patients. Hobbies and sports activities may contribute to CTS symptoms. A careful look for contributing noncompensable factors may impact causality and response to treatment.

41.5. Work Setting. Occupational groups at high risk for CTS have included grinders, butchers, grocery store workers, frozen food factory workers, manufacturing workers, dental hygienists, platers and workers with high force, high repetitive manual movement. The literature notes a high prevalence of concurrent medical conditions capable of causing CTS in persons with the syndrome, without regard to any particular occupation. Studies have failed to show a relationship between normal clerical activities and CTS. When evaluating CTS in this work setting, a careful search for other contributing factors is essential. Awkward wrist positioning, vibratory tools, significant grip force, and high force of repetitive manual movements have all been shown to contribute to CTS. The Moore-Garg Strain Index is a valuable tool for assessing risk for work-related CTS.

41.6. Duration. Work-related CTS is associated with years of repetitive activity. To find CTS in workers with weeks to months of exposure suggests a pre-existing condition.

41.7. Diagnosis Criteria.

a. –Pertinent Historical and Physical Findings

1. Patients usually complain of painful, burning paresthesia or numbness involving the thumb, index, long and occasionally radial aspect of the ring digit or the entire hand.

2. These symptoms are usually worse while lying down or sitting quietly.

3. Activities such as driving, holding a telephone or fixing one's hair often precipitate the paresthesia.

4. The most common complaints usually include nocturnal paresthesia, clumsiness with loss of fine dexterity and dropping things.

5. The patient often feels as if there is a loss of circulation. The paresthesia is often relieved by actively working the fingers, shaking the hand or holding it in a dependent position.

6. Pain is usually present over the palmar wrist area and may radiate proximally as far as the shoulder or neck.

7. Findings are consistent with those of a nerve irritation.

A. Tinel's test may be positive over the medial nerve in the proximal palm or wrist.

B. Numbness in the fingers may be elicited with the wrist in extreme extension or flexion (Phalen's test).

C. There may be decreased sensation distal to the wrist, particularly over the thumb, index and middle fingers, inability to flex or oppose the thumb or abduct it in its own plane and thenar muscle atrophy.

D. There can be significant variations in location of pain and sensory changes.

E. The examiner also needs to evaluate additional or alternate sites of compression that can produce similar symptoms.

b. –Appropriate Diagnostic Tests and Examinations

1. Radiographs of the hand and wrist if indicated by history and examination, mainly in patients with history of previous trauma or painful range of motion of the wrist.

2. Nerve conduction studies and electromyograms. (Mild cases wait 6 weeks).

3. Response to conservative measures; splinting of wrist and carpal tunnel steroid injections.

4. Laboratory studies if symptoms suggest an underlying disease such as diabetes mellitus, thyroid dysfunction or rheumatoid arthritis.

5. Radiograph of cervical spine, upper extremity and/or chest if symptoms suggest a more proximal disease process.

c. Specialist Directed Tests and Examinations

1. CT scan and MRI only if indicated by previous plain films and history pace-occupying deformity or mass.

2. Wrist arthrogram if findings suggestive of carpal instability.

d. Supporting Evidence.

1. Since double crush syndrome (entrapment of a nerve at more than one level) and systemic diseases causing carpal tunnel syndrome are not unusual, a thorough evaluation is essential.

2. EMG/NCS is the standard diagnostic modality and has high sensitivity and specificity. Regarding EMG and NCS, there is variability in the skill of the testing physician and diagnostic reference criteria do vary. This should be carefully monitored by the referring physician and by a Quality Assurance mechanism.

41.8. Treatment.

a. Non-operative Treatment

1. Indications

A. Symptoms mild or moderate (but without thenar atrophy).

B. Pregnancy or other systemic problems that may be treated medically.

C. Onset of symptoms associated with work exposure, and plausibly subjective and/or objective findings.

D. Associated with other physical conditions, i.e. cervical radiculopathy.

2. Treatment.

A. Initial Four Weeks—Options

1. Splint wrist in neutral.

2. Nonsteroidal anti-inflammatory drugs.

3. Steroid injections, optional.

4. Eliminate or modify aggravating activities with the cooperation of the employer.

5. Physical medicine.

6. Concurrent treatment of systemic disease until the injury has returned to pre-injury status.

7. Self care: ice, elevation, range of motion, stretching, exercises, postural correction, etc.

3. Referral

A. If there is no substantial improvement by four (4) weeks, the injured worker should be referred for evaluation and possible treatment.

B. Treatment should be by either a physical medicine practitioner or a surgeon (orthopedic, hand, plastic, or neurosurgeon).

1.____Physical Medicine.

(a) A physical medicine practitioner shall evaluate for functional anatomical lesions in the neck, shoulder, thorax, elbow and wrist. Physical medicine examiners: Chiropractor (DC), Osteopathic Physician (DO who specializes in manipulation), Physical Medicine and Rehabilitation Specialist (MD/DO, formerly known as "physiatrist"), Physical Therapist (PT), and Occupational Therapist (OT).

(b) If functional anatomical lesions are identified, two to eight (2-8) weeks of treatment with a physical medicine practitioner (DC, DO who specializes in manipulation, MD/DO who is a physical medicine and rehabilitation specialist, PT, OT) should be performed on a decreasing frequency. The referring physician shall be provided progress reports at 2-week intervals. Treatment should cease if two weeks pass without significant documented functional improvement. It is important that the injured worker continue to work and perform his or her activities of daily living during this therapy. Modified duty or work reassignment is appropriate during treatment.

b. Ambulatory Surgery.

1. Indications

A. Unresponsive or progression of symptoms in the face of non-operative treatment; objective signs.

B. Thenar atrophy or objective impairment of sensibility (widened two-point discrimination or diminished light touch).

C. Intolerable numbness and pain.

D. Mass or deformity in carpal tunnel.

2. Treatment Options

A. The operative treatment usually includes minimal invasive type of surgery vs. open type of surgery, and is indicated according to the condition of the patient.

B. In some of the severe CTS cases, the surgeon may wish to seek an examination by another physician in order to determine if the injured worker is an appropriate candidate for recovery and return to work.

3. Home Health Care. When self-care is compromised during the early post-operative period, homemaker services may be required in some instances. Examples: opposite hand amputation or limiting injury.

4. Physical Rehabilitation.

A. Brief post-operative splinting, optional.

B. Finger and wrist range of motion.

C. Scar massage after sutures removed.

D. Grip and pinch strengthening.

E. Range of motion exercises of affected extremity.

F. Progressive activity reintroduction.

G. Physical medicine, if indicated, should be limited to six weeks.

5. Supporting Evidence.

A. Carpal tunnel release relieved pain and paresthesia in up to 90% of patients with correct diagnosis.

B. Significant pre-operative median nerve involvement, concurrent medical conditions and/or inability to modify aggravating exposures may affect post-operative functional recovery.

c. In-Patient Treatment.

1. Inpatient Treatment.

A. Rare.

B. Associated with other trauma or condition, i.e. crush injury, burns, etc.

2. Indications for Admission.

A. Compartment syndrome of forearm.

B. Other serious medical conditions which increase surgical anesthetic risks.

C. Complication at time of operative procedure.

D. Treatment options: same as for ambulatory patient.

E. Indications for discharge: medical condition stabilized.

F. Home health care: same as for ambulatory patient.

G. Rehabilitation: same as for ambulatory patient.

d. Estimated Duration of Care

1. Non-operative Treatment

A. Activity modification may be indicated.

B. Depending on objective findings and past duration of symptoms and as outlined in the Presley Reed Guide referenced in this Rule.

2. Operative Treatment

A. Consistent with global guidelines and as outlined in the Presley Reed Guide referenced in this Rule.

B. Three month follow-up unless there are complicating factors.

e. Anticipated Outcome.

1. Improved sensory and/or motor and/or autonomic function.

2. Elimination of paresthesia.

3. Lessening of pain.

4. In severe carpal tunnel syndrome cases, complete relief of the symptoms is usually not obtained. The surgery is performed to stop progression of the nerve

damage or to delay progression of damage already present in the form of nerve fibrosis and vascular changes.

f. Modifiers

1. Pregnant and nursing women usually have decreased or resolved symptoms shortly after delivery or cessation of lactation, but persistent symptoms may require surgical release.

2. Age and gender are not modifiers.

3. Co-existent neurological or systemic disorder, i.e. diabetes, thyroid dysfunction, amyloidosis, etc., may make symptoms more severe and less likely to fully resolve following treatment.

g. Cold laser is an experimental and unproven therapy. The Commission will not pay for such treatment.

41.9. Rehabilitation

a. Keeping Workers on the Job.

1. Workers generally are in a more positive psychosocial, motivational and financial mode when they continue to work. These factors impact significantly on the rehabilitation outcome.

2. Barring a clear medical contraindication, if the employer can provide suitable reasonable accommodations based upon restrictions recommended by the physician due to the compensable medical condition, the injured worker should continue to work during the recovery process and be released to return to such work as soon as possible when temporary disability is unavoidable.

b. The Work Release

1. Return to work may be initiated via two paths, starting with the physician's work release or with a proposal from the employer or a qualified rehabilitation professional.

2. In either case, the release must be as specific as possible so the employer and patient clearly understand what is expected. The physician should address:

A. Physical restrictions, time restrictions (hours per day and/or week and duration of the restriction).

B. Pacing restrictions.

C. Break requirements (frequency and purpose, such as for rest from certain activities, icing, warm-up exercise, self-massage, etc.).

D. Recommended job site accommodations (such as workstation height or set-up) or ergonomic devices (such as anti-vibration tool wraps).

3. When the employer or a qualified rehabilitation professional offers a return to work proposal, the attending physician should expect to be provided:

A. A functional job analysis with which to make an informed decision regarding the work release. The job analysis must thoroughly describe job duties, physical demands (strength and production/work pace), tools used and environment.

B. Assurance that the employer (line supervisors and co-workers, not just human resources personnel) will support the worker in the restricted or alternate duty return to work.

C. A rehabilitation plan signed by the employer, injured worker and a qualified rehabilitation professional when restricted or alternate duty (part-time or full-time) is to be approved. This plan should describe the accommodations being offered and the time frame for which they will be available.

c. Career Changes. Injured workers with significant permanent upper extremity residual impairment will frequently need a permanent change of vocations.

d. The provisions of Section 41.9 may be used to govern the rehabilitation processes of injuries other than carpal tunnel syndrome as appropriate.

§85-20-42. Treatment Guidelines: Injuries to the Knee.

42.1. The vast majority of knee injuries result from direct trauma to the joint or are caused by torsional or angulatory forces. These injuries vary in severity from simple ligamentous strains to complex injuries involving ligamentous disruption with meniscal damage and associated fracture. This guideline is designed to guide the practitioner in the appropriate management of these injuries and to establish a logical sequence for the diagnostic evaluation and treatment of the more complex injuries.In general, knee injuries should be referred for orthopedic consultation and/or treatment under the following circumstances:

a. Failure of a presumed knee sprain to show progressive resolution and respond to appropriate conservative treatment in a period of three (3) weeks;

b. Radiographic evidence of an associated fracture;

c. The initial presence of a tense hemarthrosis or the development of a recurrent hemarthrosis;

d. An acutely locked or an acutely dislocated knee;

e. Clinical evidence of gross ligamentous instability; and

f. A presumed diagnosis of a meniscal injury.

§85-20-43. Treatment Guidelines: Knee Sprains.

43.1. These are common injuries resulting from the application of a torsional or angulatory force to the knee and are characterized by pain, mild swelling, localized tenderness, increased discomfort or weight bearing, negative x-rays, and no clinical evidence of instability.

a. The appropriate diagnostic tests.

1. Plain x-rays.

43.2. The appropriate and inappropriate treatment is as follows:

a. Nonoperative treatment.

1. Medications to include nonnarcotic analgesics and nonsteroidal anti-inflammatory drugs;

2. Application of ice, compression dressings, and temporary partial restriction of weight bearing;

3. Physical modalities and/or rehabilitative procedures;

4. Duration of care - estimated duration of care is three weeks, not to exceed six weeks; and

5. Anticipated result - resolution of symptoms and resumption of normal activities.

b. Inappropriate treatment:

1. Surgery;

2. Inpatient; and

3. Greater than three weeks without consultation.

§85-20-44. Treatment Guidelines: Meniscal Injuries.

44.1. The mechanism of injury is similar to that for knee sprains but symptoms of pain and swelling fail to resolve in the anticipated period of time and the symptoms frequently include a sensation of "catching or giving away" of the joint and a history of locking of the joint may be elicited.

Clinical findings may include joint space tenderness, a mild effusion and restricted range-of-motion and positive McMurray's sign.

44.2. The appropriate diagnostic tests are as follows:

a. Plain x-rays;

b. Arthrocentesis;

c. MRI;

d. Arthrogram; and

e. Diagnostic arthroscopy.

44.3. The appropriate treatment is as follows:

a. Outpatient/nonoperative treatment.

1. Short-term use of nonsteroidal anti-inflammatory drugs in conjunction with an arthrocentesis and short-term immobilization with a period of limited weight bearing;

2. Physical modalities and/or rehabilitative procedures.

b. Outpatient/operative treatment.

1. -Options include arthroscopic meniscectomy and/or arthroscopic meniscal repair; and

2. Physical therapy/rehabilitation.

c. Inpatient/nonoperative treatment not indicated.

d. Inpatient operative treatment - The reasons for admission for surgical treatment may include the presence of associated medical conditions, a concomitant knee injury such as a fracture of the tibial plateau or a major ligamentous disruption, or the presence of other injuries which require inpatient treatment.

44.~~5~~4. The duration of treatment may vary up to three (3) months. The injured worker's age and pre-existence of arthritic changes within the joint will influence the duration of treatment.

44.6~~5~~. The anticipated outcome is as follows:

a. Improved knee function with minimal residual symptoms; and

b. Possible predisposition to the development of traumatic arthrosis of the knee.

§85-20-45. Treatment Guidelines: Foot and Ankle Injuries.

45.1. Injuries to the foot and ankle usually relate to a specific traumatic event and have a predictable clinical course depending on the severity index of the initial injury. For simplicity, injuries will be discussed relative to the anatomic region of the foot and ankle (ankle, hind foot, midfoot, forefoot or phalanges).

45.2. The appropriate diagnostic criteria is as follows:

a. Pertinent historical and physical findings:

1. Onset of pain and/or swelling is related to a single event, either a twisting injury, fall or direct blunt trauma. The degree of the injury can be judged quickly by determining which one can bear weight and the degree of initial swelling. The more severe injuries will have greater swelling, inability to bear weight, and may have obvious deformity.

45.3. Diagnostic test and examination considerations are as follows:

a. If differentiation between a soft tissue ligamentous injury and a fracture is required, x-rays in several planes are appropriate in all cases;

b. CT scans may be indicated in hind foot injuries to define subtle fractures, tarsal coalitions or the degree of displacement in three planes in acute injuries;

c. Bone scans are occasionally indicated in long standing pain problems to rule out stress fracture or inflammatory causes of foot pain (after four weeks of pain with normal X-rays).

d. MRI rarely indicated - should require specialty consultation; and

e. EMG and vascular studies (non-invasive arterial perfusion or arteriography at the request of the specialist).

f. Inappropriate diagnostic tests:

1. Thermogram.

g. Indications for specialty referral:

1. Displaced fractures;

2. Neurovascular compromise; and

3. Pain and swelling greater than three weeks.

45.4. The appropriate treatment is as follows:

a. Non-operative.

1. Sprains (No fracture seen on x-ray)

A. ____Rest, ice compression and elevation(RICE);

B. ____Crutches and splinting (one through three days);

C. ____Early mobilization as pain allows. This may involve active supervised physical therapy;

D. ____Usual course - several days to three weeks; and

E. ____Referral to specialist required if no improvement by three weeks.

2. Fractures.

A. ____Simple non-displaced:

1. -Ankle – Specialty referral -Will require special splinting or casting for three to six weeks and may require an additional two to four weeks of physical therapy rehabilitation.

2. -Hind foot - Same as ankle.

3. -Midfoot - Same as ankle but course is usually two to four weeks shorter.

4. -Forefoot - Specialty referral not required special shoe or cast may be necessary. Usually resolved in three to six weeks.

5. -Phalanges - Same as forefoot, simple taping and/or modified shoe usually all that are necessary.

3. Displaced fractures. Specialty referral is mandatory. Non-operative treatment requires casting for three to six weeks followed by up to four weeks of rehabilitation.

b. Operative. All operative decisions require specialty referral.

1. Sprains. Indicated when there is a complete dislocation/ subluxation without a fracture anywhere in the ankle, hindfoot, or midfoot. May be indicated in the forefoot.

2. Fractures.

A. Simple - may be indicated in ankle.

B. Displaced - Usually indicated in ankle, hindfoot, midfoot, and forefoot. Displaced phalange fractures can sometimes be treated non-operatively.

§85-20-46. Treatment Guidelines: Physical Medicine.

46.1. Principles for use of physical medicine:

a. Physical medicine should be initiated as early as the day of injury; indications for and focus of (early) intervention include:

1. Acute management of pain and spasms;

2. Use of passive modalities as adjunct to active treatment;

3. Manual therapy for restoring joint function;

4. Instruction in range of motion and stretching exercises;

5. Assessment of return to work readiness and identifying necessary work modifications;

6. Injured worker education in healing process, body mechanics, proper resting positions, and home treatment program; and

7. Time frames may range from one visit to daily visits in accordance with ~~above~~ applicable treatment guidelines.

b. Evaluations and treatments authorized by the Commission must be provided by professionals licensed to perform such activities.

c. Initiation of treatment may not be indicated when:

1. Few objectively measured deficits are found on evaluations;

2. Subjective complaints of pain are the only finding;

3. Pain behaviors are interfering with the return to work process; and

4. Injured worker is not compliant with the treatment plan.

d. Inappropriate and medically unsupported treatment is the exclusive use of passive modalities throughout the course of treatment.

e. ____Exercise programs are progressively increased to include strengthening and conditioning exercises. Any work simulation activities (also gradually increased) should focus on essential work tasks (pushing, pulling, lifting, etc.). Time frames may range ~~form~~ from 1 to 4 hours per day, 3 to 5 days per week in accordance with above treatment guidelines.

f. ____Progress reports to the referring physician, ~~workers' compensation~~ the Commission, and the employer should identify continuing complaints, progress made, further rehabilitation needs, and level of return to work readiness. An injured worker may continue in therapy, if indicated, after return to work in accordance with ~~above~~ applicable treatment guidelines.

~~46.2. Reimbursement shall be disallowed for any treatment rendered after the injured worker reaches maximum medical improvement.~~

46 2. Treatment limitations. Physical medicine treatment shall not exceed 10 visits in the initial 14 days and must decrease in frequency thereafter. In no case shall the treatment exceed 16 visits in the initial 30 days or 12 visits in the second 30 days.

46.3. If physical medicine care continues to the 30th day and the injured worker has not returned to work, the treating physician ~~mayl~~ may arrange a consultation for a second opinion. Reimbursement for care past the 45th day shall be disallowed unless the consulting physician recommends further care.

46.4. If care continues to the 30th day and the injured worker lost no time or is back to work, shows significant documented functional and clinical signs of improvement, ~~as determine in the sole discretion of the Commission,~~ and has not reached maximum medical improvement, continued ~~ease~~ care is appropriate~~.may be approved in the sole discretion of the Commission.~~ Such care shall not exceed the 60th day unless otherwise expressly authorized by this Rule.

46.5. Injured workers with complicating factors which have prevented a return to work by the 60th day require active case management by the Commission within the parameters of this Rule. Independent medical evaluator guidance may be requested by the Commission, in its sole discretion.

~~It is incumbent upon the medical provider to notify the Commission if care has continued for 60 days. Failure to so notify the Commission will result in the denial of any and all payments incurred after the 60th day. The medical provider shall not seek reimbursement from the injured worker for these denied charges for determination of appropriate care.~~

~~46.6. Treatment limitations. Physical medicine treatment shall not exceed 10 visits in the initial 14 days and must decrease in frequency thereafter. In no case shall the treatment exceed 16 visits in the initial 30 days or 12 visits in the second 30 days.~~

46.6. ~~A physical medicine provider may seek authorization to receive reimbursement for services provided in excess of 60 days if a significant complicating factor is clearly present, as determined in the sole discretion of the Commission, and one (1) of the following factors is also clearly present, as determined in the sole discretion of the Commission: 1) the injured worker is back at work or enrolled in a work conditioning/hardening program as part of an approved vocational rehabilitation plan; or 2) the provider can clearly illustrate documented functional and clinical signs of improvement. If each of these 3 factors can be established, in the sole discretion of the Commission, treatment may be extended on an as needed basis, not to exceed 2 visits per week.~~Treatment beyond 28 dates of service (within 60 days) is limited to a maximum of 5 treatments over one additional 30-day period and requires Commission authorization. Authorization requires the worker has a history of surgery or fracture in the involved area, and either 1) the worker has returned to work or 2) modified work is not available.

46.97. ~~Injured workers who have returned to work and experience flare-ups of their injuries due to job related activities, may be treated a maximum of 12 times over the 14 months following an injury. Such treatment may not be regularly scheduled and must not delay a surgical or chronic pain evaluation.~~Workers who have returned to work, reached maximum

medical improvement and experience flare-ups of their injuries, due to job-related activities, may be treated a maximum of 4 times over a 2-week period. The Commission will reimburse a maximum of 12 treatments for work related flare-ups within 14 months of the date of injury.

46.8. Reimbursement shall be disallowed for any treatment rendered after the injured worker reaches maximum medical improvement unless otherwise expressly authorized by this Rule.

§85-20-47. Treatment Guidelines, Protocols and Procedures for Performing Audiological Examinations and Evaluations in Workers' Compensation Claims for Noise-Induced Hearing Loss.

47.1. Only audiometric test results obtained by an audiologist having a certificate of clinical competence in audiology (CCC-A) or a West Virginia audiology licensure are acceptable for purposes of awarding compensation. An audiogram performed at the request of any physician may be utilized by the injured worker for the purpose of completing the workers' compensation application form. However, only physicians who are qualified otologists or otolaryngologists may interpret the results of audiograms in assessing the degree of the injured worker's noise-induced hearing loss impairment for the purpose of determining the percentages of the injured worker's whole person impairment, if any.

47.2. A physician examining and evaluating an injured worker in a noise-induced hearing loss claim must consider the injured worker's medical and occupational history, as well as available audiograms, in determining the etiology of the hearing loss. It is not necessary to use a uniform brand and model of audiometer.

For Commission standards, the audiologist shall adopt the ANSI Guidelines and perform an annual exhaustive calibration. The audiologist should also perform a daily listening check.

47.3. Establishing a definitive margin of error: Two audiograms are said to be in acceptable test-retest variability when the total of four frequencies (500, 1000, 2000, 3000 Hz) is 15 decibels or less and the audiometric curves are similar. Because the two audiograms are technically identical and one cannot be chosen over the other, the calculation of whole person impairment will be based on the audiogram that yields the highest degree of impairment for the injured worker.

a. If two audiograms are both rated "good", and differ by more than the established margin of error, the Commission shall arrange for a third independent evaluation by an otologist or otolaryngologist.

b. The two audiograms that are within an acceptable test/retest variability should be used.

47.4. The audiologist shall be required to perform the following specific reliability and validity checks during the course of an audiogram:

a. Speech Reception Threshold (SRT)/Pure Tone Average Comparison: SRT should be within 10 decibels of the best two frequency average for the pure tone thresholds of 500, 1000, 2000 Hz.

b. Both ascending and descending thresholds should be obtained at 1000 Hz for each ear. The difference should be no greater than 5 decibels.

c. Reliability should be rated: good, fair, poor.

d. Certified and/or licensed audiologists must perform the audiogram.

e. The four validity and reliability checks set forth above must be documented on the Workers Compensation form and the examiner must initial his or her findings on the forms.

47.5. The Commission will inform all physicians evaluating noise-induced hearing loss injured workers on the Commission's behalf that standard air conduction and bone conduction testing, speech reception threshold, speech discrimination, tympanometry and acoustic reflex testing must routinely be performed as a part of audiometric evaluation. Other testing, including otoacoustic emission testing, may be required at the discretion of the otologist/otolaryngologist. If the required audiometric tests have not been done, the report is unacceptable and the physician will not be compensated. W. Va. Code §23-4-8.

47.6. When a sensorineural hearing loss is present it may be the result of noise induced hearing loss and/or other disease processes. The medical evaluator should consider all causes of sensorineural hearing loss. When a conductive loss is present, the bone conduction levels will show the purist hearing an injured worker could have as a result of noise induced hearing loss.

47.7. The audiologist shall perform speech discrimination (word recognition) testing using W-22 word lists. Both live voice and recorded presentation methods for testing speech discrimination are acceptable; each method has its advantages. The audiologist should use the method that provides the best representation of the injured worker's true speech discrimination score.

The otologist or otolaryngologist interpreting the speech discrimination results shall use the formula set forth in W. Va. Code §23-4-6b, to calculate the injured worker's impairment rating.

47.8. Occupational noise induced hearing loss (NIHL) typically starts in the high frequencies; usually 3000, 4000 or 6000 Hz. With progression, these frequencies worsen and the hearing loss extends to the lower frequencies; (2000 and 1000 Hz). Even with progression, however, the audiometric pattern remains one that descends from the low frequencies to the high frequencies, sometimes with recovery at 6000 or 8000 Hz. Occupational NIHL does not cause an ascending audiometric pattern (where the low frequencies would be worse than the high frequencies). A flat audiometric curve is also not typical of an etiology of solely occupational NIHL. If an audiogram presents a pattern that is atypical of an occupational NIHL

pattern, then the physician interpreting the audiogram should consider causes other than occupational noise exposure in determining the hearing loss etiology. If the otologist/otolaryngologist determines that an injured worker's hearing loss is not all noise induced hearing loss, he or she should estimate the true noise induced hearing loss thresholds and explain his or her calculations on the basis of medical and audiological findings.

47.9. When an injured worker has been exposed to steady state noise, his or her NIHL will usually be symmetrical between both ears. If the injured worker has a hearing loss that is asymmetric then the evaluating physician should consider all causes for hearing loss, including nonoccupational noise, trauma or disease processes and whether there is more noise exposure on one side than the other.

47.10. If a physician determines that an injured worker's hearing loss is the result of occupational noise exposure, the total hearing loss impairment rating shall be calculated pursuant to the formula set forth in W. Va. Code 23-4-6b.

47.11. The Commission will ~~not~~ reimburse for hearing aids when 5% or greater ~~there is no compensable~~ permanent industrial hearing loss impairment has been diagnosed. The recommendation for the hearing aid must be based on the evaluation of an otologist or a otolaryngologist for reimbursement. The Commission shall retain sole discretion to select the hearing aid most appropriate for treatment.

§85-20-48. Treatment Guidelines: Psychiatric Claims

48.1. Treatment of mental conditions to injured workers is to be goal directed, time limited, intensive, and limited to conditions caused or aggravated by the industrial condition. Psychiatric services to workers are limited to those provided by psychiatrists and licensed psychologists, and according to department policy. For purposes of this rule, the term "psychiatric" refers to treatment by psychologists as well as psychiatrists.

48.2. Initial evaluation, and subsequent treatment must be authorized by Commission staff. The report of initial evaluation, including test results, and treatment plan are to be sent to the injured worker's attending provider, as well as the Commission. A copy of sixty-day narrative reports to the Commission is also to be sent to the attending provider. In addition, the following are required: Testing results with scores, scales, and profiles; report of raw data sufficient to allow reassessment by a panel or independent medical examiner. Use of the current Diagnostic and Statistical Manual of the American Psychiatric Association axis format in the initial evaluation and sixty-day narrative reports, and explanation of the numerical scales are required.

48.3. A report to the department will contain, at least, the following elements:

a. Subjective complaints;

b. Objective observations;

c. Assessment of the worker's condition and goals accomplished; and

d. Plan of care.

Failure to provide the required narrative reports as required under this rule shall result in a waiver of the fee due and owing the provider for that sixty (60) day period.

48.4 This Guideline is in addition to the requirements Section 12 of this rule.

48.5 Understanding that psychiatric conditions may arise as a consequence of injury, the Commission recognizes the need to treat these conditions. It is expected that with resolution of the injury, there will be resolution of the psychiatric injury. The Commission is not responsible for the on-going management of chronic or pre-existing psychiatric conditions which it does not view as directly related to the injury.

§85-20-49. Treatment Guidelines: Multi- Disciplinary Pain Management

49.1. ~~Chronic pain is one of the most common conditions in Western Society. Chronic pain is also a costly condition for society due to health care expenditures and indirect costs associated with disability compensation and loss of productivity. It is now well accepted that c~~Chronic pain iIt is now well accepted that chronic pain treatment is a complex problem that involves physical, emotional and behavioral components. Chronic pain and treatment therefore, including multidisciplinary interventions, is only compensable if specifically diagnosed as caused by an injury received in the course of and resulting from employment.~~s a complex problem that involves physical, emotional and behavioral components. Given this complexity, multidisciplinary interventions have been advocated to address all the features that comprise the pain experience.~~

~~49.2. Multidisciplinary treatment for chronic pain and related disability has been more rigorously examined than most other treatments used with chronic pain. More data are available for the effectiveness of multidisciplinary treatment than for any surgical procedures or conventional medical treatments for chronic pain. The comparisons also suggest that multidisciplinary treatments result in greater clinical effectiveness and cost savings than alternatives. Additionally, there is strong evidence for the importance of the behavioral/psychological component of treatment in making meaningful changes in pain intensity, functional status and emotional distress.49.3 Multidisciplinary Pain and Occupational Rehabilitation is not for everyone. It is for a "selected" patient population. Promising predictors of treatment outcome have been identified. Additionally, assessment of psychosocial "risk factors" for chronic disability done shortly after injury can lead to more effective management by identifying which patients are likely to benefit from multidisciplinary treatment.~~

49.2. Multidisciplinary treatment for chronic pain and related disability has been more rigorously examined than most other treatments used with chronic pain. There is strong evidence for the importance of the behavioral/psychological component of treatment in making meaningful changes in pain intensity, functional status and emotional distress.

49.3. The best predictors of disability and response to multidisciplinary treatment may not be a function of physical or medical variables; instead, psychological variables may be the best predictors in certain cases. Additionally, assessment of psychosocial "risk factors" for chronic disability done shortly after injury can lead to more effective management by identifying which patients are likely to benefit from multidisciplinary treatment.

49.4. Chronic Pain Syndrome: ~~CPS~~ Chronic Pain Syndrome patients are defined by the following criteria: a) Reports of persistent (i.e., at least four months duration) pain, which may be consistent with or significantly out of proportion to physical findings; b). Demonstrates or has demonstrated a progressive deterioration in ability to function at home, socially and at work; c) Shows or has shown a progressive increase in health care utilization (such as repeated physical evaluations, diagnostic tests, requests for pain medications and/or invasive medical procedures); d) Demonstrates mood disturbance; and e) May exhibit clinically significant anger, frustration and/or hostility.

49.5. Program Guidelines:

a. Program Goal: To address behavioral barriers, which inhibit return to work while increasing physical function in a protocol-based rehabilitation program.

b. If an injured worker is diagnosed with Chronic Pain Syndrome directly related to a compensable injury, any authorized pain management program shall contain the following objectives and guidelines.

~~49.5 Program Guidelines:~~

~~49.5.1 Program Goal: To address behavioral barriers, which inhibit return to work while increasing physical function in a protocol-based rehabilitation program.~~

~~49.5.2 Program Objectives:~~

1. To successfully return the patient to pre-injury work. If this goal is not realistically obtainable, then the goal is to have the patient demonstrate specific alternative work capabilities.

2. To develop work-related skills with work simulation activities.

3. To develop strength, endurance, movement, flexibility and motor control related to performance of specific vocational and avocational goals.

4. To identify and improve management of psychosocial barriers to facilitate return to work.

5. To demonstrate increased responsibility for their condition through the use of self-management techniques related to pain and associated psychological symptoms.

This should be done with minimal ongoing medical intervention (decrease dependence on health care system).

6. To demonstrate understanding safe job performance, injury prevention and physical and psychosocial threats to relapse.

~~49.5.3. Program Direction:~~

~~49.5.3.a. Responsibility should be assigned for program direction and for medical direction. The same individual may be responsible for both functions. Program direction need not be provided by a physician. Program Director may be an Allied Health Professional with an advanced degree and state licensure appropriate to degree. Program Director must have at least one year's experience in interdisciplinary rehabilitation and participate in annual continuing education in this field. The participating physician must be board certified or eligible with annual continuing education in this field.~~

c. Program Direction: Responsibility should be assigned for program direction and for medical direction. The same individual may be responsible for both functions. Program direction need not be provided by a physician. Program Director may be an Allied Health Professional with an advance degree and state licensure appropriate to degree. Program Director must have at least one year's experience in interdisciplinary rehabilitation and participate in annual continuing education in this field. The participating physician must be board certified or eligible with annual continuing education in this field.

~~49.5.4 Admission Criteria~~

d. ~~5.4.a.~~For an injured worker to be authorized to participate in a pain management program, the injured worker must demonstrate: ~~Indicators For Admission:~~ 1) ~~at~~At least three months of ongoing pain-related temporary total disability or inability to safely return to work; 2) The need for such a program must be related to the compensable injury and subsequent consequences.; 3)~~t~~T-he patient should be able to express a vocational goal whether related to return to work or retraining for return to work; and 4) Presence of psychosocial barriers to rehabilitation (such as depression, anxiety, fear/avoidance behaviors, poor coping/adaptation skills, anger).

e. ~~Contra-indicators To Admission:~~Pain management program shall not be authorized if any of the following factors exist: 1) Presence of concurrent noncompensable health or mental health condition that would prohibit full understanding and participation in the program; 2) Medical instability that may warrant continued medical intervention (such as surgery, etc.); ~~or~~ or 3) Presence of a substance addiction/dependence that prohibits safe and effective participation in the program. ~~Such patients would require successful completion of a drug rehabilitation program prior to consideration (see Chronic Opioid Guidelines).~~

~~49.5.5~~f. Scope of Service/Program Organization: CPS patients are best treated in an integrated interdisciplinary program. The program needs to maximize continuity of

care by employing a coordinated group of health care professionals (i.e., physicians, psychologists, physical and occupational therapists, vocational evaluators, counselors and specialty consultants) who evaluate and treat the patient as a team.

g. Evaluation: The treatment plan is developed through an interdisciplinary evaluation with a recommendation for either admission into the occupational rehabilitation program (ORP) or appropriate alternative treatment. The evaluation should consist of the following: 1) Review of records; 2) Quantitative evaluation by physical therapist to determine current level of functioning and anticipated outcome; 3) Psychological evaluation by licensed psychologist to identify behavioral barriers to return to work and to determine need for psychological intervention, if necessary; and 4) Medical evaluation by a licensed physician to identify any medical barriers to participation and to clear patient for physical restoration activity.

h. ~~.5.b.~~ Treatment: Individual treatment plan will address the following:

1. *Frequency and Intensity of the program:* The frequency, intensity and duration of the program should be sufficient to demonstrate improvement in the following areas: work capabilities, strength, stamina and psychosocial barriers to improved functioning (may include fear avoidance, depression, anxiety, coping strategies, anger…) In order to achieve these goals through an interdisciplinary approach and simulate a typical work day, this treatment requires a minimum of five (5) and a maximum of eight (8) hours per day, five (5) days per week. Daily attendance is therefore imperative and integrated into the goals of the program (see section 7). Provision of services will include both daily behavioral/psychological and physical restoration activities. Effective outcome from interdisciplinary treatment is usually accomplished within a maximum of 20 treatment days. Thus, this 20 treatment-day upper limit for intervention with CPS ~~chronic pain syndrome~~ patients is recommended;

2. ~~49.6. 2)~~*Extensions To Treatment:* Occasionally, there may be justifications for extended treatment beyond the 20-day program. Any such extension needs to be documented, time-limited and monitored on a case-by-case basis. The following should apply to potential extension situations: 1) The patient has clearly shown significant and objectively documented progress within the initial 20-day treatment protocol; 2) Further functional gains that increase the patient's likelihood to return to work are likely within the extension period; 3) Extension periods should be time limited and should not exceed 10 treatment days.

~~49~~. i. Treatment Team Members:

~~49.5.5.c.~~1. Services should be provided by a coordinated interdisciplinary team that includes a core team of individuals who are specifically assigned to the program. The following disciplines, and others as may be designated by the program director, shall constitute the *core treatment team:* participating physician, clinical psychologist and physical therapist.

~~49.5.5.c.~~2. Dependent on the needs of the patient, the following practitioners may also be involved: case manager (internal or external), psychiatrist, nurse, occupational therapist, vocational specialist.

j. ~~49.5.5.d.~~ Services Provided: Services shall include, but not be limited to: 1) Medical assessment; 2) Weekly staff meetings that include the core treatment team (or their assigned representatives).; 3) Ongoing reappraisal of each participant's clinical and functional work status; 4) Performance of appropriate medical diagnostic and treatment procedures; 5) Providing information needed to assist participant to return to work; 6) The practice, modification and instruction of component work tasks through real or simulated work; 7) The development of strength and endurance of the participant related to the performance of work tasks; 8) education to teach safe job performance and prevent re-injury; 9) Promotion of self-management strategies; and 10) The development of attitudes and behaviors that will improve the ability of the participant to return to work or benefit from other rehabilitation.

k. ~~49.5.5.e.~~ Space: Services consistent with the needs of the program shall be provided in settings as follows: 1) A physical therapy setting that allows for conditioning and strength training. An area that supports a work-related treatment environment, which would include work simulation activities, is also needed; 2) Classroom and conference space is required for individual counseling and educational sessions.; and 3)The program may be provided as a private or group practice, hospital based program or freestanding program. All services provided should ideally be performed at a single campus setting. Services should not be performed at more than two locations within a given treatment day.

~~49.5.5.f.~~ l. Documentation:

1. ~~49.5.5.f.1.~~ Whenever possible, pain management programs shall offer outpatient rather than inpatient services and clear and convincing documentation proving that outpatient treatment is inappropriate in a particular claim is required before inpatient treatment can be authorized. Documentation of interdisciplinary evaluation prior to admission shall include: a) A quantitative report by a licensed physical therapist that documents current level of functioning and anticipated outcome; b) A psychological report by a licensed psychologist that documents behavioral and/or emotional barriers to return to work and identifies the need for psychological intervention (if necessary); c) Medical report that documents any barriers to participation in the program and gives medical clearance for the patients participation in physical restoration activity; and e) Post-evaluation summary report that documents specific treatment recommendations.

2. ~~49.5.5.f.2~~ Treatment documentation should include at a minimum: a) Daily progress notes; b) Weekly Staffing Summaries which document progress toward goals, current functional status, and newly identified barriers to participation; and c) Discharge Summary which documents progress achieved in functional, work-related goals, work ~~C~~capability at discharge, progress in addressing psychological barriers to improved function, medical status, and recommendations. The Commission will determine the standards by which this will be reported and the timeframe for such reporting.

m. ~~49.5.5.g~~ Discharge Criteria: Discharge of a participant from an interdisciplinary rehabilitation program shall be based upon the following: 1) Goals of the program have been achieved; 2) The injured worker~~patient~~ has failed to fully participate and/or

comply with program requirements; 3) The physician of record has discontinued the program for the participant; 4) A ~~situation~~ condition has arisen directly related to the compensable injury requiring further medical or other health care intervention, not present at initiation of the program.; 5) Prior to completion of the program, it is determined by the service provider or attending physician that the client will be unable to accomplish the goals of the program. This determination can be based upon a combination of objective and subjective criteria; and 6) The participant has excessive absences.

§85-20-50. Treatment Guidelines: Interventional Management of Chronic Pain.

Definitions:

As used in this exempt legislative rule, the following terms have the stated meanings unless the context of a specific use clearly indicates another meaning is intended.

50.1. "Acute pain" means pain experienced as the result of injury, disease, or operative procedure. Treatment usually consists of medications, surgical repair, and/or physical medicine therapies. Care may be provided in the office, clinic, or hospital setting.

50.2. "Bier block" means the instillation of medication into the venous system of a limb for anesthetic or therapeutic purposes; venous circulation is occluded with a tourniquet to retain medication in the veins of the limb.

50.3. "Chronic pain" means pain lasting more than ~~t here~~ three months. The cause of the pain is often unknown and may not be linked to an actual physiological event. Chronic pain complaints are usually accompanied by other psychophysiological disorders such as depression, weight gain or loss, sleep disorder and digestive disorder. A nurse case manager must coordinate care for claimants experiencing chronic pain, including intervention by a pain management specialist early in the treatment process and involvement of ~~an interdisciplinary group after six (6) months~~other treatment modalities and consultative specialists as needed.

50.4. "Interdisciplinary" means including representation from two or more health care fields.

50.5. "Medical Services Unit" or "Office of Medical Services" means a group of Commission personnel designated to deal with health care issues; such personnel may be supplemented with health care personnel providing services on a contract or other basis.

50.6. "Nerve block" means injection of a local anesthetic medication in proximity to a nerve or nerve plexus to block nerve transmission.

50.7. "Nurse Case Manager" means a duly licensed registered professional nurse authorized by the Commission to coordinate health care and rehabilitative services for injured workers.

50.8. "Pain" refers to a complex unpleasant sensory and emotional experience associated with actual or potential tissue damage or which may just be a subjective experience described in terms of such damage.

50.9. "Pain management specialist" means a licensed physician with specialized training and experience in the diagnosis and/or treatment of chronic pain.

50.10. "Steady dose" refers to the amount and frequency of pain relief medication that is required to maintain optimum pain relief, once the dosage of such medication has become fixed or nearly fixed in amount and frequency.

50.11. "Trigger point injection" means placement of a needle into a myofascial space with or without injection of medication.

General:

50.12. All practitioners who treat chronic pain need to address goals in three major life areas: physical; social; and psychological.

a. Physical goals include: analgesia, early mobility, functional restoration and increased exercise tolerance, strength and range of motion.

b. Social goals include: a positive expectation for recovery from family and support systems; avoiding identification with disabled family prototypes; resistance to the negative reinforcement from interested other parties; and recognition of the deleterious effects of the disability lifestyle.

c. Psychological goals include: dealing with grief and loss over altered function and coping with chronic distress and a changed lifestyle; maintaining a positive attitude toward recovery; focusing motivation; appreciating primary, secondary and tertiary gains; and obtaining diagnosis and treatment for any psychiatric diagnosis.

50.13. Emergency conditions such as Complex Regional Pain Syndrome (Reflex Sympathetic Dystrophy) may require immediate consultation with a pain specialist and initiation of treatment without delay.

50.14. In contusion and sprain/strain cases, and in non-surgical disk cases, claimants who are being considered for injections for the treatment of chronic pain, but who have not had a trial of physical medicine, including exercise and/or manipulation, will be required to be evaluated by a physical medicine practitioner or other independent medical evaluator. The physical medicine practitioner or other evaluator will determine whether a 30-day regimen of physical medicine in conjunction with initiation of chronic pain therapy ~~might~~ is likely to provide full or partial relief prior to initiating a series of injections.

50.15. When chronic pain patients do not respond to initial specialist-directed efforts, a nurse case manager ~~will~~ may be assigned to coordinate the ~~interdisciplinary~~ pain management

effort. The nurse case manager's or other case manager's report will include an assessment as to the benefits of chronic pain management, such as the likelihood that the claimant will be able to return to work. A psychiatric or psychological evaluation must be part of the assessment process. Psychiatric conditions must be evaluated and under treatment as indicated before use of long-term narcotics or implantable devices will be authorized by the Workers' Compensation Commission.

50.16. Claimants who have injuries greater than six (6) months old with continued symptoms, and who are not actively being treated for chronic pain may be eligible for an additional six (6) months further treatment or management of pain, ~~if procedures not previously offered are now available and may provide full or partial pain relief. Such cases require an assessment by a nurse case manager and an interdisciplinary file review before the claim will be reopened for pain management~~ only if an independent medical evaluator selected by the injured worker's treating physician agrees that the recommended treatment, including pain management, is reasonable, necessary, related to the compensable injury, and likely to be successful in substantially reducing the injured worker's symptoms.

Injections:

The following criteria must be met before the Commission will authorize the use of injections by the pain management specialist form the treatment plan:

50.17. The Claim file must document objective physical signs and subjective symptoms which support the use of the proposed procedure.

50.18. When performing a "series" of injections, there must be documentation of measurable physical, psychological or vocational improvement before performing the next injection. Treatment of low back pain requires that a complete Commission back form be in the injured worker's file.

50.19. Active, not passive, physical medicine and home exercises prescribed after documented demonstration to the prescribing provider are to be a part of any injection or procedure-based treatment plan. A report from the provider must be sent to the physician and a copy to the claims manager after every fourth visit. If physical medicine is not recommended, the physician must explain why it is not going to be used. Pain management shall be terminated if the injured worker fails to fully cooperate with the required exercise program.

50.20. If a surgical spine lesion exists that shows no immediate neurologic danger, cervical epidural steroids may be considered prior to surgery. The surgeon and the pain management specialists should work collaboratively in such cases. If epidural injections fail to provide relief or if new neurological deficits develop, surgical, evaluation should be scheduled promptly. The treating physician is responsible for referring any suspected surgical lesion promptly to a surgeon.

50.21. The treatments under each of the following categories are deemed appropriate. The order in which the treatments within each category are listed is not controlling of the treatment plan except as indicated.

Head and Neck Pain:

50.22. Peripheral Nerves, including occipital, greater and lesser, auricular, supraorbital, maxillary branch of V, mandibular branch of V, and others.

~~50.22.1.~~a. Six (6) blocks over three (3) months in office, or in ambulatory clinic if fluoroscopy is required;

~~50.22.2.~~b. Neurolysis/ Denervation by cryotherapy, chemical means, radiofrequency, or surgical intervention if good response not substained.

50.23. Facial Pain Sympathetically maintained

~~50.23.1.~~a. Sphenopalatine ganglion block-six (6) blocks over three (3) months;

b. Stellate ganglion block-six (6) blocks over three (3) months

50.24. Intrathecal Opioids- if all other conservative treatments fail

~~50.24.1.~~a. A trial is required. Refer to specific guidelines.

~~50.24.2.~~b. A second opinion is required before implant.

50.25. Myofascial Pain

~~50.25.1.~~a. Trigger point injections, no more than six (6) points or no more than six (6) occasions in three (3) months. If authorization for trigger point injections are requested more than twice in 1 year or 4 cycles total, the claim ~~will~~ may be assigned a ~~nurs4e~~ nurse case manager. Authorization is at the discretion of the Health Care Advisory Panel or its subpanel(s) after review of the case and focus on the claimant's work record.

~~50.25.2.~~b. Home exercise and physical medicine is required in combination with trigger point injections.

50.26. Cervical Facet Mediated Pain.

~~50.26.1.~~a. No more than 4 injections over six (6) months.

~~50.26.2.~~b. Physical medicine is required in combination with injections.

~~50.26.3.~~c. Neurolysis/ Denervation by cryotherapy, ~~chemical~~ chemical means, radiofrequency or surgical intervention if good response to anesthetic injections not sustained.

50.27. Cervical Radiculopathy

~~50.27.1.~~a. Cervical epidural steroids, no more than four (4) injections in a ~~sic~~ six (6) month period, if surgery in accordance with the appropriate Workers' Compensation treatment guideline is not a medically viable option or if surgery has been attempted and failed to provide relief;

~~50.27.2.~~b. Cervical epidural infusion

~~50.27.3.~~c. If physical medicine alone fails in 30 days, suprascapular nerve block should be considered.

~~50.27.4.~~d. Spinal cord stimulation if other treatments fail. See specific guidelines.

Shoulder And Upper Extremity:

50.28. Adhesive Capsulitis.

~~50.28.1.~~a. Physical medicine alone should be used initially;

~~50.28.2~~b. If physical medicine alone fails, distention by injection or a local nerve block may be performed combined with a follow-up exercise program.

50.29. Subdeltoid Bursitis, Olecranon Bursitis- No more than three (3) injections over six (6) months.

50.30. Epicondyl~~-~~itis - No more than three (3) injections over six (6) months.

50.31. Myofascial Pain

~~50.31.1~~a. Trigger point injections, no more than six (6) points or no more than six (6) occasions in three (3) months;

~~50.31.2~~b. If trigger point injections need to be repeated more than twice in (one) 1 year or for more than four (4) cycles total, a nurse case manager will be assigned to the claim. Authorization is at the discretion of the Commission.

~~50.31.3~~c. Home exercise and physical medicine is required in combination with trigger point injections.

50.32. Phantom pain or stump pain.

~~50.32.1~~a. Stellate ganglion block, up to six (6) times over a three (3) month period;

~~50.32.2~~

b. Cervical epidural catheter with infusion, for not more than four (4) weeks;

~~50.32.3~~c. Spinal cord stimulation per specific guidelines if the above therapies fail.

50.33. Complex regional pain syndrome (reflex sympathetic dystrophy)

~~50.33.1~~a. Referral to specialist made immediately upon diagnosis;

~~50.33.2~~b. Cervical epidural infusion in conjunction with a program of physical medicine therapy no more than four (4) weeks duration;

~~50.33.3~~c. Spinal cord stimulation in accordance with specific guidelines;

d. Stellate ganglion block, up to twelve (12) times during a three (3) month period;

~~50.33.5~~e. Bier block, up to six (6) times over a three (3) month period.

50.34. Peripheral nerve injury

~~50.34.1~~a. Nerve block, up to six (6) times over a three (3) month period;

~~50.34.2~~

b. Bier blocks up to six (6) times over a three (3) month period;

~~50.34.3~~c. Cervical epidural infusion with physical medicine therapy of no more than four (4) weeks duration;

~~50.34.4~~d. Spinal cord stimulation in accordance with specific guidelines.

50.35. Carpal Tunnel Syndrome

~~50.35.1~~a. Nerve block up to six (6) times over a three (3) month period, if surgery in accordance with Commission treatment guideline is not a medically viable option or if surgery has been attempted and failed to provide relief.

50.36. Other Causes of Extremity Pain

~~50.36.1~~a. Treatment on a case by case basis, subject to review by the Commission.

Thoracic and Chest Wall Pain:

50.37. Thoracic Disc Syndrome

~~50.37.1.~~a. Thoracic epidural steroids injection, up to four (4) times over six (6) months, if surgery is not a medically viable option, in the sole discretion of the Commission, or if surgery has been attempted and failed to provide relief.

~~50.37.2.~~b. Thoracic epidural infusion, accompanied by physical medicine if epidural steroids fail.

50.38. Intercostal Neuralgia

~~50.38.1.~~a. Intercostal nerve block with local steroids, up to four (4) times over six (6) months;

~~50.38.2.~~b. Thoracic epidural steroids, up to four (4) times over six (6) months;

~~50.38.3.~~c. Neurolytic intercostal injection if good but nonsustained improvement with steroid injections;

~~50.38.4.~~d. Spinal cord stimulation as per specific guidelines.

50.39. Costochondritis

~~50.39.1.~~a. Injection of joint, up to four (4) times over six (6) months;

~~50.39.2.~~b. Concurrent treatment by physical medicine is required.

Abdominal Pain:

50.40. Traumatic pancreatitis

~~50.40.1.~~a. Celiac plexus blocks, up to six (6) times over six (6) months;

~~50.40.2.~~b. Neurolytic celiac plexus blocks if a good but unsustained response results from celiac plexus blocks with local anesthetic;

~~50.40.3.~~c. Intrathecal ~~opiods~~ opioids. See specific guide-lines.

50.41. Post Hernia Nerve Entrapment-Injection of involved nerve, up to six (6) times over three (3) month period

50.42. Peripheral nerve involvement

~~50.42.1.~~a. Injection of ilioinguinal, genitofemoral, iliohypogastric, or other peripheral nerves, up to six (6) times over (3) months

~~50.42.2.~~b. Spinal cord stimulation in accordance with specific guidelines.

50.43. Pelvic/ Rectal/ Penile/ Vulvar pain

~~50.43.1.~~a. Superior hypogastric plexus block, up to four (4) times over a three (3) month period;

~~50.43.2.~~b. Intrathecal ~~opiods~~ opioids – see specific guidelines

c. Peripheral nerve block as approved by the Commission.

Low back-Lumbar pain:

50.44. Lumbar Facet Joint Syndrome

~~50.44.1.~~a. Injections of facets, up to four (4) times over a six (6) month period, with physical medicine or home exercise. If this needs to be repeated more than twice in a one (1) year or for more than four (4) cycles total, a nurse case manager will be assigned to the claim. Authorization for continued treatment is at the discretion of the Commission.

~~50.44.2.~~b. Neurolysis/ Denervation by cryotherapy, chemical means , radio-frequency, or surgical intervention if complete pain relief following injections is not sustained.

50.45. Sacroilitis

~~50.45.1.~~a. Injection of joint with a local anesthetic and steroid, up to four (4) times over a six (6) month period.

50.46. Piriformis Syndrome

~~50.46.1.~~a. Injection of muscle with a local anesthetic and/or steroid, in conjunction with physical medicine. No more than four (4) injections over a six (6) month period.

50.47. Post Laminectomy Syndrome/ Adhesive Arachnoiditis/ Spinal Stenosis/ Failed Fusion/ Intractable Radiculopathy/ Coccydynia.

~~50.47.1.~~a. Lumbar or caudal epidural steroids, up to four (4) injections over six (6) months.

~~50.47.2.~~b. Spinal cord stimulation as per Commission guidelines;

~~50.47.3.~~c. Intrathecal ~~opiods~~ opioids as per Commission guidelines;

~~50.47.4.~~d. Trigger point injections, no more than six (6) points or no more than six (6) occasions in three (3) months.

50.48. Myofacial pain

~~50.48.1.~~a. Trigger points no more than six (6) points or no more than six (6) occasions in three (3) months.

Lower Extremity:

50.49. Lumbar radiculopathy

~~50.49.1.~~a. Lumbar epidural steroids, up to 4 injections over a 6 month period, in conjunction with physical medicine, if surgery in the opinion of the Commission is not a medically viable option or if surgery has been attempted and failed to provide relief. If this needs to be repeated more than twice in 1 year or 4 cylces , a nurse case manager ~~will~~ may be assigned to the claim. Authorization for continued treatment is at the sole discretion of the Commission.

~~50.49.2.~~b. Documented interval improvement.

~~50.49.3.~~c. Spinal cord stimulation as approved by the Commission.

50.50. Complex Regional Pain Syndrome (Reflex Sympathetic Dystrophy)

~~50.50.1.~~a. Referral to specialist immediately upon diagnosis.

~~50.50.2.~~b. Lumbar sympathetic plexus block, up to 12 times over a 3 month period;

~~50.50.3.~~c. Lumbar epidural infusion with analgesic agents, in conjunction with physical medicine, for up to 4 weeks;

~~50.50.4.~~d. Bier block, up to 6 injections over a 3 month period;

~~50.50.5.~~e. Spinal cord stimulation as approved by the Commission.

50.51. Phantom Limb Pain/ Stump Pain

~~50.51.1.~~a. Lumbar sympathetic plexus block, up to 6 injections over a 3 month period.

~~50.51.2.~~b. Lumbar epidural infusion with analgesic agents, in conjunction with physical medicine therapy, for up to 4 weeks

~~50.51.3.~~c. Spinal cord stimulation as approved by the Commission.

50.52. Peripheral Nerve Injury, including saphenouse, femoral or sciatic nerves

~~50.52.1.~~a. Nerve block, up to 6 injections over a 3 month period;

~~50.52.2.~~b. Bier block, up to 6 injections over a 3 month period;

~~50.52.3.~~c. Lumbar epidural infusion with analgesic agents, in conjunction with physical medicine, for up to 4 weeks;

~~50.52.4.~~d. Spinal cord stimulation as approved by the Commission.

50.53. Greater Trochanteric Bursitis

~~50.53.1.~~a. Up to 3 injections with a local anesthetic and a steroid over a 3 month period.

~~50.54~~50.54. Meralgia Paraesthetica

~~50.54.1.~~a. Injection of lateral femoral cutaneous nerve with a local anesthetic agent, up to 6 injections over a 3 month period.

~~50.55~~50.55. Myofascial Pain

~~50.55.1~~a. Trigger point injections, no more than 6 points or no more than 6 occasions in 3 months.

~~50.56~~50.56. Other Causes Of Extremity Pain

~~50.56.1.~~a. Treatment will be authorized by the Commission, in it's sole discretion, on a case by case basis.

Cancer Pain:

Injury related causality must be established prior to authorization for pain management. A nurse case manager ~~will~~ may be assigned to claims involving treatment of cancer pain. Unlike treatment for other types of pain, intrathecal opioids for treatment of cancer pain will not require psychiatric evaluation or a second opinion.

~~50.57~~50.57. Long-Term ~~Opiod~~ Opioid Use: the use of long-term oral, rectal, or transdermal opioid therapy in the non-malignant injured worker is complex and should only be considered in selected injured workers, including, but not limited to, injured workers with diagnoses of failed back surgery syndrome, Complex Regional Pain Syndrome (Reflex Sympathetic Dystrophy), inoperable spinal lesions and spinal stenosis, or plexopathies. Other ~~diagnosis~~diagnoses will be considered by a case by case basis, but only as a treatment option of

last resort. The following factors are to be addressed in writing in any report recommending the use of long-term opioid therapy:

~~50.57.1.~~a. If low dose opioid therapy has not provided at least partial analgesia, then long-term opioid therapy is not an option.

~~50.57.2.~~b. The goal of long-term opioid therapy is not complete analgesia. The efficacy of long term opioid therapy is measured by improvement in the injured worker's social and physical function.

~~50.57.3.~~c. This therapy should be considered only after all other reasonable attempts at analgesia have failed. Opioid therapy should never be a first line treatment.

~~50.57.4.~~d. A history of substance abuse in the injured worker or his or her family (alcohol or other drugs), even if remote, should be regarded as a relative contraindication.; ~~if~~If a history of substance abuse is obtained and the choice to long-term, opioid therapy is made despite such history, an appropriate consultation and plan to prevent relapse must be in ~~palce~~place before prescribing of opioids.

~~50.57.5.~~e. Pregnant injured workers are not candidates for long-term opioid therapy. Female injured workers of child-bearing age are to be advised of the risks to a fetus should pregnancy occur during opioid therapy.

~~50.58~~50.58. If the decision is made to initiate long-term opioid therapy, the following must be part of the program:

~~50.58.1~~a. Psychiatric – A psychiatric evaluation of the injured worker for psychiatric disorders and potential for substance abuse must precede the decision to carry out long-term opioid therapy, and a copy of the evaluation must be submitted with the request to initiate opioid therapy.

~~50.58.2~~b. A written contract between the injured worker and the pain management specialist must be established at the onset of the long-term drug therapy. The injured worker must agree that (1) a single practitioner will be responsible for prescribing all medication for pain control; (2) the injured worker will not obtain prescriptions from providers other than the pain management specialist; (3) after an initial six month period of initial dose titration, only one dose escalation per three month period will be allowed; and (4) the injured worker will not consume alcohol or other medications except as approved by the pain management specialist. Any material violation discovered may cause immediate drug tapering and discontinuation of opioid maintenance therapy.

~~50.58.3~~c. Initial long-term opioid therapy must be prescribed by a pain management specialist; once therapy has reached the "steady dose" level, the attending physician *may* resume medical management;

~~50.58.4~~d. The injured worker will be monitored by a nurse case manager during the period when a "steady dose" is being established; the pain management specialist or the attending physician must reevaluate the injured worker every 60-90 days after the "steady dose" has been reached.

~~50.58.5~~e. Injured workers must give informed consent before long-term opioid therapy is initiated; consent must include recognition of the risks of psychological dependence, cognitive impairment and long-term physical side-effects.

~~50.58.6~~f. In order for long-term opioid therapy to continue, there must be documentation of improvement in the social and physical functions, as assessed and documented through home visits by a nurse case manager, written documentation must be provided to the attending physician and pain management specialist. Specific assessment tools must be used such as interview of significant others, pain drawing comparisons, quality of life and social functioning checklist comparisons.

~~50.58.7~~g. Reassessment by a pain management specialist selected by the Commission will be done annually for injured workers maintained on opioids.

~~50.58.8~~h. Every ~~3 years~~year, ~~a multidisciplinary team at~~ the Commission~~, or designated by the Commission,~~ must review the treatment plant to determine the appropriateness of care. The Commission ~~or designated team~~ may call for more frequent review if the use of narcotic medication increases.

~~50.58.9~~i. Evidence of acquisition of opioids from other physicians or persons, uncontrolled increases in ~~does~~dose requirements, drug hoarding, abuse of alcohol or other drugs, conviction of a crime related to drug possession or trafficking, or other behaviors in violation of the narcotic contract should be followed by immediate drug tapering and discontinuation of opioid maintenance therapy.

~~50.59~~50.59. Implantable Devices: Use of intrathecal pumps and spinal cord stimulators will only be authorized when other treatments of extremity, back or neck pain, such as pharmacological, physical, or psychological therapy, have failed.

~~50.59.1~~a. The procedure is undertaken only after physical and psychiatric or psychological screening. Psychological or~~A~~ psychiatric clearance will be performed ~~prior to implant,~~ to rule out any untreated psychiatric or behavioral problems and to enhance the efficacy of the device.

~~50.59.2~~b. In the absence of a documented physiological problem, authorization for implantable pain control devices is at the discretion of the Commission.

~~50.59.3~~c. An untreated substance abuse problem prior to implementation of the proposed device will be sufficient reason to deny the request for the implantable device, notwithstanding other physical or psychological criteria.

~~50.59.4~~d. An implantable device will not be authorized until a second opinion is given by a physician with credentials to ~~inplant~~implant similar devices. The second opinion may be based upon a review of the injured worker's file, or by an independent medical evaluation; either evaluation must be documented in writing. The referral of the injured worker or claim file for the second opinion must be arranged through the Office of Medical ~~Services~~ Management.

~~50.60~~50.60. Procedure Guides for Implantable Devices.

~~50.60.1~~a. Implementation of devices will be authorized only at facilities which meet the following criteria: (1) a physician trained in residency of by the "hands-on" continuing medical training will perform the procedure; (2) all technical support, computers, and ancillary personnel, and a "stand-by" surgical specialist deemed necessary for the specific case must be in place before the procedure begins.~~;~~

~~50.60.2~~b. The implanting physician will be responsible for all management of the implantable device until such time that another physician ~~credentialled~~ credentialed in the management of like devices accepts the injured worker.

~~50.60.3~~c. The necessary "in-home" support must be authorized by the Commission and scheduled prior to implantation of the ~~devise~~ device.

~~50.60.4~~d. Both intrathecal pumps and dorsal column stimulators must have a successful trial period before the permanent device is placed. The trial period for the pump will be no less than two days. The trial period for the stimulator will be no less that three days as an outpatient. There must be at least a 50% reduction~~improvement~~ in ~~objective and~~ subjective pain rating and objective improvement in ability to engage in functional activities~~findings demonstrated prior to permanent implantation~~.

~~50.61~~50.61. Contraindications for Implantable Devices: The following are contraindications for an implantation:

~~50.61.1~~a. Allergies or hypersensitivity to the drug being used;

~~50.61.2~~b. Life expectancy of less that three (3) months;

~~50.61.3~~c. Body size is insufficient to support weight and bulk of the device;

~~50.61.4~~d. Less than 50% relief is seen with trial stimulation or intrathecal device;

~~50.61.5~~e. The injured worker does not perceive the trial implantation as pleasant, or side effects are intolerable;

~~50.61.6~~f. The ~~Injured~~ injured worker has an active coagulopathy;

~~50.61.7~~g. The injured worker has a localized or disseminated infection;

~~50.61.8~~h. The injured worker has a demand cardiac pacer or may need one relatively soon (for stimulator only);

~~50.61.9~~i. The injured worker has an untreated substance abuse problem;

~~50.61.10~~j. ~~No~~A significant psychological or behavioral contraindication~~problem~~ has been identified;

k. The physician requesting the procedure is not adequately trained or experienced in the procedure;

~~50.61.12~~l. Appropriate surgical coverage necessary to handle any complications is not available before beginning the procedure~~;~~.

50.62. Myeloscopy in Chronic Pain Management – Myeloscopy procedures are to be reviewed on a case by case basis by the Office Medical ~~Services~~ Management before authorization can be considered.

§85-20-51. Treatment Guidelines: Complex Regional Pain Syndrome

51.1. Background: Complex regional pain syndrome (CRPS) is a descriptive term encompassing a variety of painful conditions following injury, which appear regionally and have a distal predominance of abnormal physical examination findings. This painful condition typically follows a traumatic injury or noxious event to an extremity, with a disproportionate response respective to the original insult. Medical conditions including stroke and myocardial infarction may also be precipitating factors. The pain pattern is not limited to the distribution of a single peripheral nerve, and physical findings include edema, alterations in skin blood flow, abnormal sudomotor activity in the region of pain, allodynia or hyperalgesia. Treatment for CRPS is only compensable if directly caused by an injury received in the course of and resulting from employment.

51.2. CRPS Type I (Reflex Sympathetic Dystrophy).

a. Type 1 CRPS is a syndrome that may develops after an initiating noxious event.

b. Spontaneous pain or allodynia/hyperalgesia occurs, but is not limited to the territory of a single peripheral nerve and is disproportionate to the inciting event.

c. There is or has been evidence of edema, skin blood flow abnormality, or abnormal sudomotor activity in the region of the pain since the inciting event.

d. The diagnosis is excluded by the existence of conditions that would otherwise account for the degree of pain and dysfunction.

51.3. CRPS Type II (Causalgia).

a. Type II CRPS is a syndrome that develops after a nerve injury. Spontaneous pain or allodynia/hyperalgesia occurs and is not necessarily limited to the territory of the injured nerve.

b. There is or has been evidence of edema, skin blood flow abnormality, or abnormal sudomotor activity in the region of the pain since the inciting event.

c. The diagnosis is excluded by the existence of conditions that would otherwise account for the degree of pain and dysfunction.

51.4. Diagnostic Criteria:

a. History of a noxious event or cause of immobilization.

b. Continued pain, allodynia or hyperalgesia out of proportion to the injury.

c. Physical evidence of edema, trophic skin changes, hair loss, alterations in skin blood flow or abnormal sudomotor activity in the region of pain.

d. The diagnosis is excluded by the existence of conditions that otherwise account for the degree of pain and dysfunction.

51.5. Diagnostic Studies.

a. Surface temperature measurements indicating at least 1 degree Celsius asymmetry between the normal and injured sides. The existence of a skin temperature differential may vary, and repeated measurements are helpful. The injured side may be warmer or cooler.

b. A three-phase radionuclide bone scan may assist in diagnosis. A normal study does not exclude this diagnosis, however.

c. Radiographic studies of the injured extremity may show patchy demineralization in some cases.

51.6. Treatment: Treatment for <u>compensable</u> complex regional pain syndrome type 1 (reflex sympathetic dystrophy) should be directed at providing pain control in an effort to promote participation in a directed physical and/or occupational therapy program to restore use and function of the injured extremity. Treatment options include:

~~a.~~a. Pharmacologic Agents.

1. Nonsteroidal anti-inflammatory drugs.

2. Tricyclic antidepressants.

3. Anticonvulsants.

4. Oral opioids.

5. Oral steroids.

~~b.~~b. Physical Modalities.

1. Range of motion exercises (passive, active assisted, active).

2. Weight-bearing exercises.

3. Edema-control garments (stocking or glove).

~~c.~~c. Injection Techniques.

1. Somatic and sympathetic nerve blocks.

~~d.~~d. Surgical Sympathectomy. Surgical sympathectomy is rarely considered effective in resolution of complex regional pain syndromes. These syndromes, including causalgia and reflex sympathetic dystrophy, are related to receptor supersensitivity, and are not caused by over-activity of the sympathetic nervous system. Most patients undergoing a surgical sympathectomy obtain only transient improvement in pain levels, and may suffer serious or disabling complications from the surgery.

51.7. The assistance of a pain management psychologist or psychiatrist may be helpful in providing motivational support, assessing and treating co-existing conditions such as depression, and may aid in the establishment of realistic treatment goals and objectives.

51.8. This condition may be appropriate for treatment in a multidisciplinary program.

§85-1-52. Procedure in Occupational ~~Pneumoconosis~~ Pneumoconiosis Cases.

52.1. A properly completed application must be received before the potential claim will be considered by the Commission. A properly completed application must include 1) a completed WC-105 form; 2) a completed WC-205 form; 3) an ILO form properly completed by a certified "B" reader; ~~4) a valid pulmonary function study complying with the requirements of this Rule demonstrating permanent pulmonary impairment;~~ and ~~5~~4) a listing of all alleged exposures to harmful dust, including type of dust, and extent and duration of exposure with each named employer.

52.2. If the employer ~~provides information as part of the application process demonstrating that it has been in compliance with OSHA~~ and/or MSHA ~~limitations on exposure~~

~~to the dust alleged by the injured worker, during the periods of exposure alleged by the injured worker, then the Commission shall determine that the dust exposure alleged by the injured worker was not harmful and does not suffice to satisfy the exposure requirement of West Virginia Code Sections 23-4-1(b) and 23-4-15(b).~~submits credible evidence as part of the application process demonstrating that it has been in compliance with OSHA and/or MSHA permissible exposure levels for the dust alleged by the injured worker, then the Commission shall determine that the dust exposure alleged by the injured worker was not harmful and does not suffice to satisfy the exposure requirement of West Virginia Code Sections 23-4-1(b) and 23-4-15(b) for the period(s) covered by the testing. Periods for which employees can demonstrate by credible evidence that the employer's dust level testing does not accurately reflect changed conditions in the work place may be included by the Commission in the period of dust exposure which the claimant has alleged to be harmful.

52.3. Nonmedical hearing.

Upon receipt of a proper application, employer's reports and investigation (if requested by the Commission), the Commission shall determine the nonmedical questions, and shall notify all interested parties of ~~his~~the decision. A properly completed application must be filed or the application shall be rejected. ~~After~~After the Commission makes or has made a determination, any dissatisfied party may, within thirty (30) days after receipt of written notice of the Commission's decision, file objection thereto in writing, whereupon the Office of Judges will set a time and place for a hearing thereon. These hearings shall be subject to the provisions of the rules promulgated by the Office of Judges (Title 93, Series 1).

Upon completion of the nonmedical hearing, the Office of Judges will enter a final nonmedical ruling and shall notify the injured worker and employer of this decision. The Office of Judge's final nonmedical ruling will be subject to appeal to the Workers' Compensation ~~Appeal~~ Board of Review.

52.4. Occupational pneumoconiosis board hearing.

Following issuance by the Commission of a ruling on the nonmedical issues, ~~Subject to and upon the completion of, the protest and/or appellate review of the Commission's initial nonmedical order,~~ the Commission shall refer this claim to the Occupational Pneumoconiosis Board: Provided That, the requirements of West Virginia Code section fifteen-b, article four, chapter twenty-three have been satisfied. In the case of such reference, the Commission will notify the injured worker to appear before the Board for an examination and shall state the date, time, and location thereof. The Commission will notify the employer or employers of the date, time and place of the examination. A quorum of the Board will then proceed to hear and determine all medical questions relating to the claim.

At such hearing the injured worker and each employer must produce as evidence all reports of medical and X ray examinations that may be in their respective possession or control showing the past or present condition of the employee.

52.5. Report of Occupational Pneumoconiosis Board.

Upon completion of the hearing the participating members of the Occupational Pneumoconiosis Board shall prepare a written report to the Commission setting forth their findings and decision, and shall prepare a sufficient number of signed copies of report so that the Commission may file one in his office, send one to the injured worker and one to each employer interested in the claim.

52.6. Objections.

Any interested party who objects, in whole or in part, to the findings and conclusions of the Board may, within the statutory period after the mailing to him of the copy of the report, or within such additional time as may be allowed by the Commission for good cause shown, file with the Commission his written objections, specifying the particular statements of the Board's findings and conclusions to which ~~he~~the party objects. Upon receipt of such objection, the Commission shall set a time and place for a hearing thereon and shall notify each interested party and each member of the Board of the time and place of the hearing.

52.7. Hearings on protest.

Hearings held upon protest to the findings of the Occupational Pneumoconiosis Board will be held at the offices of the Commission in Charleston unless the Commission shall otherwise direct. The procedure in protest hearings shall be governed by the provisions of Section 16 of these Rules, except that evidence shall be limited to medical testimony and other competent medical evidence, unless the Board has passed upon non-medical aspects under the Commission's referral. Cross-examination of the Board shall be limited to those members who examined the injured worker. However, if the Commission, or ~~his~~a duly authorized representative, decides that testimony of other members of the Board is necessary or desirable, ~~he~~the Commission may permit such testimony at the protest hearing.

52.8. Employer's Request For Medical Examination.

An employer's request for medical examination of the injured worker by a physician of its choice, shall be rejected if filed before the findings of the Occupational Pneumoconiosis Board have been transmitted to the injured worker and the employer. Such requests shall be entertained only when filed subsequent to the transmittal of the Occupational Pneumoconiosis Board findings.

52.9. Standards for medical examination.

a. The following standards specify examination and evaluation criteria to guide the Occupational Pneumoconiosis Board in its examination and evaluation of injured workers, and to guide other physicians and medical technicians who conduct examinations and evaluations of injured workers on behalf of such injured workers and their employers. These standards are established for the further purpose of ensuring that uniform procedures are used in administering and interpreting ventilatory function tests and arterial blood gas studies and that the best available medical evidence will be obtained in support of a claim for occupational

pneumoconiosis benefits. The physician supervising any such testing and/or the technician administering any such testing will so indicate by signing the reports. Any report of test results submitted to the Occupational Pneumoconiosis Board must affirmatively state, as to each of the standards individually, the fact that the particular test or study was performed in compliance with that standard. In the event that any such report fails to affirmatively show compliance with these standards, the Occupational Pneumoconiosis Board may disregard all or any part of such test or study or give such test or study such weight as the Board believes it deserves.

b. When two (2) or more ventilatory function tests performed in reasonably close proximity in time produce differing but acceptable results, the Commission, at the request of the Occupational Pneumoconiosis Board, may direct the parties to furnish additional evidence and/or order additional testing at the laboratory utilized by the Occupational Pneumoconiosis Board or other laboratories, all for the purpose of determining whether any of the results are unreliable or incorrect or are clearly attributable to some identifiable disease or illness other than occupational pneumoconiosis.

c. When blood gas studies are performed and abnormal values are obtained and thereafter new blood gas studies are performed and normal or significantly higher values are further obtained, the Commission, at the request of the Occupational Pneumoconiosis Board, may direct the parties to furnish additional evidence and/or order additional studies at the laboratory utilized by the Occupational Pneumoconiosis Board or other laboratories, all for the purpose of determining whether any of the values are unreliable or incorrect or are clearly attributable to some identifiable disease or illness other than occupational pneumoconiosis.

d. As used herein, the following terms shall have the meanings indicated:

1. FVC -forced vital capacity -- Volume of air that can be forcefully exhaled from the lungs after a maximal inspiration.

~~2. FEV -forced expiratory volume -- Same as FVC.~~

2~~3~~. FEV_1 -forced expiratory volume in one (1) second -- Volume of air that can be exhaled forcefully from the lungs in one (1) second after a maximal inspiration.

4~~3~~.- FEV_3 -forced expiratory volume in three seconds -- Volume of air that can be exhaled forcefully from the lungs in three (3) seconds after a maximal inspiration.

5~~4~~. FEV_1FEV -forced expiratory volume (timed) to forced expiratory volume. -- A ratio expressed as a percentage.

6~~5~~. MVV -maximal voluntary ventilation -- The volume of air that can be exchanged over a unit period of time, usually performed for twelve (12) to fifteen (15) seconds and converted to liters per minute.

7~~6~~. BTPS -- Body temperature, ambient pressure, saturated with water.

87. Kpm -kilopond meter -- The amount of work required to lift one (1) kilogram one (1) meter.

98. NIOSH -- National Institute for Occupational Safety and Health.

109. BOARD -- West Virginia Occupational Pneumoconiosis Board.

10. NBRC – National Board for Respiratory Care

11. CPFT – Certified Pulmonary Function Technician

12. RPFT – registered Pulmonary Function technologist

13. Raw – Airway resistance

14. DLCO – Carbon monoxide diffusing capacity of the lungs

15. DL/VA – Carbon monoxide diffusing capacity per unit of alveolar volume

16. VA – Alveolar volume (single breath equivalent to TLC)

17. TLC – Total Lung Capacity (measured by plethysmograph, Nitrogen washout, or helium dilution.

e. -Ventilatory function tests.

1. Instruments to be used for the administration of ventilatory function tests should conform to the following criteria:

A. The instrument must be accurate within plus (+) fifty (50) ml or within plus (+) three percent (3%) of reading, whichever is greater.

B. The instrument must be capable of measuring vital capacity from zero (0) to seven (7) liters BTPS.

C. The instrument must have a low inertia and offer low resistance to airflow such that the resistance to airflow at twelve (12) liters per second must be less than 1.5 cm H_20/liter/second.

D. The zero time point for the purpose of timing the FEV_1 must be determined by extrapolating the steepest portion of volume-time curve back to the maximal inspiration volume or by an equivalent method.

E. Instruments incorporating measurements of airflow to determine volume must conform to the same volume accuracy stated in Subdivision ~~20.8(e)(1)(A)~~52.9.e.1.A of this regulation when present with flow rates from at least zero (0) to twelve (12) liters per second.

F. The instrument or user of the instrument must correct volumes to body temperature saturated with water vapor (BTPS) under conditions of varying ambient spirometer temperatures and barometric pressures.

G. The instrument used must provide ~~attracing~~ tracings of volume versus time during the entire forced expiration. ~~either flow versus volume or volume versus time during the entire forced expiration and volume versus time during the MVV Maneuver.~~ Flow versus volume tracings may be added. If MVV maneuver is performed, the volume versus time tracings must also be provided. Such tracing must be furnished to the Board with the test results. ~~No results will be considered by the Board unless they are accompanied by the corresponding tracings.~~Volume Scale: When a volume – time curve is plotted or displayed, the volume scale must be at least: 10 mm/L (BTPS). Time scale: at least 10 mm/S. No results will be considered by the Board unless they are accompanied by the corresponding (minimum 3) tracings. Tracings are ~~A tracing is necessary~~ to determine whether the subject has performed the test properly. The tracing must be of sufficient size that hand measurements may be made within the requirement of paragraph 1A above~~Subdivision 20.8(e)(1)(A) of this regulation~~.

H. The instrument must be capable of accumulating volume for a minimum of ten (10) seconds after the onset of exhalation.

I. The forced expiratory volume in one (1) second (FEV_1 measurement must comply with the accuracy requirements stated in ~~Subdivision 20.8(e)(1)~~Subdivision 52.9.e.1 of these Regulations; that is, the FEV_1 must be accurately measured to within plus (+) fifty (50) ml or within plus (+) three percent (3%) of reading, whichever is greater.

J. The instrument must be capable of being calibrated in the field with respect to the ~~FEV1~~ FVC and time scales. This calibration of the ~~FEV1~~ FVC may be done either directly or indirectly through volume and time base measurements. The volume calibration source must provide a volume displacement of at least three (3) liters and must be accurate to within plus (+) thirty (30) ml.

K. For measuring maximum voluntary ventilation (MVV), the instrument must have a response which is flat within plus (+) ten percent (10%) at flow rates up to twelve (12) liters per second over the volume range. The time for exhaled volume integration or recording must be no less than twelve (12) seconds and no more than fifteen (15) seconds. The in-dicated time must be accurate to within plus (+) three percent (3%). A recording of the spirometer tracing is required, and the volume sensitivity must be such than ten (10) mm or more deflection corresponds to one (1) liter volume.

2. The administration of ventilatory function tests must conform to the following criteria: For ascertainment of the FEV_1 and FVC, a nose clip or alternative ~~should~~ must be used. The procedures must be explained in simple terms to the subject who shall be instructed to loosen any tight clothing and sit or stand in front of the apparatus. Although the subject may sit or stand, care should be taken on repeat testing that the same position is used. Sitting position will be considered the preferred method although standing may be utilized for obese patients and notations made as to the position. Particular attention must be given to insure that the subject's chin is slightly elevated with the neck slightly extended. The subject must be instructed to make a full inspiration, either from the spirometer or the open atmosphere, and then blow into the apparatus, without interruption, as hard, fast, and completely as possible.

At least three (3) forced expirations must be carried out. During the maneuvers, the subject must be observed for compliance with instructions. The expirations must be checked visually for reproducibility by examining the flow-volume or volume-time tracings. The effort shall be judged unacceptable and cannot be considered in evaluating pulmonary functional impairment when the subject:

A. ~~Has not reached full inspiration preceding the forced expiration; or~~The largest and second largest FVC are not within 7% of each other; or

B. ~~Has not used maximal effort during the entire forced expiration~~The largest and second largest FEV_1 are not within 7% of each other; or

C. Has not continued the expiration for at least six ~~(5)~~(6) seconds or until an obvious plateau in the volume-time curve has occurred. Exceptions: Young adults and patients with restrictive defects tend to plateau early. Reduced FVC with a normal or high FEV_1/FVC ration is suggestive of restriction, although measurement of TLC is required to confirm restriction,; or

D. ~~Has an obstructed mouthpiece or a leak around the mouthpiece (obstruction due to tongue being placed in front of mouthpiece, false teeth falling in front of mouthpiece, etc.)~~ Tracings indicate cough prior to the FEV_1 measurement; or

E. ~~Has coughed or closed his glottis~~Early termination of flow (glottis closure); or

F. Has an unsatisfactory start of expiration, one characterized by excessive hesitation (or false starts), and therefore did not allow back extrapolation of time zero (0) (extrapolated volume on the volume-time tracing must be less than ten percent (10%) of the FVC); or

G. Has an excessive variability between the three (3) ~~satisfactory~~ acceptable curves. The variation between the two (2) largest ~~FEV_1's~~FVCs ~~of the three (3)~~ and the two (2) largest FEV_1s ~~satisfactory tracings~~ should not exceed seven percent (7%) or 100 ml, whichever is greater~~of the largest FEV1 or one hundred (100) ml, whichever is greater~~.

H. Predicted values are derived from Kory's Nomogram (1961).

3. For ascertainment of the MVV, the subject must be instructed before beginning the test that he or she will be asked to breathe as deeply and as rapidly as possible for approximately ~~fifteen (15)~~ twelve (12) seconds. Sitting position will be considered the preferred method although standing may be utilized for obese patients and notations made as to the position. Care shall be taken on repeated testing that the same position is used. The test may be performed with the subject in either a sitting or standing position. Care shall be taken on repeat testing that the same position is used. The subject should breathe normally into the mouthpiece of the apparatus for ten (10) to fifteen (15) seconds to become accustomed to the system. The subject should then be instructed to breathe as deeply and as rapidly as possible and shall be continually encouraged during the remainder of the maneuver. The subject shall continue the maneuver for twelve (12) seconds. ~~The subject should be allowed to rest between maneuvers. At least three (3) MVV's must be observed to determine if there was compliance with instructions.~~ Only one (1) MVV maneuver is necessary. The effort must be judged unacceptable and cannot be considered in evaluating pulmonary functional impairment when the patient:

A. Has not maintained consistent effort for at least twelve (12) to fifteen (15) seconds; or

B. Has coughed or closed his glottis; or

C. Has an obstructed mouthpiece or a leak around the mouthpiece (obstruction due to tongue being placed in front of mouthpiece, false teeth falling in front of mouthpiece, etc.); or

D. Has an excessive variability between the three (3) satisfactory curves. The variation between the three (3) satisfactory tracings must not exceed ten percent (10%) and should approximate forty (40) times the greatest FEV_1 ~~(1) (s~~ volume.

4. A calibration check must be performed on the instrument each day before use, using a volume source of at least three (3) liters, accurate to within +one percent (1%) of full scale. The room air in the syringe must be introduced into the spirometer once with a flow rate of approximately five tenths (5/10) liters per second (six (6) seconds emptying time with a three (3) liter syringe) and once with a higher flow rate of approximately three (3) liters per second (one (1) second emptying time with a three (3) liter syringe). The volume measured by the spirometer must be between two and nine tenths (2.90) and three and one tenth (3.10) liters for both trials. Accuracy of the time measurement used in determining the FEV_1 must be checked using the manufacturer's stated procedure and must be within +three percent (3%) of actual. The procedure described herein must be performed as well as any other procedures suggested by the manufacturer of the spirometer being used.

5. The first step in evaluating a spirogram for the ~~FEV~~FVC and FEV_1 shall be to determine whether or not the subject has performed the test properly or as

described in Subdivision ~~20.8.5.(b)(FEV)~~52.9.e.2 of this regulation and the forced expiratory volume.~~, Subdivision 20.8.5.(a)(1) of this regulation.~~ From the three (3) satisfactory tracings, the forced vital capacity (FVC) and the forced expiratory volume in one (1) second (FEV_1) must be measured and recorded. The largest FVC and the largest ~~observed~~ FEV_1 must be used in the analysis, corrected to BTPS.

6. Only MVV maneuvers which demonstrate consistent effort for at least twelve (12) seconds shall be considered acceptable. The largest accumulated volume for a twelve (12) second period corrected to BTPS and multiplied by five (5) shall be reported as the MVV.

f. Single Breath Carbon Monoxide Diffusion Capacity

1. For ascertainment of the Single Breath DLCO, the subject must be instructed before beginning the test that he or she will be asked to breath normally through the system for a number of breaths to achieve stable tidal breathing, then exhale to the level of residual volume (RV). At that point, the patient will be instructed to inhale quickly to the level of Total Lung Capacity (TLC) and hold their breath for approximately 10 seconds, then exhale for sample collection in the instruction of the technician administering the test.

2. Single breath carbon monoxide diffusion capacity tests are performed using the Jones-Meade method of measurement.

3. Predicted values are derived from Crapo (1981) nomogram.

4. Total Hemoglobin and Carboxyhemoglobin are to be reported. Subjects with anemia will have results corrected to hemoglobin of 14.6 (males) and 13.4 (females).

5. IVCs from each acceptable maneuver shall be reported.

6. Reports will include DLCO, Alveolar Volume (VA) and DL/VA.

7. At least two (2) maneuvers are to be carried out. During the maneuvers, the subject must be observed for compliance of instructions. The effort(s) shall be judged unacceptable and cannot be considered in evaluating pulmonary function impairment when the subject:

~~a.~~A. IVCs do not achieve 90% of previously measured vital capacity.

~~b.~~B. Actual DLCO measurements are not within 3 ml or 10% whichever is larger.

~~c.~~C. IVCx (SVCs) are not reported for each acceptable maneuver.

~~d.~~D. Inspiratory time exceeds 2.5 seconds.

~~e.~~E. Breath hold time is less than 9 seconds or exceeds 11 seconds.

~~f.~~F. Sample is not obtained within 4 seconds after breath hold.

~~g.~~G. Carboxyhemoglobin is not reported or value is 3.1% or higher.

g. AIRWAY RESISTANCE (Raw)

1. Airway resistance measurement will be measured using a body plethysmograph. For ascertainment of the Raw, the subject must be instructed before beginning the test that he or she will, after being sealed in the plethysmograph, be asked to breath normally while temperature equilibration occurs and then to hold cheeks with hands and gently pant while open and close shutter measurements are taken.

~~f~~h. Arterial blood gas studies.

1. In order to ensure comparability of data obtained in arterial blood studies, the following guidelines should be observed:

A. The puncture site should be infiltrated with a local anesthetic to minimize pain and arterial spasm.

B. The barrel of the syringe used to draw the blood sample should contain a coating of lithium heparin. If wetted syringes are used, the ~~be wetted with heparin and the~~ excess heparin must be expelled just prior to obtaining the blood sample.

C. The subject should be allowed to rest while breathing room air for fifteen (15) minutes prior to drawing the sample ~~beginning the study~~.

D. Resting blood samples should be drawn with the subject in the sitting position. If supine position is necessary, a notation is to be made on the report.

E. On occasions when the subject is unable to be exercised due to physical impairments; i.e., heart disease, artificial leg, etc., a resting sample of arterial blood may be drawn by direct puncture with a twenty-twenty-five (20-25) gauge needle and a heparinized syringe.

F. Blood samples must be discarded if contaminated by an air bubble.

G. All blood samples should be analyzed immediately (less than ten (10) minutes). If not, the sample should be placed in ice water slush for up to 1 hour. ~~iced in water.~~ If the analysis is not performed within ten (10) minutes, the metabolic activity of the cells in the blood will cause the pO_2 to fall and the pCO_2 to rise.

H. If an exercise sample is to be obtained, a plastic catheter ~~must~~ may be inserted into the radial or brachial artery for both the resting as well as the exercise sample. Single stick exercise samples may also be obtained if drawn during the last 30 seconds of exercise. Any variation should be so noted.

I. Exercise must be accomplished by having the subject pedal the bicycle ergometer at a rate of fifty (50)-sixty (60) revolutions per minute against a resistance of seventy-five (75) Watts or four hundred fifty (450) Kilopond Meters (Kpm) per minute for a period of five (5) minutes. A treadmill may be used, and when used, exercise must be done at two (2) mph and ten percent (10%) grade. During the last twenty (20) seconds of the fifth minute of exercise, the exercise sample must be drawn into a heparinized syringe and the pulse and respiration rates noted. If an added level of exercise is performed, this must be done at one hundred twenty (120) Watts on the bicycle, or on the treadmill at two and five tenths (2 5/10) mph and twelve percent (12%) grade. Exercise testing beyond the level set forth herein shall be considered to be measurements of physical conditioning rather than of blood gas transfer abnormalities due to occupational pneumoconiosis. The EKG leads are then removed and the subject allowed to sit on a chair while the catheter is removed. Pressure must be held at the site of arterial cannulation for five (5) minutes, and if there is no bleeding or hematoma present, a compression bandage must be placed on the radial artery. This bandage must be left in place for four (4) hours. After about fifteen (15) minutes of observation, the subject will be allowed to leave. The arterial blood sample should be drawn while exercise continues, not following cessation of exercise.

J. EKG monitoring with a single lead should take place during exercise to determine the heart rate. It should be noted that this is not an EKG Stress Test.

K. The report should indicate the place, date and time of the study, altitude of the testing site and barometric pressure at the testing site on the day of the testing, name and claim number of the subject, name of any assisting personnel, name and signature of the supervising physician, duration and type of exercise (if performed), pulse rate and respiration at the time the blood sample was drawn, and whether analysis equipment was calibrated before each test.

2. It is recognized that arterial blood gas studies done in laboratories throughout this state are obtained at different altitudes. Only by "Standardizing" for altitude can an equitable assessment be made of impairment when values of arterial oxygen are being measured at remarkably different altitudes. Therefore, the results reported from laboratories should include the name of the laboratory and the date and time of the testing, altitude of the laboratory and barometric pressure at the laboratory on the day the samples were collected. The Occupational Pneumoconiosis Board will evaluate the arterial blood gas values

by converting those values to the average altitude of Charleston, West Virginia. For this purpose, it shall be sufficient to add one (1) mmHg to each arterial oxygen tension for each three hundred (300) feet or fraction thereof that the testing laboratory is located above the average altitude of Charleston, because the relationship of barometric pressure (altitude) and alveolar oxygen is approximately linear up to four thousand (4,000) feet as long as the subject breathes room air.

As an example, Bluefield is located approximately two thousand six hundred (2,600) feet above sea level. Charleston is approximately six hundred (600) feet above sea level. Thus, arterial oxygen values obtained in Bluefield should have 6.67 mmHg added to them before applying the table to them to obtain "percent impairment". The calculations are as follows:

"Bluefield (2,600') minus Charleston (600') equals 2,000' differential

2,000' divided by 300' altitude equals 6.67

6.67 multiplied by 1 mmHg per 300' altitude equals 6.67 mmHg"

~~g~~i. See the attached Table 85-20A, "Impairment of Pulmonary Function."

52.10 Treatment Issues

The following services may be provided without prior authorization if carried out under the standards referenced and if the service is documented as to its medical necessity.

1. **MEDICAL VISITS:** Office visits will be considered for payment according to the following schedule based on the FEV_1/FVC ratio or upon percent of disability award (where there is a conflict, FEV_1 will be the controlling factor):

FEV_1/FVC*	WCF % OP AWARD	LEVEL OF IMPAIRMENT	MEDICAL VISITS
70-74%	10-15%	I	One intermediate visit per year.
61-69%	20-30%	II	One comprehensive or extended visit per year for medically necessary pulmonary follow-up care.
60% or less	40%>	III	One comprehensive or extended visit per year. Up to four limited visits per year for medically necessary pulmonary follow-up care.

*Based on Actual Results rather than Nomograms.

2. **TESTING**: The testing referenced below will only be considered for payment when the medical necessity is documented by the treating physician. Equivalent testing performed in conjunction with the claimant's examination by the OP board shall be considered

toward satisfaction of the limits herein referenced. This testing, with the exception of chest X-rays, is not applicable to claimants with Zero Level of Impairment.

a) Spirometry: Annually in conjunction with a comprehensive, extended or intermediate office visit. This testing must be performed in compliance with the standards outlined in the Commission rules and regulations.

b) Single Breath Diffusion Study: Once for all eligible claimants. Repeat every two years if less than 60% of predicted. Repeat every four years if 60% of predicted or greater.

c) Chest X-Ray: Normal – every four years maximum. Positive reading for OP – every two years maximum.

d) Blood Tests: Theophylline level annually for claimants taking theophylline medication. Additional theophylline testing will be considered when necessary to monitor and stabilize the blood levels during the first year of ingestion.
Complete blood count and Chemistry – 12 every four years for claimants in Level II.
Complete blood count and Chemistry – 12 annually for claimants in Level III.
This testing is not authorized for claimants in Levels 0 and I.

3. **MEDICATIONS:** The following will be considered for payment prescribed for an acute or chronic condition or problem caused or exacerbated by OP and when such has been documented by the treating physician.

- All above 15% PPD –

a) Bronchodilators for claimants with a 15% or greater improvement in FEV_1 or FVC on a current post bronchodilator study.

b) Other medications on the Medicaid formulary including antibiotics, steroids and diuretics when required for treatment of pulmonary conditions related to OP for up to 14 days of treatment. Longer treatment may be authorized but will require prior authorization based upon a statement of medical necessity from the treating physician and appropriate prescribing practices.

c) Expectorants or mucolytics will not be approved.

d) Pneumococcal vaccine once and annual flu vaccine for all eligible claimants where the physician certifies that the vaccine is consistent with national guidelines of immunization practices regarding health status and age of the patient.

e) Cardiac medications may be authorized when the cardiac problem is a complication of the pneumoconiosis. Authorization will not be granted for treatment of cardiac conditions unrelated to occupational pneumoconiosis, nor for cardiomyopathy, coronary heart disease or coronary bypass surgery.

4. **PULMONARY REHABILITATION:** Pulmonary rehabilitation services are authorized according to the following schedule when such services are provided by a certified pulmonary rehabilitation center approved by the U. S. Department of Labor and provided in accordance with the guidelines of the WV Department of Health.

LEVEL OF IMPAIRMENT	WCF % AWARD	FEV_1/FVC*	AUTHORIZED TREATMENT
A	5%	75% or greater	None
B	10-15%	70-74%	One hour of education focusing on the nature of pulmonary disease and prevention of progression.
C	20-40%	56-69%	Additional four hours of education and training focusing on techniques and dealing with shortness of breath and pulmonary distress management. (5 hours total) Two hours of follow-up education and training one year later.
D	40%>	55% or less	Additional two hours of education training focusing on individualized treatment of severe pulmonary impairment. (7 hours total) Two hours of follow-up education and training one year later.
Homebound claimants (as result of pulmonary impairment)			Seven hours of education and training by home visitation. Two hours of follow-up education and training each subsequent year.

Pulmonary rehabilitation programs coverage includes: Prevention of disease progression, nutrition, hygiene, anatomy, recognition of symptoms, smoking cessation, physical conditional, weight control, breathing techniques, drug evaluation, stress reduction and follow-up.

Pulmonary rehabilitation services must be provided by a registered nurse, licensed practical nurse or respiratory therapist.

The following services require prior authorization and the request for such authorization must be accompanied by a statement of medical necessity from the treating physician.

1. **Arterial Blood Gas (Or Oximetry):**

a) Administration of arterial blood gases or oximetry shall be restricted to situations where it is necessary to evaluate the need for chronic oxygen therapy consistent with American Thoracic Society Guidelines.

b) Prior authorization is also required to repeat blood gases and is contingent upon the treating physician providing documentation that the claimant's initial study showed a PO_2 over 80 or 02 saturation over 95%. The PO_2 levels listed below will be the determining factor in how frequently the repeat test will be considered for authorization.

PO_2 less than 55 or O_2 less than 90% saturation – repeat no more than annually.
PO_2 55 to 80 or O_2 saturation 90 to 95% - repeat no more than every two years.
PO_2 over 80 or O_2 saturation over 95% - repeat no more than every four years.

2. **Durable medical equipment and nursing care:**

a) Purchase or rental of durable equipment such as hospital beds, commode chairs and lifts. Authorization of durable medical equipment, including oxygen delivery systems, shall be given in the sole discretion of the Commission.

b) In-home nursing care or home health care for bedridden claimants.

c) Nursing home care in properly licensed and operated facilities.

d) Mechanical nebulizer: Authorization for Mechanical nebulizers shall only be granted upon certification of medical necessity from the treating physician which indicated why the use of less expensive medication delivery such as hand nebulizers or metered dose devices is not feasible.

3. **Oxygen:** Except when administered for medical emergency, oxygen therapy requires prior authorization and will only then be authorized when in compliance with the guidelines of the American Thoracic Society.

§85-20-53. Long-Term Opioid Therapy Guideline.

53.1. These guidelines are used by the provider in the management of chronic nonmalignant pain. Chronic nonmalignant pain is defined as pain persisting beyond the expected normal healing time for an injury, for which traditional medical approaches have been unsuccessful. These guidelines do not apply to claimants whose pain is the result of a malignant process (cancer), or when the pain therapy is aimed at relieving intractable pain and suffering in the terminally ill when other measures fail, assuming a compensable ~~regardless of the~~ diagnosis.

53.2. Successful management of intractable chronic non-malignant pain (hereinafter referred to as "chronic pain") usually does not require the use of opioid medications. There are other effective and non-pharmacologic treatment interventions available. Some carefully selected claimants with chronic pain may benefit from opioid maintenance analgesia (OMA). These claimants function better, are sometimes able to resume working, maintain improved pain control with acceptable side effects, and continue to use their medications in a responsible manner.

53.3. In some claimants, long-term OMA fails. Pain control is marginal, function does not improve, side effects prohibit ongoing therapy, or the claimant's ability to use the medication properly is poor or erratic. The key to success in the management of OMA is careful selection of candidates and monitoring.

53.4. Candidates for long –term OMA should:

~~A.~~a. Have an established diagnosis that is consistent with chronic pain.

~~B.~~b. Have not responded to non-opioid treatment.

~~C.~~c. Not be pregnant. Claimants likely to become pregnant during the course of treatment must be advised of the risks to the fetus should pregnancy occur.

~~D.~~d. Not be using illegal drugs or abusing alcohol.

~~E.~~e. Be reliable claimants who are known to the physician and are expected to be compliant with the treatment protocol.

53.5. Long term OMA is **contraindicated** for claimants who have persistent pain out of proportion to physical findings and/or with no demonstrable lesion, and who meet the criteria for the diagnosis of "chronic pain syndrome". ~~For such claimants, a trial of multidisciplinary pain management program is recommended.~~

53.6. Documentation recommendations for controlled substances prescribed within the guidelines.

a. A thorough medical history, physical examination, diagnosis and treatment plan should be documented, with particular attention focused on determining the cause(s) of the injured worker's pain, sleeplessness or anxiety.

b. The treatment plan should include the following information:

1. A list of all current medications (with doses), including medications prescribed by other physicians (whenever possible);

2. Therapies and procedures other than medications to manage/relieve pain;

3. Consultations with health care professionals;

4. Further planned diagnostic evaluation; and

5. Follow-up plan to assess progress.

c. The above standards for documentation are being recommended for inclusion in the provider's records. These records should be submitted to the Commission.

53.7. Claimants with a personal history of addiction (*or in their immediate family*) or poor impulse control are at an increased risk of failing to comply with an OMA regimen.

The risk of abuse or adverse outcome is high if any of the following factors are present:

~~A.~~a. History of active use of alcohol or other substance abuse.

~~B.~~b. Co-morbid psychiatric disorders.

~~C.~~c. Poor response to opioids in the past for the same condition.

53.8. All potential candidates for long-term OMA, with a positive history of any of the above risk factors, must undergo a psychiatric or psychological evaluation to determine the appropriateness of long-term OMA to rule out co-morbid psychiatric disorders and the potential for addiction.

53.9. In addition, any claimant who has been on opioids without evidence of improvement must also undergo a psychological evaluation.

53.10. The report of such an evaluation must be provided to the claimant's Workers' Compensation Division Claims Manager as soon as possible after starting the OMA.

53.11. There is no clinical indication for using injectable opioid preparations for claimants with chronic pain. Injectable opioid preparations should only be used in cases of acute pain. They should never be prescribed as a self-medication on an as needed basis.

53.12. Continuation of Long-Term OMA:

~~A.~~a. If low to moderate dose opioid therapy has not provided at least partial analgesia, then long-term OMA is not indicated.

~~B.~~b. **Complete analgesia is not the goal of long-term OMA**. The efficacy of the therapy is measured not only by reduction in pain but also by improvement in physical and social function. Therefore, documentation of pain and function is essential to monitor the success of the therapy. Functional tool: Table 18.3 of the AMA Guides, Fifth Edition, or a comparable tool.

~~C.~~c. Monitoring of the progress of the therapy must be documented on the attached forms every 30 days the first three months and every 60 days the next six months.

~~D.~~d. A specialist experienced in pain management selected by the Workers' Compensation ~~Division~~ Commission shall evaluate every claimant on long-term OMA annually to determine the need for continuing OMA.

~~E.~~e. ~~The "Narcotic Contract"~~A treatment agreement between the patient and the provider is recommended.~~shall be renewed annually.~~

53.13. Definitions for this Section:

~~A.~~a. Acute pain is the normal, predicted physiological response to an adverse chemical, thermal, or mechanical stimulus and is associated with surgery, trauma, and acute illness. It is generally time-limited and is responsive to opioid therapy among other therapies.

~~B.~~b. Chronic Non-malignant Pain is an evolving pathological process that can be defined as pain persisting beyond the expected reasonable healing time for an injury despite medical treatment.

~~C.~~c. Chronic Pain Syndrome (CPS): Any claimant presenting with persistent pain of at least three months duration, which may be consistent with or significantly out of proportion to physical findings, and who has at least two of the four criteria listed below should be considered a CPS patient.

1. A progressive deterioration in ability to function at home, socially, or at work.

2. A progressive increase in health care utilization (such as repeated physical evaluations, diagnostic tests, requests for pain medications, and/or invasive procedures).

3. Demonstrable mood disturbance.

4. Clinically significant anger.

d. Qualifications of the Pain Management Specialist for evaluating and treating:

1. A pain management specialist must be Board-certified by the American Board of Medical Specialists. At this time, the only such Board is the American Board of Anesthesiology and this board will be available to all pain practitioners in the next year.

2. He/she must be licensed by the State of WV.

3. He/she should have at least three years experience in chronic pain management, behavioral management, and/or addiction

4. The Workers' Compensation Commission will annually provide a list of approved chronic opioid pain management specialists, based on the above criteria and satisfactory objective measures of prior performance.

e. Qualifications of the Psychologist for evaluating and treating:

1. The psychologist must be licensed by the State of WV.

2. He/she should have at least three years experience in chronic pain management, behavioral management, and/or addiction.

3. The Workers' Compensation Commission will annually provide a list of approved chronic opioid pain evaluating psychologists, based on the above criteria and satisfactory objective measures of prior performance.

f. Qualifications of the Psychiatric Addiction Specialist for evaluating and treating:

1. The psychiatrist must be licensed by the State of WV.

2. He/she must be Board-certified in Psychiatry.

3. He should have at least three years experience in treating patients with addictive disorders and have active hospital privileges in the treatment of same.

4. The Workers' Compensation Commission will annually provide a list of approved psychiatric addictive specialists, based on the above criteria and satisfactory objective measures of prior performance.

53.14. Guidelines for the prescription for controlled substances schedules II - IV (refer to Table § 85-20-B for controlled substances schedule)

a. Schedule II drugs should be prescribed on an outpatient basis for no longer than two weeks after initial injury or following a subsequent operative procedure.

b. Schedule III drugs should be prescribed on an outpatient basis for no longer than six weeks after initial injury or following a subsequent operative procedure.

c. Schedule IV opioid drugs should be prescribed on an outpatient basis for no longer than six weeks after initial injury or following a subsequent operative basis.

d. Schedule IV sedative and anxiolytic drugs should be prescribed on an outpatient basis for no longer than six months after initial injury or following a subsequent operative procedure.

e. To prescribe medications beyond the above guidelines, authorization must be obtained from the Commission. Authorization requests must include documentation as described in the Rule. It is recommended that providers utilize less potent medications when continued use is indicated.

53.15. The Commission will not reimburse for treatment in methadone maintenance programs. These programs are specifically intended to manage opiate addiction and the Commission shall not reimburse costs of treatment, medication, or any other expense associated with these programs.

V. SPECIAL RULES ON DRUGS AND MEDICATIONS

§85-20-54. Drugs with Specific Limitations.

54.1. Injectables. Prescriptions for injectable opioids or other analgesics, sedatives, antihistamines, tranquilizers, psychotropics, vitamins, minerals, food supplements, and hormones are not covered.

54.2. Exceptions: The Commission covers injectable medications under the following circumstances.

a. Indicated injectable drugs for the following:

1. Inpatients; or

2. During emergency treatment of a life-threatening condition/injury; or

3. During outpatient treatment of severe soft tissue injuries, burns or fractures when needed for dressing or cast changes; or

4. During the perioperative period and the postoperative period, not to exceed forty-eight hours from the time of discharge.

b. Prescriptions of injectable insulin, heparin and related anticoagulants, anti-migraine medications, or impotency treatment, when proper and necessary.

54.3. Noninjectable scheduled drugs administered by other than the oral route. Nonoral routes of administration of scheduled drugs that result in systemic availability of the drug equivalent to injectable routes will also not be covered.

54.4. Sedative-hypnotics. During the chronic stage of an industrial injury or occupational disease, payment for scheduled sedatives and hypnotics will not be authorized.

54.5. Benzodiazepines. Payment for prescriptions for benzodiazepines is limited to the following types of patients:

a. Hospitalized patients;

b. Injured workers with an accepted psychiatric disorder for which benzodiazepines are indicated;

c. Injured workers with an unrelated psychiatric disorder that is retarding recovery but which the Commission has temporarily authorized treatment and for which benzodiazepines are indicated; and

d. Other outpatients for not more than thirty days for the life of the claim.

54.6. Cancer. When cancer or any other end-stage disease is an accepted compensable condition, the department or self-insurer may authorize payment for any indicated scheduled drug and by any indicated route of administration.

54.7. Spinal cord injuries. When a spinal cord injury is an accepted condition, the Commission or self-insurer may authorize payment for anti-spasticity medications by any indicated route of administration (e.g., some benzodiazepines, Baclofen). Prior authorization is required.

§85-20-55. Drugs and Medications: Actions by the Commission.

55.1. The Commission may take any or all of the following steps when concerned about the amount or appropriateness of drugs the patient is receiving:

a. Notify the attending physician of concerns regarding the medications such as drug interactions, adverse reactions, prescriptions by other providers;

b. Require that the attending physician send a treatment plan addressing the drug concerns;

c. Request a consultation from an appropriate specialist;

d. Request that the attending physician consider reducing the prescription, and provide information on chemical dependency programs;

e. Limit payment for drugs on a claim to one prescribing doctor.

55.2. If the attending physician or worker does not comply with these requests, or if the probability of imminent harm to the worker is high, the Commission may discontinue payment for the drug after adequate prior notification has been given to the worker, pharmacy and physician.

55.3. Physician failure to reduce or terminate prescription of controlled substances, habit forming or addicting medications, or dependency inducing medications, after the Commission request to do so for an injured worker may result in a transfer of the worker to another physician of the worker's choice

§85-20-56. Physician's Records of Medication.

The physician's record must contain the name and reason for the medication, the dosage, quantity prescribed and/or dispensed, the route of administration, the frequency, the starting and stopping dates, the expected outcome of treatment, and any adverse effects that occur. Failure to maintain these records may be considered abuse under West Virginia Code Section 23-4-3c.

§85-20-57. Payment for oral opioid treatment for chronic, noncancer pain.

Chronic, noncancer pain may develop after an acute injury episode. It is defined as pain that typically persists beyond two to four months following the injury. The Commission, in its sole discretion, may pay for oral opioids for the treatment of chronic, noncancer pain caused by an accepted condition when that treatment is reasonably required.

§85-20-58. Required authorization for treatment of chronic, noncancer pain with opioids.

58.1. No later than thirty days after the attending physician begins treating the worker with opioids for chronic, noncancer pain, the attending physician must submit a written report to the department or self-insurer in order for the Commission to pay for such treatment. The written report must include the following:

a. A treatment plan with time-limited goals, including a time schedule to wean the injured worker from opiod use;

b. A consideration of relevant prior medical history;

c. A summary of conservative care rendered to the worker that focused on reactivation and return to work;

d. A statement on why prior or alternative conservative measures may have failed or are not appropriate as sole treatment;

e. A summary of any consultations that have been obtained, particularly those that have addressed factors that may be barriers to recovery;

f. A statement that the attending physician has conducted appropriate screening for factors that may significantly increase the risk of abuse or adverse outcomes (e.g., a history of alcohol or other substance abuse); and

g. An opioid treatment agreement that has been signed by the worker and the attending physician. This agreement must be renewed every six months. The treatment agreement must outline the risks and benefits of opioid use, the conditions under which opioids will be prescribed, the physician's need to document overall improvement in pain and function, and the worker's responsibilities.

§85-20-59. Required documentation to be submitted for continued coverage of opioids to treat chronic, noncancer pain.

59.1. In addition to the general documentation required by the Commission, the attending physician must submit the following information at least every sixty days when treating with opioids:

a. Documentation of drug screenings, consultations, and all other treatment trials;

b. Documentation of outcomes and responses, including pain intensity and functional levels; and

c. Any modifications to the treatment plan.

The physician must ~~use a form developed by the Commission, or a substantially equivalent form, to~~ document the patient's improvement in pain intensity and functional levels. ~~This form may be included as part of a sixty-day report.~~

§85-20-60. Duration Commission Will Continue to pay for opioids to treat chronic, noncancer pain.

60.1. The Commission will continue to pay for treatment with opioids <u>if directly related to a compensable condition</u> so long as the physician documents <u>in addition to the information required in Section 58 of this Rule</u>:

a. Substantial reduction of the patient's pain intensity; and

b. Continuing substantial improvement in the patient's function.

Once the worker's condition has reached maximum medical improvement, further treatment with

opioids is not payable. Opioid treatment for chronic, noncancer pain past the first three months of such treatment without documentation of substantial and progressive continuing improvement is presumed to be not proper and necessary.

§85-20-61. Denial of payment of opioid medications used to treat chronic, noncancer pain.

62.1. Payment for opioid medications may be denied in any of the following circumstances:

- Absent or inadequate documentation;
- Noncompliance with the treatment plan;
- Pain and functional status have not substantially improved after three months of opioid treatment; or
- Evidence of misuse or abuse of the opioid medication or other drugs, or noncompliance with the attending physician's request for a drug screen.

§85-20-62. Payment for nonopioid medications for the treatment of chronic, noncancer pain; Chelation therapy.

62.1. The Commission may pay for nonopioid medication for the treatment of chronic, noncancer pain when it is proper and necessary and directly related to a compensable injury. For example, some drugs such as anti-convulsants, anti-depressants, and others have been demonstrated to be useful in the treatment of chronic pain and may be approved when proper and necessary.

62.2. All chelation therapy (oral and IV) requires prior authorization and consultation with a Board Certified Medical Toxicologist, an occupational medicine specialist, or general internist familiar with principals of toxicology, prior to initiation of the therapy. In the rare incident, in which acute encephalopathy occurs as the result of heavy metal toxicity, a consultation with the Poison Control Center will serve as confirmation of the need for such chelation therapy. The Commission will not reimburse for IV chelation therapy performed in office.

VI. EXPECTED PERIOD OF TIME TO REACH MAXIMUM MEDICAL IMPROVEMENT

§85-20-63. Expected period of time to reach maximum medical improvement.

Pursuant to West Virginia Code Section 23-4-3b(b), the Commission hereby incorporates by reference the *Medical Disability Advisor, Workplace Guidelines for Disability Duration*, Presley Reed, MD (4th Edition) ("Presley Reed Guide") for purposes of establishing the expected period of time to reach maximum medical improvement and for continued treatment for various injuries and diseases. The requirements, standards, parameters and limitations of the Presley Reed Guide shall have the same force and effect as this Rule. All requirements, standards,

parameters and limitations of the Presley Reed Guide are hereby deemed medically reasonable and any requirements, standards, parameters and limitations which exceeds those set forth in the Presley Reed Guide are hereby deemed medically unreasonable. A preponderance of evidence, including but not limited to, detailed and documented medical findings, peer reviewed medical studies, and the elimination of causes not directly related to a compensable injury or disease, ~~It will require clear and convincing evidence to~~ must be presented to establish that requirements, standards, parameters and limitations in excess of those provided for in the Presley Reed Guide are medically reasonable.

Nothing in this rule shall prohibit employers from using other guidelines for the purpose of establishing the expected period of time and medical treatment protocals necessary to reach maximum medical improvement for various injuries and diseases, as long as such guidelines are part of a managed care plan otherwise approved by the Commission pursuant to West Virginia Code Section 23-4-3(b)(2)(2003).

VII. RANGE OF PARTIAL DISABILITY AWARDS FOR COMMON INJURIES AND DISEASES

§85-20-64. Ranges of partial disability awards for common injuries and diseases.

64.1. Pursuant to West Virginia Code Section 23-4-3b(b), the Commission hereby adopts the following ranges of permanent partial disability for common injuries and diseases. Permanent partial disability assessments shall be determined based upon the range of motion models contained in the *Guides Fourth*. Once an impairment level has been determined by range of motion assessment, that level will be compared with the ranges set forth below. Permanent partial disability assessments in excess of the range provided in the appropriate category as identified by the rating physician shall be reduced to the within the ranges set forth below:

64.2. Lumbar Spine Impairment: The range of motion methodology for assessing permanent impairment shall be used. However, a single injury or cumulative injuries that lead to a permanent impairment to the Lumbar Spine area of one's person shall cause an injured worker to be eligible to receive a permanent partial disability award within the ranges identified in Table §85-20-C. The rating physician must identify the appropriate impairment category and then assign an impairment within the appropriate range designated for that category.

64.3. Thoracic Spine Impairment: A single injury or cumulative injuries that lead to a permanent impairment to the Thoracic Spine area of one's person shall cause an injured worker to be eligible to receive a permanent partial disability award within the ranges identified in Table §85-20-D. The rating physician must identify the appropriate impairment category and then assign an impairment within the appropriate range designated for that category.

64.4. Cervical Spine Impairment: A single injury or cumulative injuries that lead to a permanent impairment to the Thoracic Spine area of one's person shall cause an injured worker to be eligible to receive a permanent partial disability award within the ranges identified in Table §85-20-E. The rating physician must identify the appropriate impairment category and then assign an impairment within the appropriate range designated for that category.

64.5. Carpal Tunnel Syndrome Impairment: An injured worker who can otherwise show entitlement to a permanent partial disability award for carpal tunnel syndrome shall be eligible to receive a permanent partial disability award of 0%-6% in each ~~effected~~affected hand.

64.6. Mental Impairment: See 85 CSR 22, which sets forth disability ranges. These ranges, along with all other ranges in this Rule, must be strictly adhered to and ratings in excess of the ranges shall be considered evidence of abuse under West Virginia Code 23-4-3c.

64.7. Arm: The statutory impairment for the amputation of an injured worker's arm is 60%. Accordingly, a single or all cumulative injuries to an individual's arm shall not total more than 60%. As an example, if an injured worker receives a 6% award for unilateral carpal tunnel, a 30% award for a shoulder injury, and a 10% award for an elbow injury, he shall not be entitled to any future award for injuries sustained to his shoulder in excess of 14%. The "bundling" of awards for injuries to the arm shall not exceed the 60% amputation award.

64.8. Leg: The statutory impairment for the amputation of an injured worker's leg is 40%. Accordingly, a single or all cumulative injuries to an individual's leg shall not total more than 40%. As an example, if an injured worker is awarded a 20% award for a permanently impaired hip and then is later awarded a 15% permanent impairment for an injury to his knee, then he shall only be entitled to an additional 5% permanent award in future injuries to his hip, thigh, knee, shin, ankle, foot, or any other part of his leg. The "bundling" of awards for injuries to the leg shall not exceed the 40% amputation award.

§85-20-65. Adoption of Standards.

65.1. Except as provided for in section 66 of this Rule, on and after the effective date of this rule all evaluations, examinations, reports, and opinions with regard to the degree of permanent whole body medical impairment which an injured worker has suffered shall be conducted and composed in accordance with the "Guides to the Evaluation of Permanent Impairment," (4th ed. 1993), as published by the American Medical Association. If in any particular claim, the examiner is of the opinion that the Guides or the section ~~6~~64 substitutes cannot be appropriately applied or that an impairment guide established by a recognized medical specialty group may be more appropriately applied, then the examiner's report must document and explain the basis for that opinion. Deviations from the requirements of the Guides or the section 6 substitutes shall not be the basis for excluding evidence from consideration. Rather, in any such instance such deviations shall be considered in determining the weight that will be given to that evidence. An example of an acceptable recognized medical specialty group's own guides is the "Orthopedic Surgeons Manual in Evaluating Permanent Physical Impairment."

65.2. These revised rules are not applicable to any permanent impairment rating examination performed prior to the effective date of these revised rules. Accordingly, the revised rules are not applicable to any reports or opinions based upon those examinations, in whole or in part, which are submitted either before or after the effective date of these revised rules.

65.3. These rules are applicable to examinations and opinions provided to the ~~commission~~Commission by an injured worker's treating physician pursuant to W. Va. Code §23-4-7a(c)(1).

§85-20-66. Evidentiary Requirements.

66.1. The evidentiary weight to be given to a report will be determined by how well it demonstrates that the evaluation and examination that it memorializes were conducted in accordance with the applicable Guides and that the opinion with regard to the degree of permanent whole body medical impairment suffered by an injured worker was arrived at and composed in accordance with the requirements of the applicable Guides.

66.2. The report must state the factual findings of all tests, evaluations, and examinations that were conducted and must state the manner in which they were conducted so as to clearly indicate their performance in keeping with the requirements of the Guides. For any evaluation and examination of a compensable back injury, the back examination form previously adopted by the health care advisory panel must be completed and submitted with the narrative report. A copy of the current edition of the back examination form can be obtained from the Commission. A report and opinion submitted regarding the degree of permanent whole body medical impairment as a result of a back injury without a completed back examination form shall be disregarded.

66.3. The opinion stated in the report as to the degree of permanent whole body medical impairment must reflect the process of calculation as stated in the applicable Guides so as to demonstrate how the degree of permanent whole body medical impairment was arrived at and calculated.

66.4. To the extent that factors other than the compensable injury may be affecting the injured worker's whole body medical impairment, the opinion stated in the report must, to the extent medically possible, determine the contribution of those other impairments whether resulting from an occupational or a nonoccupational injury, disease, or any other cause.

66.5. In any claim for occupational pneumoconiosis benefits, for noise induced hearing loss, or for mental and emotional loss, the application of these evidentiary requirements of this section shall be based upon the guidelines referred to below in lieu of the Guides. All of the other requirements of this section shall be accordingly applied.

§85-20-67. Exceptions to the Guides.

The following portions of the applicable Guides or their successor provisions shall not be used in the determination of the degree of permanent impairment that has been suffered by an injured worker for workers' compensation benefits.

67.1. In claims for occupational pneumoconiosis benefits, the provisions of Chapter 5, "The Respiratory System," are exempted from this rule. The provisions of the statute related to occupational pneumoconiosis, rules adopted in accordance with the statute, and policies and procedures adopted by the occupational pneumoconiosis board adequately and separately control the determination of the degree of permanent impairment suffered by such

an injured worker. The occupational pneumoconiosis board may, in any given case and in its discretion, utilize the Guides to the extent the board deems appropriate.

67.2. In claims for noise induced hearing loss, the provisions of section 9.1, Chapter 9, "Ear, Nose, Throat, and Related Structures," are exempted from this rule. The applicable exempt legislative rule has been promulgated for such claims.

67.3. In claims for mental and emotional loss, the provisions of chapter 14, "Mental and Behavioral Disorders," are exempted from this rule. The legislative rule styled "Guidelines for Psychiatric Permanent Impairment Evaluations, Evidence and Ratings of Psychiatric Impairment Due to Workers' Compensation Injuries," §85 CSR 22 (1995), shall be utilized.

67.4. In those claims affected by the provisions of W. Va. Code §23-4-6(f), the degree of disability stated there shall be applied.

67.5. In those claims affected by the provisions of W. Va. Code §23-4-6(m), the conclusive presumption of total disability stated there shall be applied.

§85-20-68. Payment for Evaluations.

The Commission shall not make payment to any impairment examiner whose reports, opinions, examinations, or evaluations are not conducted, performed, and composed in accordance with this Rule. In the event payment was made prior to a determination that the report, opinion, examination, or evaluation was not conducted, performed, or composed in accordance with this ~~rule~~Rule, then the amount so paid shall be recovered from the examiner either by way of a direct repayment to the Commission or by way of an offset against any future sums that may be owed by the Commission to the examiner for any services rendered for or to the Commission or for or to an injured worker. A later submission or supplement to the report, which demonstrates compliance with these rules, shall serve to permit such payment.

§85-20-69. Violation and Penalties: Without limiting the general nature of various statutes respecting criminal fraud, and by way of illustration and not in limitation, the following are deemed unlawful acts and practices:

a. ____Billing for services not actually performed;

b. ____Billing for expenses not actually incurred;

c. ____Billing services on dates other than the date on which they were actually performed;

d. ____Offering consideration of any kind, including gifts, services or gratuities to Commission employees in exchange for or as a past reward for referring cases to the provider;

e. ____Failing to close claims at the earliest practicable date when the injured worker can no longer benefit from such services;

f. _____Providing false information in any statement to the Commission, or forging or falsifying any record required to be kept by these Rules or any other statute or rule governing providers; and

g._____"Rolling in" unreimbursable time or expenses by adding hours for billable time or expenses.

All providers and employers shall retain for five (5) years and provide to the Commission on request and without a subpoena hard copies of the source underlying any bill, invoice, report, etc. submitted to the Fund by electronic or other means.

§85-20-70. Severability.

If any provision of this ~~rule~~Rule or the application thereof to any entity or circumstance shall be held invalid, such invalidity shall not affect the provisions or the applications of this ~~rule~~Rule which can be given ~~affect~~effect without the invalid provisions or application and to this end the provisions of this rule are declared to be severable.

TABLE 85-20A. Impairment of Pulmonary Function. Page 1 of 23.

a. The following table will be used as an indicator of impairment of pulmonary function if any of the acceptable values appear in the percentage of impairment column:

% IMPAIRMENT:

	0	10	15	20	25	30	40	50	60	TOTAL
FVC % PRED.	80	75	70	67	64	61	58	55	52	50
FEV_1.% PRED.	75	73	70	67	64	61	58	55	52	50
FEV_1./FVC	75	73	70	67	64	61	56	51	48	45
MVV % PRED.	80	75	70	67	64	61	58	55	52	50
$PaCO_2$			$Pa0_2$ Values Equal to or Less Than							
30 or below	85	81	78	75	73	70	68	67	66	65
31	84	80	77	74	72	69	67	66	65	64
32	83	79	76	73	71	68	66	65	64	63
33	82	78	75	72	70	67	65	64	63	62
34	81	77	74	71	69	66	64	63	62	61
35	80	76	73	70	68	65	63	62	61	60
36	79	75	72	69	67	64	62	61	60	59
37	78	74	71	68	66	63	61	60	59	58
38	77	73	70	67	65	62	60	59	58	57
39	76	72	69	66	64	61	59	58	57	56
40 or above	75	71	68	65	63	60	58	57	56	55

Impairment	0%	10-25%	26-50%	51-100%
DL/NVA	> or = 80%pred	60-79% pred	41-59% pred	< or = 40%pred

(b) Exercise pO_2 values that rise above the resting pO_2 values will indicate a lesser degree of impairment of pulmonary function, and if they are less than the resting values will indicate a greater degree of impairment of pulmonary function.

(c) The results of any medically acceptable tests or procedures reported by a physician which are not addressed in this table but which tend to demonstrate the presence or absence of pneumoconiosis or sequela of pneumoconiosis or the presence or absence of a respiratory pulmonary impairment may be submitted and given appropriate consideration (Airway Resistance, ~~Ear Oximetry~~Oximetry, ~~DLCO~~ and A-a gradient, etc.). It is also important that the Occupational Pneumoconiosis Board use all clinical history and physical findings that would enhance or detract from any percentage of impairment in the above table.

(d) Where an employee has a definitely ascertainable impairment which is not resulting from occupational pneumoconiosis, but which is contributing to the employee's over-all pulmonary impairment, such impairment, the effect thereof, and any aggravation thereof will not be taken into consideration in fixing the amount of compensation allowed for occupational pneumoconiosis, and such compensation will be awarded only in the amount that would have been allowable had such other impairment not been present.

(e) The degree of such impairment attributable to a cause that is not occupational pneumoconiosis may be established at any time by competent medical or other evidence. Competent medical or other evidence will include reasoned medical judgment that is based on the medical record in a given claim and on generally accepted medical science.

(f) The method of establishing impairment attributable to a cause that is not occupational pneumoconiosis need not be a matter of exact mathematical or scientific formulation, but should based upon the entirety of the evidentiary record, including but not limited to: 1) a recognition of the magnitude and type of impairment that is typically associated with different types of pneumoconiosis; 2) a recognition of the magnitude and type of impairment typically associated with medical conditions other than pneumoconiosis that cause pulmonary impairment; 3) a recognition of the type, intensity and duration of the physical insults that have given rise to any pneumoconiosis and other causes of pulmonary impairment; and 4) a recognition that where two or more medical conditions likely to cause pulmonary impairment exist in combination, every effort should be made to fairly allocate responsibility for any over-all pulmonary impairment among the several conditions.

(g) Cigarette and cigar smoking are recognized by the medical community as the principal causes of pulmonary impairment and primary lung cancers in the general population. Special attention will be given to assuring that, wherever possible, pulmonary impairment caused by cigarette or cigar smoking is not included in awards for impairment cause by occupational pneumoconiosis.

TABLE §85-20-A. Impairment of Pulmonary Function (page 3)

I. Ventilatory Function Tests

A. FVC – Forced Vital Capacity – Three adequate trials are required for a valid test. The two best curves must be within 7%. The third curve should be of similar shape. The largest FVC is to be reported.

B. FEV_1 – Forced Expiratory Volume in one second – The largest FEV_1 is to be reported. The two best FEV_1 measurements should be within 7%. Extrapolated volume must be less that 10% of the FVC.

C. MVV – Maximum Voluntary Ventilation – Must approximate the FEV_1 X 40 to within 80% to be a valid test.

D. Tracings – The three best curves from the FVC maneuver must be provided. Multiple trials may be illustrated to demonstrate non-reproducibility.

Tracings which reflect non-valid studies should show all trials to indicate multiple attempts to achieve validity.

E. Reports shall indicate the location of test, date and time along with name of technician or other medical personnel performing the test.

Report shall include the patient/claimant's last name, first and middle initial, social security number, current age in years, gender, height measurement to the nearest ¼ inch, and weight in pounds.

F. Test results are to be reported in BTPS.

G. Calibration reports from the date of testing should also be provided.

H. Kory nomogram is to be used for predicted values for spirometry.

I. Facilities providing services for the Commission may be subject to inspection by an appointee of the Commission. Pulmonary Function Laboratories should be staffed with properly trained personnel, have adequate equipment with documented calibration and quality control, and access to related files. Personnel performing spirometry must possess a minimum of a NIOSH training certificate. Personnel performing more complex pulmonary function testing should possess a minimum of CPFT (Certified Pulmonary Function Technician) with an RPFT (Registered Pulmonary Function Technologist) preferred.

II. Arterial Blood Gas

A. Reports shall indicate resting and/or exercise.

B. If resting only, there should be a noted contraindication to exercise.

C. Reports shall indicate the location, altitude, and barometric pressure of testing facility, date and time along with name of technician or other medical personnel performing the test.

D. Facilities performing blood analysis must provide evidence of compliance with CLIA regulations and be subject to inspection by authorized personnel.

III. Chest X-ray

A. Singleview – PA – Upright at full inspiration on a 14 x 17 film is required.

B. Film should be identified with location of testing facility, date, patient name, SSN, and date of birth.

C. Original films should be provided for review.

D. Facilities performing radiographic services must provide evidence of compliance with state and federal laws regulating such facilities and be subject to inspection by authorized personnel.

TABLE §85-20-B. Schedule of Controlled Substances.

a. The Controlled Substances Act of 1970 regulates the manufacturing, distribution and dispensing of drugs that have abuse potential. The Drug Enforcement Administration (DEA) within the US Department of Justice is the chief federal agency responsible for enforcement.

A. DEA Schedules: Drugs under jurisdiction of the Controlled Substances Act are divided into five schedules based on their potential for abuse and physical and psychological dependence. All controlled substances listed in Drug Facts and Comparisons are identified by schedule as follows:

Schedule I (C-I)	High abuse potential and noaccepted medical use (eg, heroin, marijuana, LSD).
Schedule II (C-II)	High abuse potential with severe dependence liability (eg, narcotics, amphetamines, dronabinol, some barbiturates).
Schedule III (C-III)	Less abuse potential than schedule II drugs and moderate dependence liability (eg, nonbarbiturate sedatives, non-amphetamine stimulants, limited amounts of certain narcotics).

Schedule IV (C-IV)	Less abuse potential than schedule III drugs and limited dependence liability (eg, some sedatives, antianxiety agents, non-narcotic analgesics).
Schedule V (C-V)	Limited abuse potential. Primarily small amounts of narcotics (codeine) used as antitussives or antidiarrheals. Under federal law, limited quantities of certain c-v drugs may be purchased without a prescription directly from a pharmacist if allowed under specific state statutes. The purchaser must be at least 18 years of age and must furnish suitable identification. All such transactions must be recorded by the dispensing pharmacist.

TABLE §85-20-C. PPD Ranges for Lumbar Spine Impairments

Criteria for Rating Impairment Due to Lumbar Spine Injury				
Lumbar Category I 0% Impairment of the Whole Person	**Lumbar Category II 5%-8% Impairment of the Whole Person**	**Lumbar Category III 10%-13% Impairment of the Whole Person**	**Lumbar Category IV 20%-23% Impairment of the Whole Person**	**Lumbar Category V 25%-28% Impairment of the Whole Person**
No significant clinical findings, no observed muscle guarding or spasm, no documentable neurologic impairment, no documented alteration in structural integrity and no other indication of impairment related to injury or illness; no fractures	Clinical history and examination findings are compatible with a specific injury; findings may include significant muscle guarding or spasm observed at the time of the examination, asymmetric loss of range of motion, or nonverifiable radicular complaints, defined as complaints of radicular pain without objective findings; no alteration of the structural integrity and no significant radiculopathy **or** individual had a clinically significant radiculopathy and has an imaging study that demonstrates a herniated disk at the level and on the side that would be expected based on the previous radiculopathy, but no longer has the radiculopathy following conservative treatment **or** fractures: (1) less than 25% compression of one vertebral body; (2) posterior element fracture without dislocation (not developmental spondylolysis) that has healed without alteration of motion segment integrity; (3) a spinous or transverse process fracture with displacement without a vertebral body fracture, which does not disrupt the spinal canal	Significant signs of radiculopathy, such as dermatormal pain and/or in a dermatomal distribution, sensory loss, loss of relevant reflex(es), loss of muscle strength or measured unilateral atrophy above or below the knee compared to measurements on the contralateral side at the same location; impairment may be verified by electrodiagnostic findings **or** history of a herniated disk at the level and on the side that would be expected from objective clinical findings, associated with radiculopathy, or individuals who had surgery for radiculopathy but are now asymptomatic **or** fractures: (1) 25% to 50% compression of one vertebral body; (2) posterior element fracture with displacement disrupting the spinal canal; in both cases, the fracture has healed without alteration of structural integrity	Loss of motion segment integrity defined from flexion and extension radiographs as at least 4.5 mm of translation of one vertebra on another or angular motion greater than 15° at L1-2, L2-3 and L3-4, greater than 20° at L4-5, and greater than 25° at L5-S1 (Figure 15-3); may have complete or near complete loss of motion of a motion segment due to developmental fusion, or successful or unsuccessful attempt at surgical arthrodesis **or** fractures: (1) greater than 50% compression of one vertebral body without residual neurologic compromise	Meets the criteria of DRE lumbosacral categories III and IV; that is, both radiculopathy and alteration of motion segment integrity are present; significant lower extremity impairment is present as indicated by atrophy or loss of reflex(es), pain and/or sensory changes within an anatomic distribution (Dermatomal), or electromyographic findings as stated in lumbosacral category III and alteration of spine motion segment integrity as defined in lumosacral category IV **or** fractures: (1) greater than 50% compression of one vertebral body with unilateral neurologic compromise

TABLE §85-20-D. PPD Ranges for Thoracic Spine Injury

Criteria for Rating Impairment Due to Thoracic Spine Injury				
Thoracic Category I 0% Impairment of the Whole Person	**Thoracic Category II 5%-8% Impairment of the Whole Person**	**Thoracic Category III 15%-18% Impairment of the Whole Person**	**Thoracic Category IV 20%-23% Impairment of the Whole Person**	**Thoracic Category V 25%-28% Impairment of the Whole Person**
No significant clinical findings, no observed muscle guarding, no documentable neurologic impairment, no documented changes in structural integrity and no other indication of impairment related to injury or illness; no fractures	History and examination findings are compatible with a specific injury or illness; findings may include significant muscle guarding or spasm observed at the time of the examination, asymmetric loss of range of motion (dysmetria), or nonverifiable radicular complaints, defined as complaints of radicular pain without objective findings; no alteration of motion segment integrity **or** herniated disk at the level and on the side that would be expected from objective clinical findings, but without radicular signs following conservative treatment **or** fractures: (1) less than 25% compression of one vertebral body; (2) posterior element fracture without dislocation that has healed without alteration of motion segment integrity or radiculopathy; (3) a spinous or transverse process fracture with displacement, but without a vertebral body fracture	Ongoing neurologic impairment of the lower extremity related to a thoracolumbar injury, documented by examination of motor and sensory functions, reflexes or findings of unilateral atrophy above or below the knee related to no other condition; impairment may be verified by electrodiagnostic testing **or** clinically significant radiculopathy, verified by an imaging study that demonstrates a herniated disk at the level and on the side that would be expected from objective clinical findings; history of radiculopathy, which has improved following surgical treatment **or** fractures: (1) 25% to 50% compression fracture of one vertebral body; (2) posterior element fracture with mild displacement disrupting the canal; in both cases the fracture has healed without alteration of structural integrity; differentiation from a congenital or developmental condition should be accomplished, if possible, by examining preinjury roentgenograms, if available, or by a bone scan performed after the onset of the condition	Alteration of motion segment integrity or bilateral or multilevel radiculopathy; alteration of motion segment integrity is defined from flexion and extension radiographs as translation of one vertebra or another of more than 2.5 mm; radiculopathy as defined in thoracic category III need not be present if there is alteration of motion segment integrity; if an individual is to be placed in DRE thoracic category IV due to radiculopathy, the latter must be bilateral or involve more than one level **or** fractures: (1) more than 50% compression of one vertebral body without residual neural compromise	Impairment of the lower extremity as defined in thoracolumbar category III and loss of structural integrity as defined in thoracic category IV **or** fractures: (1) greater than 50% compression of one vertebral body with neural motor compromise but not bilateral involvement that would qualify the individual for corticospinal tract evaluation

TABLE §85-20-E. PPD Ranges for Cervical Disorders

Table 15-5 Criteria for Rating Impairment Due to Cervical Disorders				
Cervical Category I 0% Impairment of the Whole Person	**Cervical Category II 5%-8% Impairment of the Whole Person**	**Cervical Category III 15%-18% Impairment of the Whole Person**	**Thoracic Category IV 25%-28% Impairment of the Whole Person**	**Thoracic Category V 35%-38% Impairment of the Whole Person**
No significant clinical findings, no muscular guarding, no documentable neurologic impairment, no significant loss of motion segment integrity and no other indication of impairment related to injury or illness; no fractures	Clinical history and examination findings are compatible with a specific injury; findings may include muscle guarding or spasm observed at the time of the examination by a physician, asymmetric loss of range of motion or nonverifiable radicular complaints, defined as complaints of radicular pain without objective findings; no alteration of the structural integrity **or** individual had clinically significant radiculopathy and an imaging study that demonstrated a herniated disk at the level and on the side that would be expected based on the radiculopathy, but has improved following nonoperative treatment **or** fractures: (1) less than 25% compression of one vertebral body; (2) posterior element fracture without dislocation that has healed without loss of structural integrity or radiculopathy; (3) a spinous or transverse process fracture with displacement	Significant signs of radiculopathy, such as pain and/or sensory loss in a dermatomal distribution, loss of relevant reflex(es), loss of muscle strength, or unilateral atrophy compared with the unaffected side, measured at the same distance above or below the elbow; the neurologic impairment may be verified by electrodiagnostic findings **or** individual had clinically significant radiculopathy, verified by an imaging study that demonstrates a herniated disk at the level and on the side expected from objective clinical findings with radiculopathy or with improvement of radiculopathy following surgery **or** fractures: (1) 25% to 50% compression of one vertebral bogy; (2) posterior element fracture with displacement disrupting the spinal canal; in both cases the fracture is healed without loss of structural integrity; radiculopathy may or may not be present; differentiation from congenital and developmental conditions may be accomplished, if possible, by examining preinjury roentgenograms or a bone scan performed after the onset of the condition	Alteration of motion segment integrity or bilateral or multilevel radiculopathy; alteration of motion segment integrity is defined from flexion and extension radiographs as at least 3.5 mm of translation of one vertebra on another, or angular motion of more than 11° greater than at each adjacent level (Figures 15-3a and 15-3b); alternatively, the individual may have loss of motion of a motion segment due to a developmental fusion or successful or unsuccessful attempt at surgical arthrodesis; radiculopathy as defined in cervical category III need not be present if there is alteration of motion segment integrity **or** fractures: (1) more than 50% compression of one vertebral body without residual neural compromise	Significant upper extremity impairment requiring the use of upper extremity external functional or adaptive device(s); there may be total neurologic los at a single level or severe, multilevel neurologic dysfunction **or** fractures: structural compromise of the spinal canal is present with severe upper extremity motor and sensory deficits but without lower extremity involvement

PUBLIC HEARINGS

85 CSR 15 Rehabilitation.
85 CSA 20 Medical Management of Claims

ATTENDEES

	DO YOU DESIRE TO ADDRESS THE BOARD?		WHICH RULE DO YOU WANT TO ADDRESS
(1) Martha Mangles	NO		
(2) Beth Hays	NO		
(3) Sue Barker	NO		
(4) Diana Mealey	NO		NIA
(5) VALARIE Phillips	YES	✓	✓ 85-CSR-15
Catherine Moorehead	No		
Jared Tully	No		
Joe Graham	NO		
Art Lilly	Yes	✓	85-15
PAUL BAILEY	NO		
Joe Blanser	NO		
LARRY BOGGESS	NO		
TERESA McCollister	NO		
Tere. Myers	No		
Ginny Gronenwald	No		
John Hays			
Jeff Summers	No		
Kim Estep	NO		
Sonya Moore	No		
Mike Carmichael	N		
Tina Walsh	N		
Adrienne Stahl	N		
Matt Graeff	N		
Karen Burgess	NO		
MARIN HEBBIG	NO		
M DREW Rotz	~~No~~ NO		Rule 15
Edward C Cottrell			

ATTENDEE	ADDRESS THE BOARD	Rule #
(20) MICK BATES	Yes ✓	15 + 20
Cindy Akiles	No	
JEFF BOGGESS	NO	15 & 20
Michelle Moore	NO	15 + 20
Bridget Lackey	NO	15 + 20
Brian Stone	no	15 + 20
Jessica Strickler	NO	15 + 20
Tiffanie Hodges	NO	15 + 20
Jaime Pickett	NO	15 + 20
Lesly Messina	NO	—
FRANK WATSON	Yes ✓	Rule 15
BRUCE DUNLAP	maybe	Rule 15
James Myers	No	15 & 20
Brian Black	No	Rule 15
Tammy Quilt	NO	"
Todd Blackwell	NO	"
Ed PANCAKE	NO	15 + 20
Bob Weaver	NO	—
Pat Mooney	no	15 & 20
(20) PAT MARONEY	Y	15 & 20
Bob Williams	NO	" "
Joe Carter	no	15 + 20
(20) Mark Smith	Yes	20
Debbie Frost	Yes ✓	15
RAY NUTTER	YES	15
John Hunt		15

ATTENDEE	Opposed to Board	Rule
Robert McKeever	No	
Steve Hall	No	
Scott Caldwell	No	
Richard Bass	No	
Greg Zeller	No	
Courtney Dudley	No	
Debbie Kimmell	No	
Rhonda Conners	No	
Steve Thaxton	No	
Kyle Hagel	No	
Roger Tincher	No	
BOB Kamuska	No	
Tim Hallman	No	
Jennifer Armstrong	No	
Jenni Johnson	No	
* Pat Marony		✓
* Mick Bates		✓

ORIGINAL

BEFORE THE WEST VIRGINIA WORKERS' COMPENSATION COMMISSION
BOARD OF MANAGERS

IN RE: RULE 20 - Medical Management of Claims

TRANSCRIPT OF PROCEEDINGS had at the public hearing in the above referenced matter, held on February 18, 2004, at 1:00 p.m., before the West Virginia Workers' Compensation Commission Board of Managers, at the Charleston Civic Center, Charleston, West Virginia, pursuant to notice duly given to all interested parties.

REBECCA L. BAKER
CERTIFIED COURT REPORTER
P. O. BOX 7822
CROSS LANES, WV 25356 - (304) 759-2471

ATTENDING REPORTER: JENNIFER L. JIMISON, CCR

A P P E A R A N C E S:

MEMBERS OF THE BOARD OF MANAGERS:

STEVE WHITE, Chairman
CRAIG SLAUGHTER
GENE F. BAILEY
EVERETTE SULLIVAN
ROBERT PHALEN
PAUL THOMPSON
CHRIS JARRETT
DOUG MERRITT (via telephone)

(Call to order, 1:10 p.m.)

CHAIRMAN WHITE: We will commence the public hearing. My name is Steve White and I'm the chairman of the Workers' Compensation Board of Managers. Welcome everybody to this public hearing.

This public hearing is being held pursuant to notice that is filed in the Secretary of State's Office on December 31st, 2003, to hear the public comment with respect to Rule 15 and Rule 20 that are being proposed by the Board of Managers.

As a first item, I would like to call to the podium T. J. Obrokta to discuss some procedural items that later will be public hearings.

MR. OBROKTA: Mr. Chairman, members of the board and members of the public, I'm T.J. Obrokta, general counsel, Workers' Compensation Commission.

I just want to make one procedural point

really to the audience more than the Board. As most of the people in this audience are aware, we have set up a pretty elaborate process for drafting these Rules trying solicit as much comment before we get to this point as we can.

This is the second public hearing, and one procedural issue has come up that I think can be improved upon. As early as this morning -- let me back up.

As everyone knows, we send out draft after draft of these to the stakeholders, receive comments, continually change the document until we finally bring it to the Board for a filing with the Secretary of State's Office, then we come here today for the public hearing.

We're now getting a lot of public comments from folks written, but their comments are on early drafts of the Rule. And a lot of the issues being raised in the written comments have long since been resolved.

So what I would just suggest to everybody

is, the final version of these Rules are on file with the Secretary of State's Office, so I would recommend that folks check those versions of the Rules before making a public comment.

I'm pretty sure that today we will hear some comments on issues that have long since been resolved. So, in the future, I would suggest that members of the public check the version at the Secretary of State's Wed page before making public comment.

And I will also, now, so we can try to help on our end, after we file with the Secretary of State's Office, I will send that version out to all the stakeholders so they will have the correct version that they can go from and make their public comments on.

With that, that's all I have.

CHAIRMAN WHITE: Thank you, Mr. Obrokta. The first Rule that we will take public hearing on will be Rule 20.

Before we commence further, there will be

an executive session of the Board of Managers immediately after the public hearing to discuss a matter relating to a particular employer, this matter is exempt under the Freedom of Information Act, so we will have an executive session immediately after the public hearing.

I have in front of me the sign-up sheet that we posted for those parties interested in making a presentation with respect to both Rules 15 and 20. We are taking Rule 20 first. The first attendee that has signed up to speak is Mick Bates.

MR. BATES: I wish you had taken 15 first. There's a lot of people who want to talk about 15. I have written comments.

I am a member of the stakeholder group and the first thing I would like to do is commend T.J. and the approach they have taken of this process. There are a lot of people involved.

Rule 20 was filed without my knowledge until I received notice of the public hearing. So

nothing was very clear that an opportunity was there for the stakeholders to be involved as far as Rule 20 was concerned, which was a massive document.

There actually was not opportunity for people to be as -- to take the time to be as comprehensive to respond to that.

I have written comments here. I have one for all these gentlemen here. You can probably tell I'm not from around here. I'm from Raleigh County. The speaker and I have the same accent.

The last time I was at one of these forums was in March of 2000 and it was to speak about Rule 15. At that time I said that the Rule 15 as proposed in 2000 was not perfect but we needed to go ahead and pass that Rule. That was not done.

Nearly four years later I stand here again with Rule 15 and Rule 20 in a public hearing. I don't think we have the option to wait this time.

My comments are designed to -- if we're going to do this, let's do it right. The comments that I've incorporated in Rule 20, I've tried to keep to my area of expertise, which is physical rehabilitation.

I'm a physical therapist. I'm also an employer. I pay premiums to the Commission. I've seen both sides of this issue. I've see both the good and the bad.

I've had the opportunity to work in two countries, seven states and for the last ten years here in West Virginia. We've made considerable progress over that period of time in dealing with occupational injuries and disorders. We have a long way to go.

The Rule as proposed, I think, does that. And I would encourage you to pass it, hopefully, with the following changes.

I have the Rule in front of me and if you'd like to follow through, we can do that. Section 3.4 is just simply a typo.

If we move to Section 8.1, this here is with regard to workers returning to work and a physician estimating the physical abilities of an injured worker to do so.

There is language in there that reads as "Performance-based physical capacities evaluation." The correct term is functional capacity evaluation. I've made some suggestions there.

There was a group under Dr. Becker's direction is working on guidelines for functional capacity evaluation/work conditioning/work hardening. That's also referenced in my comments in the Rule.

That is the term that they're using and I would suggest change Rule 20 to reflect a language that's consistent with those new guidelines as appropriate.

Under Section 9.10, there are two items there that are listed as requiring prior authorization and review. One being durable

medical equipment in excess of $500. The second being all rehabilitative services.

I would suggest that a more appropriate amount for a health care provider to issue durable medical equipment to an injured worker is more in the region of $125. You can get a lot for $500. And it doesn't take too many hits at $500 to rack up two or three thousand dollars worth of things.

So I suggest there will give ways in which we can look at costs and that would be one simple area by reducing that limit to $125,000 to $500,000. My medical insurance doesn't let me get something for $500 just because my doctor recommends it.

I usually have to go through some sort of process. I would suggest reducing that limit to $125 is quite reasonable and may result in some cost savings.

The second thing is the all rehabilitative services. I think that's misleading. Later in the Rule there is quite

clear guidelines as to what should be reviewed and authorized.

I think the correct term there is all physical and vocational rehabilitation services in excess of this Rule. That would be an appropriate change to make.

Section 9.2, Medical Vendor. Again, to be consistent with language elsewhere in the Rule, the term health care provider, which outlines that it's not just medical physicians or providers that are subject to these Rules, a health care provider 9.2.

Section 17.1 -- if I'm going too quick, I can slow down. 17.1 Medical Vendor, again, health care provider.

There's a typo under 17.2, trail should be trial. This is an important point.

The term medically unnecessary, with the passage of Rule 25 that clearly outlines guidelines for medically unsupported treatment, the term that is used throughout that document, I

think, is medically unsupported.

And, I think, at any place that we can be consistent in that language and terminology would prevent future confusion.

So, again, the language that, I think, Dr. Beck was involved in crafting to outline what is medically appropriate treatment and what is not medically appropriate treatment.

The term that was used there is medically unsupported and I think the term medically unsupported should be used consistently throughout the document as opposed to confusing terms such as medical and unnecessary or medically necessary.

Also, under Section 19, this is a little more esoteric. Section 19.3 states that no payment will be made for the following services. This is -- and lists several items.

One being educational materials; weight loss programs; physical fitness programs; swimming therapy/aquatic therapy, unless under the direct supervision of a physical therapist; and massage

therapy.

Subsequently, in Section 21, the language reads: "The Commission will pay for treatment of a condition which was not caused by an injury, if the Commission determines in its sole discretion, that an unrelated condition is preventing recovery or aggravating the occupational injury."

So we'll pay for things that are unrelated if it's holding somebody back from progressing with the treatment of the occupational injury.

The clearest and best example I can give you of this would be in the case of obesity. Others would include diabetes, hypertension, these are additional unrelated, but coexistent morbidities that fit the definition that's described in Section 21.

I would suggest that more injured workers could be assisted by physical reconditioning programs, educational materials, supervised medical weight loss, than would be assisted by

aquatic therapy under the assistance of a physical therapist.

I'm not suggesting the Commission pay for health club memberships and Weight Watchers, but we are kidding ourselves to think that the fact that we live in Ground Zero for obesity and poor health here in West Virginia is not part of a problem we see with attempting to rehabilitate our workers.

So I'm suggesting some amendments done to that section that, again, use the term medical unsupported that now read that no payment will be made for the following services, which would be medically unsupported educational materials, medically unsupported weight loss programs, medically unsupported physical fitness programs.

Some changes are recommended to the section of swimming and aquatic therapy. The correct term there -- aquatic therapy and massage therapy are actually covered under the AMA CPT Code Series 97000 Series, and they are appropriate

physical interventions.

So the correct term there would be swimming and massage. Again, not suggesting that the Commission needs to pay for swimming or massage, but there are instances where aquatic or swimming therapy or massage therapy can be appropriate.

Again, the term medically supported to be consistent with Rule 25.

Section 34 deals with some guidelines that are still in development, which is the work conditioning/work hardening, functional capacity evaluation and unrelated matters section.

May 1st is the guideline that's been established for the Board of Managers to review those proposed guidelines. That's a challenge but achievable objective.

One comment there is that -- and I've not -- that language says work hardening, it doesn't say work conditioning. So work conditioning also needs to be included in that section.

Section 36.3 1d. I was kind of hoping somebody else would go first so I would know whether to address this.

This is slightly above my area of professional expertise, but there's language that says, "Myelography with CT scan is the established test for evaluating the presence of nerve root compression."

I'm not sure whether that follows established consistent practice. So I would defer to some other medical professional.

But CT with myelogram is, in my experience, wouldn't necessarily no longer be the established test for evaluating the presence of nerve root compression with the approved imaging we have today.

Section 36.3.4, Rehabilitation may be required. Again, to be consistent. Additional, physical and/or vocational rehabilitation may be required.

Section 36.4b. Compressive pain

management. The correct term to be consistent with the later sections involve 20 would be multidisciplinary pain management.

In Section 37.4.2.A and 38.4.1. There are two sections where bed rest is suggested as being the appropriate treatment. One for cervical condition and one for the lumbar condition.

A subsequent section of Rule 20 makes it very clear that the value of bed rest has not been demonstrated. And I would suggest that those two recommendations for bed rest, which was state-of-the-art in 1950, be removed from Rule 20.

With regard to 38.1, this section pertains to the dealing of spinal problems, again, with a specialist and at what point they should be referred. Here the language says "Refer to an orthopedic surgeon or neurosurgeon for consultation and treatment."

Not all orthopedic surgeons are qualified, nor are interested in seeing spinal disorders, nor do they do surgery. The correct

wording there would be orthopedic spinal surgeon or neurosurgeon.

39.3 is sort of a -- I'm kind of an old-fashioned person. My dad always told me to measure twice and cut once. I think it's good practice.

My medical insurance, again, requires that if I'm going to have some sort of non-emergency surgical procedure, I have a second concurring surgical opinion. You can always cut, you can never uncut.

The epidemiology for occupational disorders, the success rate of those that undergo spinal surgery in relation to return to work is around about 16 percent, depending on what study you quote.

So 16 percent of those that you're going to do spinal surgery on, I'm going to go back work and I think we need to think about maybe doing spinal surgery on a few less of them and make sure that we're selecting the right one out of that

population to do surgery on.

So consideration should be given -- in this instance a recommendation is is made in the Rule that a second or third opinion should be given for a second spinal surgery. I would think the second opinion should have been given for the first spinal surgery, not the second or third or fourth or fifth one.

Again, this is another a medical thing which I just know enough about to be dangerous, 41.3 and 41.7, EMG nerve conductions is the standard diagnostic test modality and has a high sensitivity and specificity.

This is for carpal tunnel type conditions, the nerve conduction testing. There's a paragraph that follows about a page and a half later regarding EMG nerve conduction study, there is variability.

And a significant degree of variability. So you have a contradiction between the two language. The first one is incorrect and the

second one is correct.

Once what we thought was that you could do these tests -- conduct tests on these individuals with carpal tunnel and you can tell very selectively whether or not they did or did not have that disorder. That's no longer the case.

And the significant variability in the hands of the operator and the individual that's interpreting the test findings. So one man's carpal tunnel is another man's something else.

So, again, my recommendation is that the language EMG nerve conduction studies and the standard diagnostic modality be stricken, and then the paragraph that indicates there's a significant degree of variability and the UR process is required before you rely on these studies for selecting candidates for surgery or further treatment or compensability be left in.

Section 41.9, Rehabilitation. This section appears to be added as part of the sort of

big carpel tunnel section. And it's good stuff.

But the way it's worded and the way it's numbered, it suggests that it's only pertaining to the carpal tunnel type disorder, and specifically, this is dealing with keeping workers on the job.

And the language that is included within this section is appropriate for all occupational disorders.

So my recommendation is that section be renumbered, retitled and moved to the front of the specific treatment guidelines.

So the first thing on the specific treatment guidelines is a section that says Rehabilitation, keeping workers on the job. And all the other guidelines follow that.

And then finally, and then I'll be quiet, is the Physical Medicine Guidelines, which is Section 46.

The first thing is the language change. Again, it reads right now, "Inappropriate treatment is the exclusive use of passive

modalities throughout the course of treatment."

The recommendation is that this language be changed to read: "Medically unsupported treatment" and the term physical medicine modalities as opposed to passive modalities could indicate what we're addressing there.

And 46.2, Reimbursement shall be disallowed for any treatment rendered after the injured worker reaches maximum medical improvement.

This actually contradicts the language that follows in that same section that outlines responsible, appropriate and medically supported rational for continuing to provide limited physical medicine in an instance where an individual is returned to work and experiences an exacerbation and an impairment.

It's an established standard of care for the treatment of occupational injuries and disorders to continue treatment beyond MMI.

When there is an impairment that's

limiting an individual in their ability to do gainful work. The MMI is primarily indemnity issue, not a treatment issue.

The Board of Managers need to be very careful about not discriminating against the health care provider or the worker that does the right thing and does not inadvertently encourage the practice which, in my experience, is occurring now, of extending TTD and to allowing a return to work as a means of continuing treatment.

This language also encourages the practice of an individual filing a claim reopening or an application for a new claim simply to receive treatment that would allow the individual to stay on the job.

So my recommendation is that language be -- that actual section there be stricken from the Physical Medicine Guidelines.

I've got lots more to talk about, but I think that's probably enough for today.

If there are any questions, I'd be happy

to field.

CHAIRMAN WHITE: Any questions of the Board?

MR. BATES: I have some additional copies of my comments if anyone would be interested in them and I'll see you when we 20.

CHAIRMAN WHITE: If you wouldn't mind, leave the comments in the back of the room for those in the audience that might be interested.

I'd ask other parties commenting to do the same thing, leave the written comments in the back of the room so the members of the audience can have access to them. Thank you.

MR. BATES: Thank you.

CHAIRMAN WHITE: The next party that has expressed they want to comment is Pat Maroney. Mr. Maroney?

MR. MARONEY: Again, we appreciate the opportunity to be here to present comments to Rule 20. I also have comments for Rule 15, which we will address later.

As to Rule 20, the first thing I would like to say is that we were told earlier today that there had been some changes and they were faxed to us -- or e-mailed to us, I should say, on Rule 20 and particularly as they related to the occupational pneumoconiosis section on removal of the ratio and it was back in.

Also, in the document which we received, we also found additional information contained there and so we'd like to reserve the right to address that.

But, specifically, to start off with, I would like to say that first we need to look at the real purpose of why we have, again, Workers' Compensation.

This is a remedial statute which was to accomplish, number one, that the injured worker gave up his right for a jury trial and in exchange for that he was to get full medical treatment including physical and vocational rehabilitation, his wage loss while he was off, compensation for

past, present and future pain, suffering, the loss of his body usage, and the enjoyment of life. That's what he gave up in exchange for Workers' Compensation.

What we have seen with the new bill is that there is no rate increase, which you-folks can work on until 2006. As a result of that, there have been drastic cuts to the worker himself or herself.

Not going in and rehashing why we're in that fiscal problem. I think that we need to look at what this particular Rule attempts to do.

First, and foremost, it attempts to adopt a standard of evidence, which is not called for in the statute itself. The Rule at 20.4 adopts what's called clear and convincing evidence as opposed to what is actually for in Chapter 23-4-1g.

Clear and convincing evidence for medical treatment or to continue a person on temporary total disability benefits is beyond what the

statute calls for.

Clear and convincing evidence is almost beyond all reasonable doubt which is used in a criminal standard.

Clear and convincing evidence is only used in those civil cases where, number one, it may be the impeachment of a public officer or for where a felon has fled to another state and is now trying to fight extradition, he must prove that he is not that fellow by clear and convincing evidence.

Justice Cleckley in his book on Handbook for Evidence in West Virginia specifically address these issues. And he says that they are only used in disciplinary procedures, termination of parental rights, extradition and a couple of others.

The mere inclusion of clear and convincing evidence is an attempt to cut benefits from hard working West Virginia men and women who have given up the right to sue.

So it should be removed in any area that it is found. And it's not found in just this one section of the proposed Rules.

Secondly, there is a situation which permeates throughout these entire Rules starting with 4.3, and you find it in numerous sections here where it places tremendous burdens upon the physician to do extraordinary documentation regarding diagnosis, treatment plans, and other treatments which may be necessary in the future.

What this will do is drive doctors from the Workers' Compensation program. They will not want to deal with the excess paperwork, which is imposed upon them for the treatment of any patient.

What we must do is look to what the doctor recommends. I don't think there is one person seated in this room who would prefer to have their treating physicians tell them what treatment they need to correct the physical problem that they have, rather than looking at a

full set of modalities that have been developed primarily by lay people to say why, when, where and how they are to be treated.

And when you look at the specific treatment guidelines, 85-20-24 through 53, each one of these guidelines is an attempt to tell how a person should be treated for a particular injury or disease process.

No person should be subjected to a manual, which they're asking you-folks -- you-folks now become doctors -- to tell how an injured person or a diseased person is to be treated.

The treating physician's recommendations should be those that are taken. If there is a question as to whether or not a particular treatment plan or recommendation does not meet what an in-house physician or a physician who is specifically called upon by the Fund to say, "Does this meet treatment guidelines in the normally accepted medical profession as developed today?"

Then there may be some reason to question

what the particular provider, whether it be a physician, a physical therapist, a vocational rehab person has recommend.

But for you-folks to be called upon to set guidelines which say that these are how injured or diseased individuals in this state are to be treated far exceeds what the medical profession determines to be adequate treatment.

So we should not ask you-folks to develop hard fixed guidelines which would deny a person adequate treatment. And that's what these Rules will do.

In the occupational disease area, particularly, occupational pneumoconiosis. It requires -- these Rules require something that has never been required in the whole history of occupational pneumoconiosis here in West Virginia.

That the claimant go to the expense of having a pulmonary function test prior to the application being submitted.

What is only necessary is an x-ray, which

shows that there is a positive finding of occupational pneumoconiosis. The degree of impairment is the next step and should not be placed in these guidelines. That's the second step.

But when we go farther into these proposed Rules on occupational pneumoconiosis, it says, "If an employer provides information that it has been in compliance with the OSHA limitations on exposure to dust, the claimant has not met his burden to file an OP claim and it will not be allowed."

Well, you only have to ask people in the mining industry, number one, if there have been mining companies who have said that the dust levels in certain mines met MSHA standards and we can go down to the federal court building right now and find a great number of people who have been indicted and convicted for the false filing of MSHA regulations, and I can tell you that the same thing can be true in OHSA.

Number two, an OSHA finding is only for a particular day and a particular moment and for a particular place in a plant. Any of our plants: Wheeling, Pitt, Weirton, Ravenswood, INCO, the Alloy Plant, are huge.

So a dust sampling taken at one particular location in a plant does not tell the full story of a plant, number one. Number two, it only tells for a particular day in the history of that plant and not for the totality of time that a person has been exposed to dust.

Dust conditions take a long time for a person to develop occupational pneumoconiosis. That standard is clearly erroneous and should not be placed within this.

Thirdly, on the occupational pneumoconiosis, there is a delay found in 52.4, which says that, "There can be no referral to the OP Board until after the non-medical question has been resolved."

This will delay cases for two to three

years, because normally it takes two to three years for the whole case to be developed on the non-medical question.

The non-medical question is an interlocutory finding in and of itself. It's not a final finding and it's all subject to being appealed after the OP Board finding. So it should not be placed in there.

On the next page -- on that same page we talk about the guidelines which we had just gotten and particularly evidentiary requirements, and we would like to reserve the right to make further comments on those. We only got those at 9:50 a.m. this morning.

Other areas where they are asking you-folks to be physicians or to make guidelines which will require administrative personnel at the clerical level or the claims level to make decisions about medical treatment.

The appropriateness of drugs and medications prescribed to the worker by a doctor.

Again, if the doctor makes a recommendation that you need a particular medication as an injured or diseased worker, that should prevail unless there is some finding that that particular medication is not within the norms of what is expected for a particular injury or disease as is determined, perhaps, by another doctor either in-house or a specialist which you would refer that question to.

To deny a person a particular medication can be disastrous. I can tell you from an experience that this very Workers' Compensation Fund experienced some ten years ago happened.

They denied medication to a mentally disturbed and pain ridden individual who was about 32, 33 years old. Hard working man. Wife and child.

He comes home one afternoon, murders his wife and commits suicide. Now, that's how serious this is. This very Fund has the documentation of that particular case here.

The child was given dependent benefits because of it. The child is still drawing dependent benefits.

These guidelines are asking you-folks to be physicians and to establish a set of medical guidelines so that some person administratively can determine whether or not a particular medication is given to a particular individual.

That's not the way medical treatment is envisioned in the United States in today's time. So it should not be -- none of these should be put in here with those restrictions.

Same reason for opioids. And that's exactly what was the case that I just described to you.

There is another provision in here which would allow telephone calls by the Fund, a company or their representative to call the doctor or communicate with the doctor.

That's authorized by statute. And we have no problem with the statute on it. Where we

do have a problem is this: It being a unilateral phone call and not including the claimant or his representative to be part of that communication, whether it be in person or by telephone.

The claimant has the absolute right to be a party to any communication with his physician, particularly by his employer or by his employer's representative.

I cannot understand why an employer would not want the claimant to be a part of that. Because there are certain ways you can frame a question to a doctor and misrepresent what the actual facts of that claimant's disease or injury process may be.

We have other comments in here, but I think that the written proposal as it is stated tells what our real objections to these are, but we would respectfully request is is that you-folks establish a subcommittee to further evaluate the recommendations which have been made to you.

And, particularly, if this is the first

time that you have seen these recommendations, had an opportunity to study them in full, because the magnitude of what you are being asked to do far exceeds what medical treatment is envisioned here today.

And we would also like to be parties and ask that all affected parties be present in person at a subcommittee meeting to fully hash out, rather than just by written documentation for the development of appropriate guidelines for the treatment and the benefits which injured workers are entitled to receive here in West Virginia.

I thank you very much for the opportunity to address this body and we would look forward to continue working with you in the future. Thanks very much.

CHAIRMAN WHITE: Thank you. Are there any questions from the Board for Mr. Maroney?

MR. PHALEN: I have a comment, Mr. Chairman, for Mr. Maroney.

Mr. Maroney, in regards to your

dissertation on fair and convincing proof, and we all know that last year's legislation done away with the Liberality Rule that favored claimant when the evidence was basically the same or close to being the same or whatever.

In your opinion, is this not a -- this clear and convincing proof, doesn't that somewhat insert the Liberality Rule back in where it favors the employer?

MR. MARONEY: Well, in that sense where it would make it more stringent for a claimant to be able to prove his or her case.

Number two, it places the burden on the doctor in some instances to write a report that is clear and convincing. It means he has to write a full report which goes to the clear and convincing Rule.

But, Mr. Phalen, to further comment on that, and I appreciate the opportunity to, 23-4-1g says that for all awards made after the effective date, any issue raised in administering this

chapter shall be based on the weighing of all evidence pertaining to the issue and a finding that a preponderance of the evidence supports the chosen manner of resolution.

It uses the exact words "preponderance of the evidence" not clear and convincing which is a legal standard that Professor Cleckley, Justice Cleckley says is only found in the rarest of cases on the civil side of the docket.

And if you go a little farther in this, it says, "If, after weighing all of the evidence regarding an issue in which the claimant has an interest, there is a finding that an equal amount of evidence or weight exists favoring conflicting matters for resolution, the resolution that is most consistent with the claimant's position will be adopted." Which is clearly contrary by statute to clear and convincing.

So this particular clear and convincing section that is found three times within these Rules is totally contrary to the statute that was

enacted last June.

MR. PHALEN: Thank you, Mr. Maroney.

MR. MARONEY: Thank you very much.

MR. PHALEN: Mr. Chairman, also in hearing Mr. Maroney's comments in regards to receiving some of the information, I believe he said this morning, regarding some changes that, perhaps, were changed with the Secretary of State's office.

If the parties have not had ample opportunity to review those changes, could this hearing not be extended or continued at a later date to allow the opportunity for those folks to review the changes that they received today of this morning?

CHAIRMAN WHITE: We can do that. We can either do it through this Board of Manager or through a subcommittee, and have further comment.

Mr. Obrokta?

MR. OBROKTA: Just for the record to clarify, the document you as a Board have in front

of you, the document that the members of the public have is the document this Board approved on December 18th.

It's the document I filed at the Secretary of State's office on December 31st. And it's been there since December 31st.

To the extent that any stakeholder reviewed an earlier draft to make public comments on, it's unfortunate, but I just want it to be clear, this document and everything in it has been at the Secretary of State's office since December 31st. Thank you.

MR. PHALEN: I want to address that. Mr. Obrokta, if you'll recall, when you present a Rule to the Board of Managers, and it's my clear understanding that the Board approves for that Rule to be submitted to the Secretary of State.

And then there could be a public hearing in regards to that. Then it would come back to this Board for final approval.

MR. OBROKTA: Yes, sir.

MR. PHALEN: That hasn't been done yet. So we didn't actually approve the Rule on December 18th.

MR. OBROKTA: Oh, absolutely not.

MR. PHALEN: Okay. I just wanted to clear that up.

MR. OBROKTA: You approved it for filing on the 18th.

MR. PHALEN: That's right.

MR. OBROKTA: We filed it on the 31st. My only point is, that's been the document that's here to be discussed today and everyone has had for almost two months.

MR. PHALEN: I understand. But I think your comment was that we approved the Rule at that time.

MR. OBROKTA: I misspoke. Approved the filing of the Rule.

CHAIRMAN WHITE: Approved the filing of the Rule and going through the public comment process.

MR. OBROKTA: Right.

MR. PHALEN: Thank you.

CHAIRMAN WHITE: The next party requesting to comment on Rule 20 is Robert Smith.

MR. SMITH: Mr. Chairman and members of the Board, I appreciate the opportunity to appear here today and to make comments.

I think that my written comments -- and I don't intend to go over all of them. My written comments do reflect, I believe, the Rule which resides in the Secretary of State's office, so I don't have that problem, I don't think.

Let me say first of all that I endorse and encourage the Board to consider the remarks made by Mr. Maroney. I think that he brings much expertise to the process and I hope the Board will give serious consideration to what he has said.

I speak here today as a lawyer. I'm a partner in the firm of Crandall, Pyles, Haviland, Turner and Smith. And we represent claimants. So let's get that on the table to start with.

That's not our entire practice. We have a lot of other things that we do as well.

I know most of you who are present here today on the Board. And I hope that when you listen to what I have to say you will consider it in the light that I have an abiding and very serious concern for making certain that the Workers' Compensation system in this State works appropriately and properly.

I spent nearly a dozen years as the Chief Judge and two years as the Commissioner. I have a lot of sweat equity in this system and I don't intend to see that sweat equity poorly used.

Having said that, I don't envy the task that Mr. Obrokta has undertaken. And it's a daunting task. It's difficult to draft rules. And I hope that the remarks that I make will be considered as I intend them and I intend them constructively.

Let me say generally that much of what's in the Rules is appropriate and proper. Much is

not. Let me talk a little bit about the general background that we bring to this.

The Legislature, as Mr. Maroney indicated, made some substantial changes to the Workers' Compensation system. Faced with serious financial concerns, they had little choice.

Claimants paid a very large price. The benefits were reduced in temporary total, both the level and extent, from a partial level. The threshold for permanent total was increased. The standard for receiving permanent total was changed. OP 5 percent was eliminated. And many other things.

These are all benefit reductions. We may not like them, but we have to recognize that the Legislature had the right to do it and it did it.

But let's also recognize, as I believe the law is, that it's the Legislature's prerogative to reduce benefits.

As the Court noted in Repass v Commissioner and the cite is in the handout,

"Balancing the conflicting goals of minimizing premiums while providing full and fair compensation to injured workers is the exclusive province of our publicly elected legislators, and is not to be invaded by the Commissioner, or the courts."

I hope that as you review these Rules you will recognize that the exclusive province of the Legislature, if it is the exclusive province of the Legislature, not the Commission, or even this Board, to reduce benefits.

I believe strongly in the promulgation of Rules. But I believe very strongly that one of the primary reasons that have brought us to the financial situation we're in is the prolonged -- prolonged -- refusal or failure by government to live by the Rules of the Legislature.

I think that if the Commission and this Board won't live by the statute, you can hardly expect the stakeholders to do so.

I think that's been the biggest problem

of all in the past. People haven't lived by the Rules. Let's start now and live by the statute and the Court decisions that we have. And I think they're pretty plain in some cases.

I think that to the extent that these Rules reduce benefits, they're contrary to the law.

Now, having said that on the big broad scope of things, let me talk about some specific provisions that endorse completely the remarks of Mr. Maroney in regard to the language that the Commission has proposed in a number of different sections in regard to the standard of proof, clear and convincing. It is plainly contrary to the statute.

The Legislature saw fit to impose a new and standard that is more difficult for claimants than it previously was.

The preponderance of the evidence is what the Legislature has promulgated. It is not up to this Board or to the Commission to impose a more

difficult standard. And plainly clear and convincing is a more difficult standard of proof than preponderance of the evidence.

Let's live by the Rules. Let's not make them up as we go.

In addition to that, there are a number of sections throughout the Rule where the Commission proposes to perform tasks in its sole discretion.

Once again, I think that is beyond the statute. The statute doesn't give the Commission the sole discretion, that almost implies you cannot turn it around.

Everything in this statute -- our statute is different than some states. Our statute is very specific and has a lot of different provisions in it that talk about how we walk through the system.

Much of that didn't get changed. We need to continue to be able to provide redress of Commission decisions by both employers as well as

claimants.

I particularly endorse much of what Mr. Maroney has had to say in regard to treatment. We may differ a little bit. I believe you can do guidelines, but I think they have to be guidelines.

What's been proposed in this volume is not guidelines. There are limitations. There is a difference between, a legal difference, between guidelines and limitations.

Limitations serves to reduce benefits. A guideline is something you live by that you're not stuck with. You can look at it and you can take it and do what's necessary.

The statute requires the Commission to pay medical costs which are reasonably necessary to treat whatever it is that the claimant has to have treated.

When you start saying that I'm going to ignore the treating physician and in my sole discretion do something different than what he or

she has said, I think you violated the statute.

When you say that I'm not going to let you go beyond this unless you provide, as Mr. Maroney said, volumes of paper, you have effectively killed the opportunity to get the treatment the treating physician has prescribed.

Let me say that the Commission has proposed to adopt the Presley Reed Guidelines. I endorse it. In fact, if I'm not mistaken, the Presley Reed process or the guidelines was something that I endorsed and commenced when I was Commissioner.

But let me make certain that I'm not misunderstood about that. The Presley Reed Guidelines are just that, guidelines. They're not limitations.

Let me read, if I can, from the book itself, from the forward that the authors have -- I'll get to it in a minute. Maybe I will or maybe I won't.

As proposed, the Rule says that whatever

they say is what you get and you can't change it unless you have clear and convincing evidence otherwise.

The author himself, and I haven't found it, but it's in the handout, says word to this effect in the forward, that no text or volume should ever come between what the medical provider has recommended as a treatment, that no text can or should come between the agreed upon strategy between the patient and the doctor.

That's the context in which Presley Reed, Dr. Reed has proposed these guidelines. That's not the context in which the Presley Reed volume and the Presley Reed Guidelines are being proposed to be implemented.

I think it will be a disaster if we implemented them the way that they are done here. The fact of the matter is that the infrastructure of the Commission is not yet up to the task of doing what they are proposing to do.

The vast majority of the claims managers

simply do not have the experience and the expertise to weigh these treatment decisions in a proper fashion.

It's been a problem. It was a problem when I was Chief Judge, it was a problem when I was Commissioner. It's a problem for these folks and I applaud their efforts to change them.

And I think they are trying to change them. But we're not there yet. Let's not give people who lack the credentials the unfettered capability to say yes or no.

Let's do what the book says. Use it as a guideline in conjunction with good solid medical management.

While we're on that subject, one of the Rules -- I believe it's 85-20-7.1 -- requires claimants to report injuries very quickly. I applaud that. I think that is absolutely appropriate.

But what the Rule doesn't do is require employers to report. That's simply not good

insurance business. In every insurance process I'm aware of, the policyholder is the one on whom the burden of reporting is placed.

I don't mean to suggest you take it away from the claimant, but at least make the policyholder, that's the employer in this case, report that injury timely.

This isn't a matter of if you do it to me I'll do it to you. This is a matter of good sound medical case management.

If you don't do that and put it in the Rule like it should be, if you don't do that, you're missing an opportunity. The quicker you can get the claim in, the better and more effectively you can deal with the claim.

So let's not simply put the burden on the employer, let's also make sure the employer has the burden as well by Rule.

Mr. Maroney talked a lot about the physician and the interference that this Rule allows in regard to treatment. And as I said, I

endorse much of it.

But there's another piece of it that I think is important for the Commission and for these Board of Managers to understand. The new statute provides for, I think, an improved way to deal with medical providers who are using the system. And I think that's good.

But I believe that this Rule as it's adopted and particularly in that Section 23 -- or excuse me, 85-20-4, and that whole section.

I think that what this Rule does, it's a very heavy handed approach which coerces medical providers not to disagree with what they've done.

If they disagree they run the risk of abuse charges. What medical provider is going to do that or at the very least is going to be willing to give testimony as I think we have a right to get in those circumstances.

Take that abuse business out of that process. Use it where I believe the Legislature intended it and that's where people are seriously

abusing the process. Don't connect it to the actual handling of claims in the adjudication process.

If you do so you initiate the adjudication process. I don't think that's going to stand. So I think -- I would urge you to consider that and look at that very carefully.

I endorse much of what Mr. Maroney said about OP. The treatment there that's provided, I think, once again, tends to interfere with the doctor in treating his patient.

One of the very, very difficult things about this -- and I'm not sure what the answer is right now -- one of the very difficult things is that respiratory diseases is a very difficult disorder.

My parents both died of chronic emphysema. Medical treatment, it's extremely important, whether it's emphysema or black lung, it's important.

If you take away the ability for

claimants to be treated appropriately for their lung disorders in this Rule, they're not going to get taken care of in the insurance system.

They are going to get caught in the middle between Workers' Comp. saying no and the insurance carrier saying, "That's a work injury. I'm not treating that."

That's an issue -- that's one of the reasons that these Rules have not been promulgated like this before, because it's a problem.

How do you work out the relationship between the insurance provider saying no on the one hand, and, of course, it's compensably related, and the Commission not paying for things that it shouldn't.

Let's sit down, as Mr. Maroney proposed, and try to deal with this problem without the heavy hand.

Then he talked a little bit about carpal tunnel. Again, as a Commissioner, I believe that the Workers' Comp. Division was inappropriately

dealing with carpal tunnel syndrome.

We created a health care advisory group to deal with it. I think it's a difficult issue, but I also believe that some of the provisions in the carpal tunnel section are, A, not based on good medical background and, B, contrary to the statute.

There's a provision that says -- or a sentence that says that studies have shown that carpal tunnel, that there's no relationship between clerical work and carpal tunnel.

I would submit to you that that's a disputed finding. I got on the Web site of the American Medical Association, NIOSH, and the Family Doctor's Organization, in every one of these Web sites, in every one of them, typing is noted as a risk factor in carpal tunnel.

There is a study that says it may not be. But we're talking about disputed medicine now. And what this Rule tends to do is to lead you down the path towards noncompensability when you have a

Rule that says it's not related.

I think that's another technique to deny benefits. I think that's an expansion of compensability. Similarly, the Rule provides that you can't get carpal tunnel without years of exposure.

I'm sorry the medical evidence doesn't support that, or at least it's in conflict on that.

Every Web site I looked at acknowledges that carpal tunnel is a very difficult syndrome. And it acknowledges that it varies from individual to individual for genetic reasons.

But they all say that repetitive motion is the key. They don't say it takes years to get it.

Now, in putting that in there makes that a requirement almost of compensability. And it's going to foster needless litigation. Again, it's a benefit cut to claimants.

They've paid a big enough price, don't

make them pay more. There are a lot of other treatment issues that are like that.

Let me conclude with some observations about the manner in which the Commission has proposed to deal with permanent partial disability guidelines.

That's found in Section 85-20-64 and in the appendices that are attached to the Rule. Tables 85-20-C, Tables 85-20-D, and Tables 85-20-E.

The Legislature has mandated the Commission to come up with guidelines. Fine, let's do guidelines. Let's not do limits. Because I think that's what this statute does as it's presently construed.

It requires physicians -- I've got a lot to say about this -- it requires physicians to utilize those tables to limit the award. If the physician finds a bigger award than that, he's still required to use that table.

And let me talk a little bit about this

whole business. These tables that are attached are tables that are taken verbatim from the American Medical Association Guide to the Evaluation of Impairment Fifth Edition, not Fourth.

There are a couple of problems that are raised by that. First, the Rules require the examination to be done according to the range of motion model. And then purport to limit the award based on the diagnosis related estimate model.

Those tables are precisely that. The diagnosis related estimate model that are contained in the Fifth Edition.

That's mixing apples and oranges. The examinations that are done in the DRE and the range of motion are not the same. And to combine them as they've done is apples and oranges.

Now, I don't know what you get. What you call this. I think that's a real problem from a conceptual standpoint. You know, there was a decision done in 1997 in the Office of Judges. I

wrote it. It ultimately worked its way to the Supreme Court.

In that decision in 1997 I found that the diagnosis related estimate model as utilized in the Fourth Edition was contrary to the West Virginia Statute.

That issue ultimately went to the Supreme Court in a case called Repass and the Court agreed that the diagnosis related estimate model was contrary to the West Virginia Statute.

As a matter of fact, the AMA -- and I'm not trying to brag, I just know this occurred because I've discussed it with people who are on the AMA Fifth Edition Committee for orthopedics.

The AMA took that decision, and others, and revised their Rule under DRE. They made it much easier, much easier, to utilize the range of motion. There's good and valid reasons for that. And I'm not going to go into here today.

The point is that the diagnosis related estimate model is being inappropriately used as

the guideline itself. It's not even a guideline, it's a limit. Which I think is inappropriate as a matter of law.

But if you're going to have a guideline, let's make them compatible with each other. If you're going to use an examination here, let's use it here. And for God's sake let's not implement something that's tainted already.

You could argue that this is the Fifth Edition and not the Fourth so that decision doesn't apply. Well, I think that's a distinction without a difference. The DRE is dead. It's not been revived by the amendments to the statute.

To utilize that particular modality as the guideline simply invites more litigation and it's going to get to the same place again.

So I urge you to take a look at this. There's much of this that I think is very, very good. I think the overriding concern has to be, let's make sure that the document we're enacting is compatible with the law.

Government doesn't have a right to implement something that's contrary to the statute simply because we're on hard times financially.

It would be entirely inappropriate, in my view, to implement rules simply because we're in financial trouble, which are not grounded in the law.

We should not sacrifice fundamental fairness with a rule of law on the altar of financial difficulty.

Thank you.

CHAIRMAN WHITE: Any questions for Mr. Smith?

(No response.)

CHAIRMAN WHITE: Thank you, Mr. Smith.

The sign-up sheet would indicate that those were the only parties that requested to speak on Rule 20.

We will declare the portion of the public hearing to the Rule 20 closed. We appreciate the input from those offering comments.

(Whereupon, the public hearing on Rule 20 was adjourned at 2:24 p.m.)

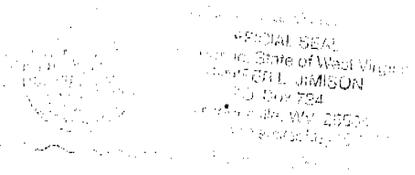
REPORTER'S CERTIFICATE

STATE OF WEST VIRGINIA

COUNTY OF KANAWHA, to wit:

I, Jennifer L. Jimison, a Subcontractor for Rebecca L. Baker, Official Court Reporter, do hereby certify that the foregoing is, to the best of my skill and ability, a true and accurate transcript of all the proceedings as set forth in the caption thereof.

Jennifer L. Jimison
Certified Court Reporter



THOMAS P. MARONEY
GENERAL COUNSEL

ROBERT M. WILLIAMS, ATTORNEY
J. ROBERT WEAVER, ATTORNEY
EDWIN H. PANCAKE, ATTORNEY
PATRICK K. MARONEY, ATTORNEY

OFFICE ADDRESS
608 VIRGINIA STREET, EAST
CHARLESTON, WV 25301

THOMAS P. MARONEY, L.C.
OFFICE OF
GENERAL COUNSEL
AND
WORKERS' COMPENSATION SERVICES
WEST VIRGINIA AFL-CIO
BENEFIT SERVICES
DISTRICT 17 UMWA

- WILBUR YAHNKE
DIRECTOR COMPENSATION
SERVICES

MAILING ADDRESS
POST OFFICE BOX 3709
CHARLESTON, WV 25337

TELEPHONE (304) 346-9629
TELECOPIER (304) 346-3325

TELECOPIER TRANSMITTAL SHEET

DATE: March 4, 2004

TO: T.J. Obrokta — FAX NO.: 304/926-5372
General Counsel
West Virginia Workers' Compensation Commission

FROM: Thomas P. Maroney, Esquire
Thomas P. Maroney, L.C.

RE: Proposed Title 85 Series 20

TOTAL NUMBER OF PAGES, INCLUDING THIS SHEET: 3

IF YOU DO NOT RECEIVE ALL THE PAGES AND/OR WE ARE DISCONNECTED DURING TRANSMISSION, PLEASE CALL CINDY AT 304/346-9629.

THOMAS P. MARONEY
GENERAL COUNSEL

ROBERT M. WILLIAMS, ATTORNEY
J. ROBERT WEAVER, ATTORNEY
EDWIN H. PANCAKE, ATTORNEY
PATRICK K. MARONEY, ATTORNEY

OFFICE ADDRESS
608 VIRGINIA STREET, EAST
CHARLESTON, WV 25301

THOMAS P. MARONEY, L.C.

OFFICE OF
GENERAL COUNSEL
AND
WORKERS' COMPENSATION SERVICES
WEST VIRGINIA AFL-CIO
BENEFIT SERVICES
DISTRICT 17 UMWA

WILBUR YAHNKE
DIRECTOR COMPENSATION
SERVICES

MAILING ADDRESS
POST OFFICE BOX 3709
CHARLESTON, WV 25337

TELEPHONE (304) 346-9629
TELECOPIER (304) 346-3325

March 4, 2004

T.J. Obrokta, General Counsel
Executive Offices
West Virginia Workers' Compensation Commission
4700 MacCorkle Avenue, SE
Charleston, West Virginia 25301

Re: Proposed Title 85 Series 20

This letter contains additional responses to the above-proposed rule filed in the Office of the Secretary of State. On behalf of the West Virginia AFL-CIO and its affiliated members, including the United Mine Workers of America, the following changes are suggested:

§ 85-20-65. Adoption of Standards.

65.1 The use of different impairment guides creates inconsistent standard and an increase for inconsistent results in independent medical examinations.

The use of an alternative guide shall not be permitted unless the impairment is clearly not provided for in either the AMA Guides 4th Edition or elsewhere in Chapter 23.

§ 85-20A. Impairment of Pulmonary Function.

(b) No medical reason to give an exercise blood gas study more weight than a resting blood gas study.

(d) There is no medical test than can objectively factor out the different causes of pulmonary impairment. Any attempt to do so is purely speculative.

(e) As above, there are no objective tests that a physician can give you to factor out the different causes of occupational pneumoconiosis. Any attempt by a physician to do so is speculative.

(f) Allows for opinions by physicians as to the allocation of impairment between various causes when there is not a specific, objective scientific test that can be fairly used to apportion the causes of the pulmonary impairment.

(g) Cigarette smoking affects people differently. Once cannot assume that it causes impairment in every instance. Additionally, a physician cannot use an objective test to factor out impairment caused from cigarette smoking as opposed to industrial dust exposure. Any such apportionment is purely speculative and not based upon any sound medical testing.

These additional comments should be presented to the Board of Managers, and to a special subcommittee established by the Board and additional public hearings should be held for input by other parties.

Respectfully submitted,

Thomas P. Maroney

TPM/cls

THOMAS P. MARONEY
GENERAL COUNSEL

ROBERT M. WILLIAMS, ATTORNEY
J. ROBERT WEAVER, ATTORNEY
EDWIN H. PANCAKE, ATTORNEY
PATRICK K. MARONEY, ATTORNEY

OFFICE ADDRESS
508 VIRGINIA STREET, EAST
CHARLESTON, WV 25301

THOMAS P. MARONEY, L.C.
OFFICE OF
GENERAL COUNSEL
AND
WORKERS' COMPENSATION SERVICES
WEST VIRGINIA AFL-CIO
BENEFIT SERVICES
DISTRICT 17 UMWA

WILBUR YAHNKE
DIRECTOR COMPENSATION
SERVICES

MAILING ADDRESS
POST OFFICE BOX 3709
CHARLESTON, WV 25337

TELEPHONE (304) 346-9629
TELECOPIER (304) 346-3325

February 18, 2004

T.J. Obrokta, General Counsel
Workers' Compensation Commission
4700 MacCorkle Avenue, S.E.
Charleston, West Virginia 25304

Re: Proposed Rule Title 85, Series 20

Dear Mr. Obrokta:

This letter is in response to the above-proposed rule filed in the Office of the Secretary of State. On behalf of the West Virginia AFL-CIO and its affiliated members, including the United Mine Workers of America, the following changes are suggested.

§ 85-20-4. Adoption Of Standards And Acceptance Of Rules.

4.1. Requirement of "clear and convincing" proof to exceed treatment guidelines violates Chapter 23-4-1g which utilizes the standard in civil cases that issues in civil cases are to be determined in accordance with the preponderance of the evidence standard. The utilization of clear and convincing evidence is only used in special instances in civil cases. Professor Franklin Cleckley, a former member of the West Virginia Supreme Court of Appeals and the author of the Handbook on West Virginia Evidence, reports that clear and convincing evidence is only used in special civil cases such as judicial disciplinary proceeds, termination of parental rights, and extradition.

Workers' compensation is a civil system which should rely on the civil standard, ie, preponderance of the evidence and be governed by the statutory language of Chapter 23-4-1g. Given the remedial purpose of workers' compensation, the claimant should receive the treatment if it is reasonable and necessary.

If treatment is denied, it will likely be impossible for a claimant to satisfy the "clear and convincing" standard, and will require the treating physician who is requesting the additional treatment to supply a detailed medical report which would meet the clear and convincing evidence standard. Therefore, potentially beneficial treatment will be withheld and the claimant will remain off work and receiving indemnity benefits longer than necessary.

4.3 Unreasonable limitations and/or reporting requirements forced on physicians will drive even more treaters from the system, exacerbating an already serious shortage of doctors willing to treat claimants.

§ 85-20-6. The Role Of The Treating Physician.

6.5 & 6.9 Unreasonable limitations and/or reporting requirements forced on physicians will drive even more treaters from the system, exacerbating an already serious shortage of doctors willing to treat claimants.

§ 85-20-7. Initial Reporter of Injury.

7.1 At line 6, beginning with the word "Failure," delete the remainder of 7.1.

7.2 Unreasonable limitations and/or reporting requirements forced on physicians will drive even more treaters from the system, exacerbating an already serious shortage of doctors willing to treat claimants.

§ 85-20-8. Additional Reporting Requirements.

8.6 Section should include language stating that there shall be no discussions about the claimant's medical history or medical records unless the claimant or his/her representative is a party to the conversation.

§ 85-20-18. Other Non-Covered Services.

18.1 Treatment guidelines unnecessarily limit treating physicians' ability to render care and are burdensome. The only limitation should be "reasonable and necessary" or "customary."

§ 85-20-19. Payment For Appearance At Hearings.

19.1 The cross-examination fee for a doctor appearing at a hearing to testify should be paid by the party who submitted the doctor's report or treatment notes into evidence. This is the way doctors are paid currently and there is no reason to change it.

§ 85-20-21. Treatment Of Unrelated Conditions.

21.1 At Line 2, strike the word "clearly" and delete the last sentence of 21.1.

IV Specific Treatment Guidelines. *Preamble*

Second sentence should be changed as follows: However, the usage of the term "guidelines" should not be interpreted to suggest that the guidelines are to be given greater weight than the recommendations and opinions of the treating physician.

The last sentence of the preamble should be deleted.

§ 85-20-24 through §85-20-53.6.2. Specific Treatment Guidelines.

These treatment guidelines may unnecessarily limit treating physicians' ability to render care and are burdensome. The only limitation should be "reasonable and necessary" or "customary." If the guidelines are approved, they must allow for consideration of non-listed treatment. This will allow for use of new/improved modalities.

Requirement of "clear and convincing" proof to exceed treatment guidelines violates Chapter 23-4-1g which utilizes the standard in civil cases that issues in civil cases are to be determined in accordance with the preponderance of the evidence standard. The utilization of clear and convincing evidence is only used in special instances in civil cases. Professor Franklin Cleckley, a former member of the West Virginia Supreme Court of Appeals and the author of the Handbook on West Virginia Evidence reports that clear and convincing evidence is only used

in special civil cases such as judicial disciplinary proceeds, termination of parental rights, and extradition.

Workers' compensation is a civil system which should rely on the civil standard, ie, preponderance of the evidence and be governed by the statutory language of Chapter 23-4-1g. Given the remedial purpose of workers' compensation, the claimant should receive the treatment if it is reasonable and necessary.

If treatment is denied, it will likely be impossible for a claimant to satisfy the "clear and convincing" standard. Therefore, potentially beneficial treatment will be withheld and the claimant will remain off work and receiving indemnity benefits longer than necessary.

By enforcing the proposed treatment guidelines, the Board of Managers is essentially practicing medicine without a license. In all cases, the opinion of the claimant's treating physician regarding necessary treatment should be given great deference unless it is clearly outside established norms of care.

The "preponderance of the evidence" standard is included in West Virginia Code § 23-4-1g, which was recently adopted as part of Senate Bill 2013. This creates an inherent conflict for the regulations to be subject to a more stringent evidentiary standard

§ 85-20-52. Procedure In Occupational Pneumoconiosis Cases.

52.1 Requires that a claimant must include in his application for occupational pneumoconiosis a pulmonary function study meeting the new requirements under this regulation. WV Code §23-4-1 does not require a PFT in which to file a claim for occupational pneumoconiosis

52.2 Provides that if an employer provides "information" that it has been in compliance with the OSHA limitations on exposure to dust, the claimant has not met his burden to file a claim for OP under WV Code §23-4-1(b) and §23-4-15(b). This regulation is clearly onerous. As we have seen in the past, employers falsify records regarding dust levels. Furthermore, dust

sampling conducted by employers are oftentimes taken when the plant is not operating or in areas where the dust level is low. If an employee provides evidence of OP, he should be entitled to file a claim for that disease.

52.4 Requires the appeal process to be completed on the non-medical issue before the claimant is referred to the OP Board for an examination. In some cases, this can delay for years the claimant's examination before the OP Board and can limit his right to medical treatment for OP during the appeal process. Furthermore, is contrary to the WV Code which provides that non-medical rulings are interlocutory and can only be appealed in conjunction with the medical issue.

At 9:50 a.m., on February 18, 2004, this office was advised that there were changes made in the rule as originally distributed in reference to § 85-20-52 and § 85-20-66, as opposed to the one actually filed with the Secretary of State. We would reserve the right to make additional comments concerning the newly received proposed rule regarding occupational pneumoconiosis, exceptions to the guidelines, and evidentiary requirements.

§ 85-20-55. Possible Steps The Commission May Take When Concerned About The Amount Or Appropriateness Of Drugs and Medications Prescribed To The Injured Worker.

Unreasonable limitations and/or reporting requirements forced on physicians will drive even more treaters from the system, exacerbating an already serious shortage of doctors willing to treat claimants.

§ 85-20-58. Required Authorization For Treatment Of Chronic, Noncancer Pain With Opioids.

58.1 Unreasonable limitations and/or reporting requirements forced on physicians will drive even more treaters from the system, exacerbating an already serious shortage of doctors willing to treat claimants.

§ 85-20-59. Required Documentation To Be Submitted For Continued Coverage of Opioids To Treat Chronic, Noncancer Pain.

59.1 Unreasonable limitations and/or reporting requirements forced on physicians will drive even more treaters from the system, exacerbating an already serious shortage of doctors willing to treat claimants.

§ 85-20-63. VI. Expected Period Of Time To Reach Maximum Medical Improvement.

63.1 In general, the Pressly-Reed Guidelines fail to adequately take into account physical differences among claimants and other factors such as the claimant's age, prior injuries, or pre-existing conditions.

The requirement of "clear and convincing" proof to exceed Pressly-Reed Guidelines and treatment guidelines violates Chapter 23-4-1g which utilizes the standard in civil cases that issues in civil cases are to be determined in accordance with the preponderance of the evidence standard. The utilization of clear and convincing evidence is only used is special instances in civil cases. Professor Franklin Cleckley, a former member of the West Virginia Supreme Court of Appeals and the author of the Handbook on West Virginia Evidence, reports that clear and convincing evidence is only used in special civil cases such as judicial disciplinary proceeds, termination of parental rights, and extradition.

Workers' compensation is a civil system which should rely on the civil standard, ie, preponderance of the evidence and be governed by the statutory language of Chapter 23-4-1g. Given the remedial purpose of workers' compensation, the claimant should receive temporary benefits if supported by reliable medical evidence.

§ 85-20-64. Ranges Of Partial Disability Awards For Common Injuries And Diseases.

64.2 The Commission has adopted the AMA Guide 4th Edition to Impairments in Section 64.1. Therefore, permanent partial disability

assessments should be determined based upon the range of motion models contained in the AMA 4th Edition.

64.3 The Commission has adopted the AMA Guide 4th Edition to Impairments in Section 64.1. Therefore, permanent partial disability assessments should be determined based upon the range of motion models contained in the AMA 4th Edition.

64.4 The Commission has adopted the AMA Guide 4th Edition to Impairments in Section 64.1. Therefore, permanent partial disability assessments should be determined based upon the range of motion models contained in the AMA 4th Edition.

64.5 The Commission has adopted the AMA Guide 4th Edition to Impairments in Section 64.1. Therefore, permanent partial disability assessments should be determined based upon the range of motion models contained in the AMA 4th Edition.

64.6 The Commission has adopted the AMA Guide 4th Edition to Impairments in Section 64.1. Therefore, permanent partial disability assessments should be determined based upon the range of motion models contained in the AMA 4th Edition.

64.7 The Commission has adopted the AMA Guide 4th Edition to Impairments in Section 64.1. Therefore, permanent partial disability assessments should be determined based upon the range of motion models contained in the AMA 4th Edition.

64.8 Incremental PPD is to compensate for physical loss, diminished earning capacity, and loss of enjoyment of every day living. Statutory awards are by definition specific awards for specific injuries. The statutory percentage of disabilities under §23-4-6 should apply for the severance of any body part named in that subdivision.

64.9 Incremental PPD is to compensate for physical loss, diminished earning capacity, and loss of enjoyment of every day living. Statutory awards are by definition specific awards for specific injuries. The statutory percentage

of disabilities under §23-4-6 should apply for the severance of any body part named in that subdivision. Further, they have the percentage of disabilities incorrect.

The proposed rule as presented to the Board of Managers contains many areas of professional disagreement among the parties. Therefore, we respectfully request that a special subcommittee be established by the Board of Managers and additional public hearings be held for input by all affected parties.

Respectfully submitted,

Thomas P. Maroney

TPM/clg

DEBORAH L. WILLS

P. O. Box 65
Boomer, WV 25031
(304) 442-2406

February 18, 2004

T. J. Obrokta
Workers' Compensation Commission
4700 MacCorkle Avenue, SE
Charleston, WV 25304

Dear Mr. Obrokta:

This is a comment on the proposed regulation changes entitled, "85 CSR 20". I am not in favor of these changes. Please consider the following comments and pass them on to whoever will be making the final decision.

I object to workers applying for occupational pneumoconiosis benefits being required to have full pulmonary function testing (which meets the Board's criteria) and a B-read chest x-ray prior to application. These are expensive tests. The law does not require the tests. Many workers now make applications from local physicians and/or primary care clinics. These offices are not equipped to do full testing and would have to refer each patient to the hospital upon each application. This is not fair for workers and it is not fair to the physicians who have historically served this population. Further, the table of pulmonary impairment has eliminated the ratio awards. The ratio takes into account workers who are abnormally tall.

Another area of objection is the exclusive use of the Presley Reed Guide. The treating physician should be able to make individual assessments based on each patient's needs.

If Workers' Compensation begins to review all PTD awards, many claimants will be temporarily suspended from payment. Many of these patients are elderly and most are undereducated. Lack of education and poor reading skills will make it difficult, if not impossible, for these claimants to "fully and adequately" respond to inquiries. Benefits lost during a suspension will not be paid. This is terribly unfair to a group of workers

who were promised lifetime benefits and who are truly and totally disabled. There will be no help from the lawyers who handled their original claims as they have already been paid and could not add an additional charge.

Some changes may be necessary to keep the Fund solvent. However the burden of solvency should not be on the backs injured or diseased workers. It should be shared among the employers who have been delinquent in payments. Not all employers should be expected to pay these bills. Most have always paid their premiums. Those who did not should bear the expense now.

Thank you in advance for your consideration.

Sincerely,

Deborah L. Wills

Deborah L. Wills

UNITED MINE WORKERS OF AMERICA

TELEPHONE (304) 346-0341
FAX: (304) 346-0353

JOSEPH M. CARTER
PRESIDENT

HAROLD HAYDEN
SECRETARY-TREASURER
BERNARD EVANS
INTERNATIONAL EXECUTIVE BOARD

UNITED MINE WORKERS BUILDING
1300 KANAWHA BOULEVARD, E.
POST OFFICE BOX 1313
CHARLESTON, WEST VIRGINIA 25325
GCIU 329-C

FACSIMILE TRANSMITTAL SHEET

DATE: 2/18/04

PLEASE DELIVER THE FOLLOWING PAGE(S) TO:

NAME: T.J. Obrokta

FAX NUMBER: 926 5372

REGARDING: _____

FROM: Joe Carter

NUMBER OF PAGES: 3 **(INCLUDING THIS COVER SHEET)**

PLEASE CALL IF YOU DO NOT RECEIVE ALL PAGES.

MESSAGE:

_____

_____

_____

cc to:

_____

UNITED MINE WORKERS OF AMERICA

TELEPHONE (304) 346-0341
FAX: (304) 346-0353

JOSEPH M. CARTER
PRESIDENT

HAROLD HAYDEN
SECRETARY-TREASURER
BERNARD EVANS
INTERNATIONAL EXECUTIVE BOARD

UNITED MINE WORKERS BUILDING
1300 KANAWHA BOULEVARD, E.
POST OFFICE BOX 1313
CHARLESTON, WEST VIRGINIA 25325
GCIU 325-C

February 18, 2004

T. J. Obrokta
Workers' Compensation Commission
4700 MacCorkle Avenue, SE
Charleston, WV 25304

Re: Proposed Rule Changes
85 CSR 20
Exempt Legislative Rule 20

Dear Mr. Obrokta:

The proposed rule changes are not warranted and appear to make every complex requirement even more complicated. It appears that WV Workers' Compensation Commissioner's solution to the troubled system is to make claims impossible to achieve and therefore spending more of the money to prevent eligible workers from being compensated for legitimate claims.

The following are some of the objections that I believe are not acceptable. Consideration of these objections will be appreciated on behalf of District 17, UMWA.

(1) An application for occupational pneumoconiosis (black lung, silicosis or asbestosis) must have a B-read x-ray and full pulmonary testing that meets the criteria of the Occupational Pneumoconiosis Board. These are very expensive tests not required of workers now. The law does not require this test. Also, there will be no awards for what was called the FEV1/FVC ratio on these tests. The ratio takes into account workers who are abnormally tall.

(2) Beginning February, 2004 and every month after, 500 permanent total disability claimants will be contacted. Failure to "fully and adequately respond" will result in suspension of benefits. Benefits will be reinstated prospectively if and when the recipient complies but the benefits lost during the suspension will not be paid.

(3) Doctors will no longer determine how long you should stay off work if you are injured. There is a book called Presley Reed Guide that lines out how long a person should be off work for certain injuries. The new rules state, "any requirements, standards, parameters and limitations...which exceeds those standards set forth in the Presley Reed Guide are hereby deemed medically unreasonable." Your treating doctor should decide how long you need to recuperate from an injury.

(4) The Commission may re-open any permanent total disability claim and may vacate, modify or affirm. They may also require the offset of any benefits from a retirement plan, a wage replacement plan, salary continuation, or any other benefit plan.

(5) Under permanent total disability any claim awarded on or after April 8, 1993, will be required to submit tax returns, an affidavit demonstrating level of income, recreational activities and work activities. Any claim awarded before April 8, 1993 but re-opened for a benefit adjustment shall be eligible for this review.

Sincerely,

Joseph M. Carter

Joseph M. Carter, President
District 17, UMWA

JMC/pg

ATKINS & ATKINS
ATTORNEYS AT LAW

Edward G. Atkins
Douglas V. Atkins

1335 Virginia Street, East
Charleston, WV 25301-3011

(304) 346-0318 • Fax (304) 346-1422
In WV 1-800-834-5810

Branch Office
420 Boone Street
Whitesville, WV 25209
(304) 854-0024

December 15, 2003

T.J. Obrokta, General Counsel
Workers' Compensation Commission
P.O. Box 431
Charleston, WV 25322

RE: Draft Rule 85 CSR 20
11/21/03

Dear Mr. Obrokta:

I am in receipt of the proposed draft rules 85 CSR 20 forwarded to me with your letter of November 21, 2003. I will be reviewing these rules in more detail, however a couple of items came to my attention upon initial review which I believe require comment.

85 CSR 20-4.1 relates to the Adoption of Standards for Treatment and Acceptance of Rules. The rule provides in part as follows:

> "However, the treatments and limitations on treatments set forth in this Rule are presumed to be medically reasonable and treatments and excess of those set forth in this rule are presumed to be medically unreasonable. It will require clear and convincing evidence to establish that treatments and excess of those provided for in this Rule are medically reasonable."

While I fully recognize the authority of the Commission to establish standards of care, I do not believe the statute authorizes the Commission to establish, without any further facts, that treatment beyond the period established by a particular rule is presumptively unreasonable. Presumptions have specific legal meaning whereas the establishment of what is "medical reasonable" would be within the Commission's jurisdiction assuming that a particular standard of care has medical foundation. If the Commission proposes to establish what is a standard of reasonable care it should do so without presenting additional barriers to a claimant who may have a medical situation not fitting the established norm.

My next comment relates to the second sentence of the above quotation expressing a requirement of "clear and convincing evidence" to establish that additional treatment is medically reasonable. The proposal for a "clear and convincing standards directly contravenes the

provision's of the WV Code § 23-4-1 G (a) effective July 1, 2003. As you know that statute provides in part as follows:

> "... resolution of any issue raised in administering this chapter shall be based on a weighing of all evidence pertaining to the issue and the finding that a preponderance of the evidence supports the chosen manner of resolution."

This part of Rule 20-4.1 should be amended to reflect a preponderance of evidence standard.

I do wish to comment on the specific treatment guidelines. For the most part the duration of care defined by the proposed guidelines generally coincide with periods set forth in "The Medical Disability Advisor" Presley Reed, M.D. 4th Edition. These duration of care periods seem dramatically shorter than current experience. While some may argue that current treatment periods are too long the proposed guidelines seem unreasonably short. Duration of care should not be based upon a single source but validated from other studies and from experience from other Worker's Compensation Programs.

It should further be noted that the Presley Reed Guidelines recognize the importance of comorbid conditions which may effect periods of care. Comorbid conditions have not been specifically addressed in the treatment guidelines. A claimant may have more than one injured body part and a combination of injuries may have a significant effect on the duration of care and disability. Such situation should be recognized as an exception to the specific treatment guidelines. It is suggested that a regulation be incorporated in Rule 20 which specifically notifies a treating physician that he may take into consideration comorbid conditions in a treatment regime.

I appreciate your consideration of my comments.

Sincerely yours,

Edward G. Atkins

EGA/tmf
cc: Steve Roberts

Comments Regarding
TITLE 85
EXEMPT LEGISLATIVE RULEWORKERS' COMPENSATION COMMISSION
SERIES 20
MEDICAL MANAGEMENT OF CLAIMS

[FILED 12.31.2003 FOR PUBLIC COMMENT - SECRETARY OF STATE]
PUBLIC HEARING 2.18.2004

With regard to Section 3.4

typo qualified rehabilitation professional should read qualified rehabilitation professionals

With regard to Section 8.1

(E) If the worker has not returned to work, a doctor's estimate of physical capacities should be included with the report. If further information regarding physical capacities is needed or required, a performance-based physical capacities evaluation can be requested. Performance-based physical capacities evaluations should be conducted by a licensed occupational therapist or a licensed physical therapist.

It is suggested that Section 8.1 is amended to read:

(E) If the worker has not returned to work, a doctor's estimate of physical and functional capacities should be included with the report. If further information regarding physical and functional capacities is needed or required, a performance-based functional capacity evaluation (FCE) ~~physical capacities evaluation~~ can be requested. FCE's ~~Performance-based physical capacities evaluations~~ should be conducted by a licensed health care provider, approved by the Commission to perform this testing, with documented education, training and experience in the area of Occupational Rehabilitation and Functional Assessment. ~~occupational therapist or a licensed physical therapist.~~

With regard to Sections 9.10

The following services require prior review and authorization before services are rendered and reimbursement made:

K. Durable Medical Equipment in excess of $500.00

X. All rehabilitative services

It is suggested that Sections 9.10 be amended to read:

The following services require prior review and authorization before services are rendered and reimbursement made:

K. Durable Medical Equipment in excess of ~~$500.00~~ $125.00

X. All physical and vocational rehabilitative services in excess of this rule.

With regard to Section 9.2

Medical Vendor

It is suggested that Sections 9.2 be amended to read:

Health Care Provider to be consistent with the Definition given in Section 3.4

9.27 Orthodics typo should read Orthotics

With regard to Section 17.1

17.1 Medical Vendor should read Health Care Provider

With regard to Section 17.2

7.2 Trail *typo should read Trial*

With regard to Section 19.1

f. medically unnecessary

It is suggested that Section 19.2 is amended to read:

f. medically unsupported as defined under Exempt Legislative Rule 85.28.9

With regard to Section 19

19.3 No payment will be made for the following services

d. Educational materials

j. Weight loss programs

k. Physical fitness programs

m. swimming therapy/aquatic therapy (unless under direct supervision of a physical therapist)

o. Massage therapy

and to Section 21

21.1 The Commission may pay for treatment of a condition which was not caused by the injury if the Commission determines, in its sole discretion, that the unrelated condition is preventing recovery by aggravating the occupational injury .....

1. Obesity is clearly the best and most prevalent example of an unrelated condition preventing recovery by aggravating the occupational injury. Diabetes and Hypertension are two additional and related medical conditions that fit this definition.

2. West Virginia has some of the highest incident rates of these conditions in the US and the world.

3. Poor physical health and conditioning and specifically obesity are well documented risk factors for occupational injury.

4. It is not suggested that the Commission pay for Health Club Memberships and Weight Watchers.

5. There appears to be at least a partial contradiction between these Sections 19 & 21.

6. Massage and Aquatic Therapy are established interventions, clearly defined under the AMA CPT Code Section 97000 Series requiring direct one on one supervision by a licensed health care provider.

7. It is suggested that a greater number of injured workers would be assisted in returning a suitable gainful employment by receiving educational materials, supervised medical weight loss programs incorporating physical fitness and nutritional counseling under the direct supervision of a physical therapist than would benefit from aquatic therapy.

8. It is suggested that Section 19.2 is amended to read:

19.3 No payment will be made for the following services

d. Medically unsupported educational materials

j. Medically unsupported weight loss programs

k. Medically unsupported physical fitness programs

m. swimming ~~therapy/aquatic therapy~~ [unless as part of medically supported aquatic therapy program under direct supervision of a licensed physical therapist]

o. Massage ~~therapy~~ [unless as part of medically supported massage therapy program under direct supervision of a licensed physical therapist]

With regard to Section 34

Guidelines for these programs are of great need and a advisory panel has been assembled to assist in the process

May 1st. is an achievable but challenging deadline

With regard to Section 36.3 1d.

Myelography with CT scan is the established test for evaluating the presence of nerve root compression.

It is beyond my professional level of expertise but this may not be the current recognized established standard of practice.

With regard to Section 36.3.4

Rehabilitation may be required should read *Additional physical and or vocational rehabilitation may be required*

With regard to Section 36.4 b.

Comprehensive pain management should read *multidisciplinary pain management*

With regard to Section 37.4.2.A & 38.4.1

Short term bed rest for a approximately two days.....

Short period of bed rest up to 10 days with analgesics .....

Is in contradiction with the language

The value of periods of bed rest has not been demonstrated

in the following section and is not the current recognized established standard of practice. for spinal injuries or disorders

and as such it strongly suggested that the recommendation for bed rest be removed.

With regard to Section 38.1

Refer to an orthopedic surgeon or neurosurgeon for consultation and treatment

Not all orthopedic surgeon are qualified or perform surgery on spinal disorders

It is recommended that this Section be altered to read

Refer to an orthopedic spinal surgeon or neurosurgeon for consultation and treatment

With regard to Section 39.3

- Measure twice and cut once
- You can always cut but you can never uncut
- The rates of return to work for individuals following spinal sugary are around 16 %.
- Commercial insurance routinely require a second opinion prior to surgical intervention.

Consideration should be given to the requirement on a second concurring surgical opinion in all cases of spinal surgery unless clear evidence of a medical emergency exists

With regard to Section 41.3 & 41.7.d.2

EMG/NCS is the standard diagnostic modality and has high sensitivity and specificity

Is in contradiction with the language and current recognized established standard of practice.

Regarding EMG and NCS, there is variability .....

With regard to Section 41.9

41.9 Rehabilitation

Keeping Workers on the job

This section is numbered and reads as if it pertains to Carpal Tunnel Syndrome

The information and recommendations are relevant to all occupational injuries and disorders

There is overlap and relevance to the recommendation made within Rule 15

It is recommended that it be re titled

Physical and Vocational Rehabilitation

given it own Section and placed prior to

IV. SPECIFIC TREATMENT GUIDLEINES

With regard to Section 46 Physical Medicine Guidelines

d. Inappropriate treatment is the exclusive use of passive modalities throughout the course of treatment

it Is recommended that this language be changed to read

d. Medically unsupported treatment is the exclusive use of physical medicine modalities in the course of treatment use of

46.2 Reimbursement shall disallowed for any treatment rendered after the injured worker reaches maximal medical improvement

There appears to be in contradiction in the following sections which outline responsible, appropriate and a medically supported rational for continuing to provide limited physical medicine in instances where an individual has returned to work and experiences an exacerbation of an impairment.

It is an established standard of care for occupational injuries and disorders to continue treatment beyond MMI when impairment is present and is limiting an injured worker to be suitably gainfully employed.

MMI is primarily an indemnity benefit not a treatment issue.

The Commission is cautioned not to discriminate against the health care providers and the injured workers that do the right thing and not inadvertently encourage the practice of extending TTD and delaying a return to work as a means of continuing treatment. Nor should the Commission encourage the practice of filing a claim reopening application or new claim simply to receive treatment that would allow an injured worker to "stay on the job".

RESPECTFULLY SUBMITTED.

MICK BATES B. APP. SCI. (PHYSIO), PT. CCM

PRESIDENT - PRAXIS CORPORATION
CHIEF CLINICAL OFFICER - BODYWORKS HEALTH FITNESS REHABILITATION

MICKB_BODYWORKS@CHARTERBN.COM

CRANDALL PYLES HAVILAND TURNER & SMITH, LLP

ATTORNEYS AT LAW
122 CAPITOL STREET-SUITE 300
P.O. BOX 3465
CHARLESTON, WEST VIRGINIA 25334
TELEPHONE (304) 345-3080 / FAX (304) 345-3083

GRANT CRANDALL
BRADLEY J. PYLES
JAMES M. HAVILAND
WILLIAM H. TURNER
ROBERT J. SMITH
HENRY M. ELLIS, III
REBECCA E. MICK

LOGAN OFFICE
TEL. (304) 752-6001
FAX (304) 752-7121

LEWISBURG OFFICE
TEL. (304) 645-6600
FAX (304) 645-6619

February 18, 2004

Steve White, Chairman
Board of Managers
West Virginia Workers' Compensation Commission
4700 MacCorkle Avenue, S.E.
Charleston, WV 25304

Re: Comments to Proposed Rule 85-20

Dear Chairman White:

Enclosed please find my comments to the proposed Rule 85-20. I also would like to make a verbal presentation to the Board of Managers as well.

Very truly yours,

Robert J. Smith

RJS/kle
Enc.
cc: T. J. Obrokta

COMMENTS TO PROPOSED RULE 85-20

I. General Comments

In the recent Workers' Compensation legislation, the Legislature mandated that the Workers' Compensation Commission promulgate rules in regard to a number of different matters including case management, permanent partial disability guidelines and carpal tunnel syndrome. I believe now, and always have believed, as many of you know, that appropriate case management is the heart of the workers' compensation claims process. Rules in regard to case management are absolutely essential. Because of that, I welcomed the Legislature's insistence that case management guidelines be drafted.

The guidelines that have been drafted are comprehensive and complex. Because of that, it is my hope that the Board of Managers will carefully scrutinize the proposal to make certain that it accomplishes the overall objectives of the statute and that it represents a consistent application of the statute and the policies adopted in accordance with the statute. In addition, I urge the Board of Managers to carefully review the proposed rule to assure that it is not contrary to the statute. As will be more fully explained below, I am firmly convinced that several of the key provisions contained in the proposed rule are contrary to the statute and to certain supreme court decisions that have construed the statute.

In a special session that concluded this summer, the Legislature enacted a comprehensive reform of the workers' compensation system. Faced with the serious financial problems, the Legislature took a number of steps to bring the system into financial control. Many of those steps involved substantial cuts to benefit levels and to the

eligibility for benefits on the part of claimants. Some of those reductions include a decrease in the level of temporary total disability benefits as well as the period of time for which such benefits may be received, a substantial decrease in the level of permanent partial disability benefits, elimination of the benefit based upon the diagnosis of occupational pneumoconiosis, an increase in the percentage threshold necessary to be considered for a permanent total disability award, changes in the criteria for receiving a permanent total disability award, to name only a few. Whether I, or others, agree or disagree with that legislative action is not relevant. The fact is the Legislature has the authority to take those actions. The point is that it is the Legislature which is authorized to reduce or increase benefit levels, not the Workers' Compensation Commission.

Several of the proposals that are contained in the proposed rule further decrease benefits to claimants. I firmly believe that claimants have already paid a substantial price in the legislation, and for the Commission to ask the claimants to pay an additional price in the form of reduced benefits is simply inappropriate as a matter of policy. More fundamentally, I also believe that it is contrary to the statute. The Legislature has the responsibility to set the benefit levels received by claimants. As West Virginia Supreme Court of Appeals noted in Syllabus Point 3 of Repass v. Workers' Compensation Division, 569 S.E.2d. 216 (2002), "Balancing the conflicting goals of minimizing premiums while providing full and fair compensation to injured workers is the exclusive province of our publicly elected legislators, and is not to be invaded by the Commissioner, or the courts." By reducing benefit levels as this rule has done in many respects, the Commission seeks to invade the exclusive authority of the Legislature. It is hoped that the Board of Managers

will not permit this intrusion.

II. Specific Provisions

A. Section 85-20-4.1

In this section, the Commission attempts to establish that treatment and limitations on treatment set forth in the rule are presumed to be medically reasonable and treatments in excess of those are presumed to be medically unreasonable. That is neither good medicine nor good policy. Moreover, this section of the rule seeks to require clear and convincing evidence to obtain treatment in excess of the rule. That standard of proof is contrary to the statute. In Section 23-4-1g(a), the statute provides that the resolution of all awards made on or after the effective date of the amendment shall be based upon a weighing of all evidence and a finding that a preponderance of the evidence supports the chosen manner of resolution. The clear and convincing standard is substantially more onerous than the preponderance of the evidence standard. The Legislature has plainly decided that the old liberality rule should no longer apply and should be replaced with a preponderance of the evidence standard. The Commission now seeks to impose an even more onerous standard of proof in this rule. That more onerous standard is clearly contrary to the law.

B. Section 85-20-6.2

In this provision, the treating physician is charged with using the least costly mode of treatment wherever possible. Certainly, the financial status of the Fund is significant and important. However, the heart of the statute is making certain that claimants receive medically appropriate treatment. By the language used in this section of the rule, it

appears that the most important thing is making sure that the treatment is the least costly. The most important thing should be making certain that the claimant receives reasonable medical care designed to return him to work. Certainly, that reasonable care should be provided at the least possible cost. But the emphasis should be on making certain that the claimant receives appropriate and reasonable medical care. Indeed, the statute requires it.

C. Section 85-20-7.1

This section is entitled "Initial Reporting of Injury." It imposes the responsibility for reporting the injury on the injured worker. While I have absolutely no quarrel with requiring an injured worker to report the injury wherever possible, this section fails to follow established insurance practices by requiring the employer to report the injury as soon as it has knowledge of the injury. In every insurance system, it is the policy holder that is obligated to make the report of injury or occurrence. In this case, the policy holder effectively is the employer. The employer should be required to report an injury very promptly to the Commission. After all, what we want is to get the injury reported as quickly as possible so the Commission may implement the case management techniques that are being implemented as a part of this rule. It is well established that the most efficient way to get the injury reported as quickly as possible is to have the employer do it. I suggest this rule be amended to require the employer to also report to the Commission the injury as quickly as possible.

D. Section 85-20-18

This section seeks to regulate organ transplants. Section 18.1 provides that transplants are not generally accepted or reimbursed. The issue in organ transplants, as it

is in other treatment, is not whether it is generally approved or not approved, but rather whether it is reasonably necessary. The statement that such treatment is not generally accepted or reimbursed is overly broad and inappropriate as a matter of law. In addition, refusing transplants because they are needed in part because of a non-occupational condition is inappropriate. Again, the question is whether or not the injury occurred in the course of employment and whether the treatment needed is reasonably necessary from a medical standpoint. This rule, in effect, seeks to deal with the compensability of the condition and not with the treatment needed. As such, it is contrary to the statute.

E. Section 85-20-19

This section lists a host of services for which no payment will be allowed. While I agree that many of the diagnostic studies and services listed are not ordinarily appropriate treatment, the decision about those issues should be made on a case-by-case basis and not on a blanket rule basis. Again, the issue is whether or not the treatment is reasonably necessary from a medical standpoint. By eliminating treatment possibilities, the Commission oversteps its legal bounds.

F. Section 85-20-20

This section seeks to require a claimant or an employer to pay the appearance fee for a treating physician who is required to be at a hearing if the request is made by the claimant or by the employer. That is a deviation from past practice. As a practical matter, most physicians are not subpoenaed to hearings. Rather, they are deposed over the telephone and are not required to come to hearings. It is assumed that this rule does not change the practice that physicians will be paid by the Commission for such depositions.

In any event, to impose upon the claimant the burden of paying for the testimony of the treating physician is inappropriate. The claimants simply do not have the economic resources to be able to pay those costs and will be put at a substantial disadvantage in trying to prove their claims.

G. Section 85-20-21

This section attempts to deal with the treatment of "unrelated" conditions. Once again, it is contrary to the statute. The standard for determining whether treatment should be paid for is whether it's reasonably necessary under all the circumstances. Again, it is subject to litigation and the preponderance of the evidence. The Commission in this rule proposes that it shall have the sole discretion to determine what is unrelated and what is not and whether such conditions will be paid for. The sole discretion language seems to imply that once they decide the matter it cannot be changed in the adjudication process. That is clearly beyond the statute.

H. Section 85-20-23.1

This section, once again, seeks to limit the circumstances under which the Commission will approve payment for treatment. Again, by limiting treatment without regard to whether it is medically necessary is contrary to the statute. And, once again, the Commission is seeking to further limit benefits available to the claimant by rule making. The Legislature is empowered to limit benefits, not the Commission.

I. Specific Treatment Guidelines

Many of the guidelines that are set forth in the various sections of the rule are essentially the same as those in the previous Rule 20. Guidelines about treatment are

appropriate. However, where guidelines become overly inflexible, as the Commission seeks to make them in this rule, they cease to be guidelines and become limitations. Guidelines provide treating physicians with guidance about treatment, but give them the flexibility to provide the treatment medically necessary to return the injured worker to suitable gainful employment.

The Commission attempts to impose the clear and convincing standard on the guidelines that are proposed. As stated above, that standard is contrary to the statute. Both claimants and employers should be able to prove by a preponderance of the evidence that treatment is needed in a given circumstance.

Moreover, to the extent that the rule threatens medical providers with charges of abuse because they may exceed treatment guidelines under the circumstances imposed by the rule is a heavy-handed attempt to coerce in an inappropriate way medical providers. By threatening medical providers with charges of abuse, the Commission has dramatically impaired the ability of the adjudication process to function in a proper manner. It will be a rare occasion when a physician will seek to go beyond the guidelines and treatment even though it is necessary when he is faced with the specter of a charge of abuse. Medical providers should be permitted to recommend treatment beyond the guidelines without the specter of a charge of abuse. To do otherwise vitiates the adjudication process.

In many cases throughout the treatment guidelines on specific injuries, the Commission seeks to decide things "in its sole discretion." That phrase implies that it is not subject to adjudication. To the extent that the Commission attempts to decide medical treatment issues based on its sole discretion, the Commission acts contrary to the statute.

Once again, the statute requires payment for treatment that is medically necessary. Nowhere does the statute indicate that the Commission may decide in its sole discretion what occurs. Again, the Commission seeks to limit benefits contrary to the law.

J. Section 85-20-41

The Legislature has required the Commission to promulgate rules in regard to carpal tunnel syndrome. While there is much in the proposed rule that is entirely appropriate, there are also sections which are inappropriate in the sense that they appear to mandate a noncompensable ruling under certain circumstances. Compensability decisions are set up by the statute. The Commission cannot further limit compensability situations by rule. That is a legislative province.

Moreover, certain of the provisions in the proposed rule state matters to be a medical fact when, in reality, there is still substantial dispute about those matters. That is, it is extraordinarily difficult from a medical standpoint to make broad statements about compensability. Rather, each case, from a medical standpoint, should be evaluated on its own merits.

For example, in Section 41.5, the Commission asserts that studies have failed to show a relationship between normal clerical activities and CTS. That seems to imply that a person who performs clerical duties should not have compensable CTS. That is disputed by a number of organizations. For example, the American Academy of Family Physicians, in its web site, indicates that if you use a keyboard a lot, you should adjust the height of your chair or take other actions so that you don't have to flex your wrists to type. That same web site indicates that people at risk include those who use computers. Similarly,

the National Institute of Occupational Safety & Health web site indicates that job tasks involving highly repetitive manual acts or necessitating wrist bending are connected with CTS. NIOSH notes that the hazard of carpal tunnel syndrome is not confined to a single industry or job, but occurs in many occupations. Finally, the Journal of the American Medical Association, in its patient page, notes that people who type or do any kind of repetitive motion may be at risk of developing CTS. Accordingly, the suggestion that there is no relationship between clerical activities and CTS is an assertion that is subject to substantial disagreement in the medical community. For the Commission to adopt it is clearly inappropriate under these circumstances.

In addition, Section 481.6 indicates that work-related CTS is associated with years of repetitive activity. Again, that is an overstatement. A review of the medical literature indicates that different people succumb to the disease after differing periods of exposure. Every one is different. To say that years of exposure is required is simply not supported in medicine. It once again seeks to impose a limitation inappropriately on a compensable condition. The test is whether the disease occurred in the course of employment and as a result of the employment. Plainly, medical providers may differ about that and it then becomes an issue for the adjudication process.

K. Section 65-1-52

This section deals with occupational pneumoconiosis cases. Generally speaking, the entire section seeks to limit treatment received by claimants who suffer from the debilitating effects of occupational pneumoconiosis. Instead of limiting the treatment by a rule, the standard should be whether the treatment is medically necessary. Once again,

the Commission seeks to limit treatment without regard to whether the treatment is necessary in a given case for a given claimant. By limiting treatment in that manner, the Commission acts contrary to the statute. More fundamentally, it fails to provide treatment that human beings need.

The sections in regard to occupational pneumoconiosis impairment appear to be contrary to the West Virginia Supreme Court of Appeals decision in Martin v. Workers' Compensation Division, 210 W.Va. 270, 557 S.E.2d 234 (2001). Obviously, how the Supreme Court of Appeals ultimately deals with the liberality rule will determine this issue. However, at this point, it appears that the impairment limitations may well run contrary to Martin.

L. Section 85-20-63

This section deals with the implementation of the Medical Disability Advisor for use in establishing the expected period of time to reach maximum medical improvement. I heartily endorse the use of this methodology. It should be remembered, however, that the Presley Reed Guide is merely that, a guide. Over and over, in both the forward and preface, the guide is noted to be a valuable tool and resource but must be utilized in conjunction with the recommendations of the treating physician. The author himself notes that, "No reference text can take into account all of the important variables that may potentially have an impact on any individual medical case. No text can (or should) attempt to mandate the recommendations of the treating caregiver. No text can (or should) substitute for the strategy agreed upon by the patient and their caregiver." Unfortunately, the Commission is ignoring the basic concepts which have been adopted by the author of

the Presley Reed Guide. Moreover, by adopting the guides in this manner, contrary to the recommendation of the author, the Commission once again seeks to inappropriately limit treatment. That treatment which is reasonably necessary is what has to be provided to the claimant under the law. To limit the treatment as the Commission has done is contrary to the statute.

Moreover, by attempting to impose a clear and convincing proof standard, the Commission once again oversteps the statute. As noted above, the statute provides for a preponderance of the evidence test for adjudication. Clear and convincing is more onerous and is contrary to the statute.

M. Section 85-20-64

This section deals with the range of permanent partial disability awards for certain injuries. The Legislature has mandated that the Commission develop guidelines. What the Commission has developed is not guidelines at all. Rather, the Commission has developed limitations on awards which are contrary to the statute. Moreover, the proposal made by the Commission is contrary to the Supreme Court decision in Repass, supra.

The heart of the ranges adopted by the Commission is found in Tables 85-20-C, 85-20-D and 85-20-E. Those are ranges for lumbar, thoracic and cervical disorders, respectively. In fact, what the Commission has done is to have adopted the impairment rating tables developed by the American Medical Association in its Guides to the Evaluation of Permanent Impairment, Fifth Edition, under the diagnosis related estimate model. Table 15-3 found on page 384 of that volume is the same as Table 85-20-C; Table 15-4 found on page 389 of that volume is the same as Table 85-20-D; and, Table 15-5

found on page 392 of that volume is the same as Table 85-20-E.

This approach to developing guides is not in fact a guide. Rather, it imposes limitations on physicians' recommendations and attempts to impose limitations on adjudicators in finding what whole body impairment has been suffered by a claimant. The way the proposed rule structures the impairment evaluation is that it cannot exceed the values that are stated in the rule. That once again tends to limit impairment awards contrary to the statute. The statute requires awards be based upon whole body medical impairment. By limiting them to a specific amount set forth in a chart, the Commission is once again proposing what is in effect a benefit reduction for claimants. That's a legislative function, not an administrative function. See Repass, supra.

In addition, the methodology adopted by the Commission invites the legal battle which has already taken place in regard to the differences between the range of motion model and the diagnosis related estimate model. The issues between those models were litigated thoroughly and dealt with by the West Virginia Supreme Court of Appeals in Repass, supra. In that case, the Supreme Court of Appeals found the diagnosis related estimate model as utilized in the Fourth Edition to be contrary to the West Virginia statute. While one could attempt to distinguish Repass by asserting that the charts utilized are from the Fifth Edition, it is suggested that that is a distinction without a difference. The basic flaws in the diagnosis related estimate model are still present in the Fifth Edition. By adopting the diagnosis related estimate model of impairment, the Commission simply invites the same legal battle and the same result, at least the same uncertainty as existed prior to Repass.

Moreover, by bifurcating the examination and the award, the Commission has mixed apples and oranges, but I am not sure what it has come up with. The Commission requires the examination to be conducted in accordance with the range of motion model in the Fourth Edition. Yet, the PPD award is based on the diagnosis related estimate model set forth in the Fifth Edition. The examination process should not be bifurcated as the Commission has done from the award process. They are part and parcel of reaching an impairment award. However, the West Virginia Supreme Court of Appeals has found a diagnosis related estimate model to be inconsistent with the West Virginia statute. The 2003 amendments did not change any of those statutory provisions with which the DRE is inconsistent. Accordingly, the same result appears dictated here.

The Commission should let sleeping dogs lie and devise a guideline which does not have all of the legal problems associated with what it has done.

CONCLUSION

While the proposed rule has many good provisions, it is hoped that the Board of Managers will review with an open mind the above comments and require the Commission to adopt a rule which is consistent with the statute and Supreme Court decisions and which illustrates a policy which is not anti-claimant.

JENNIFER L. JIMISON, CCR

P. O. BOX 724
BARBOURSVILLE, WV 25504

(304) 733-3476 Phone
(304) 733-4509 Fax

T E L E F A X

DATE: 3/8/04 # OF PAGES: 15 (including this page)

TO: ~~Crystal Wilson~~ T.J.

FAX #: 558-6101

PHONE #:

FROM: Crystal

COMMENTS: Robert G. Smith's written comments —

HARVIT & SCHWARTZ, L.C.

Attorneys at Law
2018 Kanawha Boulevard, East
Charleston, West Virginia 25311
Telephone: (304)343.4100
Facsimile Transmission: (304)343.1418

E. William Harvit
(WV & VA)

William K. Schwartz
(WV, KY & DC)

February 17, 2004

Via Facsimile Transmission and Regular Mail
(304) 558-0900

The Honorable Joe Manchin, III
West Virginia Secretary of State
Building 1, Suite 157-K
1900 Kanawha Boulevard, East
Charleston, West Virginia 25305-0770

Re: Proposed Amendments to Workers' Compensation Commission 85 C.S.R. 20 -- Medical Management of Claims and Ranges of Permanent Partial Disability Awards

Dear Secretary Manchin:

I have received and reviewed the proposed Amendments to Procedural Rules in Title 85, Series 20. I am concerned with the proposed language in 85-1-51.9.7, 85-1-51.2 and 85-1-51.4.

In § 85-1-51, Procedure in Occupational Pneumoconiosis Cases, I note that the FEV_1/FVC ratio has been eliminated from the Table for Impairment of Pulmonary Function found in § 85-1-51.9.7. **The elimination of the FEV_1/FVC ratio is not supported by the medical community including the Occupational Pneumoconiosis Board and is used by 100% of the 139 testing facilities last surveyed in this Country, Puerto Rico and Canada.**

The FEV_1/FVC ratio is used to detect obstructive breathing disease in persons with larger lungs who may appear normal when compared with the FVC and FEV_1 of other "predicted" persons with normal lungs. The FEV_1/FVC ratio has been used by the Occupational Pneumoconiosis Board for 25-30 years and the majority of the breathing centers surveyed for many years.

In 1990, a survey of institutions with respiratory disease training programs was conducted to determine which reference equations were used to predict normal pulmonary function. In that survey, the institutions were asked which reference was used for FVC, FEV_1 and the FEV_1/FVC ratio. **ONE HUNDRED PERCENT (100%) OF THE TESTING FACILITIES USED THE RATIO** along with the FVC and FEV_1, to determine pulmonary impairment[1].

The Occupational Pneumoconiosis Board has used the FEV_1/FVC ratio for 25 years and it believes it should continue. In the claim of Merlin Bentley (Claim No. 98-43263-OP), Dr. Walker was questioned with regard to this issue.

> Q. Well, what does the ratio tell the Board in terms of...
> A. It tells the Board that there is some obstruction to air flow.
> Q. Some obstruction to...
> A. To air flow.
> Q. To air flow?
> A. Yes.
> Q. And that's a...the ratio has been used by the Board for many years, has it not?
> A. Yes, sir.
> Q. And I think you had said in a previous hearing that the Board has used it for 25 or 30 years, on the recommendation of Dr. George Wright (phonetic). Is that who you had mentioned?
> A. I don't have recall about that.
> Q. Okay.
> A. But I do know that Dr. Wright was probably the foremost pulmonary pathologist in the country formerly at Saranac (phonetic) Lake, New York and then the Cleveland Clinic. And he testified at hearing before the Occupational...before the Silicosis Medical Board, and I believe for the Occupational Pneumoconiosis Board.

---

[1]Ghio, A.J., et al., Reference Equations Used To Predict Pulmonary Function, Chest, 1990, 97:400-3 at p. 401 attached to Brief of Robert L. Boggess at Attachment No. 1.

Q. And it was his recommendation at that time that a ratio should be used to determine any obstructive airway disease I guess?
A. I don't have specific recall for 25 years ago, but I believe that's probably correct.
Q. And the Board has used it since then and will continue to use it I would assume?
A. I would assume so unless we're told we can't.
Q. Thank you, Dr. Walker, I appreciate it.

See Transcript of Hearing (Final) dated January 12, 2000 at pp. 9-10 at attachment No. 2 (Emphasis added).

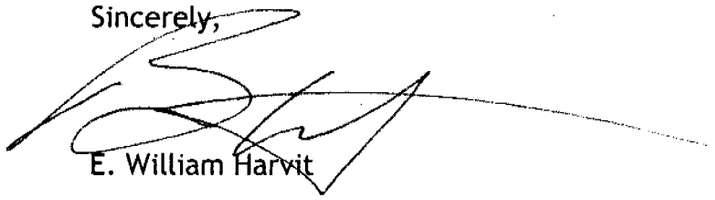
In *Lung Function Testing: Selection of Reference Values and Interpreted Strategies*, Am.Rev.Respir.Dis. 1991; 144; 1202-1218, (Attachment No. 3) the American Thoracic Society, Medical Section of the American Lung Association, stated **"[t]he FEV_1/FVC ratio is the most important measurement for distinguishing an obstructive impairment."** Id. at page 1212. Accordingly, the FEV_1/FVC ratio is extremely important in correctly evaluating impaired lung function and should not be eliminated to the detriment of West Virginia workers whose lungs have been damaged from exposure to occupational dust.

Section 85-1-51.2 requires the Commission to determine that a Claimant's dust exposure was not harmful if the employer was in compliance with the Occupational Safety and Health Administration ("OSHA") limitations on exposure. This regulation assumes that the inspections by OSHA are conducted regularly, under normal operating conditions, that the equipment measuring the concentration of dust is accurate and that the results are reported accurately. These ideal situations do not exist and this regulation is totally unfair to a workers who develop lung damage on the job.

Section 85-1-51.4 requires the completion of the protest and/or appellate review of the non-medical order before the Claimant is referred to the Occupational Pneumoconiosis Board. This regulation is contrary to the stated purposed of Workers' Compensation - to provide expedient medical and disability benefits to injured workers who give up their rights to file a civil action against their employer.

I appreciate your consideration of my thoughts with regard to these issues. If, however, you would like to discuss this matter further, then please do not hesitate to contact me at your convenience.

Sincerely,



E. William Harvit

EWH/ksg
Enclosure

cc: Thomas J. Obrokta, Esquire (via facsimile (304) 926-5441) and regular mail

ATTACHMENT NO. 1

Chest 1990
97:400-3

Reference Equations Used to Predict Pulmonary Function*

Survey at Institutions with Respiratory Disease Training Programs in the United States and Canada

Andrew J. Ghio, M.D.; Robert O. Crapo, M.D., F.C.C.P.; and C. Gregory Elliott, M.D., F.C.C.P.

Adult respiratory disease training programs in the United States and Canada were surveyed to determine which reference equations were used to predict normal pulmonary function and how ethnic differences were approached. Replies from 139 of the 180 (77.2 percent) institutions surveyed were received and evaluated. Surprisingly few studies account for most of the equations in use; three studies account for 85 percent of the spirometric equations, two for 83 percent of the lung volume equations and five for 84 percent of the diffusing capacity equations. Although there are no definite data, the form of many of the replies suggests that equipment default settings may influence the selection process. Of those responding to the ethnic differences question, 83 percent of institutions applied no correction for ethnic differences. There was no consistent pattern to the method of correction among those who did.

(Chest 1990; 97:400-03)

Many linear and nonlinear regression techniques have been used to generate equations to predict "normal values" since Hutchinson[1] first provided a quantitative index of pulmonary function based on measurements of vital capacity in more than 2,000 healthy men in 1846. The increasing importance of pulmonary function testing in diagnosing and managing lung disease and assessing impairment has required more accurate definitions of normal. Innovations in technology and equipment, standardization of procedures, and changing concepts of normality have stimulated further studies of healthy subjects and there is now a large number of different regression equations from which to choose. In response to a frequently asked question about which equations are actually being used, we surveyed institutions in the United States and Canada with training programs in adult respiratory disease to determine which equations are used and what attention is paid to ethnic differences.

*From the Pulmonary Division, Department of Internal Medicine, LDS Hospital, and Division of Respiratory, Critical Care, and Occupational (Pulmonary) Medicine, Department of Internal Medicine, University of Utah School of Medicine, Salt Lake City.
Manuscript received August 5; revision accepted July 17.
Reprint requests: Dr. Crapo, Pulmonary Division, LDS Hospital, Salt Lake City 84143

METHODS

Letters were mailed to the directors of training programs in adult respiratory disease listed by the American Thoracic Society. We requested specific citations for the prediction equations used for spirometry, lung volumes, carbon monoxide diffusing capacity, and airway resistance. We also asked for a description of how they dealt with ethnic differences in pulmonary function. A follow up request was sent to institutions which had not responded to the first inquiry.

RESULTS

One hundred and eighty institutions were surveyed; 95 replies were received after the first mailing, 50 after the second. Seven replies were excluded because they lacked adequate detail. We were able to analyze 139 replies (77.2 percent of those surveyed). The geographic distribution of inquiries and responses is shown in Table 1.

All 139 institutions provided reference equations

Table 1—*Geographic Distribution of Inquiries and Responses*

Region	Inquiries	Responses
United States		
Northeast (ME,NH, VT, MA, RI, CT, NY, PA, NJ, DE)	68	48
Midwest (WI, IL, MI, IN, OH, MN, ND, SD, NB, KS, MO, IA)	33	30
West (AK, HI, WA, OR, CA, MT, ID, NV, UT, CO, AZ, NM)	25	23
South (WV, VA, MD, DC, NC, SC, GA, FL, KY, TN, MS, AL, OK, AR, LA, TX)	42	28
Puerto Rico	1	0
Canada	12	11
Total	181	139

Occup Med 1997 Jul-Sept.
12(3):415-512 (55 ref.)

Chest 1999 115 569-573 — How accurate is Spirometry at Predicting Restriction

Table 2—*Summary of Institutions Citing References for Prediction of Spirometry*

	FVC or VC		FEV_1		FEV_1/FVC*		FEF25-75%	
	M	F	M	F	M	F	M	F
Morris et al[14] 1973	65	65	65	65	58	60	60	60
Crapo et al[9] 1981	27	27	27	27	29	29	24	24
Knudson et al[8] 1983	24	24	25	25			25	25
Kory et al[5]	7		8					
Kory et al[6]		7		8				
Cherniack and Raber[10]	3	3	4	4			5	5
Miller et al[11]	2	2	2	2	2	2	2	2
Other studies†	11	11	8	8	11	9	14	14

*Thirty-nine predicted FEV_1/FVC by dividing predicted FEV_1 by predicted FVC.
†Studies cited only once.

for spirometry. We chose to deal only with standard spirometric indices and have listed only equations cited by more than one institution; equations cited only once are included as "other studies." The responses are summarized in Table 2. Six institutions used reference equations from different studies to predict FVC and FEV_1; six others selected prediction equations from different studies for men and women. Prediction equations for FEV_1/FVC and FEF25-75% came from sources different from those used for FVC and FEV_1 in six and 16 institutions, respectively. Thirty-nine centers predicted normal FEV_1/FVC by dividing predicted FEV_1 by predicted FVC.

One hundred thirty-five (97.2 percent) institutions furnished reference equations for assessing lung volumes (Table 3). Six of the nine institutions using Boren et al[14] to predict lung volumes for men used the Goldman equations for women.

The 138 responses for carbon monoxide diffusing capacity are summarized in Table 4. Two centers predict Dco based on unpublished studies conducted at their institutions.

Sixty-six institutions did not comment on airway resistance and 16 specifically said they did not measure airway resistance. Of the 57 which supplied information on normal values for airway resistance, 48 used reference equations to predict normal values while nine used a numerical range derived from "clinical experience." The equations used to predict airway resistance are summarized in Table 5.

Table 3—*Summary of Institutions Citing References for Prediction of Lung Volumes*

	TLC		RV		FRC	
	M	F	M	F	M	F
Goldman and Becklake[13]	84	90	85	91	74	81
Crapo et al[12]	28	28	28	28	29	29
Boren et al[14]	9		9		9	
Bates et al[15]	3	3	3	3	11	11
Quanjer[6]	3	3	3	3	3	3
Other studies	8	11	7	10	9	11

Of the 139 replies analyzed, 95 (68.4 percent) responded to the question on ethnic differences. Fifty centers did not apply any ethnic correction and 45 did. Only five centers used population-specific reference equations to deal with ethnic differences.[20,25-28] The others reduced predicted values for whites by a fixed percentage: 29 institutions by 15 percent; four by "10 to 15 percent;" and seven by 10 percent. The ethnic groups to which corrections were applied usually depended upon the geographic location of the institution and usually included the predominant minorities. Our survey showed ethnic adjustments were made for blacks in all regions of the United States but not in Canada. Adjustments for American Indians were made only in Utah and Alberta, Canada. Corrections for Hispanics were reported only from Texas, for Asian Indians only from New York, and for Asians only from California.

Discussion

Despite the number of reference studies and equations available in the literature, surprisingly few equations are widely used. Three studies accounted for 85 percent of the equations used for standard spirometric indices. It was not uncommon for institutions to use a different reference equation for each spirometric parameter. While we are not aware of studies on the effects of this practice, it seems likely to increase the uncertainty that prediction equations will match the

Table 4—*Summary of Institutions Citing References for Prediction of Carbon Monoxide Diffusing Capacity*

	M	F
Burrows et al[16]	25	25
Crapo et al[17]	27	26
Miller et al[18]	25	26
Gaensler and Wright[19]	23	23
Cotes[20]	16	15
Bates et al[15]	3	2
Seloriano[21]	3	3
McGrath and Thompson[22]	1	2
Other studies	15	16

clinical population. In general, we recommend reference equations for spirometric indices be selected from a single study which has been matched to the patient population. This should be relatively easy for spirometry, but is more difficult for lung volumes, Dco, and airway resistance because there are few studies available which include complete pulmonary function tests.

Two studies account for 83 percent of the lung volume equations (Table 3) and five for 84 percent of the Dco (Table 4). The greater number of Dco equations in use may reflect the larger interlaboratory differences for Dco than spirometry or lung volumes, though a preliminary study suggests academic centers do not consistently choose reference equations which match the Dco values produced in their laboratories.[39] While all reference equations should be demonstrated to show a reasonable match with the individual laboratory's instruments and clientele, this is especially important in Dco where the variability has been demonstrated to be so great. We believe laboratories should assure that prediction equations for Dco match the data produced in their facilities by comparing measurements made on 20 to 30 healthy subjects with predicted values from several different equations.[39]

Of those who responded to the question on the adjustments made for ethnic differences, roughly half made no adjustment at all while the majority of those who did simply reduced white values by a fixed percentage which varied from institution to institution. These results confirm our impression that there is no clear consensus on whether ethnic adjustments are necessary, which ethnic groups require some sort of adjustment, and how adjustment should be approached if it is necessary. Ethnic differences in pulmonary function parameters are best documented in blacks and Asians,[20,25] but studies of ethnic differences in lung function are frequently confounded when the different ethnic groups are not studied with the same equipment and techniques. Interlaboratory variability in lung function measurements due to technical factors is large in comparison to the magnitude of ethnic differences and could mask or accentuate ethnic differences. However, comparisons among blacks, Asians and whites have generally shown whites to have the largest lung volumes, blacks to have the smallest, and Asians to have intermediate lung volumes, after adjustment for body size.[20,25,27,31] People of mixed race have been found to have intermediate values. Flow rates have usually been found to be about the same in all three ethnic groups. Studies differ on whether or not proportional adjustments of white equations are an acceptable method of dealing with the differences.[25,31] At the moment, it is acceptable to use either proportional differences or population specific equations to deal with ethnic differences. It is not, however, acceptable to ignore them.

Table 5—*Summary of Institutions Citing References for the Prediction of Airways Resistance**

	Raw
Dubois et al[26]	18
Briscoe and DuBois[28]	13
Clausen and Zarins[29]	7
Other equations	16

*Nine institutions used a numerical range for normal values rather than a prediction equation.

Reference equations from studies done in Europe are not used frequently in the United States and Canada. The summary equations reported by the standardization project of the European Community for Coal and Steel[2] were rarely cited in this survey. The pattern of the prediction equations in use has changed from that reported from a similar survey conducted in 1968.[22] Equations from larger studies using current standardized methods and newer technology are now more frequently cited.

The replies to our survey suggest the availability of automated systems—and manufacturers' default settings—may also influence the choice of equations. Forty-seven institutions responding to our survey returned manufacturer-supplied computer sheets listing the equations used. Three institutions replied they used software provided by the manufacturer and did not know what equations it was based on. These responses raise the possibility that the delay between the publication of good reference equations and their use in practice is, in part, a function of the time it takes for such information to find its way into manufacturers' computer software.

References

1 Hutchinson J. On capacity of lungs and on respiratory functions with view of establishing a precise and easy method of detecting disease by spirometer. Tr Med-Chir Soc 1846; 29:137

2 Quanjer Ph H, ed. Standardised lung function testing: report of the working party for standardization of lung function tests of the european community for coal and steel. Bull Europ Physiopathol Respir 1983; 19(Suppl 5):1-92

3 Training programs in respiratory disease. Am Rev Respir Dis 1987; 136:497-513

4 Morris JF, Koski A, Johnson LC. Spirometric standards for healthy nonsmoking adults. Am Rev Respir Dis 1971; 103:57-67

5 Morris JF, Temple WP, Koski A. Normal values for the ratio of one second forced expiratory volume to forced vital capacity. Am Rev Respir Dis 1973; 108:1000-03

6 Crapo RO, Morris AH, Gardner RM. Reference spirometric values using techniques and equipment that meet ATS recommendations. Am Rev Respir Dis 1981; 123:659-64

7 Knudson RJ, Lebowitz MD, Holberg CJ, Burrows B. Changes in the normal maximal expiratory flow-volume curve with growth and aging. Am Rev Respir Dis 1983; 127:725-34

8 Kory RC, Callahan R, Boren HG, Syner JC. The Veterans Administration-Army cooperative study of pulmonary function: clinical spirometry in normal men. Am J Medicine 1961; 30:243-58

9 Gaensler EA, Wright GW. Evaluation of respiratory impairment. Arch Environ Health 1963; 12:146-89
10 Chernick RM, Raber MB. Normal standards for ventilatory function using an automated wedge spirometer. Am Rev Respir Dis 1973; 108:38-46
11 Miller A, Thornton JC, Warshaw R, Bernstein J, Selikoff IJ, Teirstein AS. Mean and instantaneous expiratory flows, FVC and FEV1: prediction equations from a probability sample of Michigan, a large industrial state. Bull Eur Physiopathol Respir 1986; 22:589-97
12 Goldman HI, Becklake MR. Respiratory function tests: normal values at median altitudes and the prediction of normal results. Am Rev Tuberc 1959; 79:457-67
13 Crapo RO, Morris AH, Clayton PD, Nixon CR. Lung volumes in healthy nonsmoking adults. Bull Eur Physiopathol Resp 1982; 18:419-25
14 Boren HG, Kory RC, Syner JC. The Veterans Administration-Army cooperative study of pulmonary function: the lung volume and its subdivisions in normal men. Am J Medicine 1966; 41:96-114
15 Bates DV, Macklem PT, Christie RV. Respiratory function in disease, 2nd ed. Philadelphia: WB Saunders, 1971
16 Burrows B, Kasik JE, Niden AH, Barclay WR. Clinical usefulness of the single-breath pulmonary diffusing capacity test. Am Rev Respir Dis 1961; 84:789-806
17 Crapo RO, Morris AH. Standardized single breath normal values for carbon monoxide diffusing capacity. Am Rev Respir Dis 1981; 123:185-89
18 Miller A, Thornton JC, Warshaw R, Anderson H, Tierstein AS, Selikoff IJ. Single breath diffusing capacity in a representative sample of the population of Michigan, a large industrial state. Am Rev Respir Dis 1983; 127:270-77
19 Gaensler EA, Wright GW. Evaluation of respiratory impairment. Arch Environ Health 1966; 12:146-89
20 Cotes J. Lung function: assessment and application in medicine. 1st ed. London: Blackwell Scientific Publications, 1965
21 Salorinne Y. Single-breath pulmonary diffusing capacity. Scand J Respir Dis 1976; 95(suppl):1-84
22 McGrath MW, Thompson MC. The effect of age, body size, and lung volume change on alveolar capillary permeability in man. J Physiol 1959; 146:372-81
23 DuBois AB, Botelho SY, Comroe JH Jr. A new method for measuring airway resistance in man using a body plethysmograph: Values in normal subjects and in patients with respiratory disease. J Clin Invest 1956; 35:327-35
24 Briscoe WA, DuBois AC. The relationship between airway resistance, airway conductance, and lung volume in subjects of different age and body size. J Clin Invest 1958; 37:1279-85
25 Clausen JL, Zorins LF, eds. Pulmonary function testing—guidelines and controversies. New York: Academic Press, 1982:165-85
26 Corey PN, Ashley MJ, Chan-Yeung M. Racial differences in lung function: search for proportional relationships. J Occup Med 1979; 21:695-98
27 Woolcock AJ, Colman MH, Blackburn CRB. Factors affecting normal values for ventilatory lung function. Am Rev Respir Dis 1972; 106:692-709
28 Schoenberg JB, Beck GJ, Bouhuys A. Growth and decay of pulmonary function in blacks and whites. Resp Physiol 1978; 33:367-93
29 Clausen JL, Crapo R, Gardner R. Interlaboratory comparisons of pulmonary function testing (Abstract). Am Rev Respir Dis 1984; (Suppl:A37)
30 Crapo RO, Gardner RM. DLCO reference equations: a perspective. Am Rev Respir Dis 1986; 134:856
31 Rossiter CE, Weill H. Ethnic differences in lung function: evidence for proportional differences. Int J Epidemiol 1974; 3:55-61
32 Leiner GC, Abramowitz S, Small MJ. Pulmonary function testing in laboratories associated with residency training programs in pulmonary diseases. Am Rev Respir Dis 1966; 100:240-44
33 Baldwin E, Cournand A, Richards DW Jr. Pulmonary insufficiency: physiological classification, clinical methods of analysis, standard values in normal subjects. Medicine 1948; 27:243-78

ATTACHMENT NO. 2

JAN 2 1 2000

WORKERS' COMPENSATION OFFICE OF JUDGES

MERLIN BENTLEY
Claimant
and
HOUDAILLE INDUSTRIES, INC.
Employer

Claim No. 233-40-8902
98-43263 OP

Transcript of proceedings held in the Workers' Compensation Division Hearing Office, One Players Club Drive, Kanawha County, Charleston, WV, on the 12th day of January, 2000, for the purpose of adducing the testimony of Members of the OCCUPATIONAL PNEUMOCONIOSIS MEDICAL BOARD.

BEFORE: MARTHA HILL, Administrative Law Judge

APPEARANCES: WILLIAM HARVIT, Atty at Law
2018 Kanawha Boulevard, East
Charleston, WV 25311
representing the Claimant

(No one appeared for the Employer)

CASSEL PULLIAM, Atty at Law
Workers Comp. Litigation Unit
One Players Club Drive
Charleston, WV 25305
representing the Division

JAN 27 2000

cc: WILLIAM HARVIT
EMPLOYER
CASSEL PULLIAM

INDEX

Witness	Cross by Mr. Harvit
Dr. James H. Walker	4
Dr. Jack L. Kinder	10

JUDGE HILL: In the claim of Merlin Bentley and Houdaille Industries, Claim No. 98-43263. The Claimant protested the Division's Order of September 4, 1998, which granted a 5% award. This is a final hearing today. The Claimant is present by counsel, William Harvit; the Division is represented by counsel, Cassel Pulliam; no one represents the Employer. It's also a Board to Review. Mr. Harvit.

MR. HARVIT: Thank you, Judge.

(Board Sworn)

DR. JAMES H. WALKER, Chairman,
and
DR. JACK L. KINDER, Member

being duly sworn, testified as follows:

CROSS-EXAMINATION OF DR. WALKER

BY MR. HARVIT:

Q Dr. Walker, this is a presumptive claim in which this gentleman was exposed to dust for over 33 years. We had a hearing in this case - and I'm sure you've read the transcript – back in October; and prior to that time we had submitted Dr. Gaziano's vents from a study done in November, November

30, 1998. And the vents he obtained at that time were higher than the Board's.

And when we discussed this case last time in October, it was your position and the position of the Board that Dr. Gaziano's vents should be converted to the Kory standard rather than the Morris standard which he used. Has that been done?

A Yes, sir.

Q Okay. What's...well, first of all, let me ask you what...because I haven't seen those results.

A Well, they've been sent to the Fund. Would you like to see them now?

Q Okay. Yeah, if you don't mind. I can get a copy before we leave.

DR. WALKER: Do you have it?

MR. PULLIAM: I don't have it. I'll get a copy too; thank you very much.

BY MR. HARVIT:

Q Just so that I'm clear and the record is clear, what was done here was the actual volumes from Dr. Gaziano's November 1998 study were taken and those specific volumes were applied to the Kory

standard; is that correct?

A Kory nomogram.

Q Kory nomogram, okay. The predicted FVC that the Board obtained on the Kory nomogram was 3.93; is that...

A I don't have it

Q Okay. We'll probably going to have to share it back and forth.

A Yes, sir.

Q And the predicted nomogram on Dr. Gaziano's study under Morris was 4.10; is that correct?

A Yes, sir.

Q What was the percent of predicted under the Kory nomogram?

A 101%.

Q 101. And under Dr. Gaziano, it was 97; is that...

A Yes, sir.

Q Okay. Did the FEV1 change much from Dr. Gaziano's results?

A It is now 94%.

Q He had 97% under Morris. The difference between the Kory and Morris nomograms would not have changed the ratio result, would they?

A Yes, sir.

Q What ratio did you come up with

A 68%.

Q Which is the same that Dr. Gaziano came up with, the 68%. So it didn't change in that respect?

A That is correct.

Q What would 68% represent on the table for impairment?

A 20%.

Q Are there other factors here that...I assume there are other factors that you considered in terms of the clinical evaluation and the Board's studies in arriving at your opinion, of whatever percentage your opinion is that this gentleman had?

A The Claimant had rales and wheezing present. And after a review of all the evidence in the record, it's now my opinion that this would represent...or the record would represent 10% impairment due to occupational pneumoconiosis.

Q So you're recommending an increase of 5% over and above the 5% he was previously granted?

A Yes, sir.

Q Alright. The rales and wheezing that were noted

clinically, Dr. Walker, could those not have been caused or aggravated by exposure to dust and asbestos?

A I don't know that they were or not. In my best medical judgment, with a 42 pack year history of smoking, it would be my opinion that the rales and wheezing were due to non-occupational causes.

Q Okay. And just so I'm clear and so my client is clear when he reads this transcript, the additional award, the additional 5%, is based principally upon the ratio result here; is that correct?

A Based upon the review of the entire record.

Q Well, I understand that.

A Sure.

Q In terms of the breathing study itself, because the other two, the FVC and the FEV_1 were essentially normal, were they not?

A Yes, sir.

Q Okay. And if you would, explain on the record for my client why you could have a FVC and FEV1 that's normal and a ratio that's abnormal. Because I know that question is going to be asked of me, and I would prefer you answer it rather than me.

A Well, I think you can answer it as well as I can. It's a mathematical calculation.
Q Well, what does the ratio tell the Board in terms of...
A It tells the Board that there is some obstruction to air flow.
Q Some obstruction to...
A To air flow.
Q To air flow?
A Yes.
Q And that's a...the ratio has been used by the Board for many years, has it not?
A Yes, sir.
Q And I think you had said in a previous hearing that the Board has used it for 25 or 30 years, on the recommendation of Dr. George Wright (phonetic). Is that who you had mentioned?
A I don't have recall about that.
Q Okay.
A But I do know that Dr. Wright was probably the foremost pulmonary pathologist in the country formerly at Saranac (phonetic) Lake, New York and then the Cleveland Clinic. And he testified at hearing before the Occupational...before the

Silicosis Medical Board, and I believe for the Occupational Pneumoconiosis Board.
Q And it was his recommendation at that time that a ratio should be used to determine any obstructive airway disease I guess?
A I don't have specific recall for 25 years ago, but I believe that's probably correct.
Q And the Board has used it since then and will continue to use it I would assume?
A I would assume so unless we're told we can't.
MR. HARVIT: Thank you, Dr. Walker; I appreciate it.
MR. PULLIAM: I have nothing; thank you.

CROSS-EXAMINATION OF DR. KINDER

BY MR. HARVIT:
Q Dr. Kinder, what's your opinion in this case?
A Based on the pulmonary function studies by Dr. Gaziano, this gentleman has 10% impairment I would attribute to occupational pneumoconiosis.
Q And you would attribute the remaining impairment to other non-occupational factors?
A Yes.
MR. HARVIT: Thank you, Dr. Kinder.

DR. KINDER: Thank you, sir.
JUDGE HILL: Do you have any questions, Mr. Pulliam?
MR. PULLIAM: Nothing; thank you.
MR. HARVIT: I have no questions of Dr. Leef.
JUDGE HILL: Okay. May it be submitted?
MR. HARVIT: The claim may be submitted.
JUDGE HILL: The hearing is closed. A submit order will be issued upon receipt of the transcript.

STATE OF WEST VIRGINIA,
WORKERS' COMPENSATION DIVISION, to wit:

I hereby certify that the foregoing proceeding was transcribed from a recorded type.

This, the 19th day of January, 2000.

LISA M. HANSON

ATTACHMENT NO. 3

AMERICAN REVIEW OF
Respiratory Disease

November 1991 Volume 144 Number 5
ISSN-0003-0805

CONTENTS

EDITORIALS

Is Asthma T-cell Mediated?
Carolyn L. Rochester and John A. Rankin 1005

Phascinating Physiology
Arlene A. Stecenko and Alastair A. Hutchison 1008

ARTICLES

Bronchial Responsiveness and Lung Function in Recurrently Wheezy Infants
Stephen M. Stick, Jacqueline Arnott, Debra J. Turner, Sally Young, Louis I. Landau, and Peter N. Lesouëf 1012

Glucocorticoid Resistance in Chronic Asthma: Glucocorticoid Pharmacokinetics, Glucocorticoid Receptor Characteristics, and Inhibition of Peripheral Blood T Cell Proliferation by Glucocorticoids *In Vitro*
C. J. Corrigan, P. H. Brown, N. C. Barnes, S. J. Szefler, J. J. Tsai, A. J. Frew, and A. B. Kay 1016

Glucocorticoid Resistance in Chronic Asthma: Peripheral Blood T Lymphocyte Activation and Comparison of the T Lymphocyte Inhibitory Effects of Glucocorticoids and Cyclosporin A
C. J. Corrigan, P. H. Brown, N. C. Barnes, J. J. Tsai, A. J. Frew, and A. B. Kay 1026

Role of Airway Mechanoreceptors in the Inhibition of Inspiration during Mechanical Ventilation in Humans
Peggy M. Simon, James B. Skatrud, M. Safwan Badr, Dwayne M. Griffin, Conrad Iber, and Jerry A. Dempsey (with the technical assistance of Elfi Garber and Diane Landry) 1033

Influence of Inhaled Atropine on Lung Mucociliary Function in Humans
Maritza L. Groth, Edward G. Langenback, and W. Michael Foster 1042

Nasal and Pharyngeal Resistance after Topical Mucosal Vasoconstriction in Normal Humans
Michael J. Wasicko, James C. Leiter, Joseph S. Erlichman, Richard J. Strobel, and Donald Bartlett, Jr. 1048

Leukotrienes C_4, D_4, and E_4 Enhance Histamine Responsiveness in Asthmatic Airways
Stephen P. O'Hickey, Richard J. Hawksworth, Chiew Y. Fong, Jonathan P. Arm, Bernd W. Spur, and Tak H. Lee 1053

Outbreak of the Reactive Airways Dysfunction Syndrome after a Spill of Glacial Acetic Acid
David G. Kern 1058

Asthma and Allergy Associated with Occupational Exposure to Ispaghula and Senna Products in a Pharmaceutical Work Force
Guy B. Marks, Cheryl M. Salome, and Ann J. Woolcock 1065

THE AMERICAN REVIEW OF RESPIRATORY DISEASE (ISSN 0003–0805) is published by the American Lung Association and issued monthly about the first of the month. The REVIEW is the official journal of the American Thoracic Society. A volume includes six numbers and begins with the January and July issues. Subscription price is $130 per year for individuals in the U.S.A., Canada, and Mexico, and $185 for libraries and institutions. Subscription rate for individuals outside North America is $170 per year, and for libraries and institutions, $225 per year. The price of single copies is $20 in U.S.A., Canada, and Mexico; $22 outside North America.

The contents of this journal are included in Current Contents/Life Sciences®, Current Contents/Clinical Medicine®, Current Contents/Life Sciences on Diskette®, and Radline.

Published monthly at 1740 Broadway, New York, NY 10019 by the American Lung Association. Second class postage paid at New York, NY and at additional mailing office at Montpelier, Vermont. Postmaster: Send address changes to American Review of Respiratory Disease, 1740 Broadway, New York, NY 10019.

American Thoracic Society

MEDICAL SECTION OF THE AMERICAN LUNG ASSOCIATION

LUNG FUNCTION TESTING: SELECTION OF REFERENCE VALUES AND INTERPRETATIVE STRATEGIES

THIS OFFICIAL STATEMENT OF THE AMERICAN THORACIC SOCIETY WAS ADOPTED BY THE ATS BOARD OF DIRECTORS, MARCH 1991.

Contents

Introduction
- Background
- Focus

Sources of Variation in Lung Function Testing
- Conceptual issues pertinent to the interpretation of lung function tests
- Technical sources of variation
- Procedural sources of variation
- Biologic sources of variation

Statistical Considerations in the Derivation of Prediction Equations
- General comments
- Characterizing the distribution and determinants of lung function in reference populations
- Evaluating prediction equations
- Distributions and "lower limits of normal"

Sources, Uses, and Selection of Reference Values
- General comments
- Sources of reference equations
- Determination of the "normal range"
- Smoking as an independent variable
- Cross-sectional and longitudinal predictions
- Criteria for selection of reference values
- Published reference equations
- Limitations of currently available equations

Interpretative Strategies
- Conceptual issues concerning normality and the limits of normal
- Obstructive and restrictive ventilatory defects
- Bronchodilator response
- Interpretation of lung function tests in clinical practice

Recommendations
- Overall
- Selecting reference values
- Recommendations for interpretation

Introduction

Background

During the last 3 decades lung function tests have evolved from tools for physiologic study to clinical tools widely used in assessing respiratory status. In addition to their use in clinical case management, they have become a part of routine health examinations in respiratory, occupational, and sports medicine and in public health screening. It is common practice for the results of lung function tests to be interpreted in relation to reference values, and in terms of whether or not they are considered to be within the "normal" range (1–6). A wide selection of published reference values and "lower limits of normal" is available (4). Computerized equipment adds a new dimension with preselected or menus of reference values and interpretation algorithms whose origin and justification may be unclear.

To maximize the clinical value of lung function tests and to assist those managing clinical lung function testing laboratories, the American Thoracic Society (ATS) (7–12), the European Community for Coal and Steel (ECCS) (4), and the European Society for Clinical Respiratory Physiology (13) have published guidelines, focusing primarily on spirometry as the most widely used lung function test. The 1987 ATS statement in spirometry (8) outlined the steps necessary to achieve standardization: (*1*) equipment performance, validation, and quality control; (*2*) subject performance; (*3*) measurement procedures to determine acceptability and reproducibility; (*4*) reference values and interpretation. The first three have been addressed in official statements or position papers of the ATS (7–12). This statement addresses the fourth.

Focus

The charge by the ATS was to prepare a comprehensive and practical document dealing with conceptual issues and their scientific basis and providing guidelines for daily use in two areas: (*1*) selecting reference values and (*2*) interpretative strategies. The statement was to address the concerns of those who generate lung function reports and those who use lung function reports to assist in clinical case management. Epidemiologic and public health issues are not addressed though epidemiologic studies provide the scientific basis for many of the concepts used in interpreting lung function results. The ATS has published standardization procedures for epidemiologic studies (14). The focus of this statement is spirometry, but reference is made to other lung function tests when pertinent.

Although the statement deals primarily with adults, the conceptual issues apply to children as well. Terms and abbreviations follow the American College of Chest Physicians (ACCP)-ATS joint committee on pulmonary nomenclature recommendations (15). The next four sections deal with conceptual issues and their scientific basis; the last section deals with practical considerations and recommendations.

Sources of Variation in Lung Function Testing

Conceptual Issues Pertinent to the Interpretation of Lung Function Tests

All clinical measurements, including pulmonary function tests, are subject to (*1*) technical variation related to instrument, procedure, observer, subject, and their interactions; (*2*) biologic variation, the focus of interest of most of the nonclinical biological sciences; (*3*) variation caused by dysfunction or disease, the focus of clinical medicine (5). In clinical pulmonary function testing, it is important to minimize the variation caused by technical factors and to take biologic variation into account so that variations caused by disease can be properly interpreted. Sources of technical and biologic variation and the estimated magnitude of their effects are listed in tables 1 and 2.

Interpretation of pulmonary function tests depends upon establishing the variation of interest (the signal) and its relation to all other sources of variation (the noise) (5). Which sources of variation constitute signal and which noise will depend on the question being asked. For instance, in a physiologic study of the effects of posture on FEV_1, variation caused by posture would constitute the signal and all other sources of within-individual variation, the noise. Similarly, in an epidemiologic study of the effects of an occupational exposure on a work force, variation caused by exposure will constitute the signal, and all other sources of between population variation, the noise. In the clinical context, signal and noise will vary according to the clinical question. For instance, when assessing the outcome of a treatment, the signal would be the change after treatment, and the noise would be within-individual variation in the absence

TABLE 1

SOURCES OF VARIATION IN LUNG FUNCTION*

Source	Determinants
Technical	Instrument, subject, posture, observer, procedure (including number of tests), software; temperature; altitude
Biologic	
Within individual	All of the above
	Diurnal (circadian) and seasonal effects, endocrinologic effects
Between individual	All of the above
	Personal factors, including size, age, sex, physical activity, muscularity, race, and other genetic characteristics and past and present health
	Environmental factors, including tobacco smoke (personal and environmental), occupation, residence (urban or rural), air pollution (home, environmental), and socioeconomic status
Between population	All of the above
	Selection factors which determine inclusion or exclusion of certain subjects from study populations

* Based on table in reference 5 and reproduced with permission.

TABLE 2

ESTIMATES OF THE PROPORTION OF MEASURED BETWEEN-INDIVIDUAL VARIATION IN FEV, OR FVC IN ADULTS ATTRIBUTABLE TO IDENTIFIED FACTORS*

Factor		Proportion of Variation Attributable
Sex		up to 0.30
Age	0.08	
Height	0.20	up to 0.30
Weight	0.02	
Ethnic differences		0.10
Technical		0.03
Unexplained†		0.27
Total		1.00

* Reproduced with permission from reference 5.

† Includes all other determinants of biologic variation discussed in SOURCES OF VARIATION IN LUNG FUNCTION TESTING whether environmental (e.g., smoking, active, and passive, occupational exposures, residential pollution, socioeconomic status) or host, (e.g., genetic, allergic, past and present respiratory health status). The latter two are usually the focus of interest to the clinical pulmonary function laboratory.

of treatment. When lung function tests are used as an aid in diagnosis, the signal is usually the patient's results compared with the expected result for subjects without disease but similar in the personal characteristics that determine lung function such as sex, size, age, and, possibly, race (table 1).

Technical Sources of Variation

INSTRUMENTATION

Detection of instrument problems is an integral part of interpretation. Readers should consult ATS recommendations on spirometry and D_{LCO}, which give practical limits of acceptable instrument variability (7–9). Instruments and procedures used in developing of reference values and those used to evaluate patients should meet, and preferably exceed, current ATS recommendations.

PRECISION AND ACCURACY

In considering the variability of a test, a distinction must be made between precision and accuracy. Precision refers to the repeatability of the measurements, even if the values obtained are not accurate (16). Accuracy, which is not easy to establish, refers to how close the measurements made by an instrument are to the "true" value. Because most instruments have better precision than accuracy, between-instrument variation usually contributes more to total measurement variability than within-instrument variation.

COMPUTER SOFTWARE AND HARDWARE

Overall, the use of computers in spirometry systems has reduced technical variability; nevertheless errors associated with computers occur. Even small differences in the techniques used to calculate flow can produce relatively large differences in derived flow measurements (17, 18). It is imperative that spirometry systems using computers be validated initially and each time changes are made in software or hardware. One simple method of validating computer computations is to compare manual calculations of spirometric values with computer-calculated values. The values should be close, ± 2 to 3%, but they will not be identical. Computers can also provide immediate feedback on the success of a subject's performance and improve overall test quality. Quality control algorithms that detect coughs, late peak flows, premature termination of effort, excessive extrapolated volumes using the back extrapolation technique, and excessive variation between maneuvers can be programmed to provide immediate feedback to the technician.

SPECIAL CONSIDERATIONS FOR TESTING CHILDREN

Equipment for testing children should have an accuracy for volume of ± 50 ml to below 0.5 L. The output for the hard copy display should be scaled to the size of the signal with a variable attenuation to a minimum of 30 mm/L. There should be a visible real-time display to encourage both the child and the technician and to ensure that effort is sustained over a sufficient time. Equipment, including mouthpieces and noseclips, should be adjustable and comfortable for children with heights as low as 120 cm. Children should be tested in a laboratory where personnel are familiar with clinical testing of children and where interpretations can be made by persons familiar with pulmonary function testing in children. Detailed recommendations for pediatric testing have recently been issued by the European Society of Clinical Respiratory Physiology (13).

Procedural Sources of Variation

The largest single source of within-subject variability is improper performance of the test. Therefore, interpretations of spirometry should include a statement about test quality before any other interpretation is rendered. The ATS (7–12), the ECCS (4), the California Thoracic Society (2), the Intermountain Thoracic Society (19), the European Society for Clinical Respiratory Physiology (13), and several texts (1, 3, 20–23) have all recognized the importance of procedure in reducing measurement variability. Readers should consult these references for detailed recommendations.

Biologic Sources of Variation

WITHIN-INDIVIDUAL (INTRAINDIVIDUAL) VARIATION

This section addresses short-term intraindividual variations in lung function that do not originate with instrumentation and are not related to disease, environment, the intake of drugs, smoking, or failure of the subject to inspire or expire maximally during spirometric maneuvers. The main residual sources of variation are: (*1*) body position, (*2*) head position, (*3*) effort dependence of maximal flows, and (*4*) circadian rhythms.

(*1*) *Body position.* Body position affects spirometric volumes, particularly FVC and VC, which are 7 to 8% lower in the supine than in the standing position and 1 to 2% lower in the sitting than in the standing position (24–27). Body position should be kept constant in comparison studies. The standing position may be particularly advantageous for obese subjects (28).

(*2*) *Head position.* Systematic increases in maximal expiratory flows have been documented during neck hyperextension (29). These increases are believed to be related to elongation and stiffening of the trachea and range from minimal to 35% of baseline values for lung volumes above FRC (60 to 80% of VC). Corresponding changes in FEV_1 have not been documented. Conversely, neck flexion may decrease peak expiratory flow rate (29) and increase airway resistance (30). Avoiding hyperextension and flexion of the neck seems sufficient to eliminate this source of variability. The effect of neck position is usually less than that of body position, but it may be important for patients tested in bed.

(*3*) *Effort dependency of maximal flows.* The imperative for standardization is one reason for the recommendations that the expiratory maneuver be performed with maximal effort. Nevertheless, FEV_1 may be 100 to

200 ml lower when the effort is maximal compared with submaximal efforts because the airways are narrower with respect to the exhaled volume (31–34). Variable expiratory effort may thus be a confounding factor when assessing small changes in maximal flows or timed volumes such as those resulting from bronchodilator response, therapy, or aging. When a flow-volume curve is available, peak expiratory flow may be an index of maximal expiratory effort (31). In some subjects, repeated maximal efforts may trigger bronchospasm, resulting in a progressive decrease in FVC and FEV_1 (35). This may also account for a subject's inability to achieve the reproducibility standard recommended by the ATS. It is of interest that failure to meet these reproducibility standards may itself be a measure of less than perfect health (36, 37).

(*4*) *Circadian rhythms.* Variations in lung function tests with a period of approximately 24 h are well documented (38–40). For maximal expiratory flows, the lowest values are usually seen in the early morning (4 to 6 A.M.), and the largest values are seen around noon (38). In healthy subjects, FEV_1 has been shown to increase by about 0.15 L in the morning and decrease by 0.05 L in the afternoon (39); for peak expiratory flow rate (PEFR), the peak-to-trough amplitude is on the order of 8% (40). Circadian variations have also been documented for airway resistance, specific airway conductance, functional residual capacity, total lung capacity, and residual volume (41–44). The mechanisms responsible for these diurnal variations in lung function have not yet been elucidated (45, 46). Much larger diurnal changes are seen in asthmatic patients who often exhibit a severe "morning dip" in pulmonary function parameters with decreases of 50% or more in PEFR (40, 41, 47, 48). As with healthy subjects, the largest values are usually seen around noon, but this pattern may be substantially shifted by the timing of treatment (49). Exaggerated circadian variations have also been observed in patients with chronic bronchitis (50, 51). Seasonal variations of respiratory function have also been recorded (49).

Between-Individual (Interindividual) Variability: Host Factors

The most important host factors responsible for interindividual variation in lung function are (*1*) sex and size, and (*2*) aging, which account for approximately 30, 22, and 8%, respectively, of the variation in adults (5) (table 2). Other sources of interindividual variation are (*3*) race and (*4*) past and present health. Approximately 27% of interindividual variation remains unexplained (5) (table 2).

(*1*) *Size and sex.* Size is usually measured as standing height (6, 52). Sitting height, not as easy to measure as standing height, generally explains less of the variability (53), but it may be a useful predictor in certain circumstances (e.g., when dealing with a population of mixed ethnic origins, see below). Arm span measurements provide a practical substitute for standing height in subjects unable to stand or those with a skeletal deformity such as kyphoscoliosis (19, 54). Lung function is decreased at both extremes of weight (55, 56). Including measurements of chest circumference only slightly improves the prediction of lung function (57–60). Variations in airway and air-space dimensions and geometry also contribute to interindividual variation in lung function (61, 62). Accurate methods of measuring airway and air-space geometry are not widely available, and the contribution these measurements will make to increasing prediction accuracy is unknown. After correcting for body size, girls appear to have higher expiratory flows than do boys, whereas adult men have larger volumes and flows than do women (6, 63, 64).

(*2*) *Aging.* An appropriate model for lung function changes caused by aging during the adult years includes a period after adult height is attained in which there is either an increase (usual in young men) or little or no decrease in function (usual in young women), after which the function decreases at an accelerating rate with increasing age (6, 65) (see also Growth section below). These accelerated aging effects are typically found in longitudinal studies and not in studies based on cross-sectional data. The differences between cross-sectional and longitudinal studies are explained by both statistical issues (66–69) and cohort effects (5, 6, 52, 55, 70).

(*3*) *Race.* Race has been consistently shown to be an important determinant of lung function (20, 55, 58, 63, 64, 71–83). When compared with Caucasians of European descent, values for most other races usually show smaller static and dynamic lung volumes and lower forced expiratory flow rates but similar or higher FEV_1/FVC ratios. In some population groups diffusing capacity (transfer factor) is also lower (71). Regression equations derived from white populations using standing height as the measure of size usually overpredict values measured in black subjects by about 12% for TLC, FEV_1, and FVC and by approximately 7% for FRC and RV (20). People of mixed race usually have intermediate values. These differences persist after allowances are made for age, stature, smoking, air pollution, habitual activity, and altitude. The reason for the differences between the races is unclear. Differences may be due in part to differences in body build (58, 63, 64, 72–76). Blacks, on average, have a smaller trunk:leg ratio than do whites (77). The use of sitting height as an index of body size in prediction equations reduces but does not fully eliminate the observed differences between whites and blacks (58, 63, 64, 77) or the differences between Europeans, Indians, and Asians. Environmental differences, perhaps relating to nutrition, physical activity, community air pollution, and socioeconomic factors are also thought to contribute to these differences (78–85).

(*4*) *Past and present health.* Lung function at any one point in time reflects not only the present health of the individual but also the sum of all the insults and injuries the lung has sustained in the past including those from the prenatal and immediate postnatal periods (86–88).

Between-Individual (Interindividual) Variation: Environmental Factors

The effects of exposure to tobacco smoke, by far the most important environmental factor known to alter lung function, are well documented elsewhere (89). In this section consideration is given to other environmental factors that account for between-individual differences in lung function.

(*1*) *Geographic factors.* Altitudes as high as 1,500 m do not appear to cause measurable changes in lung volumes, though measurement of some flow rates may be affected by changes in air density even at these altitudes (90–92). FEV_1 and forced expiratory flows are slightly increased at high altitudes, mainly because of the decreased density of air (93, 94). During acute exposures to altitude there may be slight reductions in VC, TLC, and FRC, most likely because of increased thoracic fluid (95). Those residing at high altitudes probably have larger lung volumes than do residents at low altitudes. The reasons are unclear because of the confounding effects of variables such as nutrition (96, 97).

(*2*) *Exposure to environmental and occupational pollution.* Exposure to airborne irritants such as ozone, nitrogen dioxide, sulfur dioxide, and sulfuric acid may produce measurable transient changes in pulmonary function tests in controlled human exposure experiments and epidemiologic studies (98–102). Those who are exercising and sensitive subgroups of the general population have increased responses. For example, short-term exposures (minutes) to high concentrations of SO_2 can trigger transient bronchoconstriction in exercising asthmatics (103). Reduced lung function levels and an increased rate of decline in lung function have been associated with long-term exposures to sulfur oxides, inhalable particles, and photochemical oxidants (100).

Environmental exposure to tobacco smoke appears to affect the lung function of children (104, 105) and, possibly, adults (106–108). More recent observations also show an effect on bronchial reactivity in children (109). The health effects of other indoor pollutants have not yet been conclusively established (110, 111). Exposure to occupational pollutants, including dusts, chemicals, gas, etc., may induce acute and chronic changes in lung function (112–114).

(*3*) *Socioeconomic status.* Adverse effects of low socioeconomic status on lung function are well documented and detectable even in industrialized countries (85, 115, 116). Low socioeconomic status is often associated with unfavorable environmental conditions such as living in polluted urban-industrial areas, increased environmental and occupational exposures, increased indoor air pollution, increased rates of respiratory illness, and decreased access to health care. Moreover, dif-

ferences in lung function attributed to genetic factors may be partly or even largely attributable to differences in socioeconomic status (84).

Growth

Growth affects the relationships between indices of body size and spirometric measurements in children and adolescents. Some of the determinants of lung volumes and ventilatory flows are therefore briefly reviewed here.

(*1*) *Relationship to height.* The relationship of ventilatory function to height from childhood through late adolescence to adulthood is not linear. Prediction equations for children are usually based on power or exponential functions of height, both of which seem to fit the data equally well (63, 64, 117–120).

(*2*) *Age-dependence.* Growth in standing height, measured in cross-sectional or longitudinal population studies, is not in phase with lung growth during the adolescent growth spurt (120–125). Growth in chest dimensions lags behind that of the legs (60, 122, 124, 125). In boys, standing height and VC are often not maximal by 17 yr of age (123). VC continues to increase after growth in height ceases and may not be maximal until after 25 yr of age. Girls, however, seem to attain their maximal values at about 16 yr of age (120, 122, 123). In younger subjects, FVC and FEV_1 seem to track constant percentiles over time (126). Ideally, developmental rather than chronologic age should be included in prediction equations for children and adolescents, but such equations are not available or practical.

(*3*) *Respiratory muscles.* The opposing effects of increasing muscularity and obesity have been invoked to explain the observed increase in ventilatory function that parallels increase in body mass and the decline in lung function beyond an optimal weight (55). Likewise, an increase in lung volumes and body mass when growth in height had stopped has been attributed to an increase in muscle mass and the consequent increase in respiratory muscle force (124, 127, 128). However, data on maximal inspiratory and expiratory pressures generated at different ages are inconclusive. No differences were observed between respiratory pressures in adolescents and adults (129). In adolescents there is evidence of only a small increase in maximal respiratory pressure with growth of the lung and thorax (130–134). The average maximal respiratory pressures of boys are larger than those of girls (130–133). Although there is a large variability in maximal inspiratory and expiratory pressures between individuals of the same sex, respiratory force accounts for only a small portion of the differences in ventilatory function (134, 135).

(*4*) *Elastic properties.* From the neonatal period to old age, the thoracic cage grows stiffer (136). Lung recoil increases from birth to adulthood and then decreases with aging (136–143). The relatively constant FRC/TLC ratio (120) and the measurements of respiratory system mechanical properties (136) suggest that changes in lung and chest recoil are well balanced during growth.

(*5*) *Lung volumes and ventilatory flows.* From childhood to adulthood the FEV_1/FVC ratio and the ratio of maximal expiratory flow (derived from flow-volume curves) to the FVC are almost constant. Girls generate larger expiratory flows than do boys of the same age and stature (120, 127, 135, 144, 145). This is due in part to the fact that girls have a smaller VC for the same TLC than do boys, but it may also reflect both the smaller muscle mass and the smaller number of alveoli found in girls (146). Airway tone appears to decrease in girls but not in boys after a deep inspiration (147). Finally, in children between 2 and 12 yr of age airway resistance is less in girls than in boys (148). These observations warrant using different prediction equations for boys and girls at all ages.

Statistical Considerations in the Derivation of Prediction Equations

General Comments

Reference equations provide a context for evaluating the pulmonary function values of an individual patient or subject in comparison to the distribution of measurements in a reference population. The clinician's request for tests often contains the implicit question: Are these results below the "lower limit of normal?" This section deals with statistical aspects and limitations of this concept.

Characterizing the Distribution and Determinants of Lung Function in Reference Populations

Subjects with similar characteristics for the variables that affect lung function (sex, age, height, race) can be grouped together in a stratum or a cell. Comparing the performance of an individual subject with the values generated from a reference population requires one to know something about the data in the appropriate cell, specifically: (*1*) the number in the cell, (*2*) measures of central tendency such as the mean value, (*3*) estimates of dispersion such as variance or standard deviation (SD), and (*4*) information about the symmetry of the distribution. If the number of subjects in each cell is sufficient, lung function can be described by providing descriptors of the distribution such as mean and SD. Such tabulations are infrequently used for lung function because there are too many possible cells (consider all possible combinations of age and height). Regression equations are an economical and efficient alternative method to describe expected values as a function of sex, height, and age. Regression techniques assume that pulmonary function varies in a symmetric fashion about the mean value in each cell and that the variance about the mean is constant from one cell to another. The closer the distribution of pulmonary function values comes to symmetry or, better still, to a Gaussian distribution within cells, the more it is possible to take advantage of the simplifications possible with Gaussian data.

Evaluating Prediction Equations

Linear regression is the most common but not the only model used to describe pulmonary function data in adults. Such equations perform less well at the edges of the data distribution and in those cells where there are few data. Estimates are likely to be misleading if they go beyond the range of the independent variables used to create the equation. Regression analyses are often simplified by restricting the range of possible values to cells (ranges of height and age) in which reasonable predictions are possible. One approach to regression analysis is to use separate simple regression equations for several different age groups (149, 150). This approach may introduce conflicting estimates at the points of transition between equations.

Complex equations may provide more biologically plausible models and reduce the average differences between observed and predicted values for every cell (e.g., age and height) in comparison with simple linear equations. The improved predictions, however, usually come at the cost of increased complexity of computation.

The most commonly reported measures of how well regression equations fit the data they describe are the square of the correlation coefficient (r^2) and the standard error of the estimate (SEE). The proportion of variation in the observed data explained by the independent variables is measured by r^2. The SEE is the average SD of the data around the regression line. SEE will decrease and r^2 will increase as regression methods diminish the differences between predicted and observed pulmonary function values in the reference population. When the same equations are used to describe a different population, SEE will invariably be larger, and r^2 will be smaller. In addition, since these statistics reflect average characteristics of the regression, r^2 and SEE may not reflect the ability of the equation to describe the tails of the distribution or the limits of "normal," and therefore are not sufficient criteria on which to choose the best equations to evaluate a clinical population.

Distributions and "Lower Limits of Normal"

Distributions of FEV_1 and FVC in population studies are usually found to be close to Gaussian in the middle age range, but not at the extremes. Distributions of flow measurements and ratio measures (e.g., FEV_1/FVC) are usually not symmetric (149). Transformation or age statification of the data may help produce symmetric distributions about the mean. Ideally, publications describing reference populations should include not only the prediction equations but also a means of defining their lower limits. In the absence of explicit recommendations, a lower limit can be estimated from a regression model. For spirometry, values below the fifth percentile are taken as below the expected range (below

the "lower limit of normal"), and those above the fifth percentile are taken as within the expected range (149, 150). Percentiles can be calculated directly from the data if there are sufficient measurements within each category (56, 149, 150). If individual observations have a distribution close to Gaussian, the value of the fifth percentile can be roughly estimated as: Lower limit of normal = Predicted value $-1.645 \times$ SEE. Ideally, the SD of the residuals should be constant for all cells. This is true for some equations for adults (149). In other studies, the estimated SD for the logarithm of FVC and FEV_1 among preadolescent children, and for height-adjusted FVC and FEV_1 among adults, appears to be constant for each sex and race (56). If SD is proportional to the predicted mean value, as it may sometimes be in children (126), the fifth percentile can be estimated as a constant proportion of the predicted mean, i.e., a percent of predicted. A comparison of several prediction equations for spirometry has shown substantial agreement using the fifth percentile criterion but not using the $-1.645 \times$ SEE criterion (151).

Sources, Uses, and Selection of Reference Values

General Comments

Normal ventilatory function has come to mean the average spirometric values of a representative sample of healthy subjects drawn from the general population. Various criteria for excluding study subjects have been suggested based on (*1*) past and present medical history (e.g., presence of respiratory symptoms such as cough, sputum production, and wheezing; presence of physician-diagnosed respiratory disease such as asthma, bronchitis, emphysema, or tuberculosis; hospitalization for lung or chest conditions; the presence of heart disease; employment exposures; and cigarette smoking); (*2*) physical examination; and (*3*) chest radiographic findings. The most important selection criteria are those based on a history of past disease and respiratory symptoms. A reference population should, ideally, be representative of the general population from which the clientele of the laboratory comes. Although a random sample of a population is ideal, one report found that once hospital patients were excluded, the method for selecting the study sample used to generate reference values had relatively little effect on either the mean value or the range of values obtained (152).

Sources of Reference Equations

In the 1960s, a number of reference equations were published based on data gathered in specific population groups such as laboratory personnel, workers in a particular industry, school populations, subjects attending a specific clinic, volunteers, and general industrial workers (153–157). Some are derived from population-based data gathered in epidemiologic studies carried out for other purposes; in these studies reference equations are a byproduct (56, 63, 126, 149, 150). Others are based on data gathered specifically for the creation of reference equations (91, 158).

Determination of the "Normal Range"

Fixed Percent of Predicted Values

The practice in many clinical laboratories has been to classify values of FVC and FEV_1 less than 80% of predicted as abnormal. This fixed value has no statistical basis in adults (91, 159–162). Although some studies have shown that for adults of average age and height, 80% of predicted FVC and FEV_1 is close to the fifth percentile, use of a fixed value will result in shorter, older subjects being more readily classified as "abnormal" (159, 162), whereas taller, younger adult subjects are more likely to be erroneously classified as "normal." The practice of using 80% of predicted as the lower limit of normal for $FEF_{25-75\%}$ or the instantaneous flows will also cause important errors since, for these flows, the lower limits of normal are closer to 50% of predicted (149, 150). The practice of using a fixed percent of predicted as a lower limit of normal may be acceptable in children (163) (see section on Distributions and Lower Limits of Normal).

FEV_1/FVC Ratio

Defining a fixed FEV_1/FVC ratio as a lower limit of normal is not recommended in adults because FEV_1/FVC is inversely related to age and height (91, 149, 150). The use of a fixed ratio will therefore result in an apparent increase in the prevalence of impairment associated with aging or with age-confounded factors such as cigarette smoking or occupational exposures. In addition, some athletes have values for FVC that are relatively larger than those for FEV_1, resulting in a lower FEV_1/FVC. This may also be true of workers in some physically demanding occupations such as mining and deep-sea diving.

Percentiles as the "Lower Limit of Normal"

One statistically acceptable approach for establishing lower limits for any spirometric measure is to define the lowest 5% of the reference population as below the lower limit of normal (see section on Distributions and Lower Limits of Normal). This implies a 5% false positive misclassification, a rate generally considered acceptable.

Smoking as an Independent Variable

Subjects who smoke cigarettes usually have lower values for spirometry and forced expiratory flows even if they meet the same health criteria for "normal" as nonsmokers (164). Smoking has both biologic and technical effects on D_{LCO} (9, 165). A clear choice for the most appropriate method of adjusting spirometric indices for the effect of smoking is not readily evident from published data in which any of the following have been used: smoking status (current smoker or exsmoker), amount currently smoked, duration of smoking, and pack-years of smoking. Neglecting the correlation of some of these factors (e.g., pack-years) with age can introduce errors in analyzing the effect of smoking. In one study, the lifetime loss of FEV_1 for the average male smoker was 7.4 ml/pack-year, and for the average female smoker it was 4.4 ml/pack-year (164). Current smoking also adds an acute deficit in FEV_1 of approximately 150 ml over and above the cumulative effect of lifetime smoking (164, 166).

The distribution of a smoking variable in the reference population and its relation to other health indicators will affect the regression term calculated for smoking. For example, in one study a twofold greater deficit in spirometric measurements in relation to pack-years was found in subjects with chronic cough compared with those without chronic cough (167). The mean spirometric value may not be the best index for determining lung function deficit caused by smoking since the effect on the susceptible minority tends to be overwhelmed by the unaffected majority (168). Whether the effects of smoking are similar across other independent variables such as sex and age is unknown. Some of the sex differences in smoking-associated pulmonary dysfunction may be related to differences in smoking behavior (169). The effect of smoking also increases with age (166). The effect of smoking on the developing lung is likely to be different from the effect of smoking on the adult lung.

Finally, the effects of smoking cessation on pulmonary function are inconsistent. Exsmokers are found to have both reversible and irreversible ventilatory decrements (164, 166, 170). Most cross-sectional studies in older subjects have found older exsmokers to have values intermediate between those who continue to smoke and those who have never smoked. Young exsmokers may exhibit higher spirometric values than never smokers, probably as a result of health selection effect (134, 171). Whether the pulmonary function of ex-smokers is better or worse than that of current smokers probaby depends on the age of the subjects, how long they have smoked, and on why they abandoned smoking.

Cross-sectional and Longitudinal Predictions

Cross-sectional data are subject to a bias called "cohort" effect. A person who is 40 yr of age today is different from one who became 40 two decades ago because of a variety of host and environmental factors (6, 52). The age-related lung function deficit predicted from cross-sectional data tends to be greater than that predicted from longitudinal pulmonary function data in adults (67–70) and children (172–174). Prediction equations based on cross-sectional data are appropriate for determining the prevalence of pulmonary function impairment in defined populations. They are less well-suited to determine age-related events including the incidence or progression of impairment. Percentiles of ad-

justed lung function (similar to those used by pediatricians to assess growth) have been advocated by several investigators for assessment of both growth and decline of pulmonary function (56, 63, 126). A person would be expected to track along the same percentile as he or she ages if the loss (gain) in function was at a rate comparable to that of the reference population.

Criteria for Selection of Reference Values

Criteria for selecting reference values to be used in the clinical or in the epidemiologic context fall into three categories: methodologic, epidemiologic, and statistical (5).

(*1*) *Methodologic criteria.* If possible, reference values should be based on data obtained by trained operators using equipment and techniques that meet ATS criteria (7–12). In contrast with the use of the FVC in America, predictions of VC from Europe are usually based on inspiratory vital capacity (IVC) or slow expiratory vital capacity (EVC). The IVC and EVC are, on average, somewhat larger than FVC in healthy subjects; in subjects with airflow limitation, the differences are more pronounced (4, 175).

(*2*) *Epidemiologic criteria.* The population from which the subjects are drawn should be similar with respect to age, height, sex, and ethnic composition to the population to whom the prediction values are to be applied. Prediction equations should use age, height, sex, and, probably, ethnic group as independent variables. For most clinical uses they should be based on cross-sectional studies of lifetime nonsmokers.

(*3*) *Statistical criteria.* These are discussed in STATISTICAL CONSIDERATIONS IN THE DERIVATION OF PREDICTION EQUATIONS. Both biologic plausibility and simplicity in the model used to develop prediction equations are important issues in the selection of reference values. However, neither is as important as the choice of a reference population that (*1*) provides an appropriate comparison for the subjects to be evaluated, and (*2*) is based on measurements made with instruments and methods comparable to those used in the laboratory for which reference values are being selected (2, 5).

Published Reference Equations

For the convenience of readers, selected published reference equations for adult whites and blacks and scaling factors for blacks currently in use are listed in tables 3 to 9. A comprehensive listing up to 1983 was published by the ECCS (4). The results of a survey of reference equations used in North American pulmonary teaching centers is shown in table 10. Equations for children and adolescents are detailed elsewhere (13, 63, 117–119, 131, 149, 176, 177). Laboratories should use the published reference equations that most closely describe the populations tested in their laboratories. This may also be assessed empirically by comparing the results for a group of 20 to 40 local reference subjects with those provided by the intended reference equations. The local reference subjects should be appropriately selected by age, ethnic group, and sex, to match the clientele of the laboratory and should meet the selection criteria listed in section CRITERIA FOR SELECTION OF REFERENCE VALUES.

Limitations of Currently Available Equations

Reference equations now available include relatively few results for adolescents and the elderly. Even fewer equations span the ages from grade school through adulthood and, with few exceptions, they are discontinuous for children and adults (55, 178). Older subjects reflect their lifetime experiences with respect to nutrition, health status, and other factors and are therefore subject to a cohort effect. Most equations in current use are based on linear statistical models. All these aspects are subject to change. For this reason, reference equations should be reviewed regularly.

Interpretative Strategies

Conceptual Issues Concerning Normality and the Limits of Normal

The word "normal" is used in a number of ways (5, 6, 13, 179). In popular use it means ideal, conventional, or usual. It is used by statisticians to describe a specific distribution about a central tendency and by biologists in ways that vary according to their focus of interest. Anatomists, for instance, use it to describe structural variations consistent with good function; physiologists use it to describe variations that preserve the "internal milieu," and clinicians use it to describe variation within the limits of "good health" and exclusive of "disease" (5). Issues of biologic "normality" are discussed in greater detail elsewhere, and interested readers are referred to those reviews (5, 6, 179–181).

Because most laboratory tests are quantitative variables with overlap between measurements in healthy and diseased subjects, the idea of a range of values defining biologically "normal" is, in the view of its critics, misleading (5, 6, 182). For instance, in interpreting laboratory test results where there is an overlap between healthy and diseased populations, the "normal" range should theoretically change with different disease processes and with the clinical questions being asked (181). It has also been pointed out that selecting a normal range "requires careful evaluation of benefit in terms of morbidity or mortality, inconvenience, and distress caused to

TABLE 3

PREDICTED VALUES FOR FEV$_1$ AND FVC DERIVED FROM SELECTED STUDIES OF NONSMOKING CAUCASIAN MEN*

First Author, Year (Ref)	Age Range (yr)	Number Studied	FEV$_1$† for Ht 1.75 m, Age 45 yr	Regression Coefficient		RSD or SEE	FVC† for Ht 1.75 m, Age 45 yr	Regression Coefficient		RSD or SEE
				Ht	Age			Ht	Age	
Morris, 1971 (224)	20–84	517	3.63	3.62	−0.032	0.55	4.84	5.83	−0.025	0.74
Cherniack, 1972 (225)	15–79	870	3.74	3.59	−0.023	NR	4.52	4.76	−0.014	NR
Quanjer, 1977 (4)	21–64	189	3.59	4.05	−0.031	0.43	4.51	6.11	−0.032	0.56
Crapo, 1981 (91)	15–91	125	3.96‡	4.14	−0.024	0.49	4.89‡	6.00	−0.021	0.64
Knudson, 1983 (149)	25–84	88	3.81	6.65	−0.029	0.52	4.64	8.44	−0.030	0.84
Dockery, 1985 (56)	25–74	624	3.78	Equation nonlinear§		0.40	4.72	Equation nonlinear§		0.47
Roca, 1986 (226)	20–70	443	3.95	4.99	−0.021	0.44	5.15	6.78	−0.015	0.53
Paoletti, 1986 (150)	29–64	59	3.83	4.94	−0.027	0.48	5.06	7.24	−0.027	0.58
Miller, 1986 (158)	18–85	176	3.94	5.66	−0.023	0.41	4.84	7.74	−0.021	0.51

Definition of abbreviations: RSD = residual standard deviation; SEE = standard error of the estimate; NR = not reported.

* To be included studies had to (*1*) include men and women; (*2*) adequately describe the methods used; (*3*) analyze spirometric values in terms of age and height. Instruments of measurement were: water spirometer (56, 91, 224); dry or wedge spirometer (158, 225); pneumotachograph (4, 149, 150, 226). Equation to predict FEV$_1$ or FVC using this table:

Predicted FEV$_1$ or FVC = Predicted value† for Ht 1.75 m, Age 45 + Ht Coefficient × (Ht − 1.75) + Age Coefficient × (Age − 45)

† Predicted value for Ht = 1.75 m, Age = 45.

‡ Studies carried out at an altitude of 1,400 m.

§ FEV$_1$ = Ht^2 ($1.541 - 4.06 \times 10^{-4}$ Age $- 8.14 \times 10^{-4}$ Age^2); FVC = Ht^2 ($1.75 - 1.35 \times 10^{-4}$ Age $- 1.01 \times 10^{-4}$ Age^2).

TABLE 4

PREDICTED VALUES FOR FEV, AND FVC DERIVED FROM SELECTED STUDIES OF NONSMOKING CAUCASIAN WOMEN*

First Author, Year (Ref)	Age Range (yr)	Number Studied	FEV,† for Ht 1.65 m, Age 45 yr	Regression Coefficient		RSD or SEE	FVC† for Ht 1.65 m, Age 45 yr	Regression Coefficient		RSD or SEE
				Ht	Age			Ht	Age	
Morris, 1971 (224)	20–84	471	2.72	3.50	−0.025	0.47	3.54	4.53	−0.024	0.52
Cherniack, 1972 (225)	15–79	452	2.87	2.37	−0.019	NR	3.36	3.08	−0.015	NR
Quanjer, 1977 (4)	21–64	514	2.71	3.17	−0.031	0.35	3.39	4.64	−0.027	0.42
Crapo, 1981 (91)	15–84	128	2.92‡	3.42	−0.026	0.33	3.54‡	4.91	−0.022	0.39
Knudson, 1983 (149)	20–87	204	2.79	3.09	−0.020	0.39	3.36	4.27	−0.017	0.49
Dockery, 1985 (56)	25–74	1,830	2.79	Equation nonlinear§		0.40	3.41	Equation nonlinear§		0.47
Roca, 1986 (226)	20–70	427	2.87	3.17	−0.025	0.31	3.72	4.54	−0.021	0.40
Paoletti, 1986 (150)	21–64	313	2.84	2.43	−0.020	0.29	3.78	4.12	−0.015	0.39
Miller, 1986 (158)	18–82	193	2.91	2.68	−0.025	0.33	3.59	4.14	−0.023	0.45

* To be included studies had to (1) include men and women; (2) adequately describe the methods used; (3) analyze spirometric values in terms of age and height. Instruments of measurement were: water spirometer (56, 91, 224); dry or wedge spirometer (158, 225); pneumotachograph (4, 149, 150, 226). Equation to predict FEV, or FVC using this table:

Predicted FEV, or FVC = Predicted value† for Ht 1.65 m, Age 45 + Ht Coefficient × (Ht − 1.65) + Age Coefficient × (Age − 45)

† Predicted value for Ht = 1.65 m, Age = 45 yr.
‡ Studies carried out at an altitude of 1,400 m.
§ $FEV_1 = Ht^2 (1.332 - 4.08 \times 10^{-3} Age - 6.14 \times 10^{-6} Age^2)$; $FVC = Ht^2 (1.463 - 1.35 \times 10^{-3} Age - 1.01 \times 10^{-4} Age^2)$.

TABLE 5

PREDICTED VALUES FOR FEV, AND FVC DERIVED FROM SELECTED STUDIES OF BLACK MEN AND WOMEN*

First Author, Year (Ref)	Age Mean or Range	Number Studied	FEV, for Ht and Age†	Regression Coefficients		RSD or SEE	FVC for Ht and Age†	Regression Coefficients†		RSD or SEE
				Ht	Age			Ht	Age	
Men			Ht 1.75 m Age 45 yr				Ht 1.75 m Age 45 yr			
Johannsen, 1968 (227)	20–50	120	2.98‡	2.87	−0.017	0.46	4.07‡	4.09	—	0.52
Miller, 1970 (228)	35–54	96	3.05	3.40	−0.024	0.37	3.79	4.44	−0.024	0.46
Oscherwitz, 1972 (81)	50.3 ± 6.6	110	2.94	2.99	−0.031	0.64	3.78	3.70	−0.027	0.66
Rossiter, 1974 (229)	21–70	147	3.04	4.51	−0.027	0.52§	3.84	5.77	−0.019	0.59§
Lapp, 1974 (230)	34.9 ± 11.9	79	3.53	3.54	−0.025	0.23	4.11	3.94	−0.021	0.32
Cookson, 1976 (231)	43.6 ± 15.1	141	3.12	2.20	−0.024	0.50	3.74	3.90	−0.017	0.65
Patrick, 1976 (232)	18–65	213	3.11	4.23	−0.023	NR	3.72	3.51	−0.025	NR
Women			Ht 1.65 m Age 45 yr				Ht 1.65 m Age 45 yr			
Johannsen, 1968 (227)	20–50	100	2.25‡	2.18	−0.013	0.34	2.74‡	2.51	−0.015	0.35
Miller, 1970 (228)	35–54	109	2.19	2.45	−0.018	0.31	2.74	3.15	−0.020	0.38
Cookson, 1976 (231)	36.7 ± 11.6	102	2.35	2.40	−0.028	0.41	2.86	3.00	−0.019	0.42
Patrick, 1976 (232)	18–65	117	2.10	1.49	−0.014	NR	2.64	3.17	−0.020	NR

* Instruments of measurement used were: water spirometer (227, 229, 231), a dry or bellows spirometer (228, 230), and various others (81, 232). Predicted values for men and women are calculated as shown in footnotes to tables 3 and 4.
† Predicted value for a 45-yr-old man 1.75 m tall, and a 45-yr-old woman 1.65 m tall.
‡ Corrected from ATPS to BTPS conditions, assuming a spirometer temperature of 22° C.
§ Includes caucasian subjects.

subjects by further investigation and treatment, and the costs of making the wrong decision" (182). The "normal" range only gives information about the distribution of test results in the healthy population from which they were derived. It says nothing about the true positive rate, the false negative rate, or the predictive power of a positive test.

To draw inferences about the presence of disease from a test, one should, ideally, know the prior probability that the patient has the disease and the distributions of test values for subjects with and without the disease in question. Although this ideal is rarely met, clinicians must use their understanding of the clinical situation to put an interpretation in proper perspective.

Obstructive and Restrictive Ventilatory Defects

Definition of an Obstructive Defect

An obstructive ventilatory defect may be defined as a disproportionate reduction of maximal airflow from the lung with respect to the maximal volume (VC) that can be displaced from the lung. It indicates airflow limitation and implies airway narrowing during expiration. The earliest change associated with flow limitation in small airways is thought to be slowing in the terminal portion of the spirogram even when the initial part of the spirogram is unaffected (1, 21–23). This slowing is reflected in a proportionally greater reduction in the instantaneous flow measured after 75% of the FVC has been exhaled (FEF_{75}) or in $FEF_{25-75\%}$ than in FEV_1. Abnormalities in these midrange flow measurements during a forced exhalation are, however, not specific for small airway disease and, though suggestive, should not be used to diagnose small airway disease in individual patients (183). As airway disease becomes more advanced and/

TABLE 6

PREDICTED VALUES FOR $FEV_1/FVC\%$ DERIVED FROM SELECTED STUDIES OF CAUCASIAN AND BLACK MEN AND WOMEN*

First Author, Year (Ref)	Age Range (yr)	Number Studied	$FEV_1/FVC\%$† for Ht 1.75 m and Age 45 yr	Regression Coefficients: Ht	Regression Coefficients: Age	RSD or SEE	Number Studied	$FEV_1/FVC\%$† for Ht 1.65 m and Age 45 yr	Regression Coefficients: Ht	Regression Coefficients: Age	RSD or SEE
			Caucasian Men					Caucasian Women			
Quanjer, 1977 (4)	21–64	189	78.4	—	−0.16	5.3	514	80.2	—	−0.24	6.4
Crapo, 1981 (91)	15–91	125	80.9‡	−13.0	−0.15	4.8	126	81.9‡	−20.2	−0.25	5.3
Knudson, 1983 (149)	25–85	86	82.0	—	−0.11	6.3	204	82.6	−18.5	−0.19	7.6
Paoletti, 1986 (150)	8–64	263	75.9	−5.3	−0.23	6.1	538	70.5	−4.3‖	−0.31	5.8
Miller, 1986 (158)	18–85	176	80.5	−13.1	−0.15	5.6	193	82.3	−21.5	−0.15	6.8
			Black Men					Black Women			
Johannsen, 1968 (227)	20–50	120	75.0	—	−0.29	8.6					
Oscherwitz, 1972 (81)	50.3 (± 6.6)	110	77.7	4.2	−0.32	10.2					
Rossiter, 1974 (229)	21–70	147	77.2	0.62	−0.34	7.2§					
Cookson, 1978 (231)	43.6 (± 15.1)	141	81.4	—	−0.25	10.7	102	82.3	—	−0.38	11.7

* Table comprises studies cited in tables 3 to 5, which also reported values for $FEV_1/FVC\%$ analyzed in relation to height and age. For the instruments of measurement used, see footnotes to tables 3 to 5. Note: studies of Caucasian subjects were confined to nonsmokers; studies of black subjects included all smoking categories. Predicted values for FEV_1/FVC are calculated as shown in footnotes to tables 3 and 4. Only one study gives equations for black women.

† Predicted value for a 45-yr-old man 1.75 m tall, and a 45-yr-old woman 1.65 m tall.

‡ Studies carried out at an altitude of 1,400 m.

§ Includes Caucasian subjects.

‖ Coefficient not significant.

TABLE 7

PREDICTED VALUES FOR DIFFUSING CAPACITY (D_{LCO}) AND KCO (D_{LCO}/V_A) DERIVED FROM SELECTED STUDIES OF MEN AND WOMEN*

First Author, Year (Ref)	Age Mean ± SD or Range	Number Studied	D_{LCO}† for Ht and Age	Regression Coefficients: Ht	Regression Coefficients: Age	RSD or SEE	D_{LCO}/V_A† for Ht and Age	Regression Coefficients: Ht	Regression Coefficients: Age	RSD or SEE
Men			Ht 1.75 m, Age 45 yr				Ht 1.75 m, Age 45 yr			
Billiet, 1963 (233)	20–75	57	35.3	57.6	−0.24	4.2	4.96	—	−0.04	0.92
Cotes, 1965 (20)	19–72	127	30.3	32.5	−0.20	5.1	4.83	—	−0.04	0.81
Teculescu, 1970 (234)	19–67	47	32.6	33.3	−0.30	4.2	5.17‡	—	−0.04	0.73
Van Ganse, 1972 (235)	25–79	70	29.3	16.4	−0.20	3.8	5.60	−0.90	−0.03	1.07
Frans, 1975 (236)	39 ± 12	84	33.3	28.5	−0.14	4.2	NR			
Marcq, 1975 (237)	17–79	84	29.9	10.4	−0.20	3.9	4.59	—	−0.03	0.65
Salorinne, 1976 (238)	20–69	69	30.7	14.2	−0.23	3.6	5.02	−3.53	−0.03	0.63
Crapo, 1981 (239)	15–91	123	36.6§	41.6	−0.22	4.8	5.45§	—	−0.03	0.84
Miller, 1983 (165)	43 ± 16	74	31.4	16.4	−0.23	4.8	4.77	−2.24	−0.03	0.73
Paoletti, 1985 (240)	19–84	80	37.1‖	44.1	−0.19	5.8	4.81‖	−0.12††	−0.02	0.71
Knudson, 1987 (241)	25–84	71	38.4‖	35.5	−0.27	4.8	5.61‖	−2.35††	−0.04	0.80
Roca, 1990 (242)	20–70	194	33.6	36.7	−0.20	4.4		Equation nonstandard¶		
Women			Ht 1.65 m, Age 45 yr				Ht 1.65 m, Age 45 yr			
Billiet, 1963 (233)	20–68	41	25.2	21.9	−0.16	3.6	5.55	—	−0.03	0.85
Van Ganse, 1972 (235)	24–76	72	20.3	16.8	−0.16	3.6	5.61	−0.17	−0.01	0.99
Salorinne, 1976 (238)	20–69	101	25.0	21.9	−0.12	2.8	5.27	−3.96	−0.01	0.74
Hall, 1979 (243)	27–74	113	30.1**	28.3	−0.19	4.1	5.66**	—	−0.02	0.74
Crapo, 1981 (239)	17–84	122	27.4§	25.6	−0.14	3.6	5.46§	—	−0.03	0.78
Miller, 1983 (165)	43 ± 15	130	23.7	16.0	−0.11	4.0	4.62	−1.81	−0.02	0.80
Paoletti, 1985 (240)	18–64	291	27.9‖	15.7	−0.07	4.3	4.85‖	−2.51	−0.02	0.85
Knudson, 1987 (241)	20–86	99	28.2‖	18.7	−0.15	4.5	5.37‖	−2.78††	−0.03	0.85

* Table refers to D_{LCO} and includes predicted values from published reports in which the number of subjects studied and their age were given and in which equations for D_{LCO} were described in terms of height and age according to ATS recommendations (9). All but one study (20) refer to nonsmokers. Residual volume or FRC was measured as follows: single-breath helium dilution (165, 234, 236–242), multiple-breath helium dilution (20, 233, 243), open circuit N_2 washout (235). Predicted values for D_{LCO} and D_L/V_A are calculated as shown in footnotes to tables 3 and 4.

† Predicted value for a 45-yr-old man 1.75 m tall, and a 45-yr-old woman 1.65 m tall.

‡ Results adjusted to 1 STPS.

§ Measurements made at an altitude of 1,400 m.

‖ Correction for breathholding time as in the Epidemiology Standardization Project (240, 241). Note that calculated D_L is sensitive to the methods used to calculate breathhold time.

¶ Form of the equation not that recommended by the ATS.

** Results calculated for all smoking categories and adjusted for smoking effect.

†† Coefficient not significant.

TABLE 8

PREDICTED VALUES FOR TOTAL LUNG CAPACITY (TLC) AND RESIDUAL VOLUME (RV) DERIVED FROM SELECTED STUDIES OF MEN AND WOMEN*

First Author, Year (Ref)	Age Mean or Range	Number Studied	TLC† for Ht and Age	Regression Coefficients: Ht	Regression Coefficients: Age	RSD or SEE	RV† for Ht and Age	Regression Coefficients: Ht	Regression Coefficients: Age	RSD or SEE
Men			Ht 1.75 m, Age 45 yr				Ht 1.75 m, Age 45 yr			
Goldman, 1959 (92)	44 ± 17	44	6.61	9.40	−0.015	0.65	2.04	2.70	0.017	0.39
Cotes, 1965 (20)	19–72	127	6.68	8.67	—	0.91		Not reported		
Boren, 1966 (155)	20–62	422	6.35	7.80	—	0.87	1.62	1.90	0.012	0.53
Black, 1974 (244)	16–59	83	6.84	7.80	—	0.68	2.15	3.80	0.034	0.57
Crapo, 1982 (245)	15–91	123	6.72	7.95	0.003	0.79	1.87	2.16	0.021	0.37
Women			Ht 1.65 m, Age 45 yr				Ht 1.65 m, Age 45 yr			
Goldman, 1959 (92)	38 ± 16	50	5.18	7.90	−0.008	0.53	1.78	3.20	0.009	0.37
Grimby, 1963 (246)	18–72	58	5.05	7.31	−0.018	0.52	1.44	2.92	0.008	0.35
Black, 1974 (244)	16–59	110	5.20	6.40	—	0.62	1.78	2.30	0.021	0.46
Hall, 1979 (243)	27–74	113	5.30	7.46	−0.013	0.51	1.80	2.80	0.016	0.31
Crapo, 1982 (245)	17–84	122	5.20	5.90	—	0.54	1.73	1.97	0.020	0.38

* Only one (245) of these studies conforms strictly to the ATS recommendations for spirometry (8); references 20, 155, 243, 244 included all smoking categories, and in two (92, 246) smoking status was not defined. Residual volume was measured as follows: helium rebreathing (20, 92, 243, 246), whole-body plethysmograph (244), single-breath helium dilution (245), and helium rebreathing on open circuit N_2 washout in one study (155). Predicted values for TLC and RV are calculated as shown in footnotes to tables 3 and 4.

† Predicted value for a 45-yr-old man 1.75 *m* tall, and a 45-yr-old woman 1.65 *m* tall.

or more proximal airways become involved, timed segments of the spirogram such as the FEV_1 will become reduced out of proportion to the reduction in VC.

Definition of a Restrictive Defect

A restrictive ventilatory defect is characterized physiologically by a reduction in TLC. One may infer the presence of a restrictive ventilatory defect when VC is reduced and FEV_1/FVC is normal or increased. Severe airflow limitation is another common cause of a reduced VC either because airflow is so slow the subject cannot continue to exhale long enough to complete emptying or because airways collapse. Occasionally, patients will have a small VC, a normal FEV_1/FVC, and a normal TLC. If there is a contradiction between VC and TLC in defining restriction the classification should be based on TLC.

TABLE 9.

FACTORS FOR ADJUSTING REFERENCE VALUES FOR CAUCASIANS WITH A VIEW TO THEIR BEING USED FOR BLACK AMERICANS*

FEV_1	0.88†
FVC	0.88†
FEV_1/FVC	0
TLC	0.88
RV	0.93‡
RV/TLC	1.05
Diffusing Capacity (transfer factor)	0.93
TI/VA (BTPS)	1.05

* Source: Rossiter and Weill with annotation (229). Although the average Caucasian admixture in studies of Black Americans varies, a reasonable average is 22% (247).

† Also apply to women younger than 55 yr of age; in older subjects, the correction may be larger (approximately 0.80; Dockery *et al.* [58]).

‡ A larger correction (approximately 0.88) was proposed by Lapp *et al.* (230).

Bronchodilator Response

Bronchial responsiveness is an integrated physiologic mechanism involving airway epithelium, nerves, mediators, and bronchial smooth muscle. Because the within-individual difference in response to a series of different bronchodilators is variable, and as many as 20 to 30% of responsive subjects will respond to one type of agent but not to another (184), the assumption that a single test of bronchodilator response is adequate to assess both the underlying airway responsiveness and the potential for therapeutic benefits of bronchodilator therapy is overly simplistic (185). The correlation between bronchoconstriction and bronchodilator responses is imperfect, and it is not possible to infer with certainty the presence of one from the other.

Data on the percent change in FVC, FEV_1, and $FEF_{25-75\%}$, after bronchodilator administration in general population studies as well as in patient populations are summarized in table 11. These studies showed a tendency for the calculated bronchodilator response to increase with decreasing baseline VC or FEV_1, whether response was considered as an absolute change or as a percent of the initial value. Bronchodilator responses in patient-based studies are, not surprisingly, somewhat higher than those in general population studies (table 11).

Interpretation of change after a bronchodilator should be made in light of the clinical question. If the question is whether a patient has an increased bronchodilator response, the appropriate reference is probably one of the population-based studies. If the question is whether the patient is different from other patients or from previous visits, patient groups may provide the most appropriate reference data.

There is no clear consensus on what constitutes reversibility in subjects with airflow obstruction (192). In part, this is because there

TABLE 10

SURVEY OF SPIROMETRY REFERENCE EQUATIONS USED IN NORTH AMERICAN PULMONARY TRAINING CENTERS*

	FVC or VC		FEV_1		FEV_1/FVC†	
	M	F	M	F	M	F
Morris *et al.* (224)	65	65	65	65	58	60
Crapo *et al.* (91)	27	27	27	27	29	29
Knudson *et al.* (149)	24	24	25	25		
Kory *et al.* (153)	7		8			
Kory *et al.* (249)		7		8		
Cherniack *et al.* (225)	3	3	4	4		
Miller *et al.* (180)	2	2	2	2	2	2
Other studies‡	11	11	8	8	11	9

* Based on a questionnaire survey of adult respiratory disease training programs in the United States and Canada. Responses from 139 of 180 institutions are summarized (248).

† Thirty-nine centers predicted FEV_1/FVC by dividing predicted FEV_1 by predicted FVC.

‡ Studies cited only once.

TABLE 11

RESPONSE TO BRONCHODILATOR: RESULTS FROM SELECTED POPULATION STUDIES

Population	Agent/Mode of Delivery	FVC	FEV_1	$FEF_{25-75\%}$ or FEF_{50}	Comments
1,063 subjects 8–75 yr of age General population sample from Tucson, AZ (186)	Two inhalations of isoproterenol via metered-dose inhaler	10.7% (403 ml)	7.7% (315 ml)	20%	95th percentile for percentage change from baseline (absolute value in parentheses)
2,609 subjects; random sample of three areas in Alberta, Canada (187)	500 μg terbutaline administered via spacer	—	Females 9% (224 ml) Males 9% (338 ml)	—	95th percentile for percentage change from baseline in asymptomatic never smokers with FEV_1 > 80% predicted (absolute value in parentheses)
75 selected normal subjects (188)	Two inhalations from a Bronkometer™ metered-dose inhaler	5.1% (231 ml)	10.1% (365 ml)	48.3%	Upper 95% confidence limits (two-tailed) for percentage change from baseline

RESPONSE TO BRONCHODILATOR: RESULTS FROM SELECTED PATIENT STUDIES

40 patients referred to pulmonary function lab (189)	Placebo	14.9% (340 ml)	12.3% (178 ml)	45.1%	Upper 95% confidence interval change after placebo inhalation. Absolute values in parentheses.
985 patients with COPD participating in the IPPB trial (190)	250 μg isoproterenol air compressor nebulizer	—	15%	—	Average increase as percent of initial FEV_1 (5% as percent of predicted normal FEV_1)
150 patients with airway obstruction (191)	200 μg salbutamol or 500 μg terbutaline via metered-dose inhaler	15% (330 ml)	10% (160 ml)	—	95% confidence interval for absolute change; absolute rather than relative change preferred measure of bronchodilator response

is no consensus on how a bronchodilator response should be expressed. The three most common methods are: percent of the initial spirometric value, percent of the initial predicted baseline value, and absolute change. Expressing the change in FEV_1 as a percent of predicted FEV_1 deserves further study as it has been reported to have advantages over current methods (193). When using the percent change from the initial values as the criterion, most authorities would require at least a 12 to 15% increase in FEV_1 from the baseline value as necessary to define a meaningful response. Increments of less than 8% (or of less than 150 ml) are likely to be within measurement variability (191, 192). One should interpret improvement in an individual subject only if the percent change and absolute change in FEV_1 or VC are clearly beyond the expected variability of the measurement during a single testing session. A patient may respond to long-term bronchodilator therapy even though a bronchodilator response is not seen in a single laboratory testing session.

The $FEF_{25-75\%}$ is a highly variable spirometric test, in part because of its dependence on FVC, which increases with expiratory time with obstruction. If FVC changes, postbronchodilator $FEF_{25-75\%}$ is not comparable with that measured prebronchodilator. Volume adjustment of $FEF_{25-75\%}$ has been used to deal with this issue (194, 195). At least two studies have assessed the utility of $FEF_{25-75\%}$. The results were disappointing, with only 8% of asthmatics (195) and 7% of patients with chronic obstructive pulmonary disease (COPD) (196) identified by $FEF_{25-75\%}$ criteria alone as outside the expected range. Tests such as the FEV_1/VC ratio and flow rates measured at some fraction of the VC may also be misleading in assessing bronchodilator response if expiratory time changes are not considered and if flows are not measured at the same volume below TLC.

Current published criteria and the Workshop recommendations for determining bronchodilator response are given in table 12.

Interpretation of Lung Function Tests in Clinical Practice

Pulmonary function tests may be used to address major issues in clinical case management. These include describing dysfunction and assessing its severity, explaining it in terms of diagnosis, establishing prognosis, planning management, and assessing trends over time, including changes after treatment. Pulmonary function tests may also be used to identify an abnormality in subjects without a known pulmonary disorder, as in preoperative assessments, in routine health status evaluations, and in clinical screening. Finally, pulmonary function tests are increasingly requested as part of health assessment on behalf of a third party (e.g., an insurance company or a governmental agency) where the clinician is not in his or her usual patient advocacy role and the subject or patient is, consequently, wary. In each of these situations, the question asked of the pulmonary function laboratory is quite different. Ideally, interpretations of pulmonary function tests should depend on the purpose of the tests and, when performed on patients with known disease, should be oriented to answering the specific question of the clinician ordering the procedure. Tests interpreted without clinical information will be limited in their clinical utility and the interpretation will usually represent only a refined description of the data obtained.

The first step in interpreting a lung function test is to evaluate the quality of the study. If there are reasons to suspect the quality of the test, avoid specific diagnostic statements. Dysfunction discovered under these circumstances should indicate only the need for more definitive testing.

TABLE 12

RECOMMENDED CRITERIA FOR RESPONSE TO A BRONCHODILATOR IN ADULTS

Organization	FVC (%)	FEV_1 (%)	$FEF_{25-75\%}$ (%)	Comments
American College of Chest Physicians (197)	15–25	15–25	15–25	% of baseline in at least two of three tests
Intermountain Thoracic Society (19)	15	12	45	% of baseline
ATS (current document)	12	12		% of baseline and an absolute change of 200 ml

Patterns of Dysfunction

Certain patterns of physiologic abnormalities can be recognized, and although they are seldom if ever pathognomonic for a specific disease entity, the types of clinical illnesses most likely to produce the observed set of physiologic disturbances can be pointed out. Regardless of the extent of testing, the most important point with regard to pattern recognition is the need to be conservative with respect to suggesting a specific diagnosis for the underlying disease process based only on pulmonary function abnormalities. Recognition of characteristic patterns of dysfunction depends a great deal the comprehensiveness of the lung function evaluation. However, even with only spirometric results, one can determine whether the pattern is compatible with obstruction with or without a reduction in VC. A reduced VC without evidence of expiratory slowing is a nonspecific finding. There was controversy among Workshop participants about using the term "restrictive" when VC is low. The majority thought it was acceptable to interpret the finding as indicating a "restrictive type of ventilatory impairment," or a "restrictive ventilatory defect" while recognizing that it does not necessarily indicate restrictive lung disease. Others argued the interpretation should be descriptive only, i.e., simply noted as "reduced vital capacity" or "nonobstructive defect," and call for further testing, including lung volumes, to clarify its nature.

The VC, FEV_1, and FEV_1/VC ratio are the basic parameters used to interpret spirometry. Although FVC is often used in place of VC it is preferable to use the largest VC, whether obtained on inspiration (IVC), slow expiration (EVC), or forced expiration (FVC), for clinical testing. The FVC is usually reduced more than IVC or EVC in airflow obstruction. Limiting primary interpretation of spirograms to three variables avoids the problem of simultaneously examining a multitude of measurements to see if any abnormalities are present, a procedure that will lead to an inordinate number of "abnormal" tests among the healthiest groups in a population (198, 199). Even when the rate of abnormality for any single test is only 5%, the frequency of at least one abnormal test was shown to be 10% in 251 healthy subjects when FEV_1, FVC, and FEV_1/FVC ratio were examined and increased to 24% when a battery of 14 different measurements were analyzed (198).

The FEV_1/VC ratio is the most important measurement for distinguishing an obstructive impairment. Expiratory flow measurements other than the FEV_1 and FEV_1/VC should be considered only after determining the presence and clinical severity of obstructive impairment using the basic values mentioned above. When FEV_1 and the FEV_1/VC ratio are within the expected range, abnormalities in flow occurring late in the maximal expiratory flow-volume (MEFV) curve should not be graded as to severity, and, if mentioned, interpretation of their clinical significance should be guarded. In the presence of a borderline value for FEV_1/FVC, however, they may help confirm the presence of airway obstruction. The same is true for average flows such as $FEF_{25-75\%}$. Even when used in this limited way, the wide variability of these tests in healthy subjects must be taken into account in their interpretation.

One should be cautious in interpreting obstructive dysfunction when the FEV_1 and VC are both above predicted even when the FEV_1/VC ratio is below the lower limit of normal since this pattern is sometimes seen in healthy subjects, including athletes. Tests other than spirometry, including lung volumes, diffusing capacity, and blood gas determinations allow amplifying statements on the overall pattern of the dysfunction observed during spirometry.

Lower Limits of "Normal" in Clinical Interpretation

Lower limits of normal are often used in clinical practice without thoughtful reflection about their inherent variability (5, 180, 181, 200–207) or their implications (5, 182). (See also sections Distribution and Lower Limits of Normal, Determination of the Normal Range, and Conceptual Issues Concerning Normality and the Limits of Normal.) Although clinical interpretation is usually straightforward when a pulmonary function result is well above or below a "lower limit of normal," this is not so when a measured value falls close to the "lower limit of normal." Predicting the presence or absence of disease requires knowledge about the distribution of dysfunction in various disease states and the prior probability of disease. For example, consider the meaning of a spirometric study that shows FEV_1 values and other expiratory flow rates to be just above the lower limit of normal. If the patient were a healthy male who sought medical assistance because he was disqualified for life insurance on the basis of his spirometry, it would be appropriate to interpret his spirometry as within normal limits. If, in contrast, the same data were obtained from a smoker with complaints of intermittent coughing and occasional wheezing, it would be appropriate to suggest that the study is consistent with mild obstructive dysfunction, although it could also represent a variant of normal. In both of these instances, computer printouts, or robotic physician interpretation that simplistically declare the results to be "normal" or "abnormal" on the basis of whether the observed values fall to one side or the other of a single number, could give information that does not perform a useful service to the patient. One suggestion for minimizing the problems of overly simplistic use of the lower limits of "normal" in the interpretation of lung function tests is use of terms such as "unusually low" rather than "abnormal" for tests close to the lower limit of normal.

Assessing Severity

Severity scores are most appropriately derived from studies that relate pulmonary function test values to independent indices of performance such as ability to work and function in daily life, morbidity, and prognosis (208–212). For instance, in general, ability to work and to function in daily life relates to one's pulmonary function level. FVC and/or FEV_1, which also relate to maximal $\dot{V}o_2$ and work effort, are used in several published systems to rate impairment (208, 209). Pulmonary function level is also associated with morbidity; those with lower function having more respiratory complaints (212). Lung function level is also associated with prognosis, including a fatal outcome from heart as well as lung disease (213, 214) even in patients who have never smoked (215). In the Framingham study, vital capacity was a major independent predictor of cardiovascular morbidity and mortality (213, 214). In several occupational cohorts FEV_1 and FEV_1/FVC were independent predictors of all cause or respiratory disease mortality (216–218). In addition, a meta-analysis of mortality in six surveys in various U.K. working populations showed that the risk of dying of COPD was related to FEV_1 level. In comparison to those whose FEV_1 at initial examination was within 1 SD of average, those whose FEV_1 was more than 2 SD below average were 12 times more likely to die of COPD, over 10 times more likely to die of non-neoplastic respiratory disease, and more than twice as likely to die of vascular disease over a 20-yr follow-up period (219). A reduced FEV_1 also carries a 4- to 5-fold excess risk of lung cancer mortality (adjusted for cigarette smoking) (220, 221). Although there is good evidence that FEV_1 correlates with the severity of symptoms and prognosis in many circumstances (208, 211, 212, 219), the correlations do not allow one to accurately predict symptoms or prognosis for individual patients.

In clinical practice, predicted values are also used to grade severity. The severity of the spirometric abnormality is usually based on the actual or percent predicted FEV_1 in the case of obstructive disorders or on VC in nonobstructive disorders. An example of an algorithm sometimes employed for grading severity when nothing is known about the clinical question being asked is shown in table 13. It is intended only as an example and not as a standard. Its approach is based as much on clinical impression as on objective data. Although clinical experience has always played a major role in assessing severity, it can be enhanced by more exact methods, and physicians should probably view arbitrary severity scoring systems with caution.

Comments on the severity or significance of any abnormality depend on the circumstances under which a test is obtained. For example the assessment of severity of obstruction illustrated in table 13 may be relevant to COPD, but it would not be applicable to a patient with tracheal stenosis whose obstruction could be life-threatening and yet classified as only mildly reduced by this scheme.

The VC has some relationship to the extent of loss of functioning lung parenchyma

TABLE 13

EXAMPLE OF CRITERIA FOR ASSESSING THE SEVERITY OF ABNORMALITIES*

A. Normal: The test is interpreted as "within normal limits" if both the VC and the FEV_1/VC ratio are in the normal range.

B. Obstructive abnormality: This is interpreted when the FEV_1/VC ratio is below the normal range. The severity of the abnormality might be graded as follows:

"May be a physiological variant"	% Pred FEV, ≥ 100
"Mild"	% Pred FEV, < 100 and ≥ 70
"Moderate"	% Pred FEV, < 70 and ≥ 60
"Moderately severe"	% Pred FEV, < 60 and ≥ 50
"Severe"	% Pred FEV, < 50 and ≥ 34
"Very severe"	% Pred FEV, < 34

C. Restrictive abnormality: This is most reliably interpreted on the basis of TLC. If this is not available, one may interpret a reduction in the VC without a reduction of the FEV_1/VC ratio as a "restriction of the volume excursion of the lung." The severity of the abnormality might be graded as follows:

Based on the TLC	
"Mild"	% Pred TLC < LLN but ≥ 70
"Moderate"	% Pred TLC < 70 and ≥ 60
"Moderately severe"	% Pred TLC < 60
Based on spirometry	
"Mild"	% Pred VC < LLN but ≥ 70
"Moderate"	% Pred VC < 70 and ≥ 60
"Moderately severe"	% Pred VC < 60 and ≥ 50
"Severe"	% Pred VC < 50 and ≥ 34
"Very severe"	% Pred VC < 34

Definition of abbreviation: LLN = lower limit of normal.

* This schema was contributed by Burrows and Lebowitz. It has been in use in the lung function laboratory at the Health Sciences Center in Tucson, Arizona for clinical purposes. It is intended only as an example of a transparent schema for assessing severity. Other schema may be acceptable as well. More work is required before any schema can be adopted as a standard. Note: All statements regarding severity should be accompanied by a disclaimer such as "as assessed by spirometry" or "physiologic assessments of severity may differ from clinical assessments."

TABLE 14

CHANGE IN SPIROMETRIC INDICES OVER TIME

	Percent Changes Required to be Significant		
	FVC	FEV_1	FEF_{25-75}
Within a day (222)			
Normal subjects	≥ 5	≥ 5	≥ 13
Patients with COPD	≥ 11	≥ 13	≥ 23
Week to week (222)			
Normal subjects	≥ 11	≥ 12	≥ 21
Patients with COPD	≥ 20	≥ 20	≥ 30
Year to year (69)	≥ 15	≥ 15	

in many nonobstructive lung disorders. It is also of some use in assessing respiratory muscle involvement in certain neuromuscular diseases. Here again, however, the VC may be only slightly impaired in diffuse interstitial diseases of sufficient severity to lead to marked loss of diffusing capacity and severe blood gas abnormalities, and a relatively small decrement in VC may indicate the onset of a severe respiratory problem in patients with a rapidly progressive neuromuscular disease.

The FEV_1/VC ratio should not be used in isolation to determine the severity of an obstructive disorder. Both the FEV_1 and VC may decline with progression of disease, and an FEV_1/VC of 0.5/1.0 indicates more impairment than one of 2.0/4.0, though both yield a ratio of 50%. Systems that use FEV_1/FVC to grade the severity of obstruction must deal with the effect of total expiratory time on FVC and FEV_1/FVC (19).

Changes in Spirometry over Time

Reliance should be placed on FEV_1 and VC for examining changes over time as they are the only spirometric variables that will consistently and correctly reflect the direction of the change in overall ventilatory function. Even using these simple tests, it is never easy to determine whether a change is "real" or only a result of test variability. All lung function measurements tend to be more variable when made weeks to months apart than when repeated at the same test session or even daily (222, 223). Changes should therefore be interpreted cautiously. It is more likely that a real change has occurred when there are a series of tests that show a consistent trend. As shown in table 14 significant changes, whether statistical or biologic, vary by parameter, time period, and the type of patient. For FVC and VC in healthy subjects, within-day change of 5% or more, between-weeks changes of 11 to 12% or more, and yearly change of 15% or more were generally thought by the Workshop to be clinically important.

The clinician seeing the patient can often interpret results of serial tests in a useful manner, not reproducible by any simple algorithm. For example, seemingly stable tests may prove very reassuring in a patient receiving therapy for a disease that is otherwise rapidly progressi
See Allen's brief at p. 32
in
ed
pr
tic
tic
Th
to
ou
all
rel
jec
1213
follow-up (69). Thus, in subjects with "normal" lung function, changes in VC or FEV_1 over 1 yr should probably exceed 15% (table 14) before any confidence can be given to the opinion that a meaningful year-to-year change has occurred.

Recommendations

Overall

Technical Issues

Although technical sources of variation in spirometry have been fully dealt with in other documents, it was considered important to reemphasize their key role, particularly in relation to the following points.

1. Laboratory directors should be constantly on guard to maintain the precision and accuracy of the measurements made in their laboratories and should be aware of the potential sources of technical variation. Quality control includes strict adherence to ATS guidelines for equipment performance and calibration.
2. Attention should be given to the spirometer temperature where the tests are performed. Temperature-related errors will be reduced when the spirometer temperature is between 17° and 40° C.
3. Computer calculations should be validated at the time equipment is purchased and after any changes are made in software or hardware.

Biologic Variation and Statistical Issues

1. Laboratory directors should be aware of the biologic sources of within- and between-individual variation in order to optimize the application of lung function tests to a particular patient. A number of within-individual sources of variation fall within the domain and control of the laboratory, whereas between-individual sources of variation are important in selecting appropriate reference values.
2. Environmental sources of variation pertinent to a given patient are more likely to be known to the referring clinician than to

the laboratory director and should be used in evaluating the clinical pertinence of a given lung function report. Laboratory directors should request this information from clinicians.

3. Those who generate and report lung function tests should be aware of the strengths and weaknesses of the statistical techniques used to generate the prediction values used for interpretation. Laboratory directors and chest physicians should also be aware of the strengths and limitations of the statistical concepts of normality.

Selecting Reference Values

General Considerations

1. Because of unexplained differences between published reference values, no one set of reference values is likely to be applicable to all laboratories and all clientele under all circumstances. The choice of reference values should be a matter of careful consideration by laboratory directors. It should not be left to the judgment of manufacturers of automated equipment.
2. Laboratories should indicate the source of reference values on their reports.
3. Ideally, reference values should be based on data obtained using equipment and procedures that conform to current ATS recommendations. The prediction equations listed in tables 3 and 4 and published since 1981 conform to current ATS recommendations.

Epidemiologic Considerations

1. Reference values should not come from studies based on hospital patients.
2. Reference values for most clinical applications should be based on cross-sectional studies.
3. Subjects used to generate reference values should be free of respiratory symptoms and disease. It is preferable to choose reference values for men and women from the same population source.
4. Reference equations based on nonsmokers should be used for most clinical applications. The problems in making adjustments for the biologic effects of smoking lead to the recommendation that such adjustments should not be part of routine clinical interpretation. Such adjustments may, occasionally, be made to address specific questions.
5. Altitude may be important in the selection of reference values for flow rates and DLCO.

Statistical Considerations

1. Prediction equations for adults should include age and height as independent variables. Usually, separate equations are used for men and women.
2. Linear equations perform adequately for adults though they may overpredict in young adults and underpredict in the elderly.
3. Prediction equations should come from studies that present lower limits of normal or present information from which such lower limits can be calculated.
4. Reference equations should, in general, not be extrapolated for ages or heights beyond those covered by the data that generated them. If, for example, one calculates a predicted FEV_1 for an 85-yr-old person from prediction equations based on a population younger than 65 yr of age, the report should contain a cautionary statement.
5. The choice of reference values should consider the ethnic origins of the clientele of the laboratory. Although it is preferable to use equations based on the ethnic origins of the subject being tested, this is not always possible or practical. For instance, if a laboratory only occasionally serves subjects of a particular ethnic group, it is acceptable to adjust for ethnic differences by using a scaling factor as suggested in table 9.

Lower Limits of Normal

1. Normal ranges should be based on calculated fifth percentiles. Estimates of fifth percentiles based on the SEE are acceptable for indices with distributions that are close to Gaussian.
2. Lower limits of normal are variable and, therefore, should not be considered as arbitrary limits that correctly classify all patients into normal and abnormal groups. Patient values that lie close to lower limits should be interpreted with caution.
3. The use of 80% of predicted for a lower limit of normal for adult pulmonary function parameters is not recommended. This criterion works only for average persons and for a limited number of parameters. It creates major errors when applied to $FEF_{25-75\%}$ and the instantaneous flows. Fixed percent of predicted values may be acceptable in children.
4. In adults, it is not acceptable to used a fixed FEV_1/FVC ratio as a lower limit of normal.

Other Considerations

1. It is preferable for North American laboratories to select reference value studies based on North American populations and European laboratories studies based on European populations because an important portion of the variation between population studies remains unexplained.
2. To assist in the choice of reference values, it may be useful to make an empirical assessment of how different equations relate to measurements made in 20 to 40 healthy subjects typical of the laboratory's clientele. If the distribution of these measurements is, on the whole, within the range predicted, the choice is probably suitable. If this is not the case, the differences may be due to the laboratory (apparatus, technician, procedure) or it may be that the reference values are inappropriate for the laboratory's clientele. Both possibilities should be considered.

Recommendations for Interpretation

Overall Clinical Interpretation

1. Because interpretation of the lung function tests of an individual patient is best made in light of the clinical question asked of the tests, the clinician requesting the test should frame this question as precisely as possible. Likewise, the laboratory director responsible for seeing that the tests are carried out should insist that the clinical question be included in the requisition.
2. Interpreters of lung function tests should be conservative in suggesting a specific diagnosis based only on pulmonary function abnormalities.
3. Borderline "normal" values should be interpreted with caution. Such interpretations should, when possible, use clinical information in the decisions as to what is normal and what is abnormal.
4. The first step in interpretation is to evaluate and comment on the quality of the tests.
5. The number of test indices (e.g., FVC, FEV_1, etc.) used in interpretation should be limited to avoid an excessive number of false positive results.
6. The primary guides for spirometry interpretation should be VC (slow or forced), FEV_1, and FEV_1/VC.
7. Tests performed on children are best interpreted by those familar with pulmonary function in children.

Concerning Airway Obstruction

1. FEV_1/VC should be the primary guide for distinguishing obstructive from nonobstructive patterns.
2. Instantaneous and mid flows may be used to confirm the presence of airway obstruction in the presence of a borderline FEV_1/VC.
3. $FEF_{25-75\%}$ and the instantaneous flows should not be used to diagnose small airway disease in individual patients.
4. The pattern of a low FEV_1/VC ratio and greater than average VC and FEV_1 should be recognized as one that may occur in healthy individuals.
5. The severity of airway obstruction should be based on FEV_1 rather than FEV_1/VC.
6. Abnormalities in instantaneous flows and $FEF_{25-75\%}$ should not be graded as to severity when FEV_1 and FEV_1/VC are within the normal range.

Concerning Bronchodilator Response

1. VC (forced or slow) and FEV_1 should be the primary indices used to judge bronchodilator response. Total expiratory time should be considered when using FVC to assess bronchodilator response since FVC increases in obstructed patients as expiratory time increases.
2. A 12% increase, calculated from the prebronchodilator value, *and* a 200-ml increase in either FVC or FEV_1 are reasonable criteria for a positive bronchodilator response in adults.
3. $FEF_{25-75\%}$ and the instantaneous flows should be considered secondarily in evaluating bronchodilator response. If used, they must be volume-adjusted or the effect or changing FVC must be dealt with in the interpretation.
4. Ratios such as FEV_1/VC should not be used to judge bronchodilator response.

5. Patients may respond to bronchodilator therapy even though a bronchodilator response is absent in a laboratory test.

Concerning Restriction

1. The diagnosis of a restrictive lung abnormality is based on a reduced TLC. A reduced VC in the presence of a normal FEV_1/VC may be used to suggest but not diagnose the presence of restriction.
2. The severity of restriction should be based on TLC. If VC is used to infer the presence of restriction, severity may be based on VC.

This Statement was prepared by the participants of a Workshop on Lung Function Testing: Selection of Reference Values and Interpretative Strategies. The workshop participants were: Margaret Becklake, M.D., and Robert O. Crapo, M.D., *Co-Chairpersons*, A. Sonia Buist, M.D., Benjamin Burrows, M.D., Jack L. Clausen, M.D., Allan L. Coates, M.D., John Cotes, D.M., Douglas W. Dockery, Ph.D., Reed M. Gardner, Ph.D., John L. Hankinson, Ph.D., James Hanley, Ph.D., Robert L. Johnson, Jr., M.D., Michael D. Lebowitz, Ph.D., Paolo Paoletti, M.D., Rene Peslin, M.D., George Polgar, M.D., Philip H. Quanjer, M.D., Melvyn S. Tockman, M.D., Scott T. Weiss, M.D., M.S., Mary Ellen B. Wohl, M.D.

References

1. Bates DV. Respiratory function in disease. 3rd ed. Philadelphia: WB Saunders, 1989.
2. Clausen JL, ed. Pulmonary function testing: guidelines and controversies. New York: Academic Press, 1982.
3. Miller A, ed. Pulmonary function tests: a guide for the student and house officer. Orlando, FL: Grune & Stratton, 1987.
4. Quanjer PhH, ed. Standardized lung function testing: report of the working party. Bull Eur Physiopathol Respir 1983; 19(Suppl 5:1–95).
5. Becklake MR. Concepts of normality applied to the measurement of lung function. Am J Med 1986; 80:1158–63.
6. Buist AS. Evaluation of lung function: Concepts of normality. In: Simmons DH, ed. Current pulmonology. Vol 4. New York: John Wiley and Sons, 1982; 141–65.
7. American Thoracic Society. Snowbird workshop on standardization of spirometry. Am Rev Respir Dis 1979; 119:831–8.
8. American Thoracic Society. Standardization of spirometry: 1987 update. Am Rev Respir Dis 1987; 136:1285–98.
9. American Thoracic Society. Single-breath carbon monoxide diffusing capacity (transfer factor). Recommendations for a standard technique. Am Rev Respir Dis 1987; 136:1299–307.
10. Gardner RM, Clausen JL, Epler G, Hankinson JL, Permutt S, Plummer AL. Pulmonary function laboratory personnel qualifications. Am Rev Respir Dis 1986; 134:623–4.
11. Gardner RM, Clausen JL, Crapo RO, *et al.* Quality assurance in pulmonary function laboratories. Am Rev Respir Dis 1986; 134:625–7.
12. Gardner RM, Clausen JL, Cotton DJ, Crapo RO, Hankinson JL, Johnson RL. Computer guidelines for pulmonary laboratories. Am Rev Respir Dis 1986; 134:628–9.
13. Quanjer PhH, Helms P, Bjure J, Gaultier C. Standardization of lung function tests in paediatrics. Eur Respir J 1989; 2(Suppl 4:121S–264S).
14. Ferris BG Jr, ed. Epidemiology standardization project. Part 2. Am Rev Respir Dis 1978; 118:1–120.
15. Pulmonary terms and symbols: a report of the ACCP-ATS Joint Committee on Pulmonary Nomenclature. Chest 1975; 67:583–93.
16. Jay F, ed. IEEE standard dictionary of electrical and electronic terms. 3rd ed. New York: Institute of Electrical and Electronics Engineers, Inc, 1984.
17. Nelson SB, Gardner RM, Crapo RO, Jensen RL. Performance evaluation of contemporary spirometers. Chest 1990; 97:288–97.
18. Pistelli G, Carmignani G, Paoletti P, *et al.* Comparison of algorithms for determining the end point of the forced vital capacity maneuver. Chest 1987; 91:100–5.
19. Morris AH, Kanner RE, Crapo RO, Gardner RM. Clinical pulmonary function testing: a manual of uniform laboratory procedures. 2nd ed. Salt Lake City, UT: Intermountain Thoracic Society, 1984.
20. Cotes JE. Lung function: assessment and application in medicine. 4th ed. Oxford: Blackwell Scientific Publications, 1979.
21. Wilson AF, ed. Pulmonary function testing, indications and interpretations. Orlando, FL: Grune & Stratton, 1985.
22. Burrows B, Knudson RJ, Quan SF, Kettel LJ. Respiratory disorders: a pathophysiologic approach. Chicago: Year Book Medical Publishers, 1983.
23. Enright PL, Hyatt RE. Office spirometry: a practical guide to the selection and use of spirometers. Philadelphia: Lea & Febiger, 1987.
24. Allen SM, Hunt B, Green M. Fall in vital capacity with posture. Br J Dis Chest 1985; 79:267–71.
25. Pierson DJ, Dick NP, Petty TL. A comparison of spirometric values with subjects in standing and sitting positions. Chest 1976; 70:17–20.
26. Blair E, Hickam JB. The effect of change in body position on lung volume and intrapulmonary gas mixing in normal subjects. J Clin Invest 1955; 34:383–9.
27. Townsend MC. Spirometric forced expiratory volumes measured in the standing versus the sitting posture. Am Rev Respir Dis 1984; 130:123–4.
28. Glindmeyer H. Predictable confusion. J Occup Med 1981; 23:845–9.
29. Melissinos CG, Mead J. Maximum expiratory flow changes induced by longitudinal tension on trachea in normal subjects. J Appl Physiol 1977; 43:537–44.
30. Liistro G, Stanescu D, Dooms G, Rodenstein D, Veriter C. Head position modifies upper airway resistance in men. J Appl Physiol 1988; 64:1285–8.
31. Krowka MJ, Enright PL, Rodarte JR, Hyatt RE. Effect of effort on measurement of forced expiratory volume in one second. Am Rev Respir Dis 1987; 136:829–33.
32. Ingram RH Jr, Schilder DP. Effect of thoracic gas compression on the flow-volume curve of the forced vital capacity. Am Rev Respir Dis 1966; 94:56–63.
33. Sadoul P. Mesure de la capacité vitale et des débits maximaux. In: Denolin H, Sadoul P, Orie NGM, eds. L'exploration fonctionnelle pulmonaire. 2nd partie. Paris: Flammarion, 1971; 389.
34. Van de Woestijne KP, Afschrift M. Airway dynamics during forced expiration in patients with chronic obstructive lung disease. In: Orie NGM, Van der Lende R, eds. Bronchitis III. Assen: Royal Van Gorcum, 1970; 195–206.
35. Gimeno F, Berg WC, Sluiter HJ, Tammeling GJ. Spirometry-induced bronchial obstruction. Am Rev Respir Dis 1972; 105:68–74.
36. Eisen E, Dockery DW, Speizer FE, Fay ME, Ferris BJ Jr. The association between health status and the performance of excessively variable spirometry tests in a population-based study in six U.S. cities. Am Rev Respir Dis 1987; 136:1371–6.
37. Becklake MR. Epidemiology of test failure. Br J Ind Med 1990; 47:73–4.
38. Hetzel MR. The pulmonary clock. Thorax 1981; 36:481–6.
39. Guberan E, Williams MK, Walford J, Smith MM. Circadian variation of FEV_1 in shift workers. Br J Ind Med 1969; 26:121–5.
40. Hetzel MR, Clark TJH. Comparison of normal and asthmatic circadian rhythms in peak expiratory flow rate. Thorax 1980; 35:732–8.
41. Clark TJH, Hetzel MR. Diurnal variation of asthma. Br J Dis Chest 1977; 71:87–92.
42. McDermott M. Diurnal and weekly cyclical changes in lung airways resistance. J Physiol (Lond) 1966; 186:90.
43. De Millas H, Ulmer WT. Circadian rhythms of airways resistance in healthy subjects and patients with obstructive airways disease. Pneumologie 1971; 144:237–52.
44. Kerr HD. Diurnal variation of respiratory function independent of air quality. Arch Environ Health 1973; 26:144–52.
45. Barnes PJ. Circadian variation in airway function. Am J Med 1985; 79(Suppl 6A:5–9).
46. Barnes P, Fitzgerald G, Brown M, Dollery C. Nocturnal asthma and changes in circulating epinephrine, histamine and cortisol. N Engl J Med 1980; 303:263–7.
47. Hetzel MR, Clark TJH, Branthwaite MA. Asthma: analysis of sudden deaths and ventilatory arrests in hospital. Br Med J 1977; 1:808–11.
48. Bagg LR, Hughes DTD. Diurnal variation in peak expiratory flow in asthmatics. Eur J Respir Dis 1980; 61:298–302.
49. Halberg F. Chronobiology and the lung: implications and applications. Bull Eur Physiopathol Respir 1987; 23:529–31.
50. Lewinsohn HC, Capel LH, Smart J. Changes in forced expiratory volumes throughout the day. Br Med J 1960; 1:462–4.
51. Minette A. Contribution to the chronobiology of lung function: changes of baseline values of four lung function indices between 8h and 17h in patients with bronchitic complaints without asthmatic components. Bull Eur Physiopathol Respir 1987; 23:541–3.
52. Buist AS, Vollmer WM. The use of lung function tests in identifying factors that affect lung growth and aging. Stat Med 1988; 7:11–8.
53. Ferris BG Jr, Stoudt HW. Correlation of anthropometry and simple tests of pulmonary function. Arch Environ Health 1971; 22:672–6.
54. Hibbert ME, Lanigan A, Raven J, Phelan PD. Relation of armspan to height and the prediction of lung function. Thorax 1988; 43:657–9.
55. Schoenberg JB, Beck GJ, Bouhuys A. Growth and decay of pulmonary function in healthy blacks and whites. Respir Physiol 1978; 33:367–93.
56. Dockery DW, Ware JH, Ferris BG Jr, *et al.* Distribution of forced expiratory volume in one second and forced vital capacity in healthy, white, adult never-smokers in six U.S. cities. Am Rev Respir Dis 1985; 131:511–20.
57. Howatt WF, DeMuth GR. II. Configuration of the chest. Pediatrics 1965; 35:177–84.
58. Damon A. Negro-white differences in pulmonary function (vital capacity, timed vital capacity, and expiratory flow rate). Hum Biol 1966; 38: 381–93.
59. Marcus EB, Buist AS, Curb JD, *et al.* Correlates of FEV_1 and prevalence of pulmonary conditions in Japanese-American men. Am Rev Respir Dis 1988; 138:1398–404.
60. DeGroodt EG, van Pelt W, Quanjer PhH, van Zomeren BC, Borsboom GJJM. Growth of lung and thorax dimensions during the pubertal growth spurt. Eur Respir J 1988; 1:102–8.
61. Green M, Mead J, Turner JM. Variability of

maximum expiratory flow-volume curves. J Appl Physiol 1974; 37:67–74.
62. Mead J. Dysanapsis in normal lungs assessed by the relationship between maximal flow, static recoil, and vital capacity. Am Rev Respir Dis 1980; 121:339–42.
63. Schwartz JD, Katz SA, Fegley RW, Tockman MS. Analysis of spirometric data from a national sample of healthy 6- to 24-year-olds (NHANES II). Am Rev Respir Dis 1988; 138:1405–14.
64. Schwartz DJ, Katz SA, Fegley RW, Tockman MS. Sex and race differences in the development of lung function. Am Rev Respir Dis 1988; 138:1415–21.
65. Becklake MR, Permutt S. Evaluation of tests of lung function for "screening" for early detection of chronic obstructive lung disease. In: Macklem PT, Permutt S, eds. The lung in the transition between health and disease. New York: Marcel Dekker, 1979; 345–88.
66. Vollmer WM, Johnson LR, McCamant LE, Buist AS. Methodological issues in the analysis of lung function data. J Chronic Dis 1987; 40:1013–23.
67. Vollmer WM, Johnson LR, McCamant LE, Buist AS. Longitudinal versus cross-sectional estimation of lung function decline: further insights. Stat Med 1988; 7:685–96.
68. Louis TA, Robins J, Dockery DW, Spiro A III, Ware JH. Explaining discrepancies between longitudinal and cross-sectional models. J Chronic Dis 1986; 39:831–9.
69. Burrows B, Lebowitz MD, Camilli AE, Knudson RJ. Longitudinal changes in forced expiratory volume in one second in adults. Methodologic considerations and findings in healthy nonsmokers. Am Rev Respir Dis 1986; 133:974–80.
70. Van Pelt W, Quanjer PhH, Borboom G. Cohort effects in ventilatory function and chronic respiratory symptoms in a 12 year follow-up study (abstract). Eur Respir J 1989; 2(Suppl 5:366s).
71. Weisman IM, Zeballos RH. Lower single breath carbon monoxide diffusing capacity (D_{LCO}) in black subjects compared with caucasians. Chest 1987; 92(Suppl:142S).
72. National Center for Health Statistics. Body weight, stature, and sitting height: white and Negro youths 12–17 years. Washington, DC: Health Services and Mental Health Administration, 1973. (Vital and Health Statistics. Series 11, no. 126) (DHEW publication no. [HRAS]74–1608).
73. National Center for Health Statistics. Body dimensions and proportions, white and Negro children 6–11 years. Washington, DC: Health Resources Administration, 1974. (Vital and Health Statistics. Series 11, no. 143) (DHEW publication no. [HRAS] 75–1625).
74. National Center for Health Statistics. Forced vital capacity of children 6–11 years. Washington, DC: Public Health Service, 1978. (Vital and Health Statistics. Series 11, no. 164) (DHEW publication no. [PHS]78–1651).
75. National Center for Health Statistics. Skin folds, body girths, bicromial diameter and selected anthropometric indices of adults. Washington, DC: Public Health Service, 1970. (Vital and Health Statistics. Series 11, no. 35) (DHEW publication no. [PHS] 100–11–35).
76. National Center for Health Statistics. Selected body measurements of children 6–11 years. Washington, DC: Health Services and Mental Health Administration (Vital and Health Statistics. Series 11, no. 123) (DHEW publication no. [HSM]73–1605).
77. Van de Wal BW, Erasmus LD, Hechter R. Stem and standing heights in Bantu and white South Africans: their significance in relation to pulmonary function values. S Afr Med J 1971; 45(Suppl: 568–70).
78. Woolcock AJ, Coleman MH, Blackburn CRB. Factors affecting normal values for ventilatory lung function. Am Rev Respir Dis 1972; 106:692–709.
79. Cotes JE, Anderson HR, Patrick JM. Lung function and the response to exercise in New Guineans: role of genetic and environmental factors. Philos Trans R Soc Lond [Biol] 1974; 268:349–61.
80. Miller GJ, Saunders MJ, Gilson RJ, *et al.* Lung function of healthy boys and girls in Jamaica in relation to ethnic composition, test exercise performance, and habitual physical activity. Thorax 1977; 32:486–96.
81. Oscherwitz M, Edlavitch SA, Baker TR, *et al.* Differences in pulmonary functions in various racial groups. Am J Epidemiol 172; 96:319–27.
82. Mueller WH, Yen F, Soto P, *et al.* A multinational Andean genetic and health program. VIII. Lung function changes with migration between altitudes. Am J Phys Anthropol 1979; 51:183–95.
83. Brown P, Sadowsky D, Gajdusek DC. Ventilatory lung functions studies in Pacific Island Micronesians. Am J Epidemiol 1978; 108:259–65.
84. Myers J. Differential ethnic standards for lung function or one standard for all? S Afr Med J 1984; 65:768–72.
85. Steinberg M, Becklake MR. Socio-environmental factors and lung function. S Afr Med J 1986; 70:270–4.
86. Burrows B, Taussig LM. As the twig is bent, the tree inclines (perhaps). Am Rev Respir Dis 1980; 122:813–6.
87. Burrows B, Knudson RJ, Lebowitz MD. The relationship of childhood respiratory illness to adult obstructive airway disease. Am Rev Respir Dis 1977; 115:751–60.
88. Bertrand JM, Riley P, Popkin JA, Coates A. The long term pulmonary sequelae of prematurity: the role of familial airway hyperreactivity and the respiratory distress syndrome. N Engl J Med 1985; 312:742–5.
89. U.S. Department of Health and Human Services. The health consequences of smoking: chronic obstructive lung disease, a report of the Surgeon General. Rockville, MD: Public Health Service Office on Smoking and Health, 1984.
90. Kryger M, Aldrich F, Reeves JT, Grover RF. Diagnosis of airflow obstruction at high altitude. Am Rev Respir Dis 1978; 117:1055–8.
91. Crapo RO, Morris AH, Gardner RM. Reference spirometric values using techniques and equipment that meet ATS recommendations. Am Rev Respir Dis 1981; 123:659–64.
92. Goldman HI, Becklake MR. Respiratory function tests. Normal values at median altitudes and the prediction of normal results. Am Rev Tuberc 1959; 79:457–67.
93. Gautier H, Peslin R, Grassino A, *et al.* Mechanical properties of the lungs during acclimatization to altitude. J Appl Physiol 1982; 52:1407–15.
94. Mansell A, Powles A, Sutton J. Changes in pulmonary PV characteristics of human subjects at an altitude of 5366 m. J Appl Physiol 1980; 49: 79–83.
95. Jaeger JJ, Sylvester JT, Cymerman A, *et al.* Evidence for increased intrathoracic fluid volume in man at high altitude. J Appl Physiol 1979; 47:670–6.
96. Frisancho AR. Functional adaptation to high altitude hypoxia. Science 1975; 187:313–9.
97. Heath D, Williams DR. The lung at high altitude. Invest Cell Pathol 1979; 2:147–56.
98. Lippmann M. Health significance of pulmonary function responses to irritants. J Air Pollut Cont Assoc 1988; 38:881–7.
99. Goldsmith JR. Effects on human health. In: Stern A, ed. Air pollution. Vol VI. New York: Academic Press, 1986; 391–463.
100. Committee on the Epidemiology of Air Pollutants. Epidemiology and air pollution. Washington, DC: National Academy Press, 1985.
101. Lippmann M. Health effects of ozone: a critical review. J Air Pollut Cont Assoc 1989; 39:672–95.
102. Shy CM. Health effects of acid aerosols. Review, discussion and summary of epidemiological studies. Environ Health Perspect 1989; 79:187–90.
103. Linn WS, Theodore G, Venet TG, *et al.* Respiratory effects of sulfur dioxide in heavily exercising asthmatics. Am Rev Respir Dis 1983; 127: 278–83.
104. Department of Health, Education and Welfare. The health consequences of involuntary smoking: a report from the Surgeon General. Washington, DC: USGPO, 1986. (DHHS publication no. [CDC]87–8398).
105. Fielding JE, Phenow KJ. Health effects of involuntary smoking. N Engl J Med 1988; 319: 1452–60.
106. Spitzer WO, Lawrence V, Dales R, *et al.* Links between passive smoking and disease: a best evidence synthesis. Clin Invest Med 1990; 13:17–42.
107. Lebowitz MD, Quackenboss JJ. The effects of environmental tobacco smoke on pulmonary function. Int Arch Environ Health 1989; 44(Suppl: 147–52).
108. Masi M, Hanley JA, Ernst P, Becklake MR. Environmental exposure to tobacco smoke and lung function in young adults. Am Rev Respir Dis 1988; 138:296–9.
109. Martinez FD, Antognoni G, Macri F, *et al.* Parental smoking enhances bronchial responsiveness in nine-year-old children. Am Rev Respir Dis 1988; 138:518–23.
110. Samet JM, Marbury MC, Spengler JD. Health effects and sources of indoor air pollution. Part I. Am Rev Respir Dis 1987; 136:1486–5089
111. Samet JM, Marbury MC, Spengler JD. Health effects and sources of indoor air pollution. Part II. Am Rev Respir Dis 1988; 137:221–42.
112. Cotes JE, Steel J. Work related lung disorders. Oxford: Blackwell Scientific Publications, 1987; 436.
113. Becklake MR. Occupational exposures: evidence of a causal association with chronic obstructive pulmonary disease. Am Rev Respir Dis 1989; 140:585–91.
114. Chan-Yeung M, Lam S. Occupational asthma. Am Rev Respir Dis 1986; 133:686–703.
115. Lebowitz MD. The relationship of socio-environmental factors to the prevalence of obstructive lung diseases and other chronic conditions. J Chronic Dis 1977; 30:599–611.
116. Viegi G, Paoletti P, Prediletto R, *et al.* Prevalence of respiratory symptoms in an unpolluted area of northern Italy. Eur Respir J 1988; 1:311–8.
117. Polgar G, Weng TR. The functional development of the respiratory system: from the period of gestation to adulthood. Am Rev Respir Dis 1979; 120:625–95.
118. Polgar G, Promodhat V. Pulmonary function testing in children: techniques and standards. Philadelphia: W B Saunders, 1971; 272.
119. Quanjer PH, Stocks J, Polgar G, Wise ME, Karlberg J, Borsboom G. Compilation of reference values for lung function measurements in children. Eur Respir J 1989; 2(Suppl 4:184S–261S).
120. DeGroodt EG, Quanjer PH, Wise ME, van Zomeren BC. Changing relationships between stature and lung volumes during puberty. Respir Physiol 1986; 65:139–53.
121. Cole TJ. Linear and proportional regression models in the prediction of ventilatory function. J R Stat Soc [A] 1975; 138:297–338.
122. Schrader PC, Quanjer PhH, van Zomeren BC, Wise ME. Changes in the FEV_1-height relationship during pubertal growth. Bull Eur Physiopathol Respir 1984; 20:381–8.
123. Seely JE, Guzman CA, Becklake MR. Heart and lung function at rest and during exercise in adolescence. J Appl Physiol 1974; 36:34–40.

124. Tanner JM. Growth at adolescence, with a general consideration of the effects of hereditary and environmental factors upon growth and maturation from birth to maturity. 2nd ed. Oxford: Blackwell, 1978.
125. Simon G, Reid L, Tanner JM, Goldstein H, Benjamin B. Growth of radiologically determined heart diameter, lung width, and lung length from 5–19 years, with standards for clinical use. Arch Dis Child 1972; 47:373–81.
126. Dockery DW, Berkey CS, Ware JH, Speizer FE, Ferris BG Jr. Distribution of forced vital capacity and forced expiratory volume in one second in children 6 to 11 years of age. Am Rev Respir Dis 1983; 128:405–12.
127. Rea H, Becklake MR, Ghezzo H. Lung function changes as a reflection of tissue aging in young adults. Bull Eur Physiopathol Respir 1982; 18:5–19.
128. Black LF, Hyatt RE. Maximal respiratory pressures: normal values and relationship to age and sex. Am Rev Respir Dis 1969; 99:696–702.
129. Smyth RJ, Chapman KR, Rebuck AS. Maximal inspiratory and expiratory pressures in adolescents: normal values. Chest 1984; 86:568–72.
130. Wagner JS, Hibbert ME, Landau LI. Maximal respiratory pressures in children. Am Rev Respir Dis 1984; 129:873–5.
131. Wilson SH, Cooke NT, Edwards RHT, Spiro SG. Predicted normal values for maximal respiratory pressures in Caucasian adults and children. Thorax 1984; 39:535–8.
132. Cook CD, Mead J, Orzalesi MM. Static volume-pressure characteristics of the respiratory system during maximal efforts. J Appl Physiol 1964; 19:1016–22.
133. Gaultier C, Zinman R. Maximal static pressures in healthy children. Respir Physiol 1983; 51:45–61.
134. Leech JA, Ghezzo H, Stevens D, Becklake MR. Respiratory pressures and function in young adults. Am Rev Respir Dis 1983; 128:17–23.
135. Schrader PC, Quanjer PhH, Ollevier ICW. Respiratory muscle force and ventilatory function in adolescents. Eur Respir J 1988; 1:368–75.
136. Sharp JT, Druz WS, Balagot RC, Bandelin VR, Danon J. Total respiratory compliance in infants and children. J Appl Physiol 1970; 29:775–9.
137. Fagan DG. Shape changes in static V-P loops from children's lungs related to growth. Thorax 1977; 32:198–202.
138. Zapletal A, Paul T, Samanek M. Pulmonary elasticity in children and adolescents. J Appl Physiol 1976; 40:953–61.
139. Baran D, Yernault JC, Paiva M, Englert M. Static mechanical lung properties in healthy children. Scand J Respir Dis 1976; 57:139–47.
140. Mansell AL, Bryan AC, Levison H. Relationship of lung recoil to lung volume and maximum expiratory flow in normal children. J Appl Physiol 1977; 42:817–23.
141. De Troyer A, Yernault JC, Englert M, Baran D, Paiva M. Evolution of intrathoracic airway mechanics during lung growth. J Appl Physiol 1978; 44:521–7.
142. Turner JM, Mead J, Wohl ME. Elasticity of human lungs in relation to age. J Appl Physiol 1968; 25:664–71.
143. Knudson RJ, Clark DF, Kennedy TC, Knudson DL. Effect of aging alone on mechanical properties of the normal adult human lung. J Appl Physiol 1977; 43:1054–62.
144. Cotes JE, Dabbs JM, Hall AM, Heywood C, Laurence KM. Sitting height, fat free mass and body fat as reference variables for lung function in healthy British children: comparison with stature. Ann Hum Biol 1979; 6:307–14.
145. Leeder SR, Swan AV, Peat JK, Woolcock AJ, Blackburn CRB. Maximum expiratory flow-volume curves in children: changes with growth and individual variability. Bull Eur Physiopathol Respir 1977; 13:249–60.
146. Thurlbeck WM. Postnatal human lung growth. Thorax 1982; 37:564–71.
147. Taussig LM, Cota K, Kaltenborn W. Different mechanical properties of the lung in boys and girls. Am Rev Respir Dis 1981; 123:640–3.
148. Duiverman EJ, Clement J, van de Woestijne KP, Neijens HP, van der Bergh ACM, Kerrebijn KF. Forced oscillation technique. Reference values for resistance and reactance over a frequency spectrum of 2–26 Hz in healthy children aged 2.3–12.5 years. Bull Eur Physiopathol Respir 1985; 21:171–8.
149. Knudson RJ, Lebowitz MD, Holberg CJ, Burrows B. Changes in the normal maximal expiratory flow-volume curve with growth and aging. Am Rev Respir Dis 1983; 127:725–34.
150. Paoletti P, Pistelli G, Fazzi P, *et al.* Reference values for vital capacity and flow-volume curves from a general population study. Bull Eur Physiopathol Respir 1986; 22:451–9.
151. Lebowitz MD, Holberg CJ. Comparisons of spirometric reference values and the proportions of abnormals among male smokers and those symptomatic in a community population. Am Rev Respir Dis 1990; 141:1491–6.
152. Van Ganse W, Billiet L, Ferris BG. Medical criteria for the selection of normal subjects. In: Arcangeli P, Cotes JG, Cournand A, *et al*, eds. Normal values for respiratory function in man. Alghero: Panminerva Medica, 1970; 15–27.
153. Kory RC, Callahan R, Boren HG, Syner JC. The Veterans Administration-Army cooperative study of pulmonary function. I. Clinical spirometry of normal men. Am J Med 1961; 30:243–58.
154. De Kroon JPM, Joosting PE, Visser BF. Les valeurs normales de la capacité vitale et du volume expiratoire maximum seconde. Recherche chez les ouvriers d'une aciérie aux Pays-Bas. Arch Mal Prof 1964; 25:17–30.
155. Boren HG, Kory RC, Syner JC. The Veterans Administration-Army cooperative study of pulmonary function. II. The lung volume and its subdivisions in normal men. Am J Med 1966; 41:96–114.
156. Amrein R, Keller R, Joos H, *et al.* Valeurs théoriques nouvelles de l'exploration de la fonction ventilatoire de poumon. Bull Physiopathol Respir 1970; 6:317–49.
157. Jouasset D. Normalisation des épreuves fonctionnelles respiratories dans les pays de la Communauté Europeénne du Charbon et de l'Acier. Poumon Coeur 1960; 16:1145–59.
158. Miller A, Thornton JC, Warshaw R, Bernstein J, Selikoff IJ, Teirstein AS. Mean and instantaneous expiratory flows, FVC and FEV_1: prediction equations from a probability sample of Michigan, a large industrial state. Bull Eur Physiopathol Respir 1986; 22:589–97.
159. Miller MR, Pincock AC. Predicted values: how should we use them? Thorax 1988; 43:265–7.
160. Miller A. Prediction equations and "normal values." In: Miller A, ed. Pulmonary function tests in clinical and occupational lung disease. New York: Grune & Stratton, 1986; 197–213.
161. Oldham PD. Percent of predicted as the limit of normal in pulmonary function testing: a statistically valid approach. Thorax 1979; 34:569.
162. Sobol BJ, Weinheimer B. Assessment of ventilatory abnormality in the asymptomatic subject: an exercise in futility. Thorax 1966; 21:445–9.
163. Quanjer PhH. Predicted values: how should we use them (letter). Thorax 1988; 43:663–4.
164. Dockery DW, Speizer FE, Ferris BG Jr, Ware JH, Louis TA, Spiro A III. Cumulative and reversible effects of lifetime smoking on simple tests of lung function in adults. Am Rev Respir Dis 1988; 137:286–92.
165. Miller A, Thornton JC, Warshaw R, Anderson H, Teirstein AS, Selikoff IJ. Single breath diffusing capacity in a representative sample of the population of Michigan, a large industrial state. Am Rev Respir Dis 1983; 127:270–7.
166. Beck GJ, Doyle CA, Schachter EN. Smoking and lung function. Am Rev Respir Dis 1981; 123:149–55.
167. Burrows B, Knudson RJ, Cline MG, Lebowitz MD. Quantitative relationships between cigarette smoking and ventilatory function. Am Rev Respir Dis 1977; 115:195–205.
168. Fletcher C, Peto R, Tinker C, Speizer FE. The natural history of chronic bronchitis and emphysema. London: Oxford University Press, 1976.
169. Enjeti S, Hazelwood B, Permutt S, Menkes H, Terry P. Pulmonary function in young smokers: male-female differences. Am Rev Respir Dis 1978; 118:667–76.
170. Higenbottam T, Clark TJH, Shipley MJ, Rose G. Lung function and symptoms of cigarette smokers related to tar yield and number of cigarettes smoked. Lancet 1980; 1:409–11.
171. Becklake MR, Lalloo U. The "healthy smoker" effect: a phenomenon of health selection. Respiration 1990; 57:137–44.
172. Strope GL, Helms RW. A longitudinal study of spirometry in young black and young white children. Am Rev Respir Dis 1984; 130:1100–7.
173. Pattishall EN, Helms RW, Strope GL. Noncomparability of cross-sectional and longitudinal estimates of lung growth in children. Pediatr Pulmonol 1989; 7:22–8.
174. Hibbert ME, Lannigan A, Landau LI, Phelan PD. Lung function values from a longitudinal study of healthy children and adolescents. Pediatr Pulmonol 1989; 7:101–9.
175. Bencowitz HC. Inspiratory and expiratory vital capacity. Chest 1985; 85:834–5.
176. Taussig LM, Cherniack V, Wood R, Farrell PM, Mellins RB. Standardization of lung function testing in children. Recommendations of the GAP Conference Committee, Cystic Fibrosis Foundation. J Pediatr 1980; 97:668–76.
177. Zapletal A, Samanek TP. Lung function in children and adolescents: Methods and reference values. Basel-Munchen: Karger, 1987.
178. Burrows B, Cline MG, Knudson RJ, Taussig LM, Lebowtiz MD. A descriptive analysis of the growth and decline of the FVC and FEV_1. Chest 1983; 83:717–24.
179. Galen RS. The normal range: a concept in transition. Arch Pathol Lab Med 1977; 101:561–5.
180. Zweig MH, Beck JR, Collinsworth WL. Assessment of clinical sensitivity and specificity of laboratory tests. Proposed guideline. Philadelphia: National Committee for Clinical Laboratory Standards, 1987 (NCCLS Document GP 10-P vol. 7 no. 6).
181. Henry RJ, Reed AH. Normal values and the use of laboratory results for the detection of disease. In: Henry RJ, Cannon DC, Winkelman JW, eds. Clinical chemistry: principles and techniques. New York: Harper & Row, 1974; 343–70.
182. Cochrane AL, Elwood PC. Labboratory data and diagnosis (letter). Lancet 1969; 1:420.
183. Flenley DC. Chronic obstructive pulmonary disease. Dis Mon 1988; 34:537–99.
184. Mendella LA, Manfreda J, Warren CPW, Anthonisen NR. Steroid response in stable chronic obstructive pulmonary disease. Ann Intern Med 1982; 96:17–21.
185. Guyatt GH, Townsend M, Nogradi S, Pugsley SO, Keller JL, Newhouse MT. Acute response to bronchodilator, an imperfect guide for bronchodilator therapy in chronic airflow limitation. Arch Intern Med 1988; 148:1949–52.
186. Lorber DB, Kaltenborn W, Burrows B. Responses to isoproterenol in a general population sample. Am Rev Respir Dis 1978; 118:855–61.
187. Dales RE, Spitzer WO, Tousignant P,

Schechter M, Suissa S. Clinical interpretation of airway response to a bronchodilator: epidemiologic considerations. Am Rev Respir Dis 1988; 138: 317–20.
188. Watanabe S, Renzetti AD Jr, Begin R, Bigler AH. Airway responsiveness to a bronchodilator aerosol. Am Rev Respir Dis 1974; 109:530–7.
189. Sourk RL, Nugent KM. Bronchodilator testing: confidence intervals derived from placebo inhalations. Am Rev Respir Dis 1983; 128:153–7.
190. Anthonisen NR, Wright EC, and the IPPB Trial Group. Bronchodilator response in chronic obstructive pulmonary disease. Am Rev Respir Dis 1986; 133:814–9.
191. Tweeddale PM, Alexander F, McHardy GJR. Short term variability in FEV_1 and bronchodilator responsiveness in patients with obstructive ventilatory defects. Thorax 1987; 42:487–90.
192. Eliasson O, Degraff AC Jr. The use of criteria for reversibility and obstruction to define patient groups for bronchodilator trials: influence of clinical diagnosis, spirometric and anthropometric values. Am Rev Respir Dis 1985; 132:858–64.
193. Brand PLP, Quanjer PhH, Postma DS, *et al.* A comparison of different ways to express bronchodilator response. Part 2. Am Rev Respir Dis 1990; 141:A20.
194. Olsen CR, Hale FC. A method for interpreting acute response to bronchodilators from the spirograms. Am Rev Respir Dis 1968; 98:301–2.
195. Boggs PB, Bhat KD, Vekovius WA, Debo MS. The clinical significance of volume adjusted maximal mid expiratory flow (Iso-volume $FEF_{25-75\%}$) in assessing airway responsiveness to inhaled bronchodilator in asthmatics. Ann Allergy 1982; 48: 139–42.
196. Berger R, Smith D. Acute postbronchodilator changes in pulmonary function parameters in patients with chronic airways obstruction. Chest 1988; 93:541–6.
197. Committee report. Criteria for the assessment of reversibility in airways obstruction: report of the committee on emphysema, American College of Chest Physicians. Chest 1974; 65:552–3.
198. Vedal S, Crapo RO. False positive rates of multiple pulmonary function tests in healthy subjects. Bull Eur Physiopathol Respir 1983; 19:263–6.
199. Knudson RJ, Burrows B, Lebowitz MD. The maximal expiratory flow-volume curve: its use in the detection of ventilatory abnormalities in a population study. Am Rev Respir Dis 1976; 114:871–9.
200. Ash KO, Clark SJ, Sandberg LB, Hunter E, Woodward SC. The influences of sample distribution and age on reference intervals for adult males. Am J Clin Pathol 1983; 79:574–81.
201. Herrera L. The precision of percentiles in establishing normal limits in medicine. J Lab Clin Med 1958; 52:34–42.
202. Shulz EK, Willard KI, Rich SS, *et al.* Improved reference-interval estimation. Clin Chem 1985; 31:1974–8.
203. Dybkaer R. International Federation of Clinical Chemistry (IFCC)1),2) The theory of reference values. Part 6. Presentation of observed values related to reference values. J Clin Chem Clin Biochem 1982; 20:841–5.
204. Elveback LR, Taylor WF. Statistical methods of estimating percentiles. Ann NY Acad Sci 1969; 161:538–48.
205. Linnet K. Two-stage transformation systems for normalization of reference distributions evaluated. Clin Chem 1987; 33:381–6.
206. Solberg HE. The theory of reference values. Part 5. Statistical treatment of collected reference values. Determination of reference limits. IFCC Scientific Committee proposed recommendations. J Clin Chem Clin Biochem 1983; 21:749–60.
207. Gardner MJ, Altman DG, eds. Statistics with confidence. Br Med J 1989; 1–140.
208. Becklake MR, Kalica AR. NHLBI workshop summary. Scientific issues in the assessment of respiratory impairment. Am Rev Respir Dis 1988; 137:1505–10.
209. Evaluation of impairment/disability secondary to respiratory disorders. Am Rev Respir Dis 1986; 133:1205–9.
210. Kanner RE, Renzetti AD, Stanish WM, Barkman HW, Klauber MR. Predictors of survival in subjects with chronic airflow limitation. Am J Med 1983; 74:249–55.
211. Traver GA, Cline MG, Burrows B. Predictors of mortality in chronic obstructive pulmonary disease. Am Rev Respir Dis 1979; 119:895–902.
212. Anthonisen NR, Wright EC, Hodgkin JE. Prognosis in chronic obstructive pulmonary disease. Am Rev Respir Dis 1986; 133:14–20.
213. Kannel WB, Lew EA. Vital capacity as a predictor of cardiovascular disease: the Framingham study. Am Heart J 1983; 105:311–5.
214. Kannel WB, Lew EA, Hubert HB, Castelli WP. The value of measuring vital capacity for prognostic purposes. Trans Assoc Life Insur Med Dir Am 1981; 64:66–83.
215. Tockman MS, Comstock GW. Respiratory risk factors and mortality: longitudinal studies in Washington county, Maryland. Am Rev Respir Dis 1989; 140(Suppl:56–63).
216. Foxman B, Higgins ITT, Oh MS. The effects of occupation and smoking on respiratory disease mortality. Am Rev Respir Dis 1986; 134:649–52.
217. Annesi I, Kauffmann F. Is respiratory mucus hypersecretion really an innocent disorder? Am Rev Respir Dis 1986; 134:688–93.
218. Ortmeyer CE, Costello J, Morgan WKC, Swecker S, Peterson M. The mortality of Appalachian coal miners 1963 to 1971. Arch Environ Health 1974; 29:67–72.
219. Peto R, Speizer FE, Cochrane AL, *et al.* The relevance in adults of air-flow obstruction, but not of mucous hypersecretion, to mortality from chronic lung disease: results from 20 years of prospective observation. Am Rev Respir Dis 1983; 128:491–500.
220. Tockman MS, Anthonisen NR, Wright EC, Donithan MG. Airways obstruction and the risk of lung cancer. Ann Intern Med 1987; 106:512–8.
221. Kuller LH, Ockene J, Meilahn E, Svendsen KH. The relation of forced expiratory volume in one second (FEV_1) to lung cancer mortality in the multiple risk factor intervention trial (MRFIT). Am J Epidemiol 1990; 132:235–74.
222. Lebowitz MD, Quackenboss J, Camilli AE, Bronnimann D, Holberg CJ, Boyer B. The epidemiological importance of intraindividual changes in objective pulmonary responses. Eur J Epidemiol 1987; 3:390–8.
223. Cochrane GM, Prieto F, Clark TJH. Intrasubject variability of maximal expiratory flow volume curve. Thorax 1977; 32:171–6.
224. Morris JF, Koski A, Johnson LC. Spirometric standards for healthy nonsmoking adults. Am Rev Respir Dis 1971; 103:57–67.
225. Cherniack RM, Raber MB. Normal standards for ventilatory function using an automated wedge spirometer. Am Rev Respir Dis 1972; 106:38–44.
226. Roca J, Sanchis J, Augusti-Vidal A, *et al.* Spirometric reference values from a Mediterranean population. Bull Eur Physiopathol Respir 1986; 22: 217–24.
227. Johannsen ZM, Erasmus LD. Clinical spirometry in normal Baritu. Am Rev Respir Dis 1968; 97:585–97.
228. Miller GJ, Ashcroft MT, Swan AV, Beadnell HMSG. Ethnic variation in forced expiratory volume and forced vital capacity of African and Indian adults in Guyana. Am Rev Respir Dis 1970; 102:979–81.
229. Rossiter CE, Weill H. Ethnic differences in lung function: evidence for proportional differences. Int J Epidemiol 1974; 3:55–61.
230. Lap NL, Amandus HE, Hall R, Morgan WKC. Lung volumes and flow rates in black and white subjects. Thorax 1974; 29:185–8.
231. Cookson JB, Blake GTW, Faranisi C. Normal values for ventilatory function in Rhodesian Africans. Br J Dis Chest 1976; 70:107–11.
232. Patrick JM, Femi-Pearse D. Reference values for FEV_1 and FVC in Nigerian men and women: a graphical summary. Med J Nigeria 1976; 6:380–5.
233. Billiet L, Baisier W, Naedts JP. Effet de la taille, et du sexe de l'age sur la capacité de diffusion pulmonaire de l'adulte normal. J Physiol (Paris) 963; 55:199–200.
234. Teculescu DB, Stanescu DC. Lung diffusing capacity. Normal values in male smokers and nonsmokers using the breath-holding technique. Scand J Respir Dis 1970; 51:137–49.
235. Van Ganse WF, Ferris BG Jr, Cotes JE. Cigarette smoking and pulmonary diffusing capacity (transfer factor). Am Rev Respir Dis 1972; 105: 30–41.
236. Frans A, Stanescu DC, Veriter C, Clerbaux T, Brasseur L. Smoking and pulmonary diffusing capacity. Scand J Respir Dis 1975; 56:165–83.
237. Marcq M, Minette A. Lung function changes in smokers with normal conventional spirometry. Am Rev Respir Dis 1976; 114:723–38.
238. Salorinne Y. Single-breath pulmonary diffusing capacity: reference values and application in connective tissue diseases and in various lung diseases. Scand J Respir Dis 1976; 96(Suppl: 1–86).
239. Crapo RO, Morris AH. Standardized single breath normal values for carbon monoxide diffusing capacity. Am Rev Respir Dis 1981; 123:185–9.
240. Paoletti P, Viegi G, Pistelli G, *et al.* Reference equations for the single-breath diffusing capacity. A cross-sectional analysis and effect of body size and age. Am Rev Respir Dis 1985; 132:806–13.
241. Knudson RJ, Kaltenborn WT, Knudson DE, Burrows B. The single-breath carbon monoxide diffusing capacity. Reference equations derived from a healthy nonsmoking population and effects of hematocrit. Am Rev Respir Dis 1987; 135:805–11.
242. Roca J, Rodriguez-Roisin R, Cobo E, Burgos F, Perez J, Clausen JL. Single-breath carbon monoxide diffusing capacity prediction equations from a Mediterranean population. Am Rev Respir Dis 1990; 141:1026–32.
243. Hall AM, Heywood C, Cotes JE. Lung function in healthy British women. Thorax 1979; 34:359–65.
244. Black LF, Offord K, Hyatt RE. Variability in the maximal expiratory flow volume curve in asymptomatic smokers and in nonsmokers. Am Rev Respir Dis 1974; 110:282–92.
245. Crapo RO, Morris AH, Clayton PD, Nixon CR. Lung volumes in healthy nonsmoking adults. Bull Eur Physiopathol Respir 1982; 18:419–25.
246. Grimby G, Soderholm B. Spirometric studies in normal subjects. III. Static lung volumes and maximum voluntary ventilation in adults with a note on physical fitness. Acta Med Scand 1963; 173:199–206.
247. Reed TE. Caucasian genes in American Negroes. Science 1969; 165:762–8.
248. Ghio AJ, Crapo RO, Elliott CG. Reference equations used to predict pulmonary function at institutions with respiratory disease training programs in the United States and Canada: a survey. Chest 1990; 97:400–3.
249. Gaensler EA, Smith AA. Attachment for automated single breath diffusing capacity measurement. Chest 1973; 63:136–45.

GREENSBORO ORTHOPAEDIC
Sports & Rehabilitation Center

1401 Benjamin Parkway
Greensboro, NC 27408
336-545-5005 Phone
336-545-5050 Fax

Physical Therapy ♦ *Occupational Therapy* ♦ *Industrial Rehabilitation* ♦ *Sports Medicine*

Friday, February 13, 2004

Thomas J. Obrokta
State of West Virginia
Workman's Compensation Commission
4700 MacCorkle Avenue, SE
Charleston, WV 25304

Mr. Obrokta:

I am an Athletic Trainer certified by the National Athletic Trainers Association and licensed by the State of North Carolina.

I have recently become aware of the proposed rule change that would limit the care of injured workers in the state of West Virginia to Physical and Occupational therapists.

Athletic Trainers are highly qualified medical practitioners recognized by the American Medical Association as Allied Health Professionals. All Athletic Trainers meet the same rigorous standards for certification, sit for a comprehensive certification exam and complete 80 hours of continuing education every 3 years.

The foundation of athletic training education is the Domains of Athletic Training. They are:

- Prevention of Injuries and Illness
- Recognition, Evaluation, and Assessment
- Immediate Care
- Treatment, Rehabilitation and Reconditioning
- Organization and Administration
- Professional Development and Responsibility

Each one of these areas of academic and practical preparation uniquely qualifies us to work with "industrial athletes." First and foremost we take a preventative approach. From there we are expected to evaluate, treat and assess the ability to return to play before the next change of possession (to use a football analogy). Nearly everything we do is related to orthopaedics and musculoskeletal injuries. Our goal is a quick and safe return to play. This translates to a positive outcome for the injured worker and overall decreased costs to the employer and Worker's Compensation Carriers.

Thank you for allowing me to comment on this proposed rule. I urge you to not adopt this rule, and rather, grant greater access for the injured workers of West Virginia to the cost-effective and efficient care of Certified Athletic Trainers.

Professionally,

William T. Griffin, MA, ATC-L
Coordinator, Industrial Services, Greensboro Orthopaedic Center
Chair, North Carolina Athletic Trainers Association Committee on Reimbursement

336-545-5005 x 1808
bgriffin@gsoortho.com

Draft #2

West Virginia Bureau of Employment Programs
Workers' Compensation Fund
Occupational Pneumoconiosis Section
Standards for Pulmonary Function Tests
as established by the Commissioner

Section 52.9. STANDARDS FOR MEDICAL EXAMINATION

a. The following standards specify examination and evaluation criteria to guide the Occupational Pneumoconiosis Board in its examination and evaluation of claimants, and to guide other physicians and medical technicians who conduct examinations and evaluations of claimants on behalf of such claimants and their employers. These standards are established for the further purpose of ensuring that uniform procedures are used in administering and interpreting ventilatory function tests and arterial blood gas studies and that the best available medical evidence will be obtained in support of a claim for occupational pneumoconiosis benefits. The physician supervising any such testing and/or the technician administering any such testing will so indicate by signing the reports. Any report of test results submitted to the Occupational Pneumoconiosis Board must affirmatively state, as to each of the standards individually, the fact that the particular test or study was performed in compliance with that standard. In the event that any such report fails to affirmatively show compliance with these standards, the OP Board may disregard all or any part of such test or study or give such test or study such weight as the Board believes it deserves.

b. When two or more ventilatory function tests performed in reasonable close proximity in time produce differing but acceptable results, the Commissioner, at the request of the OP Board, may direct the parties to furnish additional evidence and/or order additional testing at the laboratory utilized by the OP Board or other laboratories, all for the purpose of determining whether any of the results are unreliable or incorrect or are clearly attributable to some identifiable disease or illness other than occupational pneumoconiosis.

c. When blood gas studies are performed and abnormal values are obtained and thereafter new blood gas studies are performed and normal or significantly higher values are further obtained, the Commissioner, at the request of the OP Board, may direct the parties to furnish additional evidence and/or order additional studies at the laboratory utilized by the OP Board or other laboratories, all for the purpose of

determining whether any of the values are unreliable or incorrect or are clearly attributable to some identifiable disease or illness other than occupational pneumoconiosis.

d. As used herein, the following terms shall have the meanings indicated:

1. **FVC** – Forced Vital Capacity – Volume of air that can be forcefully exhaled from the lungs after a maximal inspiration.

Delete the term FEV – forced expiratory volume – same as FVC

2. **FEV_1** – Forced Expiratory Volume in one second – Volume of air that can be exhaled forcefully from the lungs in one second after a maximal inspiration.

3. **FEV_1/FVC** – Forced Expiratory Volume (timed) to Forced Vital Capacity – A ratio expressed as a percentage.

4. **FEV3** – forced expiratory volume in three seconds – Volume of air that can be exhaled forcefully from the lungs in three (3) seconds after a maximal inspiration.

4. **MVV** – Maximal Voluntary Ventilation – The volume of air that can be exchanged over a unit period of time, (usually performed for 12 to 15 seconds and converted to liters per minute).

5. **BTPS** – Body Temperature, Ambient Pressure, saturated with water.

6. **Kpm** – Kilopond Meter – The amount of work required to lift one kilogram one meter.

7. **NIOSH** – National Institute for Occupational Safety and Health

8. **BOARD** – West Virginia Occupational Pneumoconiosis Board

9. **NBRC** – National Board for Respiratory Care

10. **CPFT** – Certified Pulmonary Function Technician

11. **RPFT** – Registered Pulmonary Function Technologist

12. R_{aw} – Airway resistance

13. **DLCO** – Carbon monoxide diffusing capacity of the lungs

14. **DL/VA** – Carbon monoxide diffusing capacity per unit of alveolar volume

15. **VA** – Alveolar Volume (single breath equivalent to TLC)

16. **TLC** – Total Lung Capacity (measured by plethysmograph, Nitrogen washout, or Helium dilution.

e. VENTILATORY FUNCTION TESTS

1. Pulmonary Function instruments to be used in the administration of ventilatory function tests should conform to the following criteria:

a. The instrument must be accurate within + or – 50 ml or within + or - 3% of reading, whichever is greater.

b. The instrument must be capable of measuring the vital capacity from 0 to 7 liters when corrected to BTPS.

c. The instrument must have a low inertia and offer low resistance to air flow such that the resistance to air flow at 12 liters per second must be less than 1.5 cm H_2O/liter/second.

d. The Zero time point for the purpose of timing the FEV_1 must be determined by extrapolating the steepest portion of the volume-time curve back to the maximum inspiration volume or by an equivalent method.

e. Instruments incorporating measurements of airflow to determine volume must conform to the same volume accuracy stated in paragraph 1.a. above when present with flow rates from at least 0 to 12 liters per second.

f. The instrument or user of the instrument must correct volumes to body temperature saturated with water vapor (BTPS) under conditions of varying ambient spirometer temperatures and barometric pressures.

g. The instrument used must provide tracings of volume versus time during the entire forced expiration. Flow versus volume tracings may be added. If MVV maneuver is performed, the volume versus time tracings must also be provided. Such tracings must be furnished to the Board with the test results.

Volume scale: When a volume – time curve is plotted or displayed, the volume scale must be ***at least***: 10 mm/L (BTPS).

Time Scale: ***at least*** 10 mm/S.

No results will be considered by the Board unless they are accompanied by the corresponding (minimum of 3) tracings. Tracings are necessary to determine whether the subject has performed the test properly. The tracing must be of sufficient size that hand measurements may be made within the requirement of paragraph 1.a. above.

h. The instrument must be capable of accumulating volume for a minimum of 10 seconds after the onset of exhalation.

i. The forced expiratory volume in 1 second (FEV_1) measurement must comply with the accuracy requirements stated in paragraph A.1. above; that is, the FEV_1 must be accurately measured to within + or – 50 ml or within + or – 3% of reading, whichever is greater.

j. The instrument must be capable of being calibrated in the field with respect to the FVC and time scales. This calibration of the FVC may be done either directly or indirectly through volume and time base measurements. The volume calibration source must provide a volume displacement of at least 3 liters and must be accurate to within + or = 30 ml.

k. For measuring maximum voluntary ventilation (MVV), the instrument must have a response which is flat within + or – 10% at flow rates up to 12 liters per second over the volume range. The time for exhaled volume integration or recording must be accurate to within + or - 3%. A recording of the spirometer tracing is required, and the volume sensitivity must be such than 10 mm or more deflection corresponds to 1 liter volume.

2. The administration of ventilatory function tests must conform to the following criteria: For ascertainment of the FEV_1 and FVC, a nose clip or alternative must be used. The procedure must be explained in simple terms to the subject who shall be instructed to loosen any tight fitting clothing and sit in front of the apparatus. Although the subject may sit or stand, care should be taken on repeat testing that the same position be used. Sitting position will be considered the preferred method although standing may be utilized for obese patients and notations made as to the position. Particular attention must be given to insure that the subject's chin is slightly elevated with the neck slightly extended. The subject must be instructed to make a full inspiration and then blow into the apparatus, without interruption, as hard, fast, and completely as possible.

At least three forced expirations must be carried out. During the maneuvers, the subject must be observed for compliance with instructions. The expirations must be checked visually for reproducibility by examining the flow/volume or volume/time tracings. The effort shall be judged unacceptable and cannot be considered in evaluating pulmonary functional impairment when the subject:

a. The largest and second largest FVC are not within 7% of each other; or

b. The largest and second largest FEV_1 are not within 7% of each other; or

c. Has not continued the expiration for at least 6 seconds or until an obvious plateau in the volume time curve has occurred. Exceptions: Young adults and patients with restrictive defects tend to plateau early. Reduced FVC with a normal or high FEV_1/FVC ratio is

suggestive of restriction, although measurement of TLC is required to confirm restriction, or;

d. Tracings indicate cough prior to the FEV_1 measurement or;

e. Early termination of flow (glottis closure) or;

f. Has an unsatisfactory start of expiratory, one characterized by excessive hesitation or false starts, and therefore has excessive back extrapolation of volume to time zero. (Extrapolated volume on volume time tracings must be less than 10% of the FVC); or

g. Has an excessive variability between the three (3) Acceptable curves. The variation between the two (2) largest FVCs and the two largest FEV1s Should not exceed seven percent (7%) or 100 ml, whichever is greater.

6. For ascertainment of the MVV, the subject must be instructed before beginning the test that he or she will be asked to breathe as deeply and as rapidly as possible for approximately 12 seconds. Sitting position will be considered the preferred method although standing may be utilized for obese patients and notations made as to the position. Care shall be taken on repeat testing that the same position is used. The subject should breathe normally into the mouthpiece of the apparatus for 10 to 15 seconds be become accustomed to the system. The subject should then be instructed to breathe as deeply and as rapidly as possible and shall be continually encouraged during the remainder of the maneuver. The subject shall continue the maneuver for 12 seconds. Only one (1) MVV maneuver is necessary. The effort must be judged unacceptable and cannot be considered in evaluating pulmonary functional impairment when the patient:

a. Has not maintained consistent effort for at least 12 to 15

seconds; or

b. Has coughed or closed his glottis; or

c. Has an obstructed mouthpiece or a leak around the mouthpiece (obstruction due to tongue being placed in front of the mouthpiece, false teeth falling in front of mouthpiece, etc.); or

d. Does not approximate within 10% of forty times the greatest FEV_1 volume.

3. Predicted values for spirometry are derived from Kory (1961) nomogram.

4. A calibration check must be performed on the instrument each day before use, using a volume source of at least three liters, accurate to within 1% of full scale. The room air in the syringe must be introduced into the spirometer once with a flow rate of approximately 0.5 liters per second (six seconds emptying time with a 3 liter syringe) and once with a higher flow rate of approximately 3 liters per second (one second emptying time with a 3 liter syringe). The volume measured by the spirometer must be between 2.90 and 3.10 liters for both trials. Accuracy of the time measurement used in determining the FEV_1 must be checked using the manufacturer's stated procedure and must be within 3% of the actual. The procedure described herein must be performed as well as any other procedures suggested by the manufacturer of the spirometer being used.

5. The first step in evaluating a spirogram for the FVC and FEV_1 shall be to determine whether or not the subject has performed the test properly or as described in B. (FVC) and the forced expiratory volume A.1. above. From the three satisfactory tracings, the forced expiratory volume in one second (FEV_1) must be measured and recorded. The largest FVC and the largest FEV_1 must be used in the analysis, corrected to BTPS.

6. Only MVV maneuvers which demonstrate consistent effort for at least 12 seconds shall be considered acceptable. The largest accumulated volume for a 12 second period corrected to BTPS and multiplied by 5 shall be reported as the MVV.

f. SINGLE BREATH CARBON MONOXIDE DIFFUSION CAPACITY

1. For ascertainment of the Single Breath DLCO, the subject must be instructed before beginning the test that he or she will be asked to breath normally through the system for a number of breaths to achieve stable tidal breathing, then exhale to the level of residual volume (RV). At that point the patient will be instructed to inhale quickly to the level of Total Lung Capacity (TLC) and hold their breath for approximately 10 seconds, then exhale for sample collection in the instruction of the technician administering the test.

2. Single breath carbon monoxide diffusion capcity tests are performed using the Jones-Meade method of measurement.

3. Predicted values are derived from Crapo (1981) nomogram.

4. Total Hemoglobin and Carboxyhemoglobin are to be reported. Subjects with anemia will have results corrected to hemoglobin of 14.6 (males) and 13.4 (females).

5. Reports will include DLCO, Alveolar Volume (VA) and DLCO/VA ratio.

6. At least two (2) maneuvers are to be carried out. During the maneuvers, the subject must be observed for compliance of instructions, with tracings checked for acceptability and reproducibility. The effort(s) shall be judged unacceptable and cannot be considered in evaluating pulmonary functional impairment when the subject:

a. IVCs do not achieve 90% of previously measured vital capacity.

b. Actual DLCO measurements are not within 3 ml or 10% whichever is larger.

c. IVCs (SVCs) are not reported for each acceptable maneuver.

d. Inspiratory time exceed 2.5 seconds.

e. **Breath hold time is less than 9 seconds or exceeds 11 seconds.**

f. **Sample is not obtained within 4 seconds after breath hold.**

g. **Carboxyhemoglobin is not reported or value is 3.1% or higher.**

g. AIRWAY RESISTANCE (Raw)

1. **Airway resistance measurements will be measured using a body plethysmograph. For ascertainment of the Raw, the subject must be instructed before beginning the test that he or she will, after being sealed in the plethysmograph, be aked to breath normally while temperature equilibration occurs and then to hold cheeks with hands and gently pant which open and closed shutter measurements are taken. The effort must be judged unacceptable and cannot be considered in evaluating pulmonary functional impairment when the patient:**

   a. **Has panting rate too slow or too fast.**
   b. **Breaths are too large or too small.**
   c. **Tracings are not reproducible.**

h. ARTERIAL BLOOD GAS STUDIES

1. In order to ensure comparability of data obtained in arterial blood studies, the following guidelines should be observed:

   a. The puncture site should be infiltrated with a local anesthetic to minimize pain and arterial spasm.

   b. The barrel of the syringe used to draw the blood sample should contain a coating of lithium heparin. If wetted syringes are used, the excess heparin must be expelled just prior to obtaining the blood sample.

   c. The subject should be allowed to rest while breathing room air for

fifteen (15) minutes prior to drawing the sample.

d. Resting blood samples should be drawn with the subject in the sitting position. If supine position is necessary, at notation is to be made on the report.

e. Blood samples must be discarded if contaminated by an air bubble.

f. All blood samples should be analyzed immediately (less than ten minutes). If not, the sample should be place in an ice water slush for up to 1 hour.

g. If an exercise sample is to be obtained, a plastic catheter may be inserted into the radial or brachial artery for both the resting as well as the exercise sample. Single stick exercise samples may also be obtained if drawn ***during the last 30 seconds of exercise***.

h. If an exercise sample is to be obtained, exercise must be accomplished by having the subject pedal the bicycle ergometer at a rate of 50 – 60 revolutions per minute against a resistance of 75 Watts or 450 Kilopond Meters (Kpm) per minute for a period of five minutes. A treadmill may be used, and when used, exercise must be done at 2 mph and 10% grade. During the fifth minute of exercise, the exercise sample must be drawn into a heparinized syringe and the pulse and respiration rates noted. If an added level of exercise is performed, this must be done at 120 Watts on the bicycle, or on the treadmill at 2.5 mph and 12% grade. Exercise testing beyond the level set forth herein shall be considered to be measurements of physical conditioning rather than of blood gas transfer abnormalities due to occupational pneumoconiosis. The EKG leads are then removed and the subject allowed to sit on a chair with pressure held on the puncture site for at least 5 minutes. A compression bandage must be placed on the radial artery. This bandage must be left in place for at least one hour. After about fifteen minutes of observation, the subject will be allowed to leave. The arterial blood sample should be drawn while exercise continues, not following cessation of exercise.

i. EKG monitoring with a single lead should take place during exercise to determine the heart rate. It should be noted that this

is not an EKG stress test.

j. The report should indicate the place, date and time of the study, altitude of the testing site and barometric pressure at the testing site on the day of the testing, name and claim number of the subject, name of any assisting personnel, name and signature of the supervising physician, duration and type of exercise (if performed), pulse rate at the time the blood sample was drawn, and whether analysis equipment was calibrated before each test.

2. It is recognized that arterial blood gas studies done in laboratories throughout this state are obtained at different altitudes. Only by "standardizing" for altitude can an equitable assessment be made of impairment when values for arterial oxygen are being measured at remarkably different altitudes. Therefore, the results reported from laboratories should include the name of the laboratory and the date and time of testing, altitude of the laboratory and barometric pressure at the laboratory on the day the samples were collected. The OP Board will evaluate the arterial blood gas values by converting those values to the average altitude of Charleston, West Virginia. For this purpose, it shall be sufficient to add 1 mmHg to each arterial oxygen tension for each 300 feet or fraction thereof that the testing laboratory is located above the average altitude of Charleston, because the relationship of barometric pressure (Altitude) and alveolar oxygen is approximately linear up to 4,000 feet as long as the subject breathes room air.
As an example, Bluefield is located approximately 2,600 feet above sea level. Charleston is approximately 600 feet above sea level. Thus, arterial oxygen values obtained in Bluefield should have 6.67 mmHg added to them before applying the table to them to obtain "percent impairment". The calculations are as follows:

"Bluefield (2,600') minus Charleston (600') equals 2,000' differential. 2,000' divided by 300' altitude equals 6.67. 6.67 multiplied by 1 mmHg per 300' altitude equals 6.67 mmHg"

TABLE 85-20A. Impairment of Pulmonary Function (Page 1 of 2)

The following table will be used as an indicator of impairment of pulmonary function if any of the applicable values appear in the percentage of impairment column:

% Impairment	0	10	15	20	25	30	40	50	60	Total
FVC % Pred	80	75	70	67	64	61	58	55	52	50
FEV1 % Pred	75	73	70	67	64	61	58	55	52	50
FEV1/FVC	75	73	70	67	64	61	56	51	48	45
MVV % Pred	80	75	70	67	64	61	58	55	52	50

PaCO2	PaO2 VALUES EQUAL TO OR LESS THAN									
30 or <	85	81	78	75	73	70	68	67	66	65
31	84	80	77	74	72	69	67	66	65	64
32	83	79	76	73	71	68	66	65	64	63
33	82	78	75	72	70	67	65	64	63	62
34	81	77	74	71	69	66	64	63	62	61
35	80	76	73	70	68	65	63	62	61	60
36	79	75	72	69	67	64	62	61	60	59
37	78	74	71	68	66	63	61	60	59	58
38	77	73	70	67	65	62	60	59	58	57
39	76	72	69	66	64	61	59	58	57	56
40 or >	75	71	68	65	63	60	58	57	56	55

Impairment >	0%	10-25%	26-50%	51-100%
~~DLCO~~ DL/VA	≥ 80% pred	60-79% pred	41-59% pred	≤ 40% pred

TABLE 85-20A. Impairment of Pulmonary Function. (page 2)

(b) Exercise pO2 values that rise above the resting pO2 values will indicate a lesser degree of impairment of pulmonary function, and if they are less than the resting values will indicate a greater degree of impairment of pulmonary function.

(c) The results of any medically acceptable tests or procedures reported by a physician which are not addressed in this table but which tend to demonstrate the presence or absence of pneumoconiosis or sequela of pneumoconiosis or the presence or absence of a respiratory pulmonary impairment may be submitted and given appropriate consideration (Airway Resistance, Oximetry, DLCO and A-a gradient, etc.). It is also important that the OP Board use all clinical history and physical findings that would enhance or detract from any percentage of impairment in the above table.

(d) Where an employee has a definitely ascertainable impairment which is not resulting from occupational pneumoconiosis, but which is contributing to the employee's over-all pulmonary impairment, such impairment, the effect thereof, and any aggravation thereof will not be taken into consideration in fixing the amount of compensation allowed for occupational pneumoconiosis, and such compensation will be awarded only in the amount that would have been allowable has such other impairment not been present.

(e) The degree of such impairment attributable to a cause that is not occupational pneumoconiosis may be established at any time by competent medical or other evidence. Competent medical or other evidence will include reasoned medical judgment that is based on the medical record in a given claim and on generally accepted medical science.

(f) The method of establishing impairment attributable to a cause that is not occupational pneumoconiosis need not be a matter of exact mathematical or scientific formulation, but should based on the entirety of the evidentiary record, including but not limited to: 1) a recognition of the magnitude and type of impairment that is typically associated with different types of pneumoconiosis; 2) a recognition of the magnitude and type of impairment typically associated with medical conditions other than pneumoconiosis that cause pulmonary impairment; 3) a recognition of the type, intensity and duration of the physical insults that have given rise to any pneumoconiosis and other causes of pulmonary impairment; and 4) a recognition that where two or more medical conditions likely to cause pulmonary impairment exist in combination, every effort should be made to fairly allocate responsibility for any over-all pulmonary impairment among the several conditions.

(g) Cigarette and cigar smoking are recognized by the medical community as the principle causes of pulmonary impairment and primary lung cancers in the general population. Special attention will be given to assuring that, wherever possible, pulmonary impairment caused by cigarette or cigar smoking is not included in awards for impairment caused by occupational pneumoconiosis.

926 5441

Testing Standards for Workers' Compensation
Occupational Pneumoconiosis

I. Ventilatory Function Tests

A. FVC – Forced Vital Capacity – Three adequate trials are required for a valid test. The two best curves must be within 7%. The third curve should be of similar shape. The largest FVC is to be reported.

B. FEV_1 – Forced Expiratory Volume in one second - The largest FEV_1 is to be reported. The two best FEV_1 measurements should be within 7%. Extrapolated volume must be less than 10% of the FVC.

C. MVV – Maximum Voluntary Ventilation – Must approximate the FEV_1 X 40 to within 80% to be a valid test.

D. Tracings – The three best curves from the FVC maneuver must be provided. Multiple trials may be illustrated to demonstrate non-reproducibility.

Tracings which reflect non valid studies, should shows all trials to indicate multiple attempts to achieve validity.

E. Reports shall indicate the location of test, date and time along with name of technician or other medical personnel performing the test.

Report shall include the patient/claimant last name, first and middle Initial, social security number, current age in years, gender, height measurement to nearest ¼ inch, weight in pounds

F. Tests results are to be reported in BTPS.

G. Calibration reports from the date of testing should also be provided.

H. Kory nomogram is to be used for predicted values for spirometry

I. Facilities providing services for the Workers' Comp Division may be subject to inspection by an appointee of the Commissioner. Pulmonary Function Laboratories should be staffed with properly trained personnel, have adequate equipment with documented calibration and quality control, and access to related files. Personnel performing spirometry must possess a minimum of a NIOSH training certificate. Personnel performing more complex pulmonary function testing should possess a minimum of CPFT (Certified Pulmonary Function Technician) with an RPFT (Registered Pulmonary Function Technologist) preferred.

2. Arterial Blood Gas

A. Reports shall be indicate resting and/or exercise.

B. If resting only, there should be a noted contraindication to exercise.

C. Reports shall indicate the location and altitude of test facility, date and time along with name of technician or other medical personnel performing the test.

D. Facilities performing blood analysis must provide evidence of compliance with CLIA regulations and be subject to inspection by authorized personnel.

3. Chest X-Ray

A. Single view – PA – Upright at full inspiration on 14 X 17 film is required.

B. Film should be identified with location of testing facility, date, patient name, SSAN, and date of birth.

C. Original films should be provided for review.

D. Facilities performing radiographic services must provide evidence of compliance with state and federal laws regulating such facilities and be subject to inspection by authorized personnel.

SUMMARY

The Occupational Pneumoconiosis Board receives medical evidence from various facilities. Many of these do not meet the standards as listed in the Workers' Compensation Fund Legislative Rule 23-1. If an effort to assist those testing for occupational pneumoconiosis the above condensed rules are provided.

It is imperative that pulmonary function reports be accompanied with tracings showing at least three FVC tracings. Hospitals and other testing agencies utilizing ATS Standards for pulmonary function testing should be in compliance with the above standards.

Blood gas reports must reflect the **altitude** and barometric pressure of the facility along with the name and location of the facility. Additional Language

For consideration of X-Rays, the actual films with proper identification must be provided.

The results of any medically acceptable tests or procedures reported by a physician which are not addressed in the standards but which tend to demonstrate the presence or absence of pneumoconiosis may be submitted and given appropriate consideration.

Thomas J. Obrokta
Workman's Compensation Commission
4700 MacCorkle Ave., SE
Charleston, WV 25304

Attn: Thomas Obrokta,

I am writing to address the issue of Certified Athletic Trainers and their ability to treat injured workers. In the proposed rule section 3.8 the new language excludes the ATC. I think this exclusion is a mistake and should be reevaluated. As a physical therapist I have had the opportunity to work with several ATC's in the clinic setting. I have been very impressed with their abilities not only in the area of rehabilitation but specifically in the area of decision making. One of the primary functions of an athletic trainer is to make decisions about an athletes ability to return to play and to utilize their bag of tricks such as taping, bracing, etc. to facilitate this process. In my opinion this directly relates to the injured worker. It is our job as rehab professionals to return the worker to their pre-injury job as quickly as possible while minimizing re-injury. How can we say they are qualified to make this decision with an athlete but not qualified to make the same decision with a worker?

An additional issue related to the exclusion of the ATC is the shortage of qualified PT staff. I work in Southern West Virginia and we have had great difficulty recruiting physical therapists. At my current clinic we have been trying to add a physical therapist for over 2 years. We have increased our salaries, worked with recruiting agencies, advertised in several large cities in and out of WV and sent our HR director to conferences in surrounding states. Still we have been unable to fill all of our slots. If you narrow the scope of who can treat workers compensation clients too much you will find you have increased difficulty getting the services needed to facilitate the return to work process. I think that we need to be prudent in evaluating who is competent to treat these clients and I commend the board for re-evaluating this. I however feel that excluding Certified Athletic Trainers is a real disservice to the injured worker. I hope you will take this into consideration before finalizing the bill.

Sincerely,

Maria Bailey, MSPT

Maria Bailey, MSPT

From: Thomas Obrokta
To: Divjak, Lynn
Date: 2/17/04 2:06PM
Subject: Fwd:

pp and bring up - thanks

>>> "Greg Mclaughlin" <Greg_Mclaughlin@acordia.com> 02/17/04 12:55PM >>>
Dear TJ:

Per Brenda Brogan's instructions, we are providing our comments on Proposed Rule, Title 85, Series 20 as it pertains to Occupational Pneumoconiosis and Occupational Hearing Loss claims. Please incorporate the attached comments with those previously provided by Brenda.

If you have questions you would like to discuss, or if you cannot open these attachments, please let us know. Thank you for your consideration of these suggested revisions.

Greg McLaughlin, MS, RPFT
Operations Manager
Occupational Disease Programs
Acordia Employers Service
A Wells Fargo Company
(304) 556-4722 * (304) 556-1165 fax

Antonetta Stevens
Client Relations Manager
Occupational Disease Programs
Acordia Employers Service
A Wells Fargo Company
(304) 556-1145 * (304) 556-1165 fax

§85-1-52. Procedure in Occupational Pneumoconosis Cases.

52.1. A properly completed application must be received before the potential claim will be considered by the Commission. A properly completed application must include 1) a completed WC-105 form; 2) a completed WC-205 form; ~~3) an ILO form properly completed by a certified "B" reader; 4) a valid pulmonary function study complying with the requirements of this Rule demonstrating permanent pulmonary impairment~~; and 5) a listing **by the claimant** of all alleged exposures to harmful dust, including type of dust, and extent and duration of exposure with each named employer.

52.2. If the employer provides information as part of the application process demonstrating that it has been in compliance with OSHA/**MSHA** limitations on exposure to the dust alleged by the ~~injured worker~~ **claimant**, during the periods of exposure alleged by the ~~injured worker~~ **claimant**, then the Commission shall determine that the dust exposure alleged by the ~~injured worker~~ **claimant** was not harmful and does not suffice to satisfy the exposure requirement of West Virginia Code Sections 23-4-1(b) and 23-4-15(b).

52.3. Nonmedical hearing.

Upon receipt of a proper application, employer's reports and investigation (if requested by the Commission), the Commission shall determine the nonmedical questions, and shall notify all interested parties of his decision. ~~A properly completed application After the Commission makes or has made a determination,~~ Any dissatisfied party may, within thirty (30) days after receipt of written notice of the Commission's decision, file objection thereto in writing, whereupon the Office of Judges will set a time and place for a hearing thereon. These hearings shall be subject to the provisions of the rules promulgated by the Office of Judges (Title 93, Series 1).

Upon completion of the nonmedical hearing, the Office of Judges will enter a final nonmedical ruling and shall notify the ~~injured worker~~ **Claimant** and employer of this decision. The Office of Judge's final nonmedical ruling will be subject to appeal to the Workers' Compensation ~~Appeal Board~~ **Board of Review**.

52.4. Occupational pneumoconiosis board ~~hearing~~. **exam**.

Subject to and upon the completion of, the protest and/or appellate review of the Commission's initial nonmedical order, the Commission shall refer this claim to the Occupational Pneumoconiosis Board: Provided That, the requirements of West Virginia Code section fifteen-b, article four, chapter twenty-three have been satisfied. In the case of such reference, the Commission will notify the ~~injured worker~~ **claimant** to appear before the Board for an examination and shall state the date, time, and location thereof. The Commission will notify the employer or employers of the date, time and place of the examination. A quorum of the Board will then proceed to ~~hear~~ **examine** and determine all medical questions relating to the claim.

At such ~~hearing~~ **examination** the ~~injured worker~~ **claimant** and each employer ~~must~~ **may** produce as evidence all reports of medical and X ray examinations that may be in their respective possession or control showing the past or present condition of the employee.

52.5. Report of Occupational Pneumoconiosis Board.

Upon completion of the ~~hearing~~ **examination,** the participating members of the Occupational Pneumoconiosis Board shall prepare a written report to the Commission setting forth their findings and decision, and shall prepare a sufficient number of signed copies of report so that the Commission may file one in his office, send one to the ~~injured worker~~ **claimant** and one to each employer interested in the claim.

52.6. Objections.

Any interested party who objects, in whole or in part, to the findings and conclusions of the Board may, within the statutory period after ~~the mailing to him of the copy of the report~~ **receipt of the Board's report**, or within such additional time as may be allowed by the Commission for good cause shown, file with the ~~Commission~~ **Office of Judges** his written objections, specifying the particular statements of the Board's findings and conclusions to which he objects. Upon receipt of such objection, the ~~Commission~~ **Office of Judges** shall set a time and place for a hearing thereon and shall notify each interested party and each member of the Board of the time and place of the hearing.

52.7. Hearings on protest.

Hearings held upon protest to the findings of the Occupational Pneumoconiosis Board will be held at the offices of the ~~Commission~~ **Office of Judges** in Charleston unless the ~~Commission~~ **Office of Judges** shall otherwise direct. The procedure in protest hearings shall be governed by the provisions of Section 16 of these Rules, except that evidence shall be limited to medical testimony and other competent medical evidence, unless the Board has passed upon non-medical aspects under the Commission's referral. Cross-examination of the Board shall be limited to those members who examined the ~~injured worker~~ **claimant**. However, if the ~~Commission~~ **Office of Judges,** or his duly authorized representative, decides that testimony of other members of the Board is necessary or desirable, he may permit such testimony at the protest hearing.

52.8. Employer's Request For Medical Examination.

An employer's request for medical examination of the ~~injured worker~~ **claimant** by a physician of its choice, shall be rejected if filed before the findings of the Occupational Pneumoconiosis Board have been transmitted to the ~~injured worker~~ **claimant** and the employer. Such requests shall be entertained only when filed subsequent to the transmittal of the Occupational Pneumoconiosis Board findings.

52.9. Standards for medical examination.

a. The following standards specify examination and evaluation criteria to guide the Occupational Pneumoconiosis Board in its examination and evaluation of ~~injured workers~~ **claimants**, and to guide other physicians and medical technicians who conduct examinations and evaluations of ~~injured workers~~ **claimants** on behalf of such ~~injured workers~~ **claimants** and their employers. These standards are established for the further purpose of ensuring that uniform procedures are used in administering and interpreting ventilatory function tests and arterial blood gas studies and that the best available medical evidence will be obtained in support of a claim for occupational pneumoconiosis benefits. The physician supervising any such testing and/or the technician administering any such testing will so indicate by signing the reports. Any report of test results submitted to the Occupational Pneumoconiosis Board must affirmatively state, as to each of the standards individually, the fact that the particular test or study was performed in compliance with that standard. In the event that any such report fails to affirmatively show compliance with these standards, the Occupational Pneumoconiosis Board may disregard all or any part of such test or study or give such test or study such weight as the Board believes it deserves.

b. When two (2) or more ventilatory function tests performed in reasonably close proximity in time produce differing but acceptable results, the Commission, at the request of the Occupational Pneumoconiosis Board, may direct the parties to furnish additional evidence and/or order additional testing at the laboratory utilized by the Occupational Pneumoconiosis Board or other laboratories, all for the purpose of determining whether any of the results are unreliable or incorrect or are clearly attributable to some identifiable disease or illness other than occupational pneumoconiosis.

c. When blood gas studies are performed and abnormal values are obtained and thereafter new blood gas studies are performed and normal or significantly higher values are further obtained, the Commission, at the request of the Occupational Pneumoconiosis Board, may direct the parties to furnish additional evidence and/or order additional studies at the laboratory utilized by the Occupational Pneumoconiosis Board or other laboratories, all for the purpose of determining whether any of the values are unreliable or incorrect or are clearly attributable to some identifiable disease or illness other than occupational pneumoconiosis.

d. As used herein, the following terms shall have the meanings indicated:

1. FVC -forced vital capacity -- Volume of air that can be forcefully exhaled from the lungs after a maximal inspiration.

2. FEV -forced expiratory volume -- Same as FVC.

3. FEV_1 -forced expiratory volume in one (1) second -- Volume of air that can be exhaled forcefully from the lungs in one (1) second after a maximal inspiration.

4. FEV_3 -forced expiratory volume in three seconds -- Volume of air that can be exhaled forcefully from the lungs in three (3) seconds after a maximal inspiration.

5. FEV_1FEV -forced expiratory volume (timed) to forced expiratory volume. -- A ratio expressed as a percentage.

~~6. MVV -maximal voluntary ventilation -- The volume of air that can be exchanged over a unit period of time, usually twelve (12) to fifteen (15) seconds.~~

7. BTPS -- Body temperature, ambient pressure, saturated with water.

8. Kpm -kilopond meter -- The amount of work required to lift one (1) kilogram one (1) meter.

9. NIOSH -- National Institute for Occupational Safety and Health.

10. BOARD -- West Virginia Occupational Pneumoconiosis Board.

e. Ventilatory function tests.

1. Instruments to be used for the administration of ventilatory function tests should conform to the following criteria:

A. The instrument must be accurate within plus (+) fifty (50) ml or within plus (+) three percent (3%) of reading, whichever is greater.

B. The instrument must be capable of measuring vital capacity from zero (0) to seven (7) liters BTPS.

C. The instrument must have a low inertia and offer low resistance to airflow such that the resistance to airflow at twelve (12) liters per second must be less than 1.5 cm H~~2~~0/liter/second.

D. The zero time point for the purpose of timing the FEV_1 must be determined by extrapolating the steepest portion of volume-time curve back to the maximal inspiration volume or by an equivalent method.

E. Instruments incorporating measurements of airflow to determine volume must conform to the same volume accuracy stated in Subdivision ~~20.8(e)(1)(A)~~ **52.9** of this regulation when present with flow rates from at least zero (0) to twelve (12) liters per second.

F. The instrument or user of the instrument must correct volumes to body temperature saturated with water vapor (BTPS) under conditions of varying ambient spirometer temperatures and barometric pressures.

G. The instrument used must provide ~~a tracing of either flow versus volume or volume versus time~~ **volume vs. time tracings** during the entire forced expiration ~~and volume versus time during the MVV Maneuver.~~ Such tracing must be furnished to the Board with the test results. No results will be considered by the Board unless they are accompanied by the corresponding tracings. A tracing is necessary to determine whether the subject has performed the test properly. The tracing must be of sufficient size that hand measurements may be made within the requirement of Subdivision ~~20.8(e)(1)(A)~~ **52.9** of this regulation.

H. The instrument must be capable of accumulating volume for a minimum of ten (10) seconds after the onset of exhalation.

I. The forced expiratory volume in one (1) second (FEV_1 measurement must comply with the accuracy requirements stated in Subdivision ~~20.8(e)(1)(A)~~ **52.9** of these Regulations; that is, the FEV_1 must be accurately measured to within plus (+) fifty (50) ml or within plus (+) three percent (3%) of reading, whichever is greater.

J. The instrument must be capable of being calibrated in the field with respect to the FEV_1. This calibration of the FEV_1 may be done either directly or indirectly through volume and time base measurements. The volume calibration source must provide a volume displacement of at least three (3) liters and must be accurate to within plus (+) thirty (30) ml.

K. ~~For measuring maximum voluntary ventilation (MVV), the instrument must have a response which is flat within plus (+) ten percent (10%) at flow rates up to twelve (12) liters per second over the volume range. The time for exhaled volume integration or recording must be no less than twelve (12) seconds and no more than fifteen (15) seconds. The in dicated time must be accurate to within plus (+) three percent (3%). A recording of the spirometer tracing is required, and the volume sensitivity must be such than ten (10) mm or more deflection corresponds to one (1) liter volume.~~

2. The administration of ventilatory function tests must conform to the following criteria: For ascertainment of the FEV_1 and FVC, a nose clip or alternative should be used. The procedures must be explained in simple terms to the subject who shall be instructed to loosen any tight clothing and sit or stand in front of the apparatus. Although the subject may sit or stand, care should be taken on repeat testing that the

same position is used. Particular attention must be given to insure that the subject's chin is slightly elevated with the neck slightly extended. The subject must be instructed to make a full inspiration, either from the spirometer or the open atmosphere, and then blow into the apparatus, without interruption, as hard, fast, and completely as possible.

At least three (3) forced expirations must be carried out. During the maneuvers, the subject must be observed for compliance with instructions. The expirations must be checked visually for reproducibility by examining the flow-volume or volume-time tracings. The effort shall be judged unacceptable and cannot be considered in evaluating pulmonary functional impairment when the subject:

A. Has not reached full inspiration preceding the forced expiration; or

B. Has not used maximal effort during the entire forced expiration; or

C. Has not continued the expiration for at least five (5) seconds or until an obvious plateau in the volume-time curve has occurred; or

D. Has an obstructed mouthpiece or a leak around the mouthpiece (obstruction due to tongue being placed in front of mouthpiece, false teeth falling in front of mouthpiece, etc.); or

E. Has coughed or closed his glottis; or

F. Has an unsatisfactory start of expiration, one characterized by excessive hesitation (or false starts), and therefore did not allow back extrapolation of time zero (0) (extrapolated volume on the volume-time tracing must be less than ten percent (10%) of the FVC); or

G. Has an excessive variability between the three (3) satisfactory curves. The variation between the two (2) largest FEV_1's of the three (3) satisfactory tracings should not exceed seven percent (7%) of the largest FEV1 or one hundred (100) ml, whichever is greater.

H. Predicted values are derived from Kory's Nomogram.

3. ~~For ascertainment of the MVV, the subject must be instructed before beginning the test that he or she will be asked to breathe as deeply and as rapidly as possible for approximately fifteen (15) seconds. The test may be performed with the subject in either a sitting or standing position. Care shall be taken on repeat testing that the same position is used. The subject should breathe normally into the mouthpiece of the apparatus for ten (10) to fifteen (15) seconds to become accustomed to the system. The subject should then be instructed to breathe as deeply and as rapidly as possible and shall be continually encouraged during the remainder of the maneuver. The subject shall continue the maneuver for twelve (12) seconds. The subject should be allowed to rest between maneuvers. At least three (3) MVV's must be observed to determine if there~~

~~was compliance with instructions. The effort must be judged unacceptable and cannot be considered in evaluating pulmonary functional impairment when the patient:~~

~~A. Has not maintained consistent effort for at least twelve (12) to fifteen (15) seconds; or~~

~~B. Has coughed or closed his glottis; or~~

~~C. Has an obstructed mouthpiece or a leak around the mouthpiece (obstruction due to tongue being placed in front of mouthpiece, false teeth falling in front of mouthpiece, etc.); or~~

~~D. Has an excessive variability between the three (3) satisfactory curves. The variation between the three (3) satisfactory tracings must not exceed ten percent (10%) and should approximate forty (40) times the greatest FEV{1{s volume.~~

4. A calibration check must be performed on the instrument each day before use, using a volume source of at least three (3) liters, accurate to within +one percent (1%) of full scale. The room air in the syringe must be introduced into the spirometer once with a flow rate of approximately five tenths (5/10) liters per second (six (6) seconds emptying time with a three (3) liter syringe) and once with a higher flow rate of approximately three (3) liters per second (one (1) second emptying time with a three (3) liter syringe). The volume measured by the spirometer must be between two and nine tenths (2.90) and three and one tenth (3.10) liters for both trials. Accuracy of the time measurement used in determining the FEV~~1~~ must be checked using the manufacturer's stated procedure and must be within +three percent (3%) of actual. The procedure described herein must be performed as well as any other procedures suggested by the manufacturer of the spirometer being used.

5. The first step in evaluating a spirogram for the FEV and FEV_1 shall be to determine whether or not the subject has performed the test properly or as described in Subdivision 20.8.5.(b)(FEV) of this regulation and the forced expiratory volume, Subdivision 20.8.5.(a){1) of this regulation. From the three (3) satisfactory tracings, the forced expiratory volume in one (1) second (FEV_1 must be measured and recorded. The largest observed FEV_1 must be used in the analysis, corrected to BTPS.

6. ~~Only MVV maneuvers which demonstrate consistent effort for at least twelve (12) seconds shall be considered acceptable. The largest accumulated volume for a twelve (12) second period corrected to BTPS and multiplied by five (5) shall be reported as the MVV.~~

f. Arterial blood gas studies.

1. In order to ensure comparability of data obtained in arterial blood studies, the following guidelines should be observed:

A. The puncture site should be infiltrated with a local anesthetic to minimize pain and arterial spasm.

B. The barrel of the syringe used to draw the blood sample should be wetted with heparin and the excess heparin must be expelled just prior to obtaining the blood sample.

C. The subject should be allowed to rest for fifteen (15) minutes **in a sitting position** prior to beginning the study.

D. Resting blood samples should be drawn with the subject in the sitting position.

E. On occasions when the subject is unable to be exercised due to physical impairments; i.e., heart disease, artificial leg, etc., a resting sample of arterial blood may be drawn by direct puncture with a twenty -twenty-five (20-25) gauge needle and a heparinized syringe.

F. Blood samples must be discarded if contaminated by an air bubble.

G. All blood samples should be analyzed immediately (less than ten (10) minutes). If not, the sample should be iced in water. If the analysis is not performed within ten (10) minutes, the metabolic activity of the cells in the blood will cause the pO_2 to fall and the pCO_2 to rise.

H. If an exercise sample is to be obtained, a plastic catheter must be inserted into the radial or brachial artery for both the resting as well as the exercise sample.

I. Exercise must be accomplished by having the subject pedal the bicycle ergometer at a rate of fifty (50) -sixty (60) revolutions per minute against a resistance of seventy-five (75) Watts or four hundred fifty (450) Kilopond Meters (Kpm) per minute for a period of five (5) minutes. A treadmill may be used, and when used, exercise must be done at two (2) mph and ten percent (10%) grade. During the last twenty (20) seconds of the fifth minute of exercise, the exercise sample must be drawn into a heparinized syringe and the pulse and respiration rates noted. If an added level of exercise is performed, this must be done at one hundred twenty (120) Watts on the bicycle, or on the treadmill at two and five tenths (2 5/10) mph and twelve percent (12%) grade. Exercise testing beyond the level set forth herein shall be considered to be measurements of physical conditioning rather than of blood gas transfer abnormalities due to occupational pneumoconiosis. **The arterial blood sample should be drawn while exercise continues, not following cessation of exercise. If arterial samples are drawn after exercise, it must be noted on the report.** The EKG leads are then removed and the subject allowed to sit on a chair while the catheter is removed. Pressure must be held at the site of arterial cannulation for five (5) minutes, and if there is no bleeding or hematoma present, a compression bandage must be placed on the radial

artery. This bandage must be left in place for four (4) hours. After about fifteen (15) minutes of observation, the subject will be allowed to leave. ~~The arterial blood sample should be drawn while exercise continues, not following cessation of exercise.~~

J. EKG monitoring with a single lead should take place during exercise to determine the heart rate. It should be noted that this is not an EKG Stress Test.

K. The report should indicate the place, date and time of the study, altitude of the testing site and barometric pressure at the testing site on the day of the testing, name and claim number of the subject, name of any assisting personnel, name and signature of the supervising physician, duration and type of exercise (if performed), pulse **and respiration** rate at the time the blood sample was drawn, and ~~whether analysis~~ **date and time** equipment was **last** calibrated ~~before each test~~ **prior to testing.**

2. It is recognized that arterial blood gas studies done in laboratories throughout this state are obtained at different altitudes. Only by "Standardizing" for altitude can an equitable assessment be made of impairment when values of arterial oxygen are being measured at remarkably different altitudes. Therefore, the results reported from laboratories should include the name of the laboratory and the date and time of the testing, altitude of the laboratory and barometric pressure at the laboratory on the day the samples were collected. The Occupational Pneumoconiosis Board will evaluate the arterial blood gas values by converting those values to the average altitude of Charleston, West Virginia. For this purpose, it shall be sufficient to add one (1) mmHg to each arterial oxygen tension for each three hundred (300) feet or fraction thereof that the testing laboratory is located above the average altitude of Charleston, because the relationship of barometric pressure (altitude) and alveolar oxygen is approximately linear up to four thousand (4,000) feet as long as the subject breathes room air.

As an example, Bluefield is located approximately two thousand six hundred (2,600) feet above sea level. Charleston is approximately six hundred (600) feet above sea level. Thus, arterial oxygen values obtained in Bluefield should have 6.67 mmHg added to them before applying the table to them to obtain "percent impairment". The calculations are as follows:

"Bluefield (2,600') minus Charleston (600') equals 2,000' differential

2,000' divided by 300' altitude equals 6.67

6.67 multiplied by 1 mmHg per 300' altitude equals 6.67 mmHg"

g. See the attached Table 85-20A, "Impairment of Pulmonary Function."

52.9 Medical Treatment

The following services may be provided without prior authorization if carried out under the standards referenced and if the service is documented as to its medical necessity.

1. **MEDICAL VISITS:** Office visits will be considered for payment according to the following schedule based on the FEV_1/FVC ratio or upon percent of disability award (where there is a conflict, FEV_1 will be the controlling factor):

FEV_1/FVC*	WCC % OP AWARD	LEVEL OF IMPAIRMENT	MEDICAL VISITS
70-74%	10-15%	I	One intermediate visit per year.
61-69%	20-30%	II	One comprehensive or extended visit per year for medically necessary pulmonary follow-up care.
60% or less	40%>	III	One comprehensive or extended visit per year. Up to four limited visits per year for medically necessary pulmonary follow-up care.

*Based on Actual Results rather than Nomograms.

2. **TESTING**: The testing referenced below will only be considered for payment when the medical necessity is documented by the treating physician. Equivalent testing performed in conjunction with the claimant's examination by the OP board shall be considered toward satisfaction of the limits herein referenced. This testing, with the exception of chest X-rays, is not applicable to claimants with Zero Level of Impairment.

a) Spirometry: Annually in conjunction with a comprehensive, extended or intermediate office visit. This testing must be performed in compliance with the standards outlined in the Commission rules and regulations.

b) Single Breath Diffusion Study: Once for all eligible claimants. Repeat every two years if less than 60% of predicted. Repeat every four years if 60% of predicted or greater.

c) Chest X-Ray: Normal – every four years maximum. Positive reading for OP –
every two years maximum.

d) Blood Tests: theophylline Theophylline level annually for claimants taking
medication. Additional theophylline testing will be considered when necessary to monitor and stabilize the blood levels during the
first year of ingestion.

Complete blood count and Chemistry – 12 every four years for claimants in Level II.
Complete blood count and Chemistry – 12 annually for claimants in Level III.
This testing is not authorized for claimants in Levels 0 and I.

3. **MEDICATIONS:** The following will be considered for payment prescribed for an acute or chronic condition or problem caused or exacerbated by OP and when such has been documented by the treating physician.

- All above 15% PPD –

a) Bronchodilators for claimants with a 15% or greater improvement in FEV_1 or FVC on a current post bronchodilator study.
b) Other medications on the Medicaid formulary including antibiotics, steroids and diuretics when required for treatment of pulmonary conditions related to OP for up to 14 days of treatment. Longer treatment may be authorized but will require prior authorization based upon a statement of medical necessity from the treating physician and appropriate prescribing practices.
c) Expectorants or mucolytics will not be approved.
d) Pneumococcal vaccine once and annual flu vaccine for all eligible claimants where the physician certifies that the vaccine is consistent with national guidelines of immunization practices regarding health status and age of the patient.
e) Cardiac medications may be authorized when the cardiac problem is a complication of the pneumoconiosis. Authorization will not be granted for treatment of cardiac conditions unrelated to occupational pneumoconiosis, nor for cardiomyopathy, coronary heart disease or coronary bypass surgery.

4. **PULMONARY REHABILITATION:** Pulmonary rehabilitation services are authorized according to the following schedule when such services are provided by a certified pulmonary rehabilitation center approved by the U. S. Department of Labor and provided in accordance with the guidelines of the WV Department of Health.

LEVEL OF IMPAIRMENT	WCC % AWARD	FEV_1/FVC*	AUTHORIZED TREATMENT
A	5%	75% or greater	None
B	10-15%	70-74%	One hour of education focusing on the nature of pulmonary disease and prevention of progression.
C	20-40%	56-69%	Additional four hours of education and

			training focusing on techniques and dealing with shortness of breath and pulmonary distress management. (5 hours total) Two hours of follow-up education and training one year later.
D	40%>	55% or less	Additional two hours of education training focusing on individualized treatment of severe pulmonary impairment. (7 hours total) Two hours of follow-up education and training one year later.
Homebound claimants (as result of pulmonary impairment) **Certificate of medical necessity must be provided.**			Seven hours of education and training by home visitation. Two hours of follow-up education and training each subsequent year.

Pulmonary rehabilitation programs coverage includes: Prevention of disease progression, nutrition, hygiene, anatomy, recognition of symptoms, smoking cessation, physical conditional **conditioning**, weight control, breathing techniques, drug evaluation, stress reduction and follow-up.

Pulmonary rehabilitation services must be provided by a registered nurse, licensed practical nurse or respiratory therapist.

The following services require prior authorization and the request for such authorization must be accompanied by a statement of medical necessity from the treating physician.

1. Arterial Blood Gas (Or Oximetry):

a) Administration of arterial blood gases or oximetry shall be restricted to situations where it is necessary to evaluate the need for chronic oxygen therapy consistent with American Thoracic Society Guidelines.

b) Prior authorization is also required to repeat blood gases and is contingent upon the treating physician providing documentation that the claimant's initial study showed a PO_2 over 80 or 02 saturation over 95%. The PO_2 levels listed below will be the determining factor in how frequently the repeat test will be considered for authorization.

PO_2 less than 55 or O_2 less than 90% saturation – repeat no more than annually.

PO_2 55 to 80 or O_2 saturation 90 to 95% - repeat no more than every two years.
PO_2 over 80 or O_2 saturation over 95% - repeat no more than every four years.

2. Durable medical equipment and nursing care:

a) Authorization for purchase or rental of durable equipment such as hospital beds, commode chairs, lifts, **and oxygen delivery systems will be considered only upon certification of medical necessity from the treating physician**. Authorization of durable medical equipment, including oxygen delivery systems, shall be given in the sole discretion of the Commission.

b) In-home nursing care or home health care for bedridden claimants.

c) Nursing home care in properly licensed and operated facilities.

d) Mechanical nebulizer: Authorization for Mechanical nebulizers shall only be granted upon certification of medical necessity from the treating physician which indicated why the use of less expensive medication delivery such as hand nebulizers or metered dose devices is not feasible.

3. Oxygen: Except when administered for medical emergency, oxygen therapy requires prior authorization and will only then be authorized when in compliance with the guidelines of the American Thoracic Society.

§85-20-47. Procedure in Occupational Hearing Loss Cases

47.1. A properly completed application must be received before the potential claim will be considered by the Commission. A properly completed application must include 1) a completed WC-1HL form, which has been properly filled out by a certified otologist/otolaryngologist; 2) a completed WC-1HL-A form and 3) a listing by the claimant of all alleged exposures to harmful noise, including type of noise, and extent and duration of exposure with each named employer.

47.2 If the audiometric testing submitted by the claimant shows no impairment in the compensable hearing and speech range, the claim will not be ruled compensable.

47.3. If the employer provides information as part of the application process demonstrating that it has been in compliance with OSHA/MSHA limitations on exposure to the noise alleged by the claimant, during the periods of exposure alleged by the Claimant, then the Commission shall determine that the noise exposure alleged by the Claimant was not harmful and does not suffice to satisfy the exposure requirement of West Virginia Code Sections 23-4-6b(g).

47.4. Compensability Ruling

Upon receipt of a proper application, employer's reports and investigation (if requested by the Commission), the Commission shall determine the compensability of the claim, and shall notify all interested parties of his decision. After the Commission makes or has made a determination, any dissatisfied party may, within thirty (30) days after receipt of written notice of the Commission's decision, file objection thereto in writing, whereupon the Office of Judges will set a time and place for a hearing thereon. These hearings shall be subject to the provisions of the rules promulgated by the Office of Judges (Title 93, Series 1).

Upon completion of the compensability hearing, the Office of Judges will enter a final compensability ruling and shall notify the claimant and employer of this decision. The Office of Judge's final compensability ruling will be subject to appeal to the Workers' Compensation Board of Review.

47.5. Only audiometric test results obtained by an audiologist having a certificate of clinical competence in audiology (CCC-A) or a West Virginia audiology licensure are acceptable for purposes of awarding compensation. An audiogram performed at the

request of any physician may be utilized by the ~~injured worker~~ **claimant** for the purpose of completing the workers' compensation application form, ~~WC-123HL~~ **WC-1HL.** However, only physicians who are qualified otologists or otolaryngologists may interpret the results of audiograms in assessing the degree of the ~~injured worker~~ **claimant's** noise-induced hearing loss impairment for the purpose of determining the percentages of the ~~injured worker~~ **claimant's** whole person impairment, if any.

47.6. A physician examining and evaluating a ~~injured worker~~ **claimant** in a noise-induced hearing loss claim must consider the ~~injured worker~~ **claimant's** medical and occupational history, as well as available audiograms, in determining the etiology of the hearing loss. It is not necessary to use a uniform brand and model of audiometer.

For Commission standards, the audiologist shall adopt the ANSI Guidelines and perform an annual exhaustive calibration. The audiologist should also perform a daily listening check.

47.7. Establishing a definitive margin of error: Two audiograms are said to be in acceptable test-retest variability when the total of four frequencies (500, 1000, 2000, 3000 Hz) is 15 decibels or less and the audiometric curves are similar. ~~Because the two audiograms are technically identical and one cannot be chosen over the other~~, the calculation of whole person impairment will be based on the audiogram that yields the ~~highest~~ **lowest** degree of impairment for the ~~injured worker~~ **claimant**.

47.7.1. If two audiograms are both rated "good", and differ by more than the established margin of error, the Commission shall arrange for a third independent evaluation by an otologist or otolaryngologist.

47.7.2. The two audiograms that are within an acceptable test/retest variability should be used.

47.8. The audiologist shall be required to perform the following specific reliability and validity checks during the course of an audiogram:

47.8.1 Speech Reception Threshold (SRT)/Pure Tone Average Comparison: SRT should be within 10 decibels of the best two frequency average for the pure tone thresholds of 500, 1000, 2000, **3000** Hz.

47.8.2 Both ascending and descending thresholds should be obtained at 1000 Hz for each ear. The difference should be no greater than 5 decibels.

47.8.3 Reliability should be rated: good, fair, poor.

47.8.4 Certified and/or licensed audiologists must perform the audiogram.

47.8.5 The four validity and reliability checks set forth above must be documented on the WC-123HL/WC-2HL form and the examiner must initial his or her findings on the forms.

47.9. The Commission will inform all physicians evaluating noise-induced hearing loss ~~injured workers~~ **claimants** on the Commission's behalf that standard air conduction and bone conduction testing, speech reception threshold, speech discrimination, tympanometry and acoustic reflex testing must routinely be performed as a part of audiometric evaluation. Other testing, including otoacoustic emission testing, may be required at the discretion of the otologist/otolaryngologist. If the required audiometric tests have not been done, the report is unacceptable and the physician will not be compensated. W. Va. Code §23-4-8.

47.10. When a sensorineural hearing loss is present it may be the result of noise induced hearing loss and/or other disease processes. The medical evaluator should consider all causes of sensorineural hearing loss. When a conductive loss is present, the bone conduction levels will show the purist hearing a ~~injured worker~~ **claimant** could have as a result of noise induced hearing loss.

47.11. The audiologist shall perform speech discrimination (word recognition) testing using W-22 word lists. Both live voice and recorded presentation methods for testing speech discrimination are acceptable; each method has its advantages. The audiologist should use the method that provides the best representation of the ~~injured worker~~ **claimant's** true speech discrimination score.

The otologist or otolaryngologist interpreting the speech discrimination results shall use the formula set forth in W. Va. Code §23-4-6b, to calculate the ~~injured worker~~ **claimant's** impairment rating.

47.12. Occupational noise induced hearing loss (NIHL) typically starts in the high frequencies; usually 3000, 4000 or 6000 Hz. With progression, these frequencies worsen and the hearing loss extends to the lower frequencies; (2000 and 1000 Hz). Even with progression, however, the audiometric pattern remains one that descends from the low frequencies to the high frequencies, sometimes with recovery at 6000 or 8000 Hz. Occupational NIHL does not cause an ascending audiometric pattern (where the low frequencies would be worse than the high frequencies). A flat audiometric curve is also not typical of an etiology of solely occupational NIHL. If an audiogram presents a pattern that is atypical of an occupational NIHL pattern, then the physician interpreting the audiogram should consider causes other than occupational noise exposure in determining the hearing loss etiology. If the otologist/otolaryngologist determines that a ~~injured worker's~~ **claimant's** hearing loss is not all noise induced hearing loss, he or she should ~~estimate the true noise induced hearing loss thresholds and~~ **make an adjustment for the nonoccupational portion of the claimant's hearing loss** and explain his or her calculations on the basis of medical and audiological findings.

47.13. When a ~~injured worker~~ **claimant** has been exposed to steady state noise, his or her NIHL will usually be symmetrical between both ears. If the ~~injured worker~~ **claimant** has a hearing loss that is asymmetric then the evaluating physician should consider all causes for hearing loss, including nonoccupational noise, trauma or disease processes and whether there is more noise exposure on one side than the other.

47.14 If a physician determines that a ~~injured worker's~~ **claimant's** hearing loss is the result of occupational noise exposure, the total hearing loss impairment rating shall be calculated pursuant to the formula set forth in W. Va. Code 23-4-6b.

47.15 The Commission will not **authorize nor** reimburse for hearing aids when there is no compensable permanent impairment.

"RRA"

Rapid Response Assistance ("RRA") is the missing link between current attempts to provide every injured worker in the State of West Virginia the reasonable and necessary medical care needed, and overall reduction of Worker's Compensation Costs in this State.

The concept has never been attempted in this State; however, its time has come.

About Eighty-five percent of all claims filed are totally legitimate claims filed by injured workers who only desire to receive necessary medical treatment and return to work as soon as it is "Medically-Reasonable" to do so: They desire to return to work, prior to reaching Maximum Medical Improvement ("MMI") status, under "Light or Modified" duty assignments, if their employers are willing and able to accommodate their restrictions. Taking into consideration the scope of their injuries and the type, or physical requirements, of available work with their Pre-Injury Employer.

The remaining Fifteen percent of claims, unfortunately, will most likely, ending up in the litigation procedures due to one thing or another. It is anticipated that this Fifteen percent of claims take up about Eighty-Five percent of time expended by those who administer claims.

According to current information from the Workers' Compensation Commission, about Seventy-five percent of all Claims are determined to be No-Lost-Time Injuries, and about Twenty-five percent of all claims costs are for medical services rendered. 30%

It is far too common (especially among Large Medical Practices) for the attending physicians to treat claimants on their first visit and then schedule a return office visit with a "come back in a month." Of course, the injured worker becomes totally disabled for that period of time, drawing "TTD" benefits, and incurring additional medical costs. Many times, the attending physician is simply allowing time for their staffs to prepare and transmit documents requesting authorization from the Commission for MRI, Mylogram, Nerve Conduction Studies or other tests.

The patient (claimant) very often, following the initial visit, cannot describe the diagnoses or treatment plan. In short, they do not know why they are off work or how long their physician estimates they may be totally disabled. Based upon experience, the physician's know it takes several weeks for the authorizations to be approved and provided to them. Even then, they must set about scheduling the appropriate tests or studies, have them completed and reviewed. If by the time of the next scheduled office visit (it has already been a month), all of the preliminary tests or studies have not been completed and reported back,

the physician simply schedules another return office visit for the next month.

Most Lost-Time-Claims results from relatively minor injuries, such as small cuts of the arm, hand or finger; or Sprains/Strains of the shoulder or back (mostly the lumbar area). If the treating physician was aware the claimant's employer could offer accommodations of a Light or Modified Duty assignment to the injured worker, they would consider a early return to work in most of these type claims.

As soon as an injured worker seeks medical treatment, any party involved in the claim should have the right to request that a Registered Nurse with National Certification ("CCM") be assigned to the claim for Medical Case Management ("MCM"). For purposes of this RRA, these nurses are referred to as a Rapid Response Nurse ("RRN"). The parties are: the claimant, employer, medical provider and the Commission (following July 1, 2004, the Self-Insured Self-Administrated Employer is synonymous with the Commission for these purposes).

The RRN should be assigned, as the name suggests, RAPIDLY. Certainly, the assignment should occur within the first seventy-two (72) hours and ideally, within the first twenty-four (24) hours following the injury to the claimant. The first and primary goal of the RRA is to assist the claimant to receive the necessary medical care reasonably needed and as requested by the treating physician. This goal is to be carried out by effective communications between all of the parties (see above) in order to coordinate and expedite the attending physician's treatment plan.

The RRN must make the four-party contact expeditiously in order to respond to, or ascertain answers from, the claimant; communicate to the Commission the requested authorizations from the physician; to describe the nature and condition of the claimant to the employer; and report back to the physician any Light or Modified duty assignments the employer is willing and able to offer their injured worker during the recovery process, and prior to the claimant reaching MMI status.

This RRA process will result in many claims, which currently would result in Lost-Time-Claims, becoming No-Lost-Time-Claims and thereby reducing TTD benefits and medical costs. More importantly, it allows an injured worker to return to work performing activates, as directed by the attending physician, which allows for the continuation of wages and stability within the claimants finical household without any reasonable risk of endangering the claimant during the continuing recovery process. In more sever injury claims; the RRA process will result in reducing TTD benefits and medical costs by speeding up the treatment plan. The RRN will assist, by the use of their professional ability, training and expertise: to remove or minimize impediments to the current procedures and thereby minimizing the overall time away from work.

The Commission (and previously the Division) has failed to recognize and understand the difference between Medical Case Management (as proposed

under MMI), and Vocational Rehabilitation Services assigned to a Qualified Rehabilitation Person ("QRP"). The State has always taken the position that their Claims Representatives are to perform MCM **in all claims**, with one exception, representing less than one (1) percent of claims determined to be catastrophic, such as, severe: burns, electrocution, head or spinal cord injuries.

The difference between these two very distinct types of service is very simple. Medical Case Management, to be effective, must begin immediately following injury and continue until MMI status occurs. Voc-Rehab on the other hand only occurs at or following MMI status.

The States' erroneous position fails to take into account that their Claims Representatives are not National Certified Professionals in MCM, and do not have the training, background or expertise. The States' Representatives can never become qualified to perform required Professional MCM (unless they were previously RN's with a CCM certification prior to becoming employees of the state). The reason is obvious: if the State spent the monetary resources, time, energy and effort to have all of their Claims Representatives become National Certified CCM's, those same employees would seek employment elsewhere and would therefore, not be available to perform the required services for the State. Even if they remained State employees, due to the workload, they would not have the time to leave their offices and be out in the field all over the State to accomplish the necessary tasks required.

The commission should develop a computer list of all National Certified CCM's who desire assignment to Workers' Compensation Claims, in the same manner that QRP's are currently recorded, using the same geographical areas for assignment. The fee for Medical Case Management has already been established by the Commission. If an employer has selected a Preferred Provider for RRA purposes, then the assignment will be made to that RRN. In the event no preferred Provider has been selected by the employer, then a rotating list similar to the QRP assignment list must be devolved.

The RRA procedure would require cooperation and participation by all parties involved in a claim.

It would not require a compensable ruling on the part of the Commission to make an initial conditional RRN assignment in a claim. All they need is a claim number to identify a claim, which can be accomplished with nothing more than a name, social security number and a date of injury. This information can come from any of the requesting parties of a RRA assignment; the claimant, treating physician or the employer. If the Commission is the requesting party, they already have that information.

The Commission could and should establish the Rules and Procedures, as outlined by this RRA proposal, under current Law. For that matter, the Commission currently has open for Public Comment their version of some

of the Rules and Procedures for Medical Case Management, among other things. It would only require a simple addition to that document to implement the RRA process.

Other states use this same process as do major insurance groups.

This simple addition to the Rule would have a tremendous impact in savings for both medical and TTD costs for the Commission and ultimately the employer. It would also send a clear message to all injured workers and employers that the Commission is interested in providing Disability Management according to Natural standards. Thereby, providing timely, cost effective quality care for the injured worker.

Larry Gue, HR
Steel of West Virginia, Inc.

Tammy Pritt, R.N.C., B.A., CCM, QRP
TKP Enterprises, Inc.
TPA Services, LLC

Bowles Rice
McDavid Graff & Love LLP

Sarah E. Smith
Telephone —
Facsimile —
E-Mail:

600 Quarrier Street, Charleston, West Virginia ❖ Post Office Box 1386, Charleston, West Virginia 25325-1386 ❖ (304) 347-1100 ❖ www.bowlesrice.com

March 4, 2004

T. J. Obrokta, General Counsel
Workers. Compensation Commission
4700 MacCorkle Avenue, S. E.
Charleston, West Virginia 25304

Re: Series 20 Medical Management of Claims

Dear Mr. Obrokta:

Enclosed are public comments on the Commission's proposed rules for Medical Management of Claims. Thank you for considering these comments.

Very truly yours,

Sarah E. Smith

SES/pfl
Enclosure

85 CSR 20
TITLE 85
EXEMPT LEGISLATIVE RULE
WORKERS' COMPENSATION COMMISSION

SERIES 20
MEDICAL MANAGEMENT OF CLAIMS, GUIDELINES FOR IMPAIRMENT EVALUATIONS, EVIDENCE, AND RATINGS, AND RANGES OF PERMANENT PARTIAL DISABILITY AWARDS

I. INTRODUCTION

§85-20-1. General.

1.1 Scope.-West Virginia Code Section 23-4-3b(b) requires the Workers' Compensation Board of Managers to promulgate a rule establishing the process for the medical management of claims and awards of disability which includes, but is not limited to, reasonable and standardized guidelines and parameters for appropriate treatment, expected period of time to reach maximum medical improvement and range of permanent partial disability awards for common injuries and diseases or, in the alternative, which incorporates by reference the medical and disability management guidelines, plan or program being utilized by the commission for the medical and disability management of claims, with the requirements, standards, parameters and limitations of such guidelines, plan or program having the same force and effect as the rule promulgated in compliance herewith. This Rule satisfies this statutory requirement. See also, West Virginia Code Sections 23-1-1(b); 23-1-la(j)(2), (3), (9), and 13); 23-l-la(j)(13); 23-1-lb(g)(25); 23-1-13; 23-4-1(c), (d), (f), and (i); 23-4-1g; 23-4-3; 23-4-1d; 23-4-3c; 23-4-6; 23-4-7; 23-4-la; 23-4-8; 23-4-8b; 23-4-8c; and 23-4-16.

1.2, Authority.-Pursuant to W. Va. Code, ~23-1 -l a(j)(3), rules adopted by the Workers Compensation Board of Managers are not subject to legislative approval as would otherwise be required under W. Va. Code, §29A-3-1 et seq. Public notice requirements of that chapter and article, however, must be followed.

1.3. Filing Date-

1.4. Effective Date -

1.5. Repeal of former rules. This exempt legislative rule repeals and replaces the following: 1) 85 C.S.R. 13, "Protocals and Procedures for Performing Medical Evaluations in Noise-Induced Hearing Loss Claims," filed in the Secretary of State's Office January 24, 1996 and made effective February 22, 1996; 2) 85 C.S.R. 16, "Guidelines for Permanent Impairment Evaluations, Evidence, and Ratings," filed in the Secretary of State's Office January 24, 1996 and effective February 26, 1996; 3) 85 C.S.R. 20, "Guidelines for the Treatment of Workers' Compensation Injuries" filed in the Secretary of State's Office August 23, 1995 and effective October 1, 1995; 4) 85 C.S.R. 21, "Guidelines for Controlled Substances," filed in the Secretary

of State's Office August 23, 1995 and made effective September 22, 1995; and 5)85 C.S.R, 1, "Administration of the Workers' Compensation Fund," Sections 11, 14, and 20.

§85-20-2. Purpose of Rule.

2.1. The purpose of this rule is to implement the provisions of W. Va. Code. Section 23-4-3b(b) and the other provisions of the Code that are identified in Section 1.1 above. The Workers' Compensation Commission finds that a deficit exists in the workers' compensation fund of such critical proportions that it constitutes an imminent threat to the immediate and long-term solvency of the fund. The Workers' Compensation Commission further finds that addressing the workers' compensation crisis requires the efforts of all persons and entities involved. Modification to the rate system, alteration of the benefit structure, improvement of current management practices and changes in perception must be merged into a unified effort to make the workers' compensation system viable and solvent. It is the intent of the Workers' Compensation Commission that the provisions of this Rule be strictly applied so as to enforce the amendments to the Workers' Compensation Act enacted by the West Virginia Legislature in 2003 and that the provisions of the Rule shall be effective immediately. The Workers' Compensation Commission finds that an emergency exists as a result of the combined effect of this deficit, other state budgetary deficits and liabilities and other grave social and economic circumstances currently confronting the state and that unless the changes provided by the enactment of the amendments to this Rule, as well as other legislation and regulations designed to address the problem are made effective immediately, the fiscal stability of this state will suffer irreparable harm. Accordingly, the Workers' Compensation Commission finds that the need of the citizens of this state for the protection of the state treasury and the solvency of the workers' compensation funds requires the limitations on any expectations that may have arisen from prior rules.

COMMENT: The implementation of certain amendments to this rule suggests the need to repeat some of the legislature's basis for the immediate effective date.

§85-20-3. Definitions.

As used in these rules, the following terms have the stated meanings unless the context of a specific use clearly indicates another meaning is intended.

3.1. "Code of West Virginia" and 'West Virginia Code" means the West Virginia Code of 1931 as amended.

3.2. "Executive Director" means the Executive Director of the West Virginia Workers' Compensation Commission as provided pursuant to the provisions of W.Va. Code §23-1-lb.

3.3. "Commission" means the West Virginia Workers' Compensation Commission as provided for by W. Va. Code §23-1-1, et seq. Effective July 1, 2004, some references to the Commission may also include the self-insured employer.

3.4. "Health Care Vendor" or "Health Care Provider" refers to health care providers, including providers of rehabilitation services within the meaning of W. Va. Code §23-

4-9, both in- and out-of-state who have signed provider agreements with the West Virginia Workers' Compensation Commission to provide health care for injuries or illnesses covered by Chapter 23 of the Code. For this Rule, the terms shall mean any person, firm, corporation, partnership, association, agency, institution, or other legal entity providing any kind of services or equipment. The terms include, but are not limited to, hospitals, medical doctors, dentists, chiropractors, vocational rehabilitation counselors, vocational rehabilitation service providers, qualified rehabilitation professionals, osteopathic physicians, pharmacists, podiatrists, physical therapists, occupational therapists, massage therapists, psychologists, naturopathic physicians, and durable medical equipment suppliers.

3.5. "Office of Judges" refers to the Office of Judges, as set forth in W. Va. Code §23-5-8.

3.6. "This ~~rule~~ Rule" means the present exempt legislative rule that is designated in the caption here as title 85, series 20.

3.7. The following will be referred to throughout the rule by the abbreviation indicated.

a. Magnetic resonance imaging - MRI

b. Encephalogram - EEG

c. Computer Assisted Tomogram - CT scan

d. Electromyelogram – EMG

3.8. "Guides Fourth" means the "Guides to the Evaluation of Permanent Impairment," (4th ed. 1993), and "Guides Fifth" means the Guides to the Evaluation of Permanent Impairment (5th ed. 2001), as published by the American Medical Association.

3.9. "Maximum medical improvement" means a condition that has become static or stabilized during a period of time sufficient to allow optimal recovery, and one that is unlikely to change in spite of further medical or surgical therapy.

3.10 "Permanent impairment" means a permanent alteration of an individual's health status and is assessed by medical means and is a medical issue. An impairment is a deviation from normal in a body part or organ system and ~~it's~~ its functioning. An ~~Injured~~ injured worker's degree of permanent whole body medical impairment is to be determined in keeping with the determination of whole person permanent impairment as set forth in the applicable Guides Fourth. For the purposes of this Rule, the ~~Guides'~~ Guides Fourth's and Guides Fifth's use of the term "whole person" impairment is the equivalent of the term "whole body" impairment.

3.11. Chart Notes: This type of documentation may also be referred to as "office" or "progress" notes or "narrative report." Providers must maintain charts and records in order to support and justify the services provided. "Chart" means a compendium of medical

records on an individual patient. "Record" means dated reports supporting bills submitted to the department or self-insurer for medical services provided in an office, nursing facility, hospital, outpatient, emergency room, or other place of service. Records of service shall be entered in a chronological order by the practitioner who rendered the service. For reimbursement purposes, such records shall be legible, and shall include, but are not limited to:

a. Date(s) of service;

b. Patient's name and date of birth;

c. Claim number;

d. Name and title of the person performing the service;

e. Chief complaint or reason for each visit;

f. Pertinent medical history;

g. Review of medication

h. Pertinent findings on examination;

i. Medications and/or equipment/supplies prescribed or provided;

j. Description of treatment (when applicable);

k. Recommendations for additional treatments, procedures, or consultations;

l. X rays, tests, and results; and

m. Plan of treatment/care/outcome.

3.12 "Injured worker" means an individual seeking to received benefits available under Chapter 23 of the Code and/or has received and/or is receiving benefits under Chapter 23 of the Code.

§85-20-4. Adoption of Standards and Acceptance of Rules.

4.1. The treatment guidelines, standards, protocols, and limitations thereon provided for the injuries and diseases listed in this section are designed to assist health care providers in the evaluation and treatment of injured workers. The provisions of this Rule are not intended to strictly dictate results and it is recognized that there may be extraordinary cases that require treatments in addition to the treatments set forth in this Rule. However the treatments and limitations on treatments set forth in this Rule are presumed to be medically reasonable and treatments in excess of those set forth in this rule are presumed to be medically unreasonable. It will require clear and convincing evidence to establish that treatments in excess of those provided for in this Rule are medically reasonable. To receive reimbursement from the

Commission for treatment in excess of that provided for in this Rule, all providers must thoroughly document and explain the action taken and the basis for the deviation from this Rule and shall receive authorization before providing said treatment.

4.2. Except as provided for in section 5.9 of this Rule, ~~Providing~~ providing treatment to an injured worker, filling prescriptions for an injured worker, and/or acceptance of payment for treatment, devices, or medications provided to an injured worker constitutes acceptance by the medical provider of the Commission's rules and fee schedules.

4.3. Failure of the medical provider to timely submit appropriately completed forms, failure to comply with this Rule or any fee schedule or billing guideline, as may be from time to time amended, and any attempt to seek reimbursement in excess of the levels provided for in this Rule may be considered as an abusive practice for purposes of West Virginia Code Section 23-4-3c and may be considered as evidence of conduct in violation of West Virginia Code Section 61-3-24g. All medical reports and fee bills must be signed by the medical vendor rendering the services or his authorized representative. If the report or bill is not submitted electronically, the medical vendor's name must be legibly printed or typed beneath the signature.

II. PROVIDERS

§85-20-5. Qualified Providers and Registration

5.1. To receive payment as a health care provider, a provider must be enrolled as an active vendor with the Commission. Providers may be reimbursed only for services actually provided or supervised and for which the vendor is duly licensed. To enroll, the provider must submit the applicable application to the Commission, completed in its entirety, along with all documentation requested by the Commission, including, but not limited to, all professional licenses, board certificates, business licenses, accreditation certificates, and/or operating permits held by the provider in this or any other state. Providers must advise if their license to practice medicine has ever been suspended or terminated by the appropriate authority in West Virginia or any other state and whether the provider has been convicted of any crime in relation to his or her practice, or any felony. Providers with address or telephone number changes must advise the Commission in writing (by mail or facsimile), providing both old and new information and their tax identification number on letterhead.

5.2 Any provider who has had his or her license to practice medicine suspended or terminated by the appropriate authority in West Virginia or any other state, any provider who has been convicted of any crime in relation to his or her practice, or any felony, and/or any provider who has been suspended or terminated by the Commission pursuant to West Virginia Code Section 23-4-3c, or any other provision, may be excluded by the Commission in any managed care plan created by the Commission.

5.3. Providers must submit their usual and customary charges for commonly billed codes when applying for enrollment. If the provider is ultimately enrolled, the provider shall only be permitted to charge the provider's usual and customary charges, and not the maximum amount allowed under ~~Workers' Compensation's~~ the Commission's fee schedule.

5.4. Licensed practitioners are eligible to treat injured workers to the extent of the practitioner's license. Providers not independently licensed must practice under direct supervision of a licensed health care professional whose scope of practice and specialty training includes service provided by the paraprofessional.

5.5. Reimbursement for care will only be authorized if the provider has provided documentation of credentialing consistent with the type of care provided.

5.6. A new Application is required if a provider's name or tax identification number changes. The Application must have the original signature of an authorized person and may be faxed initially to the Commission's Provider Registration unit. Activation is not official until a complete signed application has been received and a confirmation letter is sent at that time. The hard-copy original must be sent to:

Workers' Compensation Commission
ATTN: Provider Registration
P.O. Box 4228
Charleston, WV 25364-4228

5.7 Registration as a Commission provider is an agreement to:

a. Accept the Commission's fee schedule, as amended from time to time by the Commission;
b. Submit reports and to make continuing reports in a timely manner and as otherwise required and on forms required by the Commission, as from time to time amended;
c. Retain medical records, including, but not limited to, X-Ray's, for ten (10) years and invoices, electronic or paper, for three years;
d. Timely and fully participate in all physical and vocational rehabilitation efforts of the Commission;
e. Accept all provisions of this Rule, and all policies, procedures, and other requirements adopted from time to time by the Commission; and
f. To remain updated and familiar with all medical billing instructions, and other rules, regulations, and procedures of the Commission.

5.8. Chiropractors. Certain procedures performed by chiropractors are reimbursable by the Commission only when providers have certification in accordance with W. Va. Code §30-16-20. Chiropractors must provide evidence of certification if they wish to perform videofluroscopy, diagnostic ultrasound, electromyography, nerve conduction velocity studies, somatosensory testing, neuromuscular junction testing, and any other diagnostic testing identified by the Commission.

5.9. Independent Medical Examiners. Registered providers may apply to be recognized by the Commission as independent medical examiners, who provide independent examinations and recommend impairment ratings of injured workers. A separate application,

Independent Medical Examiner Application, must be submitted and approved by the Commission. Approval shall only be granted if the applicant is board certified or board eligible, where such board exists. The Commission reserves the right, in its sole discretion, to direct the examinee to the examiner of its choosing.

5.10. Out-of-State Providers. If an injured worker elects to receive health care services from an out-of-state provider, and that provider does not accept ~~Workers' Compensation's~~ the Commission's fee schedule as payment in full, then the injured worker may be liable for the difference between ~~Workers' Compensation's~~ the Commission's payment and the amount charged by the out-of state health care provider.

5.11. Given the above, it is essential that all physicians be aware of the injured worker's potential liability when selecting a referral, consulting, surgical, or other provider located in another state. Accordingly, all referrals should be to providers registered with the Commission and referrals to non-registered providers requires pre-authorization from the Commission. Unless the following exceptions apply, referral to an out-of-state provider will put the injured worker at risk for out-of-pocket payment for medical service.

a. Emergencies: Where there is an urgent need for immediate medical attention to prevent death or serious and permanent harm, the injured worker will not be personally liable for the difference between fee schedule and the amount charged by the out-of-state provider. The exception no longer applies when, after emergency admission, the injured worker attains a stable medical condition and can be transferred to either a West Virginia health care provider or an out-of-state health care provider who has agreed to accept the scheduled fee as payment in full. If the injured worker refuses to be transferred, then he or she will be personally liable for the difference in costs between the fee schedule amount and the amount charged by the provider for services after attaining medical stability.

b. No Nearby Qualified Provider: If no health care provider qualified to provide needed medical services and who has agreed to accept the Commission's fee schedule as payment in full is reasonably near to the injured worker's home, the injured worker may request authorization for an out-of-state provider. If the Commission authorizes medical services from the out-of-state provider, the injured worker will not be personally liable for the difference between fee schedule and the amount charged by the out-of-state provider.

III. PROVISION OF SERVICES

§85-20-6. The Role of the Treating Physician

6.1. Each injured worker selects a treating physician of record who will treat the injured worker and be responsible for coordinating all subsequent health care. The treating physician of record may be a medical doctor, osteopath, or chiropractor. Any treating physician who is limited in number of treatments by another provision of this Rule shall, upon exhaustion of that limit, only seek reimbursement as a treating physician for services provided in intervals consistent with those of other treating physicians. The injured worker should not seek care from more than one provider without contacting the Commission, requesting the designation of a different attending physician, and having that request approved. Injured workers whose

employer's managed care plans have been approved by the Commission or who are covered by a managed care plan adopted by the Commission shall chose a treating physician offered under the applicable plan.

6.2. Whenever possible, the treating physician should use the least costly mode of treatment. This generally will require that outpatient services be used in lieu of inpatient care and the avoidance of referring injured workers to hospital emergency rooms for care that can be rendered in the office. The Commission will approve payment for initial use of emergency room facilities arid services such as routine dressings, routine medications and routine local anesthesia. Subsequent use of the emergency room for services will not be approved without a statement from the physician explaining the necessity for the services rendered. Routine visits to the emergency room shall not be approved or reimbursed by the Commission.

6.3. Treating physicians should request referral of an injured workers who continues to report pain and dysfunction while showing no significant measurable or objective signs of improvement for a Permanent Partial Disability evaluation. Such injured workers may also be discharged or referred to a different, appropriate specialty for evaluation and possible modification of treatment.

6.4. When the treating physician finds the injured worker to be at maximum medical improvement, the treating physician may provide an impairment rating pursuant to ~~applicable *Guidelines*~~ applicable guidelines as provided in this Rule for the injured worker. If the rating exceeds fifteen percent (15%), the Commission may accept or reject the rating and may order an independent evaluation of the injured worker. The treating physician may also report a finding of Maximum Medical Improvement without making an impairment rating, reported on Form WC-219a, "Notice of Maximum Medical Improvement."

6.5. The treating physician of record shall provide a treatment plan for the medical care being considered in narrative form as set forth in section 3.11 of this Rule.

6.6. It is the responsibility of the treating physician to notify the Commission of the injured worker's most accurate and current condition. The initial diagnosis reported when a claim is filed often requires updating based on diagnostic tests and clinical objective findings. Changes, additions and revisions of the injured worker's condition must be reported using the applicable Commission form. All changes related to a diagnosis code shall submitted to the Commission and must be approved by the Commission, unless the new diagnosis is otherwise accepted by the Commission as being causally related to the compensable injury. Bills submitted for treatment that is clearly unrelated to the compensable diagnosis shall be denied and may serve as evidence of abuse under West Virginia Code Section 23-4-3c and/or fraud under West Virginia Code Section 61-3-24g. The Commission may, in its sole discretion, recognize and identify the change, addition, or revision as a compensable condition.

6.7. Injured workers must request authorization from the Commission to change the treating physician of record in their claim. This rule does not apply in the following cases:

a. Care transferred after initial emergency or first aid treatment if done so within 30 days of the date of injury;

b. Care transferred to a specialist by the original treating physician; or

c. Care where an unforeseen emergency develops which requires special facilities and skills are not available to the treating physician or hospital.

6.8. Any change of treating physician that does not require authorization by the Commission will require a detailed explanation to ensure that the change is documented on the claim file. Failure to do so may result in the delay of benefits and will result in the denial of payment for medical services.

6.9. When a change of physician is authorized, the previous treating physician must file a final report of the injured worker's physical status on the effective date of change. The new treating physician of record must file an initial narrative report of his/her findings. It is the responsibility of every provider to make reasonable effort to ascertain whether there was a prior treating physician.

6.10. Except in cases where a consultant, anesthetist or surgical assistant is required, or the necessity for treatment by a specialist is clearly shown, fees not pre-authorized by the Commission will not be approved for treatment by more than one medical vendor for the same condition over the same period of time.

§85-20-7. Initial Reporting of Injury

7.1. It is the responsibility of the injured worker to notify the employer, Commission, and medical provider when there is reason to believe the injury or condition is industrial in nature. Conversely, if the medical provider discovers a condition which he or she believes to be work related or has reason to believe an injury is work related, he or she must so notify the injured worker. Once such a determination is made by either the injured worker or the medical provider, the appropriate form(s) must be immediately submitted. Failure of the medical provider to timely submit the appropriately completed forms may be considered as an abusive practice for purposes of West Virginia Code Section 23-4-3c. Failure of the injured worker to timely submit appropriately completed forms may be considered and given appropriate weight by the Commission in determining compensability or any other matter.

7.2. It is the medical provider's responsibility to ascertain whether he or she is the first attending practitioner. If so, the medical provider will take the following action:

a. Give emergency treatment.

b. Immediately complete and forward the Initial Report of Injury to the Commission and the employer.

c. Instruct and give assistance to the injured worker in completing his or her portion of the report of accident. The Initial report of Injury

shall include a narrative report containing the following information so there is no delay in adjudication of the claim or payment of compensation:

1. Complete history of the industrial accident or exposure.

2. Comprehensive description of physical findings and prognosis.

3. Specific diagnosis with ICD-9-CM code(s) and narrative definition relating to the injury.

4. Type of treatment rendered.

5. Known medical, emotional or social conditions which may influence recovery or cause complications.

6. Estimated time loss due to the injury.

d. To the extent the information called for in (c)(1) - (c)(6) is not required on the Initial Report of Injury in use by the Commission on the effective date of this Rule, the medical provider shall complete the appropriate form in its entirety and provide the additional information in the form of a narrative report.

§85-20-8. Additional Reporting Requirements

8.1. Whenever requested by the Commission, and at least every ninety (90) days in situations regarding the continuation of temporary total disability benefits, the medical provider shall report on the condition and treatment of the injured worker. The following information must be included in this type of report.

a. The condition(s) diagnosed including ICD-9-CM codes and the objective and subjective findings.

b. Their relationship, if any, to the industrial injury or exposure.

c. Outline of proposed treatment program, its length, components, and expected prognosis including an estimate of when treatment should be concluded and condition(s) stable. An estimated return to work date should be included. The probability, if any, of permanent partial disability resulting from industrial conditions should be noted.

d. If the worker has not returned to work, the attending doctor should indicate whether a vocational assessment will be necessary to evaluate the worker's ability to return to work and why.

e. If the worker has not returned to work, a doctor's estimate of physical capacities should be included with the report. If further information regarding physical capacities

is needed or required, a performance-based physical capacities evaluation can be requested. Performance-based physical capacities evaluations shall be conducted by a licensed occupational therapist or a licensed physical therapist.

8.2. To the extent the information called for in Rule 8.1 is not required on Attending Physician's Report in use by the Commission on the effective date of this Rule, the medical provider shall complete the Attending Physician's Report in its entirety and provide any additional information set forth in Rule 8.1 in the form of a narrative report.

8.3. The Commission may request, and the medical provider shall provide all chart notes relating to the treatment of an injured worker,

8.4. The Commission, in its sole discretion, may require additional reporting on forms and in intervals as it deems necessary. Medical providers shall comply with the requests of the Commission in this regard. Failure to make reports promptly may result in the delay of payments of benefits to the injured worker and denial of payment to the medical vendors for services rendered.

8.5. By application for benefits, an injured worker irrevocably waives patient-physician confidentiality and agrees that treatment providers may release and discuss the injured worker's medical history and medical reports pertaining to the compensable injury or disease to the injured worker's employer, employer's representative, or representatives of the Commission, assuming such discussions are otherwise permissible under applicable law. Such discussion includes the injured worker's condition, treatment, prognosis, anticipated period of disability and dates when the injured worker will reach maximum medical improvement or be released to return to work. Any prior injury or disease of the injured worker which impacts the alleged injury or treatment is covered by this agreement.

8.6 In any claim where only medical benefits are being paid, the medical provider shall provide the report described in section 8.1 within thirty (30) days of being requested to do so by the Commission.

§85-20-9. Coverage and Billing Provisions

9.1. The Commission will pay for health care services, durable medical and other goods and other supplies and medically related items as may be reasonably required. The Commission will only pay for those services or items that have a direct relationship to the work related injury or disease, as determined in the sole discretion of the Commission.

9.2. A medical coverage decision is a general policy decision to be made in the sole discretion of the Commission, to include or exclude a specific health care service or supply as a covered benefit. These decisions are made to insure quality of care and prompt treatment of workers. Medical coverage decisions include, but are not limited to, decisions on health care services and supplies rendered for the purpose of diagnosis, treatment or prognosis, such as:

a. Ancillary services including, but not limited to, home health care services ambulatory services, specific rehabilitative modalities;

b. Devices;

c. Diagnostic tests;

d. Drugs, biologics, and other therapeutic modalities;

e. Durable medical equipment;

f. Procedures;

g. Prognostic tests;

h. Supplies; and

i. Inpatient hospital stays and associated charges

9.3. The Commission, with some exceptions, uses these nationally-accepted standardized code sets for reporting medical conditions and treatment and may adopt successor code sets without amendment to this rule:

a. Common Procedure Terminology (CPT-4) codes (HCPCS Level I codes), for provider professional services

b. Alpha-numeric codes (HCPCS Level II codes) for supplies, equipment and other medical services

c. Local Codes (HCPCS Level III) for unique Workers'-Compensation-specific services (NOTE: Use of these non-standardized codes is limited as much as possible)

d. International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) for reporting diagnoses of work-related injuries and occupational illnesses

e. Diagnostic related groups (DRG for in-patient hospital services)

f. Revenue codes for outpatient hospital based services

g. National drug codes (NDC) for pharmaceuticals

9.4. CPT-4 Codes (HCPCS Level I).

The Commission updates the vendor bill processing system to accept many of the new codes that are implemented nationally on an annual basis. This coding system, which uses a five-digit numeric code and allows for a two-digit modifier, is used to report most professional services, including Evaluation and Management, surgical intervention, anesthesia services related to surgery, physical medicine and other professional services.

9.5. HCPCS Level 11 National Alpha-numeric Codes.

The Commission accepts many of the codes developed by CMS for reporting those medical services and supplies not addressed by the CPT-4 code set. This coding system uses a five-digit alpha-numeric code, which consist of one alphabetic character (a letter between and including A and V), followed by four digits. The codes all begin with a single letter and are followed by four-digits. HCPCS codes also use modifiers, either two digits or two letters.

9.6. 1-HCPCS Level III Local Codes.

The Level ~~E1~~ III codes are assigned and maintained by individual carriers. Like the HCPCS II National Codes, these codes begin with a letter (W through Z) followed by four numeric digits. The most notable difference is that these codes are not common to all carriers. Since 1999, the Commission has been eliminating the use of Local Codes wherever possible; however, there are still some local codes utilized by the Commission for services not normally reported by Medicare carriers.

9.7. ICD-9-CM Diagnosis Codes.

The Commission uses the ICD-9-CM coding system to report injured worker conditions in work-related injuries and occupational illnesses. Standard coding conventions shall be followed in reporting diagnosis. Payment will be denied for diagnosis judged, in the sole discretion of the Commission, to not be causally related to the compensable injury.

9.8 Written descriptions of procedures alone will not be accepted. Billing may be submitted on the CMS-1500 (formerly, HCFA 1500) and the CMS-l450 (formerly, UB-92), or the most current forms utilized by the Commission. Pharmacy charges should be submitted using the on-line Point-of Sale system, but can also be reported on the Universal Claim Form, or the most current form utilized by the Commission. Certain non-standard services unique to the Commission require Service Invoice, Form WC-400, or the most current form(s) utilized by the Commission.

9.9. Pre-authorization. Written authorization must be obtained from ~~Workers' Compensation~~ the Commission in advance for the procedures and services listed below, except in emergencies or where the condition of the patient, in the opinion of the medical vendor, is likely to be endangered by delay. Failure to comply with this rule will result in disapproval of the medical vendor's bill. The vendor shall not seek reimbursement from the injured worker if payment is denied under this provision. This rule does not apply in cases involving initial treatment,

9.10. The following services require prior review and authorization before services are rendered and reimbursement made:

a. Inpatient hospitalizations subsequent to the Date of Injury (emergency admissions are reviewed on a retrospective basis);

b. Transfers from one hospital to another hospital (emergencies do not require authorization);

c. Reconstructive and restorative surgeries;

d. All surgeries;

e. Purchase of TENS unit above the amount of $50.00;

~~e.~~ Treatment/supplies used in excess of three (3) months for TENS units;

COMMENT: It appears you have designated two paragraphs with "e". Either these paragraphs should be combined or the remaining subsections should be renumbered.

f. Psychiatric treatment (does not include the initial psychiatric consultation);

g. Physical Medicine treatment in excess of this Rule;

h. Outpatient pain management procedures (epidural steroids, facet injections, etc.);

i. Medication not normally used in injury treatment and medication drug list, if applicable;

j. Medication - Controlled Substance (in excess of this Rule);

k. Durable Medical Equipment in excess of $500.00;

l Brainstem evoked audiometry;

m. Repeat diagnosistic studies (Workers' Compensation no longer the initial MRI, CAT scan, Myelogram, EMG, and Nerve Conduction studies);

n. Standard analog hearing aids;

o. Programmable/digital hearing aids;

p. Replacement hearing aids;

q. Repair of hearing aids over the price of $250.00;

r. Hearing Aid batteries over the allowed quantity of 50 per 6 months;

s. Telephone amplification devices;

t. Hearing aid assistance products (V5299);

u. Non-emergency ambulance transportation;

v. Non-emergency air transportation;

w. All vision services and items associated with vision;

x. All rehabilitative services;

y. Retraining expenses;

z. All oxygen equipment, supplies, and related services;

aa. All nursing, nursing home, and personal care services;

bb. Home or vehicle modifications;

cc. Work hardening; ~~and~~

dd. Work conditioning~~.~~; and

ee. Dental procedures.

9.11. Prior-authorization requests shall be made in writing or electronically to the Commission for approval.

9.12. Medical services not specified above do not require prior approval but will be reviewed retrospectively to determine medical necessity. Services provided on an emergency basis are also subject to retrospective review to validate that the service was truly an emergency, and to determine medical necessity and relationship to the compensable injury.

9.13. Disposable/Non-reusable Supplies.

The Commission will reimburse for supplies prescribed by the authorized physician for use by the injured worker in the home setting which are reasonably required, as determined in the sole discretion of the Commission. Supplies include dressings, colostomy supplies, catheters, and other similar items. The injured worker's related diagnosis must be stated on the prescription form.

9.14. Durable Medical Equipment Exceptions.

The following durable medical equipment requires prior-authorization, although reimbursed at less than $500:

a. E0585 Nebulizer with compressor;

b. E0607 Home blood glucose monitor;

c. E0610 Pacemaker monitor;

d. E0730 TENS, name brand;

e. E0731 Garment for TENS/neuromuscular;

d f. E0745 Neuromuscular stimulator, electronic shock unit; and

e g. E0935 Passive motion exercise device.

9.15. The Commission shall deny bills for services rendered in violation of these Rules. Injured workers may not be billed for services denied pursuant to this provision.

9.16. Bills must be itemized on department or self-insurer forms or other forms which have been approved by the Commission. Bills may also be transmitted electronically using Commission file format specifications. Providers using any of the electronic transfer options must follow Commission instructions for electronic billing.

9.17. Bills must specify the date and type of service, the appropriate procedure code, the condition treated, and the charges for each service.

9.18 Bills submitted to the Commission must be completed to include the following:

a. Injured worker's name and address;

b. Injured worker's claim number;

c. Date of injury;

d. Referring doctor's name;

e. Area of body treated, including ICD-9-CM code(s), identification of right or left, as appropriate;

f. Dates of service;

g. Place of service;

h. Type of service;

i. Appropriate code to report services provided (including CPT, DRG, NCD, revenue codes, etc.);

j. Description of service;

k. Charge;

l. Units of service;

m. Tooth number(s);

n. Total bill charge;

o. The name and address of the practitioner rendering the services and the provider account number assigned by the Commission;

p. Date of billing;

q. Submission of supporting documentation required by the Commission.

9.19. Responsibility for the completeness and accuracy of the description of goods and/or services and charges billed rests with the provider rendering the good or service, regardless of who actually completes the bill form.

9.20. Bills must be received within six (6) months of the date of service to be considered for payment. Injured workers cannot be billed for any invoice denied under this provision.

9.21 The following supporting documentation is required to have been received by the Commission before reimbursement for a service is made:

a. Laboratory and pathology reports;

b. X-ray findings;

c. Operative reports;

d. Office notes;

e. Consultation reports;

f. Special diagnostic study reports; and

g. Special or closing exam reports.

9.22. Requirements for payment of fees.

Fees for examination or treatment are approved only when made by the medical vendor duly licensed to make such examination or to render such treatment, and then only when the medical vendor actually sees and examines the patient and actually renders or directly supervises such treatment.

9.23. Additional services and accommodations not reasonably required for treatment of the compensable injury but requested by the injured worker shall be the responsibility of the injured worker.

9.24 Failure on the part of the medical vendor or other person, firm or corporation to submit fee bills to the Commission for services rendered within the statutory period prohibits collection thereof from the injured employee, the employer or the Commission.

9.25. Payment for drugs or medicine. The Commission may approve payment for drugs or medicines furnished to the injured worker as part of routine treatment rendered by the medical vendor. If unusual treatment is necessary, or if drugs or medicines are to be used by the injured worker at his home in the absence of the medical vendor, payment for a reasonable quantity of such drugs or medicines may be approved. Application for such payment must be accompanied by a statement of the medical vendor setting forth the necessity and purpose of the use of such drugs or medicines.

9.26 Use of appropriate codes to report services is required and up coding (reporting a higher level of service than can be substantiated or actually was performed) is prohibited. Reimbursement shall not be made for such billing and up coding may be considered evidence of abuse under West Virginia Code Section 23-4-3c and evidence of fraud under West Virginia Code Section 61-3-24g.

9.27 Prosthetics and Orthodics. Upon receipt of the attending medical vendor's report, the Commission may refer the injured worker to a medical vendor or a Rehabilitation Center for evaluation to determine the type of prosthesis most beneficial for the particular injured worker involved and whether the injured worker is in need of training in use of the prosthesis. Upon receipt of the medical recommendations, the Commission shall authorize the fitting of the recommended prosthesis. Payment shall, not be approved until the prosthesis is determined to be serviceable and satisfactory. The requirement for prior approval for prosthesis shall not apply when the attending medical vendor utilizes the procedure of immediate amputation prosthetic application.

9.28 A durable medical equipment supplier is required to exercise due diligence to verify that equipment is in use, that supplies are needed, and that a valid request for supplies has been made. Due diligence requires, but is not limited to, a personal contact with the injured worker. Reimbursement shall be denied for failure to exercise this required due diligence and may be evidence of fraud or abuse under Chapters 23 and 61 of the West Virginia Code.

§85-20-10. Supplies.

HCPCS code A4550 (Surgical Trays) is a status B code and is not reimbursable for office procedures. Codes with a status B are bundled services for which no separate payment may be made. Supply costs are included in the global fee allowance for surgical procedures performed in an office setting. Code 99070 continues to be a non-covered, bundled code.

§85-20-11. Vision Care

Ophthalmologists and optometrists may use CPT codes for reporting procedures and professional services. Reimbursement for vision care equipment such as spectacles, contact lenses, etc., should be requested using appropriate HCPCS Level II codes. Repair or replacement of vision care equipment damaged in an accident will not be approved for payment unless the injured worker suffers a compensable physical injury in the accident.

§85-20-12. Psychiatric/Psychological Services

12.1. Services may be approved to treat psychiatric problems only if they are a direct result of a compensable injury. As a prerequisite to coverage, the treating physician of record must send the injured worker for a consultation with a mental health care professional who shall examine the injured worker to determine 1) if a psychiatric problem exists; 2) whether the problem is directly related to the compensable condition; and 3) if so, the specific facts, circumstances, and other authorities relied upon to determine the causal relationship. The mental health care profession shall provide this information, and all other information required in section 8.1 of this Rule in his or her report. Failure to provide this information shall result in the denial of the additional psychiatric diagnosis. Based on that report, the Commission will make a determination, in its sole discretion, whether the psychiatric condition is a consequence that flows directly from the compensable injury.

12.2. A Diagnosis Update Form WC-214 must be attached to the treating physician's report in order to request the psychiatric condition be added as an approved diagnosis.

§85-20-13. Coverage Medication Checks.

Medication checks may be billed if needed, but should be reported using the appropriate Evaluation and Management or Drug Management procedure codes. Medication checks for psychiatric medication require the use of an ICD-9-CM code to identify the compensable mental health condition.

§85-20-14. Medication/Injections.

Professional services for administering injections to an injured worker in an office setting for the treatment of a compensable injury may be reimbursable. Effective January 1, 2003, the cost of medication administered through other-than-oral method may be billed as a separate line item using appropriate HCPCS II "J" codes. Legend drugs dispensed by physicians will not be reimbursed except in emergency situations.

§85-20-15. Dental Services.

15.1 Standard dental treatment necessary as a result of a compensable injury to the face or head is covered under the Workers' Compensation program. Repair or replacement of dentures and other dental appliances damaged in an accident will not be approved for payment unless the injured worker suffers a compensable physical injury in the accident. Except in cases of emergency, prior authorization must be obtained for any and all dental services provided.

15.2 The Commission will not approve payment for treatment of a preexisting dental deficiency or disease, unless it is clearly established that such preexisting condition is prohibiting treatment of or recovery from an industrial injury. In such cases the Commission must be provided with a complete report of the preexisting condition and authorization granted prior to rendering treatment.

§85-20-16. Experimental Procedures.

16.1. Services investigative or experimental in nature or unsafe and not accepted by the general medical community are not reimbursable by the Commission.

16.2. To be considered for reimbursement by the Commission, medical devices must have gone through FDA pre-market notification submission or pre-market approval application or be exempt for commercial distribution on the national level. Pre-market approval designation is preferred because this designation requires sufficient information to reasonably assure the safety and effectiveness of the device.

§85-20-1 7. Unusual treatment.

17.1. In cases requiring unusual treatment not contemplated under ordinary circumstances, the medical vendor must inform the Commission immediately of the condition or complications present. If the necessity for additional treatment and its causal relationship with the compensable injury is clearly indicated, authorization for such treatment may be granted by the Commission if it otherwise is deemed to be medically reasonable and additional professional fees may be paid at a rate commensurate with the services rendered in addition to the fee specified by the Commission.

17.2. New or experimental therapies always require prior authorization from the Commission. The Commission will, require a detailed, credible and otherwise sufficient explanation of the anticipated outcomes of the proposed therapy. The Commission may authorize a trail of the therapy, for a duration identified by the Commission, prior to acceptance of any modality. Approval of new or experimental therapies is within the sole discretion of the Commission.

§85-20-18. Organ Transplants.

18.1. Transplants are not generally accepted or reimbursed by Workers' Compensation program; however, requests are reviewed on a case-by-case basis.

18.2. Transplants which are needed, in whole or in part, because of an intervening cause, such as long term alcohol consumption, smoking, or other tobacco use shall be declined coverage by the Commission.

§85-20-19. Other Non-Covered Services.

19.1. Diagnostic Studies. No payment is allowed for:

a. Plethysmography;
b. Temperature gradient studies;
c. Fomentation;
d. Thermography;
e. Routine lab studies in back injury claims; or
f. Routine X-rays which the Commission determines, in its sole discretion, are medically unnecessary.

19.2. Payment to Complete Reports. No payment is allowed for routine status reports, Attending Physician's Report WC-219 Form, other routine reports requested by the Commission relating to care that has already been provided, or for completion of the medical portion of the report of injury.

19.3. Miscellaneous. No payment will be made for the following services:

a. Telephone calls;

b. Telephone consultations by providers;

c. Writing or phoning prescriptions;

d. Education materials;

e. Babysitting;

f. Lost or stolen items;

g. Vitamins;

h. Diet pills;

i. Dietary supplements;

j. Weight loss programs;

k. Physical fitness programs;

l. Acupuncture;

m. Swimming therapy/aquatic therapy (unless under direct supervision of a physical therapist)

n. Homeopathy;

o. Massage therapy;

p. Copying or supplying needed records;

q. Costs associated with office audits; and

r. Saunas.

§85-20-20. Payment for appearance at hearings.

A medical vendor appearing at a hearing to give testimony regarding an examination of an injured worker will be paid a fee commensurate with the service rendered for such appearance and testimony: Provided That, the examination was made at the request of the

Commission. If the medical vendor appears to give testimony on behalf of the injured worker or employer regarding an examination made at the instance of such injured worker or employer, payments must be made by the party ~~requesting~~ on whose behalf the testimony is given.

COMMENT: If the claimant is evaluated on behalf of the employer and the claimant requests to cross-examine the doctor, the employer should be responsible to pay for the testimony of the doctor. The same is true for the claimant's witnesses. Unless the language is changed as proposed, the party requesting the right to cross-examine unfairly bears the cost of the fee for the testimony of an adverse witness.

§85-20-21. Treatment of unrelated conditions.

The Commission ~~may~~ shall not pay for treatment of a condition which was not caused by the injury ~~if the Commission determines, in its sole discretion, that the unrelated condition is preventing recovery by aggravating the occupational injury~~. Any unrelated condition must be reported to the Commission before payment is considered. Pre-existing conditions which ~~prevent recovery but do not~~ aggravate the compensable injury shall not be covered.

COMMENT: Noncompensable conditions such as diabetes are not work-related and should not be paid by the Commission.

§85-20-22. Consultations

22.1. The treating physician may refer an injured worker for a first-time consultation related to conditions previously ruled compensable without prior authorization when the need can be clearly documented and has been reported to the Commission. The first-time consultation to a specialist does not require prior authorization; however, should additional consultations in the same specialty field or for conditions not previously ruled compensable be performed, Commission approval is required.

22.2. The consultant must submit a written report to the Commission after the exam has been carried out. The report shall contain the information required in Rule 8.2 and 8.1 above. Invoices from providers, other than the attending physician, should specify the name of the referring physician. In billing those services, the appropriate consultation procedure code from the Evaluation and Management section of the AMA CPT coding system shall be utilized.

22.3. If a specialist will be providing continuing care, the Commission must he notified so that an approval for a transfer or concurrent care may be considered.

22.4. The Commission reserves the right to arrange a consultation prior to authorizing any services, equipment, or supplies. Requests for treatment will be approved or denied upon review of the entire medical record.

22.5. Consultation Versus Referral. A consultation is considered to include those services rendered by a specialist whose review and opinion of the evaluation and/or treatment of an injured worker's condition is requested by another provider, or an official party in the claim, such as the injured worker's attorney, the employer, the Commission. etc. The

consulting provider must submit a written report that becomes part of the Commission's claim record on the injured worker. When the consulting provider assumes the continuing care of the injured worker, any subsequent services rendered by this provider are no longer considered a consultation.

22.6. A referral is considered to be the transfer of the total or specific care of a patient from one provider to another. If this involves a change of treating physician, an authorization is required from the Commission. A referral for specialty services, such as surgery, requires approval by the Commission.

§85-20-23. Miscellaneous Coverage and reimbursement issues

23.1. Hernia. The Commission shall not approve payment for conservative treatment of an otherwise compensable hernia condition, except for the initial examination for diagnostic purposes, and except where it is shown that the employee has some chronic disease or is otherwise in such physical condition that it is considered unsafe for him to undergo such operation. Payment for surgical repair of a hernia cannot be considered until all required forms have been filed and the claim determined compensable.

23.2 Amputation reports. In cases involving amputations, the physician must mark the exact line of amputation on the prescribed form (Amputation Chart). To avoid error, the exact point of amputation must also be described in the written report and the Amputation Chart and report must be carefully checked to be certain that they agree.

IV. SPECIFIC TREATMENT GUIDELINES

The following are treatment guidelines for specific conditions. However, the usage of the term "guidelines" should not be interpreted to suggest that the guidelines are to be given any less legal weight than an exempt legislative rule is otherwise given. The provisions of Section 4 of this Rule apply in their entirety to these guidelines.

§85-20-24. Treatment Guidelines: Post Concussion Syndrome.

24.1. Post concussion syndrome is a clinical syndrome characterized by a variety of vague symptoms including a headache, dizziness, memory dysfunction and depression, following head trauma. There is little relationship between the serious nature of the trauma and the severity and duration of the symptoms.

24.2. The diagnostic criteria consists of a persistent dysfunctional state following head trauma without clinical or laboratory sign of serious intracranial or cervical spine disorder.

24.3. The appropriate diagnostic tests and evaluations are as follows:

a. Neurological examination;

b. MRI;

c. EEG;

d. Electronystagmyogram; and

e. Neuropsychological testing if no improvement after four weeks.

24.4. Symptomatic therapy for post concussion syndrome includes:

a. Analgesia;

b. Medication for labyrinthine dysfunction;

c. The use of narcotic medications is not indicated; and

d. Severe dizziness or mental/emotional problems may require hospitalization for acute care rehabilitation.

24.5. While the estimated duration of care is variable, a return to work is anticipated in four weeks or less.

24.6. The anticipated outcome is full recovery. In some cases there may be residual symptomatology such as dizziness or mental/emotional changes. These conditions may be disabling and may be permanent.

§85-20-25. Treatment Guidelines: Corneal Abrasion

25.1. Corneal abrasion is usually caused by a foreign body striking the eye resulting in a disruption of the corneal epithelium. The foreign body does not remain in the eye.

25.2. The diagnostic criteria consists of complaints of pain and blurred vision. Photophobia may or may not be present.

25.3. Appropriate diagnostic tests and evaluations include a determination of visual acuity, a slit lamp examination and, when indicated, a dilated ~~fungus~~ fundus examination.

25.4. Treatment is administered on an outpatient basis and consists of topical antibiotics, cycloplegics, and a pressure patch. For severe pain analgesics may be indicated,

25.5. The duration of care consists of daily visits up to 72 hours with a return to work within two days unless there are complications.

25.6. The anticipated outcome is full recovery.

§85-20-26. Treatment Guidelines~ Corneal Foreign Body.

26.1. Corneal foreign body generally occurs when striking stone; hot metal may perforate the cornea and enter the eye. Contaminated foreign bodies pose a risk for corneal ulcers or systemic toxicological effect.

26.2. The diagnostic criteria consists of pain which occurs either immediately after the injury or within the first twenty-four hours, accompanied by a sensation of something in the eye, and photophobia. The pain is aggravated by blinking or moving the eye. Vision may be affected if the foreign body is in the visual axis.

26.3. The appropriate diagnostic tests and examinations consist of a comprehensive examination, including determination of visual acuity, a slit lamp examination and dilated fundus examination when indicated to rule out intraocular foreign bodies. An orbital x-ray or CT scan may be indicated if there is a suspicion of ocular or orbital penetration.

26.4. Treatment is administered on an outpatient basis and consists of the following:

a. Removal of embedded foreign body;

b. Topical antibiotics, cycloplegics, and pressure patch;

c. Analgesics for the first several days;

d. Daily visits until the cornea is healed; and

e. If a scar remains in the visual axis, corrective lenses or surgery may be required to attain optimal vision.

26.5. In uncomplicated cases the injured worker is expected to return to full work within one to two days.

26.6. Full recovery is expected unless the foreign body leaves a significant scar in the visual axis, in which case decreased visual acuity may be permanent.

§85-20-27. Treatment Guidelines: Hyphema.

27.1. Hyphema is bleeding within the anterior chamber of the eye, typically caused by a severe blunt trauma to the eye rupturing intraocular blood vessels. Hyphema may be associated with disruptions of the trabecular meshwork and lead to angle recession glaucoma. Early complications include elevated intraocular pressure causing blood staining of the cornea, vision loss, and most significantly, rebleeding which will occur in up to 30% of the cases within the third to fifth day. Rebleeding may cause marked elevation of intraocular pressure, corneal blood staining and visual loss. Late complications may include angle-recession glaucoma and cataract. Injured workers at considerable risk for complications include those with sickle cell or other coagulopathy.

27.2. Diagnostic criteria consist of a history of a blunt trauma to the eyes. The physical findings may include red blood cells visible within the anterior chamber, a layered clot filling the entire anterior chamber and/or intraocular pressure elevation.

27.3. The appropriate diagnostic tests and examinations are as follows:

a. Immediate referral to an opthalmologist as this is an ocular emergency;

b. A comprehensive examination by an ophthalmologist including a slit lamp exam, determination of the intraocular pressure, and a dilated fundus examination if possible;

c. Orbital x-rays may be indicated to rule out other orbital injuries; and

d. A platelet count and coagulation study as indicated as well as a sickle prep, and hemoglobin electrophoresis as indicated.

27.4. Appropriate treatment is as follows:

a. Outpatient treatment is indicated if the hyphema is not severe, there are no complications present and the injured worker is reliable. Treatment consists of the following:

1. Strict bed rest for five days;

2. Daily eye examination;

3. Medication, which may include the following: topical cycloplegics, steroids, ocular hypotensive and oral ~~predni- sone~~ prednisone and/or aminocaproic acid;

4. Hard shield to be worn day and night; and

5. A gonioscopy after 2-3 weeks.

b. Inpatient treatment is indicated for significant hyphema, marked intraocular pressure elevation, complication or unreliable care and consists of the following:

1. Medication as noted for outpatient care;

2. Hospitalization with strict bed rest for five days; and

3. Surgical evacuation of the clot.

27.5. Return to full work is anticipated in three weeks for uncomplicated cases. Evidence of disruption of intraocular structures dictates lifetime monitoring for glaucoma and cataracts.

27.6. The anticipated outcome is resolution of the hyphema with return of visual acuity.

§85-20-28. Treatment Guidelines: Eyelid Laceration.

28.1. Eyelid lacerations may occur from blunt injuries or from laceration by a sharp object. They may involve only skin, eyelid muscles, eyelid margin, and the lacrimal drainage system and may be associated with an orbital foreign body.

28.2. The diagnostic criteria consists of laceration and bleeding, which may be profuse.

28.3. The appropriate diagnostic tests and examinations consist of a comprehensive examination including a visual acuity and a slit lamp examination to rule out an additional injury. A dilated fundus examination may be conducted when indicated.

28.4. Appropriate treatment is as follows:

a. Outpatient treatment is appropriate for uncomplicated lacerations. Sutures are generally removed in one to two weeks and medication may include antibiotics and analgesics.

b. Inpatient treatment is appropriate for injuries involving the lacrimal drainage system or those penetrating the orbit. The surgical repair may or may not require general anesthesia. Intravenous antibiotics are often indicated. Depending on the severity of the injury and overall condition of the injured worker, a one to two day hospital stay may be required. Medications may include topical, oral or parenteral antiobiotics and analgesics.

28.5. In uncomplicated cases the injured worker is expected to return to full work within two weeks with medical follow- up in four weeks. Damage to the eyelid muscles resulting in traumatic ptosis may require six to twelve months to resolve, or may ultimately require surgical repair.

28.6. The anticipated outcome is full recovery.

§85-20-29, Treatment Guidelines: Canalicular Laceration.

29.1. Laceration in the medial eyelid may injure the upper or lower canaliculus or lacrimal sac, resulting in constant tearing or abscess in the lacrimal sac (dacryocystitis). The presence of an infection within the lacrimal system usually requires surgical repair.

29.2. The appropriate diagnostic criteria consists of a laceration in the medial eyelid. Any laceration to the punctum may include canalicular laceration. Tearing or bloody tears and laterally displaced punctum may be present.

29.3. The appropriate diagnostic tests and examinations consist of a comprehensive examination, including visual acuity, slit lamp, examination, dilated fundus examination and probing of the canaliculus. Orbital x-rays or CT scan is appropriate if a fracture or foreign body is suspected.

29.4. Appropriate treatment is as follows:

a. Outpatient treatment is appropriate for simple lacerations and repair. Treatment consists of surgical repair including stent placement and topical drops and oral antibiotics as indicated.

b. Inpatient treatment is appropriate for contaminated or complicated wounds. Treatment consists of the following:

1. Surgical repairing; may include complex reconstruction;

2. Antibiotics and topical medications as indicated; and

3. Lacrimal bypass surgery if repair is unsuccessful.

29.5. The estimated duration of care in uncomplicated cases is two weeks with follow-up in 3 - 6 months.

§85-20-30 Treatment Guidelines: Orbital Contusion.

30.1. An orbital contusion is usually a result of blunt trauma causing swelling and ecchymosis of the orbit not associated with any fractures or significant lacerations.

30.2. The diagnostic criteria consists of a history of a blunt trauma to the ocular area, with progressive swelling of the lids, ptosis, proptosis of the eye and diplopia.

30.3. The appropriate diagnostic tests and examinations consist of:

a. Comprehensive examination, including an assessment of visual acuity, slit lamp examination, and a dilated fundus examination;

b. Orbital x-rays; and

c. CT scan may be indicated.

30.4. The appropriate treatment is as follows:

a. Outpatient treatment is appropriate in injuries without complications. Treatment includes analgesics, ice packs and systemic antibiotics as indicated.

b, Diminished visual acuity or severe pain may indicate a more extensive injury and may warrant inpatient treatment for further evaluation and treatment.

30.5. In uncomplicated cases the estimated return to work is one to two days. Disability may be longer if diplopia or ptosis persists.

30.6. The anticipated outcome is resolution of the swelling and diplopia with return of normal ocular motility.

§85-20-31. Treatment Guidelines: Orbital Fracture.

31.1. Fractures of the orbit may be indirect, resulting in a "blowout" of the orbital floor or medial wall, or direct involving fractures of the orbital rims.

31.2. The appropriate diagnostic criteria consists of a history of blunt trauma to the eye, usually by an object larger then the bony orbital opening. The eye may appear proptosis or enophthalmic. Ocular motility is usually diminished. There is usually numbness over the cheek due to injury to the infraorbital nerve. There may be a palpable fracture of the orbital rim. There may also be a fracture of the zygomatic arch.

31.3. The appropriate diagnostic tests and examinations are as follows:

a. A comprehensive examination by an ophthalmologist is necessary, including a visual acuity, slit lamp examination and dilated fundus examination;

b. X-ray of the orbits; and

c. Coronal CT scans.

31.4. Appropriate treatment is as follows:

a. In uncomplicated cases outpatient treatment is appropriate and consists of the following:

1. Outpatient follow-up for 1 - 2 weeks;

2. Oral antibiotics; and

3. Analgesics may be required.

b. Inpatient treatment is appropriate for severe fractures or other complicated injuries. Treatment consists of the following:

1. Surgical repair;

2. Medications include antibiotics and analgesics; and

3. Hospitalization from 1 - 3 days.

31.5. The estimated duration of care is as follows:

Diplopia may resolve spontaneously within one to two weeks with small fractures not requiring repair. Double vision generally resolves within two to three weeks after surgical repair unless there is intrinsic damage to the extraocular muscles.

Modified work may be required with diplopia resolved. Heavy work can generally be resumed three weeks after injury if surgery is not required, or three weeks after surgical repair.

31.6. The anticipated outcome is resolution of diplopia and normal functioning of the eye. Numbness over the cheek may persist for one year or longer and is not affected by surgical repair.

§85-20-32. Treatment Guidelines: Corneoscleral Lacerations.

32.1. Corneoscleral lacerations are potentially severe injuries resulting from sharp objects making forceful contact with the globe.

32.2. The appropriate diagnostic criteria consists of:

a. A detailed examination by an ophthalmologist including visual acuity, slit lamp exam, intraocular pressure and dilated fundus exam.

b. CT scan of orbits may be required.

32.3. Appropriate treatment is as follows:

a. Small partial thickness lacerations:

1. Follow-up and/or patching; and

2. Bandage contact lens application and follow-up.

b. Full thickness corneal lacerations:

1. Bandage lens application;

2. Cyanoacrylate tissue adhesive and protective shield;

3. Surgical repair under general anesthesia and hospitalization;

4. Cycloplegic, steroid and antibiotic drops; and

5. Hospitalization: 0 - 7 days.

32.4. The estimated duration of care and anticipated outcome:

a. Partial thickness laceration: The injured worker should wear a protective shield for three to six weeks. Modified work may be done after several days. Normal visual function should be restored after six weeks.

b. Full thickness simple corneal lacerations: Treatment lasts from two to four months. Protective shield should be worn for six weeks. Return to full work after suture removal is normally in three to four months if vision is adequate for fusion.

c. Lacerations involving lens, uveal tissue and retina: Six months are normally required to achieve stability after which contact lens correction of the aphakic condition may allow good visual recovery.

§85-20-33. Treatment Guidelines: Chemical Ocular Injuries.

33.1. Chemical injuries may result from an almost infinite variety of agents contacting the ocular surface, with the extent of the injury largely a function of the nature of the substance involved, how much ocular surface is involved, and duration of exposure.

33.2. The appropriate diagnostic criteria is as follows: A detailed examination is performed after copious irrigation (see treatment). It is vitally important to know the chemical causing the injury, its concentration and amount of exposure.

In alkali burns, the Hughes classification (grading or corneal haziness and loss of blood vessels at limbus) is helpful in assessing long term prognosis.

33.3. The appropriate treatment is as follows:

a. Acute phase (0 to 7 days).

1. Immediate copious irrigation using any nontoxic irrigating solution;

2. Detailed ophthalmologic exam, including pH level of eye secretions;

3. Topical steroids, antibiotic drops, topical ascorbate and cycloplegic agents;

4. Follow-up outpatient for 3 weeks;

5. Immediate referral to ophthalmologist for alkaline burns; and

6. Monitoring for systemic effect of toxin.

b. Severe chemical injuries should be hospitalized for treatment for several days.

33.4. The estimated duration of care depends on the extent of the initial injury. Milder injuries may permit return to work after several days. Moderate chemical injuries (if bilateral) may need several weeks to recover. Severe burns (if bilateral) may be blinding. In many cases corneal transplants may be able to restore vision.

§85-20-34. Treatment Guidelines: Functional Capacity Evaluations and Work Hardening Programs

By May 1, 2004, the Commission shall introduce to the Board of Managers a Treatment Guideline on functional capacity evaluation standards and procedures, work hardening programs, and other related matters.

§85-20-35. Treatment Guidelines: Cervical Musculoligamentous Injury (Sprain/Strain).

35.1. Symptoms are believed to be related to a partial stretching or tearing of the soft tissues (muscles, fascia, ligaments, facet joint capsule, etc.). Neck pain may be accompanied by vague upper extremity complaints. The recovery period is of variable duration, but generally is less than three or four weeks.

35.2. The appropriate diagnostic criteria consists of the following:

a. Pertinent historical and physical findings documenting the mechanism and degree of force and the time sequence before the onset of symptoms is important. The onset of neck pain and paraspinal muscle spasm begins either suddenly after the injury occurs or develops gradually over the next 24 hours. This pain is usually aggravated by motion of the neck and frequently is relieved by rest. It can be accompanied by paresthesia or a sense of weakness in the upper extremities related to the muscle spasm in the neck. Physical findings include tenderness to palpation, spasm of the paravertebral muscles and aggravation of the pain with motion.

35.3. The appropriate diagnostic tests and examinations are as follows:

a. If indicated by examination, anteroposterior, lateral, lateral flexion and extension x-rays of the spine and open mouth view to visualize the odontoid process are appropriate. Other x-rays may be added to the roentgenographic series as indicated. Straightening of the cervical spine is frequently observed on the lateral x-ray.

b. Further imaging may be indicated depending upon clinical course.

35.4. The appropriate treatment is as follows:

a. Outpatient treatment:

1. Nonoperative treatment:

A. Indications: Almost all injured workers with cervical musculoligamentous (sprain/strain) can be treated conservatively. However, disruption of intervertebral ligaments with subluxation is an indication for surgery.

B. Treatment options:

1. Analgesics;

2. Muscle relaxants;

3. Anti-inflammatory drugs, non-steroidal;

4. Physical modalities and/or rehabilitative procedures may be helpful;

5. Occasional trigger point injections may be helpful; and

6. Manual manipulation and mobilization.

b. Inappropriate treatment:

1. Operative treatment is inappropriate for cervical strain;

2. Narcotic medication for prolonged period of time; and

3. Inpatient treatment.

35.5. The estimated duration of care is 1 to 4 weeks; **not to exceed 8 weeks.**

35.6. A diagnosis of sprain/strain exceeding this S week period requires detailed reevaluation. The Commission may require an IME to verify the diagnosis and will authorize continued treatment/coverage in its sole discretion.

35.7. The anticipated outcome:

a. Resumption of normal activity without residual symptoms in most cases.

35.8. Modifiers (age, and co-morbidity). If the injured worker has not responded to the above-outlined treatments within four weeks, the injured worker must he referred to an appropriate specialist.

§85-20-36. Treatment Guidelines: Acute Herniated Cervical Disc.

36.1. A cervical disc syndrome is a condition in which there is a bulging or rupture of the intervertebral disc. This may be lateral, compressing a root and causing a radiculopathy, or midline, compressing the spinal cord and causing a myelopathy. This most often occurs at the C4-5, C5-6, and the C6-7 disc levels. When the C4-5 disc ruptures there is pressure on the C5 root. This may cause pain over the top of the shoulder in the "epaulet" distribution. Tingling is not common. There may be weakness of the deltoid muscle. Occasionally the biceps reflex is diminished. When the C5-6 disc ruptures there is pressure on the C6 root with pain as well as tingling and decreased sensation over the thumb and index finger, weakness of elbow flexion, and diminution of the biceps and brachial radialis reflexes. When the C6-7 disc ruptures there is pressure on the C7 root with pain and tingling in the index and middle fingers, weakness of elbow extension, and diminution of the triceps reflex. There can be more extensive weakness than noted above, although the description is that of the classic syndrome. There may be changes in other reflexes, and the sensory abnormalities may be somewhat variable. Pain, sensory changes or weakness may predominate because of ill-defined differences in sensibility of the different components of the nerve. Over time the pain may

resolve due to permanent damage to pain fibers, leaving the injured worker with motor and sensory dysfunction, which still may merit decompression.

Myelopathic symptoms may occur due to central disc protrusion and cause sensory (particularly posterior column) and motor dysfunction in the arms and legs, and bladder and bowel symptoms.

36.2. The appropriate diagnostic criteria is as follows:

The onset may be sudden or insidious. Neck pain is common, especially at night and with the neck in extension. Neck motions are frequently limited and cause an exacerbation of pain. The hallmark is arm pain and/or paresthesia. The pain is often described as a sharp, shooting pain that radiates from proximal to distal along the anatomic course of the nerve.

The Spurling test (neck extension and tilting the head toward the painful arm followed by axial compression of the cervical spine) is often positive. The neurological exam may be normal if compression is not too severe or there may be weakness, sensory impairment and/or altered reflexes.

36.3. Appropriate diagnostic tests and treatments are as follows:

a. In the face of a typical history and physical examination, plain spine x-rays are indicated since treatment may be altered if there are associated problems such as ostephytes.

b. Non-operative treatment:

1. Cervical traction;

2. Cervical collar may be used; not to exceed one week;

3. Use of analgesics, mild relaxants, and non-steroidal anti-inflammatory drugs; ~~and~~

4. Appropriate physical medicine referral to include physical agents~~;~~, exercise, and manipulation/mobilization; and

5. Indications for inpatient admission:

A. Inability to control pain; and

B. Progressive neurological deficit.

c. Injured workers with significant neurologic deficit, uncontrollable pain, or who fail to improve after two to four weeks should be referred for consultation to a surgeon who does cervical operations.

d. Neuro-Imaging examinations:

1. Myelogaphy followed by CT scan with contrast medium in place. Myelography with CT scan is the established test for evaluating the presence of nerve root compression. To warrant treatment, abnormalities must relate to the clinical problems of the injured worker. There is no reason to admit an injured worker to a hospital overnight for a myelogram. Persistent post-myelogram syndrome should be treated by hydration, caffeine, and/or blood patch as an outpatient procedure;

2. MRI, although occasionally it may not provide complete information about root compression or bony anatomy; and therefore,

3. EMG and nerve conduction velocity studies may be required to determine exact level of compression and rule out peripheral nerve compression, but should he delayed 21 days from onset of symptoms.

d. Inappropriate diagnostic tests and examinations:

1. Computed tomography without myelographic dye, although this may be helpful for other conditions such as infection or tumor;

2. Myeloscopy;

3. Dermatomal somatosensory evoked potentials;

4. Thermography; and

5. Spinoscopy.

f. Operative treatment:

1. Failure of non-operative treatment to relieve symptoms;

2. Quality of injured worker's life significantly impaired; or

3. Presence of significant or progressive neurologic deficit, either radiculopathy or myelopathy diagnosis confirmed by myelogram with CT scan, or by MRI.

g. Procedure options:

1. Laminectomy with excision of disc or arthritic spur or foraminotomy. Fusion is not indicated for a simple disc, Discharge 2 - 4 days post op. Posterior fusion is not indicated unless approved.

2. Anterior cervical diskectomy, especially in cases where there is medial compression. Discharge 1-3 days post op.

3. Complicated - after wound infection, thrombophlebitis, spinal fluid leak, or other significant complication has been controlled; and

4. Rehabilitation may be required.

36.4. The estimated duration of care is as follows:

a. Non-operative treatment - if still symptomatic by six weeks, must be referred for surgical consultation; and

b. Operative treatment - depending on degree of neurological impairment and persistent pain. If pain persists over three months after surgery, the injured worker should be referred for comprehensive pain management. If a disabling neurological deficit persists more than three months, vocational guidance should be considered. If a fusion has been done, the injured worker may require short and/or long term modified work.

§85-20-37. Treatment Guidelines: Low Back Musculoligamentous Injury (Sprain/Strain).

37.1. Strains and. sprains area common cause of acute low back pain encountered in the general population. These injuries often are the result of the mechanical stresses and functional demands placed on the low back area by everyday activities. Symptoms are believed to be related to a partial stretching or tearing of the soft tissues (muscles, fascia, ligaments, facet joint capsule, etc.) The conditions, for the vast majority of injured workers, are of short duration and complete recovery is the general rule. Most injured workers with a musculoligamentous injury to the low back recover rapidly, with 50% to 60% of injured workers recovering within one week.

37.2. The appropriate diagnostic criteria consist of:

Onset of low back pain and paraspinal muscle spasm begins either suddenly after the injury occurs or develops gradually over the next 24 hours. The pain is usually relieved by rest and aggravated by motion of the back. The pain usually does not radiate below the knee, and the strain is not accompanied by paresthesias or muscle weakness in the legs. Physical findings include low back tenderness to palpation, loss of normal lumbar lordosis, and spasm of the paravertebral muscles. Straight leg raising and other tests that cause spinal motion may increase low back pain. The injured worker may stand with a list to the side or in a flexed position. The neurological examination and nerve root stretch tests usually are negative.

37.3. Appropriate and inappropriate diagnostic tests and examinations are as follows:

a. Although the diagnosis of a musculoligamentous injury is not based on radiographic criteria, plain x-rays may be indicated based on mechanism of injury (actual trauma, hyperextension, compression), a high index of clinical signs of pathology, or treatment plan for manipulative therapy. Pain, which persists (no improvement) longer than 2-4 weeks or worsens may also be criteria for x-rays.

b. Inappropriate diagnostic tests and examinations during the acute phase of the first four weeks:

1. CT scan;

2. MM;

3. Bone scans;

4. Myelography;

5. EMG;

6. *Thermogram;

7. *Evoked Potentials;

8. *Myeloscopy; and

9. *Spinoscopy;

*Never appropriate

c. Failure to improve in four weeks warrants an appropriate second opinion ~~is obtained~~.

37.4. Treatment considerations are as follows:

a. Non-operative treatment:

1. Indications: Almost all injured workers with low back musculoligamentous (sprain/strain) can he treated satisfactorily. No indications exist for the use of surgery in the treatment of low back musculoligamentous injuries.

2. Treatment options:

A. Short-term bed rest for approximately 2 days with appropriate positioning;

B. Analgesics;

C. Muscle relaxants as needed;

D. Anti-inflammatory nonsteroidal medication;

E. Referral for physical medicine (PT, OT, DC, DO, and physiatrist);

F. Physical modalities in conjunction with proper body mechanics and flexibility, endurance, and strength reactivation exercises;

G. Manipulation of spine;

H. Occasional trigger point injections; and

I. Lumbosacral corset or brace.

b. Inappropriate treatment:

1. Operative treatment is inappropriate for low back strain;

2. Prolonged bed rest beyond two days;

3. Narcotic medication for prolonged period;

4. Home traction; and

5. Inpatient treatment.

37.5. The estimated duration of care: 0 to 4 weeks; not to exceed 8 weeks.

37.6. A diagnosis of sprain/strain exceeding this 8 week period requires detailed reevaluation. The Commission may require an IME to verify the diagnosis and will authorize continued treatment/coverage in its sole discretion.

37.7. The anticipated outcome is resumption of normal activity without residual symptoms in most cases. Transitional activities may be required.

37.8. Modifiers (age, and co-morbidity). Co-morbidity (e.g., degenerative disc disease, spondylolisthesis, segmental instability, osteoporosis, spine deformity) may be associated with a higher incidence of persistent symptoms but are not compensable conditions.

§85-20-38. Treatment Guidelines: Herniated Lumber Disc.

38.1. Injured workers under treatment by their own physician who fail to improve after two to four weeks - refer to an orthopedic surgeon or neurosurgeon for consultation and/or treatment.

Herniations occur most commonly through a posterolateral defect, but midline herniations may occur. Resulting compression of the spinal nerve root causes inflammation and pain, usually along the anatomic course of the nerve. In the lumbar spine, this most often occurs at the L4 and L5 disc levels, causing pressure on the corresponding L5 and S1 nerve roots. As a result of both mechanical and biochemical changes around the nerve root, the injured worker will experience pain, paresthesia, and possibly weakness in the leg or legs usually below the knee. The rare herniations at the L1, L2 and L3 levels are usually associated with pain, paresthesia, and weakness above the knee. Back pain may or may not be a presenting complaint with any herniated lumbar disc.

38.2. The appropriate diagnostic criteria consist of:

Back pain is usually the first symptom and may or may not abate as the pain and paresthesias begin to radiate down the leg. The leg pain is often described as a sharp, shooting pain that

B. Physical medicine and/or rehabilitation; and

C. Orthotics.

The value of periods of bed rest has not been demonstrated. Complete bed rest for prolonged periods may be deleterious to the body and should be closely monitored. A significant number of injured workers will respond to a nonoperative treatment program for herniated lumbar disc. The physician should be aware that those injured workers who have marked, early limitation of straight leg raising and those injured workers who have symptoms or physical findings suggestive of cauda equina syndrome may need early surgery. Close monitoring is indicated in those settings.

b. Inpatient treatment.

1. Non-operative treatment.

A. Indications for admission.

1. Inability to control pain; and

2. Severe or progressive neurologic deficit.

B. Treatment options.

1. Monitored bed test with parenteral medications.

C. Indications for discharge.

1. Uncomplicated - relief or improvement of leg and/or back pain.

2. Exceptions:

(a) No response to nonoperative treatment options requiring consideration of surgical intervention; and

(b) Spinal headache after myelogram requiring IV fluids or blood patch.

2. Operative treatment:

A. Indications: diagnosis confirmed by myelography with CT scan, or MRI, plus one of the following three.

1. Failure of nonoperative treatment to relieve symptoms;

2. Quality of injured worker's life significantly impaired; and

3. Presence of significant or progressive neurologic deficit.

B. Procedure options:

1. Open removal; and

2. Percutaneous diskectomy by special approval.

C. Indications for discharge:

1. Uncomplicated - One to three days after diskectomy.

2. Complicated - after wound infection, thrombophlebitis, spinal fluid leak, or other significant complication has been controlled.

D. Home health care may be required for a short period.

E. Physical modalities and/or rehabilitative procedures.

1. Some monitoring of the injured worker's activities may be necessary;

2. General fitness, flexibility, and simple spinal muscle strengthening are all important;

3. Injured worker should be instructed in walking program with a gradual increase in physical activities; and

4. Strengthening exercises or work simulation activities may be indicated for some injured workers.

F. Supporting evidence. Diskectomy has been proven to be a safe and effective procedure in some injured workers with herniated disc. Such surgical intervention remains elective (in the absence of a severe neurologic deficit) and the decision is based on the surgeon's clinical judgment and the injured worker's personal assessment of the extent to which quality of life has been impaired.

38.5. The estimated duration of care is as follows:

a. Nonoperative treatment - maximum medical improvement 0 - 12 weeks.

b. Operative treatment - 0 - 12 weeks.

38.6. Modifiers (age, and co-morbidity). Injured workers with symptoms suggestive of cauda equina syndrome will require a different approach to treatment. Cauda equina syndrome is a surgical emergency. Symptoms include low back pain and paralysis with loss of bladder and bowel control. Once this diagnosis is suspected, the injured worker should undergo prompt referral and neurodiagnostic evaluation.

§85-20-39. Treatment Guidelines: Lumbar Fusion.

39.1. Indications of compensable lumbar fusion~~.~~ :

a. Injuries to bone or soft tissue that cause instability;

b. For a second or third time disc surgery, the claimant must have a second medical opinion and prior approval from the Workers' Compensation Commission.

39.2 Lumbar fusion may also be appropriate treatment for other noncompensable conditions for which treatment will not be authorized.

~~b~~ a. Cancer;

~~c~~ b. Symptomatic spondylolisthesis; and

~~d~~ c. Documented instability for other cause.

~~1~~ d. ~~For first surgery only, d~~ Degenerative disc disease with preoperative documentation of instability.

~~2~~ e. Pseudoarthrosis

~~3. For second or third time disc surgery, must have second, medical opinion and prior approval.~~

COMMENT: We have recommended changes to separate compensable and noncompensable conditions.

~~39.2~~ 39.3. Contraindications for lumbar fusion.

~~a.~~ Primary surgery for a new, acute disc herniation with unilateral radiation leg pain.

~~39.3~~ 39.4. Surgical procedures.

~~a.~~ Bony fusion with or without instrumentation.

§85-20-40. Treatment Guidelines: Shoulder Injury Guidelines.

40.1. The term "shoulder complex" refers to the humerus, clavicle, scapula and the surrounding supporting connective tissue and emphasizes their interdependent relationship. Articulations of the "shoulder complex" are the sternoclavicular, acromioclavicular, scapulothoracic, glenohumeral, and subacromial arch.

Fractures, separations, or subluxations/dislocations of components within the "shoulder complex" result from trauma to the shoulder girdle or upper extremity. Soft tissue strains or sprains may result from either trauma or longstanding accumulative microtrauma. The rotator cuff is particularly vulnerable to overuse pathology.

Treatment of "shoulder complex" injuries is directed to restoring balanced motion in the entire complex. Because of the importance of the soft tissues, physical therapy is very important and can be lengthy. On the other hand, because the shoulder complex is so adaptable, most individuals can find alternative patterns of function in their work, home, or recreational needs while they are undergoing physical rehabilitation.

40.2. The appropriate diagnostic criteria are as follows:

a. History and physical.

1. Mechanism of injury - single episode or repetitive microtrauma.

2. Pain pattern - pain at rest, pain related to work, activities of daily living, or recreational activities, night pain; painful arc of motion; position of comfort; relative position of the pain; relative position of the neck; referred pattern (pain below the elbow suggests a radicular component).

3. Range-of-motion - active glenohumeral and scapulothoracic balance; passive forward flexion, external rotation, internal rotation, and abduction compared to the opposite side.

4. Palpation - point or zone of maximum tenderness.

5. Neurological - motor, sensory, muscle stretch reflexes for C5, C6, C7, CS and Tl roots.

6. Special tests - apprehension; drop arm; impingement; Yergason; posterior apprehension; sulcus sign; clunk; AC spring; Adson; Awinged scapular; lateral scapular slide.

40.3. The appropriate diagnostic tests are as follows:

a. Routine imaging:

1. Shoulder series - internal, external, and transaxillary or transcapular lateral (a transthoracic lateral is of no benefit except in humeral shaft fractures, posterior dislocations of the shoulder may be missed).

2. Special imaging - requires pre-authorization and specialty referral.

A. CT scan;

B. MRI;

C. Arthrogram; and

D. EMG/NCV.

40.4. The guidelines for appropriate specialty referral are as follows:

a. Failure of improvement or resolution of symptoms with conservative treatment in four weeks;

b. Radiographic evidence of fracture, subluxation, or dislocation;

c. Initial presentation of hemarthrosis;

d. Significant lack of motion compared to opposite side; and

e. Suspected neurologic injury.

40.5. Appropriate treatment is as follows:

a. Fracture - subluxation/dislocation (requires specialty referral).

1. Nonoperative or operative:

A. One to four weeks of immobilization; and

B. Physical therapy beginning in one to four weeks and continuing up to six months.

b. Sternoclavicular or acromioclavicular strain or grade 1 (non-displaced sprain).

1. Non-operative:

A. One to seven days of immobilization;

B. Physical therapy, modalities and range-of-motion, one to six weeks;

C. Duration of care - one to six weeks;

D. Anticipated results - resolution of symptoms and resumption of normal activities. May develop degenerative arthritis at a later date.

2. Operative (specialty referral) - no indication except evidence of degenerative changes after prolonged conservative management.

c. Rotator cuff tendonitis/bursitis

1. Nonoperative.

A. Local steroid injections at three to six week intervals (not to exceed three);

B. Physical therapy - up to three months at decreasing intervals;

C. Job activity modification if indicated; and

D. NSAIDs.

2. Operative (specialty referral).

A. Indications.

1. Failure of improvement after three to six months of conservative care;

2. Positive impingement sign; and

3. Arthrogram or MM to determine integrity of rotator cuff

B. Physical therapy following surgery, three to six months at decreasing intervals.

d. Rotator cuff tear.

1. History - sudden onset of pain and inability to initiate active abduction; passive abduction relatively normal; plain x-rays revealed not acute bony changes.

2. Nonoperative.

A. Physical therapy one to three weeks;

B. Specialty referral if no improvement.

4. Operative (specialty referral).

A. Arthrogram or MRI confirms tear; and

B. Physical therapy following surgery, three to six months at decreasing intervals.

e. Adhesive capsulitis (frozen shoulder).

1. History - insidious pain and loss of motion in the glenohumeral joint.

2. Nonoperative.

A. Physical therapy tried one to six weeks;

B. Glenohumeral joint injection with saline distention using short acting steroids plus Xylocaine - limit two at three week intervals; and

C. Specialty referral if no improvement after six to eight weeks.

3. Operative (specialty referral).

A. Manipulation if no improvement after three months.

4. Other conditions which (require specialty referral).

A. Thoracic outlet syndrome;

B. Brachial plexus injuries; and

C. Ruptured biceps tendon, proximally or distally.

§85-20-41. Treatment Guidelines: Carpal Tunnel Syndrome.

41.1. The purpose of the Carpal Tunnel Syndrome ("CTS") Rule is to provide the treating physician with treatment guidance and treatment parameters so that the treating team can:

a. Determine if the illness is work-related; that is, determine causality.

b. Properly diagnose the illness through a careful history, physical examination and appropriate diagnostic tests and examinations.

c. Initiate timely and proper treatment; and

d. Keep the injured worker in the workplace, through modified or restricted duty if necessary, as much as possible during the treatment plan.

41.2. Background. CTS is one of several nerve compression/entrapment syndromes of the upper extremity. This condition occurs when pressure increases in the canal

and disrupts the normal flow of nerve impulses to the hand. The exact cause of this condition is unclear. It is often bilateral. The prevalence of CTS in the general population is approximately 3.1%. Half of CTS cases arc idiopathic. Providers considering the diagnosis and compensability of CTS are advised to assess several factors, diagnostic accuracy, confounding conditions, work setting and duration of symptoms in assigning causality.

41.3. Diagnostic Accuracy. Hand symptoms may be produced by tendonitis, arthritis, tumor, interrupted blood flow, trauma or nerve entrapment at levels from the neck to the hand. Symptoms suggesting CTS include numbness and paresthesia (especially at night), weakness, uselessness and pain in a median nerve distribution. Clinical examination findings are frequently difficult to interpret. Tinel's and Phalen's tests have limited sensitivity and specificity. Thenar atrophy is a late sign. EMG/NCS is the standard diagnostic modality and has high sensitivity and specificity.

41.4. Confounding Conditions. Medical conditions frequently produce or contribute to CTS. Recognition of these conditions is important for good outcomes. Diabetes mellitus, hypothyroidism, obesity, alcohol abuse, rheumatoid arthritis, postural abnormalities and other conditions can precipitate CTS symptoms. Pregnancy is a well-established risk factor for reversible CTS. Sleep disorders significantly aggravate CTS for some patients. Hobbies and sports activities may contribute to CTS symptoms. A careful look for contributing noncompensable factors may impact causality and response to treatment.

41.5. Work Setting. Occupational groups at high risk for CTS have included grinders, butchers, grocery store workers, frozen food factory workers, manufacturing workers, dental hygienists, platers and workers with high force, high repetitive manual movement. The literature notes a high prevalence of concurrent medical conditions capable of causing CTS in persons with the syndrome, without regard to any particular occupation. Studies have failed to show a relationship between normal clerical activities and CTS. When evaluating CTS in this work selling, a careful search for other contributing factors is essential. Awkward wrist positioning, vibratory tools, significant grip force, and high force of repetitive manual movements have all been shown to contribute to CTS. The Moore-Garg Strain Index is a valuable tool for assessing risk for work-related CTS.

41.6. Duration, Work-related CTS is associated with years of repetitive activity. To find CTS in workers with weeks to months of exposure suggests a pre-existing condition.

41.7. Diagnosis Criteria.

a. Pertinent Historical and Physical Findings

1. Patients usually complain of painful, burning paresthesia or numbness involving the thumb, index, long and occasionally radial aspect of the ring digit or the entire hand.

2. These symptoms are usually worse while lying down or sitting quietly.

3. Activities such as driving, holding a telephone or fixing one's hair often precipitate the paresthesia.

4. The most common complaints usually include nocturnal paresthesia, clumsiness with loss of fine dexterity and dropping things.

5. The patient often feels as if there is a loss of circulation. The paresthesia is often relieved by actively working the fingers, shaking the hand or holding it in a dependent position.

6. Pain is usually present over the palmar wrist area and may radiate proximally as far as the shoulder or neck.

7. Findings are consistent with those of a nerve irritation.

A. Tinel's test may be positive over the medial nerve in the proximal palm or wrist.

B. Numbness in the fingers may be elicited with the wrist in extreme extension or flexion (Phalen's test).

C. There may be decreased sensation distal to the wrist, particularly over the thumb, index and middle fingers, inability to flex or oppose the thumb or abduct it in its own plane and thenar muscle atrophy.

D. There can be significant variations in location of pain and sensory changes.

E. The examiner also needs to evaluate additional or alternate sites of compression that can produce similar symptoms.

b. Appropriate Diagnostic Tests and Examinations

1. Radiographs of the hand and wrist if indicated by history and examination, mainly in patients with history of previous trauma or painful range of motion of the wrist.

2. Nerve conduction studies and electromyograms. (Mild cases wait 6 weeks).

3. Response to conservative measures; splinting of wrist and carpal tunnel steroid injections.

4. Laboratory studies if symptoms suggest an underlying disease such as diabetes mellitus, thyroid dysfunction or rheumatoid arthritis.

5. Radiograph of cervical spine, upper extremity and/or chest if symptoms suggest a more proximal disease process.

c. Specialist Directed Tests and Examinations

1. CT scan and MRI only if indicated by previous plain films and history pace-occupying deformity or mass.

2. Wrist arthrogram if findings suggestive of carnal instability.

d. Supporting Evidence.

1. Since double crush syndrome (entrapment of a nerve at more than one level) and systemic diseases causing carpal tunnel syndrome are not unusual, a thorough evaluation is essential.

2. Regarding EMG and NCS, there is variability in the skill of the testing physician and diagnostic reference criteria do vary. This should be carefully monitored by the referring physician and by a Quality Assurance mechanism.

41.8. Treatment.

a. Non-operative Treatment

1. Indications

A. Symptoms mild or moderate (but without thenar atrophy).

B. Pregnancy or other systemic problems that may be treated medically.

C. Onset of symptoms associated with work exposure, and plausibly subjective and/or objective findings

D. Associated with other physical conditions, i.e. cervical radiculopathy.

2. Treatment.

A. Initial Four Weeks—Options

1. Splint wrist in neutral.

2. Nonsteroidal anti-inflammatory drugs.

3. Steroid injections, optional.

4. Eliminate or modify aggravating activities with the cooperation of the employer.

5. Physical medicine.

6. Concurrent treatment of systemic disease until the injury has returned to pre-injury status.

7. Self care: ice, elevation, range of motion, stretching, exercises, postural correction, etc.

3. Referral

A. If there is no substantial improvement by four (4) weeks, the injured worker should be referred for evaluation and possible treatment.

B. Treatment should be by either a physical medicine practitioner or a surgeon (orthopedic, hand, plastic, or neurosurgeon).

1. Physical Medicine.

(a) A physical medicine practitioner shall evaluate for functional anatomical lesions in the neck, shoulder, thorax, elbow and wrist. Physical medicine examiners: Chiropractor (DC), Osteopathic Physician (DO who specializes in manipulation), Physical Medicine and Rehabilitation Specialist (MD/DO, formerly known as "physiatrist"), Physical Therapist (PT), and Occupational Therapist (OT).

(b) If functional anatomical lesions are identified, two to eight (2-8) weeks of treatment with a physical medicine practitioner (DC, DO who specializes in manipulation, MD/DO who is a physical medicine and rehabilitation specialist, PT, OT) should be performed on a decreasing frequency. The referring physician shall be provided progress reports at 2-week intervals. Treatment should cease if two weeks pass without significant documented functional improvement. It is important that the injured worker continue to work and perform his or her activities of daily living during this therapy. Modified duty or work reassignment is appropriate during treatment.

b. Ambulatory Surgery.

1. Indications

A. Unresponsive or progression of symptoms in the face of non-operative treatment; objective signs.

B. Thenar atrophy or objective impairment of sensibility (widened two-point discrimination or diminished light touch).

C. Intolerable numbness and pain.

D. Mass or deformity in carpal tunnel.

2. Treatment Options

A. The operative treatment usually includes minimal invasive type of surgery vs. open type of surgery, and is indicated according to the condition of the patient.

B. In some of the severe CTS cases, the surgeon may wish to seek an examination by another physician in order to determine if the injured worker is an appropriate candidate for recovery and return to work.

3. Home Health Care. When self-care is compromised during the early post-operative period, homemaker services may be required in some instances. Examples: opposite hand amputation or limiting injury.

4. Physical Rehabilitation.

A. Brief post-operative splinting, optional.

B. Finger and wrist range of motion.

C. Scar massage after sutures removed,

D. Grip and pinch strengthening.

E. Range of motion exercises of affected extremity.

F. Progressive activity reintroduction.

G. Physical medicine, if indicated, should be limited to six weeks.

5. Supporting Evidence.

A. Carpal tunnel release relieved pain and paresthesia in up to 90% of patients with correct diagnosis.

B. Significant pre-operative median nerve involvement, concurrent medical conditions and/or inability to modify aggravating exposures may affect postoperative functional recovery.

c. In-Patient Treatment.

1. Inpatient Treatment.

A. Rare.

B. Associated with other trauma or condition, i.e. crush injury, bums, etc.

2. Indications for Admission.

A. Compartment syndrome of forearm.

B. Other serious medical conditions which increase ~~surgic~~ surgical anesthetic risks.

C. Complication at time of operative procedure.

D. Treatment options: same as for ambulatory patient.

E. Indications for discharge: medical condition stabilized.

F. Home health care: same as for ambulatory patient.

G. Rehabilitation: same as for ambulatory patient.

d. Estimated Duration of Care

1. Non-operative Treatment

A. Activity modification may be indicated.

B. Depending on objective findings and past duration of symptoms and as outlined in the Presley Reed Guide referenced in section 63 of this Rule.

2. Operative Treatment

A. Consistent with global guidelines and as outlined in the Presley Reed Guide referenced in section 63 of this Rule.

B. Three month follow-up unless there are complicating factors.

e. Anticipated Outcome.

1. Improved sensory and/or motor and/or autonomic function.

2. Elimination of paresthesia.

3. Lessening of pain.

4. In severe carpal tunnel syndrome cases, complete relief of the symptoms is usually not obtained. The surgery is performed to stop progression of the nerve damage or to delay progression of damage already present in the form of nerve fibrosis and vascular changes.

f. Modifiers

1. Pregnant and nursing women usually have decreased or resolved symptoms shortly after delivery or cessation of lactation, but persistent symptoms may require surgical release.

2. Age and gender are not modifiers.

3. Co-existent neurological or systemic disorder, i.e. diabetes, thyroid dysfunction, amyloidosis, etc., may make symptoms more severe and less likely to filly resolve following treatment.

41.9. Rehabilitation

a. Keeping Workers on the Job.

1. Workers generally are in a more positive psychosocial, motivational and financial mode when they continue to work. These factors impact significantly on the rehabilitation outcome.

2. Barring a clear medical contraindication, if the employer can provide suitable reasonable accommodations based upon restrictions recommended by the physician due to the compensable medical condition, the injured worker should continue to work during the recovery process and be released to return to such work as soon as possible when temporary disability is unavoidable.

b. The Work Release

1. Return to work may be initiated via two paths, starting with the physician's work release or with a proposal from the employer or a qualified rehabilitation professional.

2. In either case, the release must be as specific as possible so the employer and patient clearly understand what is expected. The physician should address:

A. Physical restrictions, time restrictions (hours per day and/or week and duration of the restriction).

B. Pacing restrictions.

C. Break requirements (frequency and purpose, such as for rest from certain activities, icing, warm-up exercise, self-massage, etc.).

D. Recommended job site accommodations (such as workstation height or set-up) or ergonomic devices (such as anti-vibration tool wraps).

3. When the employer or a qualified rehabilitation professional offers a return to work proposal, the attending physician should expect to be provided:

A. A functional job analysis with which to make an informed decision regarding the work release. The job analysis must thoroughly describe job duties, physical demands (strength and production/work pace), tools used and environment.

B. Assurance that the employer (line supervisors and co-workers, not just human resources personnel) wilt support the worker in the restricted or alternate duty return to work.

C. A rehabilitation plan signed by the employer, injured worker and a qualified rehabilitation professional when restricted or alternate duty (part-time or fill-time) is to he approved. This plan should describe the accommodations being offered and the time frame for which they will be available.

c. Career Changes. Injured workers with significant permanent upper extremity residual impairment will frequently need a permanent change of vocations.

§85-20-42. Treatment Guidelines: Injuries to the Knee.

42.1. The vast majority of knee injuries result from direct trauma to the joint or are caused by torsional or angulatory forces. These injuries vary in severity from simple ligamentous strains to complex injuries involving ligamentous disruption with meniscal damage and associated fracture. This guideline is designed to guide the practitioner in the appropriate management of these injuries and to establish a logical sequence for the diagnostic evaluation and treatment of the more complex injuries. In general, knee injuries should be referred for orthopedic consultation and/or treatment under the following circumstances:

a. Failure of a presumed knee sprain to show progressive resolution and respond to appropriate conservative treatment in a period of three (3) weeks;

b. Radiographic evidence of an associated fracture;

c. The initial presence of a tense hemarthrosis or the development of a recurrent hemarthrosis;

d. An acutely locked or an acutely dislocated knee;

e. Clinical evidence of gross ligamentous instability; and

f. A presumed diagnosis of a meniscal injury.

§85-20-43. Treatment Guidelines: Knee Sprains.

43.1. These are common injuries resulting from the application of a torsional or angulatory force to the knee and are characterized by pain, mild swelling, localized tenderness, increased discomfort or weight bearing, negative x-rays, and no clinical evidence of instability.

a. The appropriate diagnostic tests.

1. Plain x-rays.

43.2. The appropriate and inappropriate treatment is as follows:

a. Nonoperative treatment.

1. Medications to include nonnarcotic analgesics and nonsteroidal anti-inflammatory drugs;

2. Application of ice, compression dressings, and temporary partial restriction of weight bearing;

3. Physical modalities and/or rehabilitative procedures;

4. Duration of care - estimated duration of care is three weeks, not to exceed six weeks; and

5. Anticipated result - resolution of symptoms and resumption of normal activities.

b. Inappropriate treatment:

1. Surgery;

2. Inpatient; and

3. Greater than three weeks without consultation.

§85-20-44. Treatment Guidelines: Meniscal Injuries.

44.1. The mechanism of injury is similar to that for knee sprains but symptoms of pain and swelling fail to resolve in the anticipated period of time and the symptoms frequently include a sensation of "catching or giving away" of the joint and a history of locking of the joint may be elicited.

Clinical findings may include joint space tenderness, a mild effusion and restricted range-of-motion and positive McMurray's sign.

44.2. The appropriate diagnostic tests are as follows:

a. Plain x-rays;

b. Arthrocentesis;

c. MRI;

d. Arthrogram; and

e. Diagnostic arthroscopy.

44.3. The appropriate treatment is as follows:

a. Outpatient/nonoperative treatment.

1. Short-term use of nonsteroidal anti-inflammatory drugs in conjunction with an arthrocentesis and short-term immobilization with a period of limited weight bearing;

2. Physical modalities and/or rehabilitative procedures.

b. Outpatient/operative treatment.

1. Options include arthroscopic meniscectomy and/or arthroscopic meniscal repair; and

2. Physical therapy/rehabilitation.

c. Inpatient/nonoperative treatment not indicated.

d. Inpatient operative treatment - The reasons for admission for surgical treatment may include the presence of associated medical conditions, a concomitant knee injury such as a fracture of the tibial plateau or a major ligamentous disruption, or the presence of other injuries which require inpatient treatment.

~~44.5~~ 44.4. The duration of treatment may vary up to three (3) months. The injured worker's age and pre-existence of arthritic changes within the joint will influence the duration of treatment.

~~44.6~~ 44.5. The anticipated outcome is as follows:

a. Improved knee function with minimal residual symptoms; and

b. Possible predisposition to the development of traumatic arthrosis of the knee.

§85-20-45. Treatment Guidelines: Foot and Ankle Injuries.

45.1. Injuries to the foot and ankle usually relate to a specific traumatic event and have a predictable clinical course depending on the severity index of the initial injury. For simplicity, injuries will be discussed relative to the anatomic region of the foot and ankle (ankle, hind foot, midfoot, forefoot or phalanges).

45.2. The appropriate diagnostic criteria is as follows:

a. Pertinent historical and physical findings:

1. Onset of pain and/or swelling is related to a single event, either a twisting injury, fall or direct blunt trauma. The degree of the injury can be judged quickly by determining which one can bear weight and the degree of initial swelling. The more

severe injuries will have greater swelling, inability to bear weight, and may have obvious deformity.

45.3. Diagnostic test and examination considerations are as follows:

a. If differentiation between a soft tissue ligamentous injury and a fracture is required, x-rays in several planes are appropriate in all cases;

b. CT scans may be indicated in hind foot injuries to define subtle fractures, tarsal coalitions or the degree of displacement in three planes in acute injuries;

c. Bone scans are occasionally indicated in long standing pain problems to rule out stress fracture or inflammatory causes of foot pain (after four weeks of pain with normal X-rays).

d. MRI rarely indicated - should require specialty consultation; and

e. EMG and vascular studies (non-invasive arterial perfusion or arteriography at the request of the specialist).

f. Inappropriate diagnostic tests:

1. Thermogram.

g. Indications for specialty referral:

1. Displaced fractures;

2. Neurovascular compromise; and

3. Pain and swelling greater than three weeks.

45.4. The appropriate treatment is as follows:

a. Non-operative.

1. Sprains (No fracture seen on x-ray)

A. Rest, ice compression and elevation (RICE);

B. Crutches and splinting (one through three days);

C. Early mobilization as pain allows. This may involve active supervised physical therapy;

D. Usual course - several days to three weeks; and

E. Referral to specialist required if no improvement by three weeks.

2. Fractures.

A. Simple non-displaced:

1. Ankle — Specialty referral -Wilt require special splinting or casting for three to six weeks and may require an additional two to four weeks of physical therapy rehabilitation.

2. Hind foot - Same as ankle.

3. Midfoot - Same as ankle but course is usually two to four weeks shorter.

4. Forefoot - Specialty referral not required special shoe or cast may be necessary. Usually resolved in three to six weeks.

5. Phalanges - Same as forefoot, simple taping and/or modified shoe usually all that are necessary.

3. Displaced fractures. Specialty referral is mandatory. Non-operative treatment requires casting for three to six weeks followed by up to four weeks of rehabilitation.

b. Operative. All operative decisions require specialty referral.

1. Sprains. Indicated when there is a complete dislocation/ subluxation without a fracture anywhere in the ankle, hindfoot, or midfoot. May be indicated in the forefoot.

2. Fractures.

A. Simple - may be indicated in ankle.

B. Displaced - Usually indicated in ankle, hindfoot, midfoot, and forefoot. Displaced phalange fractures can sometimes be treated non-operatively.

§85-20-46. Treatment Guidelines: Physical Medicine.

46.1. Principles for use of physical medicine:

a. Physical medicine should be initiated as early as the day of injury; indications for and focus of (early) intervention include:

1. Acute management of pain and spasms;

2. Use of passive modalities as adjunct to active treatment;

3. Manual therapy for restoring joint function;

4. Instruction in range of motion and stretching exercises;

5. Assessment of return to work readiness and identifying necessary work modifications;

6. injured worker education in healing process, body mechanics, proper resting positions, and home treatment program; and

7. Time frames may range from one visit to daily visits in accordance with above treatment guidelines.

b. Evaluations and treatment authorized by the Commission must be provided by professionals licensed to perform such activities.

c. Initiation of treatment may not be indicated when:

1. Few objectively measured deficits are found on evaluations;

2. Subjective complaints of pain are the only finding;

3. Pain behaviors are interfering with the return to work process; and

4. Injured worker is not compliant with the treatment plan.

d. Inappropriate treatment is the exclusive use of passive modalities throughout the course of treatment.

e. Exercise programs are progressively increased to include strengthening and conditioning exercises. Any work simulation activities (also gradually increased) should focus on essential work tasks (pushing, pulling, lifting, etc.). Time frames may range ~~form~~ from 1 to 4 hours per day, 3 to 5 days per week in accordance with above treatment guidelines.

f. Progress reports to the referring physician, ~~workers' compensation~~ the Commission, and the employer should identify continuing complaints, progress made, further rehabilitation needs, and level of return to work readiness. An injured worker may continue in therapy, if indicated, after return to work in accordance with above treatment guidelines.

46.2. Reimbursement shall be disallowed for any treatment rendered after the injured worker reaches maximum medical improvement.

46.3. If physical medicine care continues to the 30th day and the injured worker has not returned to work, the treating physician ~~mayl~~ may arrange a consultation for a second opinion. Reimbursement for care past the 45th day shall be disallowed unless the consulting physician recommends further care.

46.4. If care continues to the 30th day and the injured worker is back to work, shows significant documented functional and clinical signs of improvement, as determined in the sole discretion of the Commission, and has not reached maximum medical improvement, ~~continue case~~ continuing care may be approved in the sole discretion of the Commission. Such care shall not exceed the 60th day.

46.5. Injured workers with complicating factors which have prevented a return to work by the 60th day require active case management by the Commission. Independent medical evaluator guidance may be requested by the Commission, in its sole discretion.

46.6. It is incumbent upon the medical provider to notify the Commission if care has continued for 60 days. Failure to so notify the Commission will result in the denial of any and all payments incurred after the 60th day. The medical provider shall not seek reimbursement from the injured worker for these denied charges for determination of appropriate care.

46.7. Treatment limitations. Physical medicine treatment shall not exceed 10 visits in the initial 14 days and must decrease in frequency thereafter. In no case shall the treatment exceed 16 visits in the initial 30 days or 12 visits in the second 30 days.

46.8 A physical medicine provider may seek authorization to receive reimbursement for services provided in excess of 60 days if a significant complicating factor is clearly present, as determined in the sole discretion of the Commission, and one (1) of the following factors is also clearly present, as determined in the sole discretion of the Commission: 1) the injured worker is back at work or enrolled in a work conditioning/hardening program as part of an approved vocational rehabilitation plan; or 2) the provider can clearly illustrate documented functional and clinical signs of improvement. If each of these ~~3~~ factors can be established, in the sole discretion of the Commission, treatment maybe extended on an as needed basis, not to exceed 2 visits per week.

46.9. Injured workers who have returned to work and experience flare-ups of their injuries due to job related activities, may be treated a maximum of 12 times over the 14 months following an injury. Such treatment may not be regularly scheduled and must not delay a surgical or chronic pain evaluation,

§85-20-47. Treatment Guidelines, Protocols and Procedures for Performing Audiological Examinations and Evaluations in Workers' Compensation Claims for Noise-Induced Hearing Loss.

47.1. Only audiometric test results obtained by an audiologist having a certificate of clinical competence in audiology (CCC-A) ~~or a West Virginia audiology licensure~~ are acceptable for purposes of awarding compensation. An audiogram performed at the request of any physician may be utilized by the injured worker for the purpose of completing the workers' compensation application form, WC-123HL. However, only physicians who are qualified otologists or otolaryngologists may interpret the results of audiograms in assessing the degree of the injured worker's noise-induced hearing loss impairment for the purpose of determining the percentages of the injured worker's whole person impairment, if any.

47.2. A physician examining and evaluating an injured worker in a noise-induced hearing loss claim must consider the injured worker's medical and occupational history, as well as available audiograms, in determining the etiology of the hearing loss. It is not necessary to use a uniform brand and model of audiometer.

For Commission standards, the audiologist shall adopt the ANSI Guidelines and perform an annual exhaustive calibration. The audiologist should also perform a daily listening check.

47.3. Establishing a definitive margin of error: Two audiograms are said to be in acceptable test-retest variability when the total of four frequencies (500, 1000, 2000, 3000 Hz) is 15 decibels or less and the audiometric curves are similar. Because the two audiograms are technically identical and one cannot be chosen over the other, ~~the calculation of whole person~~ impairment will be based on the average between the two audiograms ~~that yields the highest degree of impairment for the injured worker~~.

a. If two audiograms are both rated "good", and differ by more than the established margin of error, the Commission shall arrange for a third independent evaluation by an otologist or otolaryngologist.

b. The two audiograms that are within an acceptable test/retest variability should be used.

47.4. The audiologist shall be required to perform the following specific reliability and validity checks during the course of an audiogram:

a. Speech Reception Threshold (SRT)/Pure Tone Average Comparison: SRT should be within 10 decibels of the best two frequency average for the pure tone thresholds of 500, 1000, 2000Hz.

b. Both ascending and descending thresholds should be obtained at 1000 Hz for each ear. The difference should be no greater than 5 decibels.

c. Reliability should be rated: good, fair, poor.

d. Certified ~~and/or licensed~~ (CCC-A) audiologists must perform the audiogram.

e. The four validity and reliability checks set forth above must be documented on the WC-123HL form and the examiner must initial his or her findings on the forms.

47.5. The Commission will inform all physicians evaluating noise-induced hearing loss injured workers on the Commission's behalf that standard air conduction and bone conduction testing, speech reception threshold, speech discrimination, tympanometry and acoustic reflex testing must routinely be performed as a part of audiometric evaluation. Other testing, including otoacoustic emission testing, may be required at the discretion of the

otologist/otolaryngologist. If the required audiometric tests have not been done, the report is unacceptable and the physician will not be compensated. W. Va. Code § 23-4-8.

47.6. When a sensorineural hearing loss is present it may be the result of noise induced hearing loss and/or other disease processes. The medical evaluator should consider all causes of sensorineural hearing loss and shall separately designate compensable hearing loss related to noise from noncompensable causes. When a conductive loss is present, the bone conduction levels will show the purist hearing an injured worker could have as a result of noise induced hearing loss.

47.7. The audiologist shall perform speech discrimination (word recognition) testing using W-22 word lists. Both live voice and recorded presentation methods for testing speech discrimination are acceptable; each method has its advantages. The audiologist should use the method that provides the best representation of the injured worker's true speech discrimination. score.

The otologist or otolaryngologist interpreting the speech discrimination results shall use the formula set forth in W. Va. Code §23-4-6b, to calculate the injured worker's impairment rating.

47.8. Occupational noise induced hearing loss (NIHL) typically starts in the high frequencies; usually 3000, 4000 or 6000 Hz. With progression, these frequencies worsen and the hearing loss extends to the lower frequencies; (2000 and 1000 Hz). Even with progression, however, the audiometric pattern remains one that descends from the low frequencies to the high frequencies, sometimes with recovery at 6000 or 8000 Hz. Occupational NIHL does not cause an ascending audiometric pattern (where the low frequencies would be worse than the high frequencies). A flat audiometric curve is also not typical of an etiology of solely occupational NIHL. If an audiogram presents a pattern that is atypical of an occupational NIHL pattern, then the physician interpreting the audiogram should consider causes other than occupational noise exposure in determining the hearing loss etiology. If the otologist/otolaryngologist determines that an injured worker's hearing loss is not all noise induced hearing loss, he or she should estimate the true noise induced hearing loss thresholds and explain his or her calculations on the basis of medical and audiological findings.

47.9. When an injured worker has been exposed to steady state noise, his or her NIHL will usually be symmetrical between both ears. If the injured worker has a hearing loss that is asymmetric then the evaluating physician should consider all causes for hearing loss, including nonoccupational noise, trauma or disease processes and whether there is more noise exposure on one side than the other.

47.10. If a physician determines that an injured worker's hearing loss is the result of occupational noise exposure, the total hearing toss impairment rating shall be calculated pursuant to the formula set forth in W. Va. Code 23-4-6b.

47.11 The Commission will not reimburse for hearing aids when there is no compensable permanent impairment.

§85-20-48. Treatment Guidelines: Psychiatric Claims

48.1. Treatment of mental conditions to injured workers is to be goal directed, time limited, intensive, and limited to conditions caused or aggravated by the industrial condition. Psychiatric services to workers are limited to those provided by psychiatrists and licensed psychologists, and according to department policy. For purposes of this rule, the term "psychiatric" refers to treatment by psychologists as well as psychiatrists.

48.2. Initial evaluation, and subsequent treatment must be authorized by Commission staff. The report of initial evaluation, including test results, and treatment plan are to be sent to the injured worker's attending provider, as well as the Commission. A copy of sixty-day narrative reports to the Commission is also to be sent to the attending provider. In addition, the following are required: Testing results with scores, scales, and profiles; report of raw data sufficient to allow reassessment by a panel or independent medical examiner. Use of the current Diagnostic and Statistical Manual of the American Psychiatric Association axis format in the initial evaluation and sixty-day narrative reports, and explanation of the numerical scales are required.

48.3. A report to the department will contain, at least, the following elements:

a. Subjective complaints;

b. Objective observations;

c. Assessment of the worker's condition and goals accomplished; and

d. Plan of care.

Failure to provide the required narrative reports as required under this rule shall result in a waiver of the fee due and owing the provider for that sixty (60) day period.

48.4 This Guideline is in addition to the requirements of Section 12 of this rule.

§85-20-49. Treatment Guidelines: Multi- Disciplinary Pain Management

49.1. ~~Chronic pain is one of the most common conditions in Western Society. Chronic pain is also a costly condition for society due to health care expenditures and indirect costs associated with disability compensation and loss of productivity. It is now well accepted that chronic~~ Chronic pain and treatment therefore, including multidisciplinary interventions, is only compensable if specifically diagnosed as caused by an injury received in the course of and resulting from employment. ~~is a complex problem that involves physical, emotional and behavioral components. Given this complexity, multidisciplinary interventions have been advocated to address all the features that comprise the pain experience.~~

~~49.2. Multidisciplinary treatment for chronic pain and related disability has been more rigorously examined than most other treatments used with chronic pain. More data are available for the effectiveness of multidisciplinary treatment than for any surgical procedures or conventional medical treatments for chronic pain. The comparisons also suggest that multidisciplinary treatments result in greater clinical effectiveness and cost savings than alternatives. Additionally, there is strong evidence for the importance of the~~

~~behavioral/psychological component of treatment in making meaningful changes in pain intensity, functional status and emotional distress.~~

~~49.3 Multidisciplinary Pain and Occupational Rehabilitation is not for everyone. It is for a "selected" patient population. Promising predictors of treatment outcome have been identified. Additionally, assessment of psychosocial "risk factors" for chronic disability done shortly after injury can lead to more effective management by identifying which patients are likely to benefit from multidisciplinary treatment.~~

COMMENT: Unlike the rest of this Rule that is objective and regulatory in tone, this section is editorial and lacks an objective factual and medical basis. Statements such as "chronic pain is one of the most common conditions in Western Society" has no place in these regulations.

~~49.4~~ 49.2. Chronic Pain Syndrome: ~~CPS~~ Chronic Pain Syndrome patients are defined by the following criteria: a) Reports of persistent (i.e., at least four months duration) pain, which may be consistent with or significantly out of proportion to physical findings; b). Demonstrates or has demonstrated a progressive deterioration in ability to function at home, socially and at work; c) Shows or has shown a progressive increase in health care utilization (such as repeated physical evaluations, diagnostic tests, requests for pain medications and]or invasive medical procedures); d) Demonstrates mood disturbance; and e) May exhibit clinically significant anger, frustration and/or hostility.

~~49.5~~ 49.3 If an injured worker is diagnosed with Chronic Pain Syndrome directly related to a compensable injury, any authorized pain management program shall contain the following objectives and guidelines.~~Program Guidelines:~~

~~49.5.1 Program Goal: To address behavioral barriers, which inhibit return to work while increasing physical function in a protocol-based rehabilitation program.~~

~~49.5.2 Program Objectives:~~

~~49.5.2.a~~49.3.a. To successfully return the patient to pre-injury work. If this goal is not realistically obtainable, then the goal is to have the patient demonstrate specific alternative work capabilities.

~~49.5.2.b~~49.3.b. To develop work-related skills with work simulation activities.

~~49.5.2.c~~49.3.c. To develop strength, endurance, movement, flexibility and motor control related to performance of specific vocational and avocational goals.

~~49.5.2.d~~49.3.d. To identify and improve management of psychosocial barriers to facilitate return to work.

~~49.5.2.e~~49.3.e. To demonstrate increased responsibility for ~~their~~ the condition through the use of self-management techniques related to pain and associated psychological symptoms. This should be done with minimal ongoing medical intervention (decrease dependence on health care system).

~~49.5.2.f~~49.3.f. To demonstrate understanding safe job performance, injury prevention and physical and psychosocial threats to relapse.

~~49.5.3. Program Direction:~~

~~49.5.3.a. Responsibility should be assigned for program direction and for medical direction. The same individual may be responsible for both functions. Program direction need not be provided by a physician. Program Director may be an Allied Health Professional with an advanced degree and state licensure appropriate to degree. Program Director must have at least one year's experience in interdisciplinary rehabilitation and participate in annual continuing education in this field. The participating physician must be board certified or eligible with annual continuing education in this field.~~

~~49.5.4 Admission Criteria~~

~~49.5.4.a~~49.4.1. For an injured worker to be authorized to participate in a pain management program, the claimant must prove:~~indicators For Admission: 1)~~ ~~at~~ At least three months of ongoing pain-related temporary total disability or inability to safely return to work; 2) The need for such a program must be related to the compensable injury and subsequent consequences.; ~~3)t he~~ 3) The patient should be able to express a vocational goal whether related to return to work or retraining for return to work; and 4) Presence of psychosocial barriers to rehabilitation (such as depression, anxiety, fear/avoidance behaviors, poor coping/adaptation skills, anger).

~~49.5.4.b~~ 49.4.2. ~~Contra indicators To Admission~~ Pain management program shall not be authorized if any of the following factors exist: 1) Presence of concurrent noncompensable health or mental health condition that would prohibit full understanding and participation in the program; 2) Medical instability that may warrant continued medical intervention (such as surgery, etc.); ~~or~~ 3) Presence of a substance addiction/dependence that prohibits safe and effective participation in the program; or 4) A failure to fully cooperate with the program. ~~Such patients would require successful~~

~~completion of a drug rehabilitation program prior to consideration (see Chronic Opioid Guidelines).~~

~~49.5.5 Scope of Service/Program Organization: CPS patients are best treated in an integrated interdisciplinary program. The program needs to maximize continuity of care by employing a coordinated group of health care professionals (i.e., physicians, psychologists, physical and occupational therapists, vocational evaluators, counselors and specialty consultants) who evaluate and treat the patient as a team.~~

~~49.5.5.a. Evaluation: The treatment plan is developed through an interdisciplinary evaluation with a recommendation for either admission into the occupational rehabilitation program (ORP) or appropriate alternative treatment. The evaluation should consist of the following: 1) Review of records; 2) Quantitative evaluation by physical therapist to determine current level of functioning and anticipated outcome; 3) Psychological evaluation by licensed psychologist to identify behavioral barriers to return to work and to determine need for psychological intervention, if necessary; and 4) Medical evaluation by a licensed physician to identify any medical barriers to participation and to clear patient for physical restoration activity.~~

~~49.5.5.b~~ 49.5.~~Treatment:~~ Individual pain management treatment plans will address the following prior to approval by the Commission:

~~1)~~ *Frequency and Intensity of the program*: The frequency, intensity and duration of the program should be sufficient to demonstrate improvement in the following areas: work capabilities, strength, stamina and psychosocial barriers to improved functioning. ~~(may include fear avoidance, depression, anxiety, coping strategies, anger...)~~ In order to achieve these goals through an interdisciplinary approach and simulate a typical work day, this treatment requires a minimum of five (5) and a maximum of eight (8) hours per day, five (5) days per week. Daily attendance is therefore imperative and integrated into the goals of the program ~~(see section 7)~~. Effective outcome from interdisciplinary treatment is usually accomplished within a maximum of 20 treatment days. Thus, this 20 treatment-day upper limit for intervention with ~~CPS~~ chronic pain syndrome patients is recommended;

~~2)~~ 49.6 *Extensions To Treatment*: Occasionally, there may be justifications for extended treatment beyond the 20-day program. Any such extension needs to be documented, time-

limited and monitored on a case-by-case basis. The following should apply to potential extension situations: 1) The patient has clearly shown significant and objectively documented progress within the initial 20-day treatment protocol; 2) Further functional gains that increase the patient's likelihood to return to work are likely within the extension period; 3) Extension periods should be time limited and should not exceed 10 treatment days.

~~49.5.5.c. Treatment Team Members:~~

~~49.5.5.c.1. Services should be provided by a coordinated interdisciplinary team that includes a core team of individuals who are specifically assigned to the program. The following disciplines, and others as may be designated by the program director, shall constitute the core treatment team: participating physician, clinical psychologist and physical therapist.~~

~~49.5.5.c.2. Dependent on the needs of the patient, the following practitioners may also be involved: case manager (internal or external), psychiatrist, nurse, occupational therapist, vocational specialist.~~

~~49.5.5.d~~ 49.7 ~~Services Provided: Services~~ Pain management services shall include, but not be limited to:

1) Medical assessment by a physician; ~~2) Weekly staff meetings that include the core treatment team (or their assigned representatives).;~~ ~~3~~ 2) Ongoing reappraisal of each participant's clinical and functional work status; ~~4~~ 3) Performance of appropriate medical diagnostic and treatment procedures; ~~5~~ 4) Providing information needed to assist participant to return to work; ~~6~~ 5) The practice, modification and instruction of component work tasks through real or simulated work; ~~7~~ 6) The development of strength and endurance of the participant related to the performance of work tasks; ~~8~~ 7) education to teach safe job performance and prevent re-injury; ~~9~~ 8) Promotion of self management strategies; and ~~10~~ 9) The development of attitudes and behaviors that will improve the ability of the participant to return to work or benefit from other rehabilitation.

~~49.5.5.e. Space: Services consistent with the needs of the program shall be provided in settings as follows: 1) A physical therapy setting that allows for conditioning and strength training. An area that supports a work related treatment environment, which would include work simulation activities, is also needed; 2)~~

~~Classroom and conference space is required for individual counseling and educational sessions.; and 3)The program may be provided as a private or group practice, hospital based program or freestanding program. All services provided should ideally be performed at a single campus setting. Services should not be performed at more than two locations within a given treatment day.~~

~~49.5.5.f. Documentation:~~

~~49.5.5.f.1.~~ 49.8.a. Whenever possible, pain management programs shall offer outpatient rather than inpatient services and clear and convincing documentation proving that outpatient treatment is inappropriate in a particular claim is required before inpatient treatment can be authorized. a. Documentation of interdisciplinary evaluation prior to admission shall include: a) A quantitative report by a licensed physical therapist that documents current level of functioning and anticipated outcome; b) A psychological report by a licensed psychologist that documents behavioral and/or emotional barriers to return to work and identifies the need for psychological intervention (if necessary); c) Medical report that documents any barriers to participation in the program and gives medical clearance for the patients participation in physical restoration activity; and e) Post-evaluation summary report that documents specific treatment recommendations.

~~49.5.5.f.2~~ 49.8.b. Treatment documentation should include at a minimum: a) Daily progress notes; b) Weekly Staffing Summaries which document progress toward goals, current functional status, and newly identified barriers to participation; and c) Discharge Summary which documents progress achieved in functional, work-related goals, work Capability at discharge, progress in addressing psychological barriers to improved function, medical status, and recommendations

~~49.5.5.g~~49.9 Discharge Criteria: Discharge of a participant from an interdisciplinary rehabilitation program shall be based upon the following: 1) Goals of the program have been achieved; 2) The ~~patient~~ injured worker has failed to fully participate and/or comply with program requirements; 3) The physician of record has discontinued the program for the participant; 4) A ~~situation~~

condition has arisen directly related to the compensable injury requiring further medical or other health care intervention, not present at initiation of the program.; 5) Prior to completion of the program, it is determined by the service provider or attending physician that the client will be unable to accomplish the goals of the program. This determination can be based upon a combination of objective and subjective criteria; and 6) The participant has excessive absences.

COMMENT: We have proposed substantial changes to this section, as treatment for, and even the existence of, chronic pain syndrome is a slippery slope, fraught with the potential for abuse. We strongly recommend further study before this section is included in this rule. If included, we recommend our proposed changes to simplify and clarify the treatment objectives and guidelines.

§85-20-50. Treatment Guidelines: Interventional Management of Chronic Pain

Definitions

As used in this exempt legislative rule, the following terms have the stated meanings unless the context of a specific use clearly indicates another meaning is intended.

50.1 "Acute pain" means pain experienced as the result of injury, disease, or operative procedure. Treatment usually consists of medications, surgical repair, and/or physical medicine therapies. Care may be provided in the office, clinic, or hospital setting.

50.2 "Bier block" means the instillation of medication into the venous system of a limb for anesthetic or therapeutic purposes; venous circulation is occluded with a tourniquet to retain medication in the veins of the limb.

50.3. "Chronic pain" means pain lasting more than ~~t here~~ three months. The cause of the pain is often unknown and may not be linked to an actual physiological event. Chronic pain complaints are usually accompanied by other psychophysiological disorders such as depression, weight gain or loss, sleep disorder and digestive disorder. A nurse case manager must coordinate care for claimants experiencing chronic pain, including intervention by a pain management specialist early in the treatment process and involvement of an interdisciplinary group after six (6) months.

50.4 "Interdisciplinary" means including representation from two or more health care fields.

50.5 "Medical Services Unit" or "Office of Medical Services" means a group of Commission personnel designated to deal with health care issues; such personnel may be supplemented with health care personnel providing services on a contract or other basis.

50.6 "Nerve block" means injection of a local anesthetic medication in proximity to a nerve or nerve plexus to block nerve transmission.

50.7 "Nurse Case Manager" means a duly licensed registered professional nurse authorized by the Commission to coordinate health care and rehabilitative services for injured workers.

50.8 "Pain" refers to a complex unpleasant sensory and emotional experience associated with actual or potential tissue damage or which may just be a subjective experience described in terms of such damage.

50.9 "Pain management specialist" means a licensed physician with specialized training and experience in the diagnosis and/or treatment of chronic pain.

50.10 "Steady dose" refers to the amount and frequency of pain relief medication that is required to maintain optimum pain relief, once the dosage of such medication has become fixed or nearly fixed in amount and frequency.

50.11 "Trigger point injection" means placement of a needle into a myofascial space with or without injection of medication.

General

~~50.12~~ ~~All practitioners who treat chronic pain need to address goals in three major life areas: physical; social; and psychological.~~

~~50.12.1 Physical goals include: analgesia, early mobility, functional restoration and increased exercise tolerance, strength and range of motion.~~

~~50.12.2 Social goals include: a positive expectation for recovery from family and support systems; avoiding identification with disabled family prototypes; resistance to the negative reinforcement from interested other parties; and recognition of the deleterious effects of the disability lifestyle.~~

~~50.12.3 Psychological goals include: dealing with grief and loss over altered function and coping with chronic distress and a changed lifestyle; maintaining a positive attitude toward recovery; focusing motivation; appreciating primary, secondary and tertiary gains; and obtaining diagnosis and treatment for any psychiatric diagnosis.~~

COMMENT: A claimant's social goals and such lifestyle issues as tertiary gains are not work-related nor appropriate compensable care.

~~50.13~~ 50.12. Emergency conditions such as Complex Regional Pain Syndrome (Reflex Sympathetic Dystrophy) may require immediate consultation with a pain specialist and initiation of treatment without delay.

50.14. In contusion and sprain/strain cases, and in non-surgical disk cases, claimants who are being considered for injections for the treatment of chronic pain, but who have not had a trial of physical medicine, including exercise and/or manipulation, will be required to be evaluated by a physical medicine practitioner or other independent medical evaluator. The physical medicine practitioner or other evaluator will determine whether a 30-day regimen of

physical medicine in conjunction with initiation of chronic pain therapy ~~might~~ is likely to provide full or partial relief prior to initiating a series of injections.

COMMENT: Self-insured employers should be permitted to utilize more qualified evaluators or case managers if deemed appropriate.

50.15. When chronic pain patients do not respond to initial specialist-directed efforts, a nurse case manager ~~will~~ may be assigned to coordinate the ~~interdisciplinary~~ pain management effort. The nurse case manager's or other case manager's report will include an assessment as to the benefits of chronic pain management, such as the likelihood that the claimant will be able to return to work. A psychiatric evaluation ~~must~~ be part of the assessment process. Psychiatric conditions must be evaluated and under treatment as indicated before use of long-term narcotics or implantable devices will be authorized by the Workers' Compensation Commission.

50.16 Claimants who have injuries greater than six (6) months old with continued symptoms, and who are not actively being treated for chronic pain may be eligible for an additional (6) months further treatment or management of pain, ~~if procedures not previously offered are now available and may provide full or partial pain relief. Such cases require an assessment by a nurse case manager and an interdisciplinary file review before the claim will be reopened for pain management~~ only if an independent medical evaluator agrees that the recommended treatment, including pain management, is reasonable, necessary, related to the compensable injury, and likely to be successful in substantially reducing the claimant's symptoms.

Injections

The following criteria must be met before the Commission will authorize the use of injections by the pain management specialist for the treatment plan:

50.17 The Claim file must document objective physical signs and subjective symptoms which support the use of the proposed procedure.

50.18 When performing a "series" of injections, there must be documentation of measurable physical, psychological or vocational improvement before performing the next injection. Treatment of low back pain requires that a complete Commission back form be in the injured worker's file.

50.19 Active, not passive, physical medicine and home exercises prescribed after documented demonstration to the prescribing provider are to be a part of any injection or procedure-based treatment plan. A report from the provider must be sent to the physician and a copy to the claims manager after every fourth visit. If physical medicine is not recommended, the physician must explain why it is not going to be used. Pain management shall be terminated if the injured worker fails to fully cooperate with the required exercise program.

50.20 If a surgical spine lesion exists that shows no immediate neurologic danger, cervical epidural steroids may be considered prior to surgery. The surgeon and the pain management specialists should work collaboratively in such cases. If epidural injections fail to

provide relief or if new neurological deficits develop, surgical, evaluation should be scheduled promptly. The treating physician is responsible for referring any suspected surgical lesion promptly to a surgeon.

50.21 The treatments under each of the following categories arc deemed appropriate. The order in which the treatments within each category are listed is not controlling of the treatment plan except as indicated.

Head and Neck Pain

50.22 Peripheral Nerves, including occipital, greater and lesser, auricular, supraorbital, maxillary branch of V, mandibular branch of V, and others.

50.22.1. Six (6) blocks over three (3) months in office, or in ambulatory clinic if fluoroscopy is required;

50.22.2. Neurolysis/ Denervation by cryotherapy, chemical means, radiofrequency, or surgical intervention if good response not substained.

50.23 Facial Pain Sympathetically maintained

50.23.1. Sphenopalatine ganglion block-six (6) blocks over three (3) months;

50.23.2. Stellate ganglion block-six (6) blocks over three (3) months

50.24 Intrathecal Opiods- if all other conservative treatments fail

50.24.1. A trial is required. Refer to specific guidelines.

50.24.2. A second opinion is required before implant.

50.25 Myofascial Pain

50.25.1. Trigger point injections, no more than six (6) points or no more than six (6) occasions in three (3) months. If authorization for trigger point injections are requested more than twice in 1 year or 4 cycles total, the claim ~~will~~ may be assigned a nurse case manager. Authorization is at the discretion of the Health Care Advisory Panel or its subpanel(s) after review of the case and focus on the claimant's work record.

50.25.2. Home exercise and physical medicine is required in combination with trigger point injections.

50.26 Cervical Facet Mediated Pain

50.26.1. No more than 4 injections over six (6) months

50.26.2. Physical medicine is required in combination with injections.

50.26.3. Neurolysis/ Denervation by cryotherapy, chemical means, radiofrequency or surgical intervention if good response to anesthetic injections not sustained.

50.27 Cervical Radiculopathy

50.27.1. Cervical epidural steroids, no more than four (4) injections in a sic (6) month period, if surgery in accordance with the appropriate Workers' Compensation treatment guideline is not a medically viable option or if surgery has been attempted and failed to provide relief;

50.27.2. Cervical epidural infusion

50.27.3. If physical medicine alone fails in 30 days, suprascapular nerve block should be considered.

50.27.4. Spinal cord stimulation if other treatments fail. See specific guidelines.

Shoulder And Upper Extremity

50.28. Adhesive Capsulitis

50.28.1. Physical medicine alone should be used initially;

50.28.2 If physical medicine alone fails, distention by injection or a local nerve block may be performed combined with a follow-up exercise program.

50.29 Subdeltoid Bursitis, Olecranon Bursitis- No more than three (3) injections over six (6) months.

50.30 Epicondvitis_ No more than three (3) injections over six (6) months.

50.31 Myofascial Pain

50.31.1 Trigger point injections, no more than six (6) points or no more than six (6) occasions in three (3) months;

50.31.2 If trigger point injections need to be repeated more than twice in (one) 1 year or for more than four (4) cycles total, a nurse case manager will be assigned to the claim. Authorization is at the discretion of the Commission.

50.31.3 Home exercise and physical medicine is required in combination with trigger point injections.

50.32 Phantom pain or stump pain

50.32.1 Stellate ganglion block, up to six (6) times over a three (3) month period;

50.32.2 Cervical epidural catheter with infusion, for not more than four (4) weeks;

50.32.3 Spinal cord stimulation per specific guidelines if the above therapies fail.

50.33 Complex regional pain syndrome (reflex sympathetic dystrophy)

50.33.1 Referral to specialist made immediately upon diagnosis;

50.33.2 Cervical epidural infusion in conjunction with a program of physical medicine therapy no more than four (4) weeks duration;

50.33.3 Spinal cord stimulation in accordance with specific guidelines;

50.33.4 Stellate ganglion block, up to twelve (12) times during a three (3) month period;

50.33.5 Bier block, up to six (6) times over a three (3) month period.

50.34 Peripheral nerve injury

50.34.1 Nerve block, up to six (6) times over a three (3) month period;

50.34.2 Bier blocks up to six (6) times over a three (3) month period;

50.34.3 Cervical epidural infusion with physical medicine therapy of no more than four (4) weeks duration;

50.34.4 Spinal cord stimulation in accordance with specific guidelines.

50.35 Carnal Tunnel Syndrome

50.35.1 Nerve block up to six (6) times over a three (3) month period, if surgery in accordance with Commission treatment guideline is not a medically viable option or if surgery has been attempted and failed to provide relief.

50.36 Other Causes of Extremity Pain

50.36.1 Treatment on a case by case basis, subject to review by the Commission. Thoracic and Chest Wall Pain

Thoracic and Chest Wall Pain

50.37 Thoracic Disc Syndrome

50.37.1. Thoracic epidural steroids injection, up to four (4) times over six (6) months, if surgery is not a medically viable

option, in the sole discretion of the Commission, or if surgery has been attempted and failed to provide relief.

50.37.2. Thoracic epidural infusion, accompanied by physical medicine if epidural steroids fail.

50.38 Intercostal Neuralgia

50.38.1. Intercostal nerve block with local steroids, up to four (4) times over six (6) months;

50.38.2. Thoracic epidural steroids, up to four (4) times over six (6) months;

50.38.3. Neurolytic intercostal injection if good but nonsustained improvement with steroid injections;

50.38.4. Spinal cord stimulation as per specific guidelines.

50.39 Costochondritis

50.39.1. Injection of joint, up to four (4) times over six (6) months;

50.39.2. Concurrent treatment by physical medicine is required.

Abdominal Pain

50.40 Traumatic pancreatitis

50.40.1. Celiac plexus blocks, up to six (6) times over six (6) months;

50.40.2. Neurolytic celiac plexus blocks if a good but unsustained response results from celiac plexus blocks with local anesthetic;

50.40.3. Intrathecal opiods. See specific guidelines.

50.41 Post Hernia Nerve Entrapment-Injection of involved nerve, up to six (6) times over three (3) month period

50.42 Peripheral nerve involvement

50.42.1. Injection of ilioinguinal, genitofemoral, iliohypogastric, or other peripheral nerves, up to six (6) times over (3) months

50.42.2. Spinal cord stimulation in accordance with specific guidelines.

50.43 Pelvic/ Rectal/ Penile/Vulvar pain

50.43.1. Superior hypogastric plexus block, up to four (4) times over a three (3) month period;

50.43.2. Intrathecal opiods — see specific guidelines

50.43.3. Peripheral nerve block as approved by the Commission.

Low back-Lumbar pain

50.44 Lumbar Facet Joint Syndrome

50.44.1. Injections of facets, up to four (4) times over a six (6) month period, with physical medicine or home exercise. If this needs to be repeated more than twice in a one (1) year or for more than four (4) cycles total, a nurse case manager will be assigned to the claim. Authorization for continued treatment is at the discretion of the Commission.

50.44.2. Neurolysis/Denervation by cryotherapy, chemical means, radiofrequency, or surgical intervention if complete pain relief following injections is not sustained.

50.45 Sacroilitis

50.45.1. Injection of joint with a local anesthetic and steroid, up to four (4) times over a six (6) month period.

50.46 Piriformis Syndrome

50.46.1. Injection of muscle with a local anesthetic and/or steroid, in conjunction with physical medicine. No more than four (4) injections over a six (6) month period.

50.47 Post Laminectomy Syndrome/ Adhesive Arachnoiditis/Spinal Stenosis/Failed Fusion/Intractable Radiculopathy/Coccydynia.

50.47.1. Lumbar or caudal epidural steroids, up to four (4) injections over six (6) months.

50.47.2. Spinal cord stimulation as per Commission guidelines;

50.47.3. Intrathecal opiods as per Commission guidelines;

50.47.4. Trigger point injections, no more than six (6) points or no more than six (6) occasions in three (3) months.

50.48 Myofacial pain

50.48.1. Trigger points no more than six (6) points or no more than six (6) occasions in three (3) months.

Lower Extremity

50.49 Lumbar radiculopathy

50.49.1. Lumbar epidural steroids, up to 4 injections over a 6 month period, in conjunction with physical medicine, if surgery in the opinion of the Commission is not a medically viable option or if surgery has been attempted and failed to

provide relief. If this needs to be repeated more than twice in 1 year or 4 ~~cylces~~ cycles, a nurse case manager ~~will~~ may be assigned to the claim. Authorization for continued treatment is at the sole discretion of the Commission.

50.49.2. Documented interval improvement.

50.49.3. Spinal cord stimulation as approved by the Commission.

50.50 Complex Regional Pain Syndrome (Reflex Sympathetic Dystrophy)

50.50.1. Referral to specialist immediately upon diagnosis.

50.50.2. Lumbar sympathetic plexus block, up to 12 times over a 3 month period;

50.50.3. Lumbar epidural infusion with analgesic agents, in conjunction with physical medicine, for up to 4 weeks;

50.50.4. Bier block, up to 6 injections over a 3 month period;

50.50.5 Spinal cord stimulation as approved by the Commission.

50.51 Phantom Limb Pain/Stump Pain

50.5 1.1. Lumbar sympathetic plexus block, up to 6 injections over a 3 month period.

50.51.2. Lumbar epidural infusion with analgesic agents, in conjunction with physical medicine therapy, for up to 4 weeks

50.51.3. Spinal cord stimulation as approved by the Commission.

50.52 Peripheral Nerve Injury, including saphenouse, femoral or sciatic nerves

50.52.1. Nerve block, up to 6 injections over a 3 month period;

50.52.2. Bier block, up to 6 injections over a 3 month period;

50.52.3. Lumbar epidural infusion with analgesic agents, in conjunction with physical medicine, for up to 4 weeks;

50.52.4. Spinal cord stimulation as approved by the Commission.

50.53 Greater Trochanteric Bursitis

50.53.1. Up to 3 injections with a local anesthetic and a steroid over as month period.

50.54 Meralgia Paraesthetica

50.54.1. Injection of lateral femoral cutaneous nerve with a local anesthetic agent, up to 6 injections over a 3 month period.

50.55 Myofascial Pain

50.55.1. Trigger point injections, no more than 6 points or no more than 6 occasions in 3 months.

50.56 Other Causes Of Extremity Pain

50.56.1. Treatment will be authorized by the Commission, in it's sole discretion, on a case by case basis.

Cancer Pain

Injury related causality must be established prior to authorization for pain management. A nurse case manager ~~will~~ may be assigned to claims involving treatment of cancer pain. Unlike treatment for other types of pain, intrathecal opioids for treatment of cancer pain will not require psychiatric evaluation or a second opinion.

50.57 Long-Term Opiod Use: the use of long-term oral, rectal, or transdermal opioid therapy in the non-malignant injured worker is complex and should only be considered in selected injured workers, including, but not limited to, injured workers with diagnoses of failed back surgery syndrome, Complex Regional Pain Syndrome (Reflex Sympathetic Dystrophy), inoperable spinal lesions and spinal stenosis, or plexopathies. Other ~~diagnosis~~ diagnoses will be considered by a case by case basis, but only as a treatment option of last resort. The following factors are to be addressed in writing in any report recommending the use of long-term opioid therapy:

50.57.1. If low dose opioid therapy has not provided at least partial analgesia, then long- term opioid therapy is not an option.

50.57.2. The goal of long-term opioid therapy is not complete analgesia. The efficacy of long term opioid therapy is measured by improvement in the injured worker's social and physical function.

50.57.3. This therapy should be considered only after all other reasonable attempts at analgesia have failed. Opioid therapy should never be a first line treatment.

50.57.4. A history of substance abuse in the injured worker or his or her family (alcohol or other drugs), even if remote, should be regarded as a relative contraindication~~, i~~ If a history of substance abuse is obtained and the choice to long-term, opioid therapy is made despite such history, an appropriate consultation and plan to prevent relapse must be in place before prescribing of opioids.

50.57.5. Pregnant injured workers are not candidates for long-term opioid therapy. Female injured workers of child-bearing age are to be advised of the risks to a fetus should pregnancy occur during opioid therapy.

50.58 If the decision is made to initiate long-term opioid therapy, the following must be part of the program:

50.58.1 Psychiatric – A psychiatric evaluation of the injured worker for psychiatric disorders and potential for substance abuse must precede the decision to carry out long-term opioid therapy, and a copy of the evaluation must be submitted with the request to initiate opioid therapy.

50.58.2 A written contract between the injured worker and the pain management specialist must be established at the onset of the long-term drug therapy. The injured worker must agree that (1) a single practitioner will be responsible for prescribing all medication for pain control; (2) the injured worker will not obtain prescriptions from providers other than the pain management specialist; (3) after an initial six month period of initial dose titration, only one dose escalation per three month period will, be allowed; and (4) the injured worker will not consume alcohol or other medications except as approved by the pain management specialist. Any violation discovered requires immediate drug tapering and discontinuation of opiod maintenance therapy.

50.58.3 Initial long-term opioid therapy must be prescribed by a pain management specialist; once therapy has reached the "steady dose" level, the attending physician may resume medical management;

50.58.4 The injured worker will be monitored by a nurse ease manager during the period when a "steady dose" is being established; the pain management specialist or the attending physician must reevaluate the injured worker every 60-90 days after the "steady dose" has been reached.

50.583 Injured workers must give informed consent before long-term opioid therapy is initiated; consent must include recognition of the risks of psychological dependence, cognitive impairment and long-term physical side-effects.

50.58.6 In order for long-term opioid therapy to continue, there must be documentation of improvement in the social and physical functions, as assessed and documented through home visits by a nurse case manager, written documentation must be provided to the attending physician and pain management specialist. Specific assessment tools must be used such as interview of significant others, pain drawing comparisons, quality of life and social functioning checklist comparisons.

50.58.7 Reassessment by a pain management specialist selected by the Commission will be done annually for injured workers maintained on opioids.

50.58.8 Every ~~3 years~~ year, ~~a multidisciplinary team at~~ the Commission, ~~or designated by the Commission,~~ must review the treatment plant to determine the appropriateness of care. The Commission ~~or designated team~~ may call for more frequent review if the use of narcotic medication increases. Long term opiod use shall be authorized for no longer than three years after a compensable injury.

50.58.9 Evidence of acquisition of opioids from other physicians or persons, uncontrolled increases in ~~does~~ dose requirements, drug hoarding, abuse of alcohol or other drugs, conviction of a crime

related to drug possession or trafficking, or other behaviors in violation of the narcotic contract should be followed by immediate drug tapering and discontinuation of opioid maintenance therapy.

50.59 Implantable Devices: Use of intrathecal pumps and spinal cord stimulators will only be authorized when other treatments of extremity, back or neck pain, such as pharmacological, physical, or psychological therapy, have failed.

50.59.1 The procedure is undertaken only after physical and psychiatric screening. A psychiatric clearance will be performed prior to implant, to rule out any untreated psychiatric problems and to enhance the efficacy of the device.

50.59.2 In the absence of a documented physiological problem, authorization for implantable pain control devices is at the discretion of the Commission.

50.59.3 An untreated substance abuse problem prior to implementation of the proposed device will be sufficient reason to deny the request for the implantable device, notwithstanding other physical or psychological criteria.

50.59.4 An implantable device will not be authorized until a second opinion is given by a physician with credentials to inplant similar devices. The second opinion may be based upon a review of the injured worker's file, or by an independent medical evaluation; either evaluation must be documented in writing. The referral of the injured worker or claim file for the second opinion must be arranged through the Office of Medical Services.

50.60 Procedure Guides for Implantable Devices.

50.60.1 Implementation of devices will be authorized only at facilities which meet the following criteria: (1) a physician trained in residency of by the "hands-on" continuing medical training will perform the procedure; (2) all technical support, computers, and ancillary personnel, and a "stand-by" surgical specialist deemed necessary for the specific case must be in place before the procedure begins~~;~~.

50.60.2 The implanting physician will be responsible for all management of the implantable device until such time that another physician credentialled in the management of like devices accepts the injured worker.

50.60.3 The necessary "in-home" support must be authorized by the Commission and scheduled prior to implantation of the ~~devise~~ device.

50.60.4 Both intrathecal pumps and dorsal column stimulators must have a successful trial period before the permanent device is placed. The trial period for the pump will be no less than two days. The trial period for the stimulator will be no less that thee days as an

outpatient. There must be at least a 50% improvement in objective and subjective findings demonstrated prior to permanent implantation.

50.61 Contraindications for Implantable Devices: The following are contraindications for an implantation:

50.61.1 Allergies or hypersensitivity to the drug being used;
50.61.2 Life expectancy of less that three (3) months;
50.61.3 Body size is insufficient to support weight and bulk of the device;
50.61.4 Less than 50% relief is seen with trial stimulation or intrathecal device;
50.61.5 The injured worker does not perceive the trial implantation as pleasant, or side effects are intolerable;
50.61.6 The ~~Injured~~ injured worker has an active coagulopathy;
50.61.7 The injured worker has a localized or disseminated infection;
50.61.8 The injured worker has a demand cardiac pacer or may need one relatively soon (for stimulator only);
50.61.9 The injured worker has an untreated substance abuse problem;
50.61.10 No psychological problem has been identified;
50.61.11. The physician requesting the procedure is not adequately trained or experienced in the procedure;
50.61.12. Appropriate surgical coverage necessary to handle any complications is not available before beginning the procedure~~;~~ .

50.62. Myeloscopy in Chronic Pain Management — Myeloscopy procedures are to be reviewed on a case by case basis by the Office Medical Services before authorization can be considered.

§85-20-51. Treatment Guidelines: Complex Regional Pain Syndrome

51.1. Background: Complex regional pain syndrome (CRPS) is a descriptive term encompassing a variety of painful conditions following injury, which appear regionally and have a distal predominance of abnormal physical examination findings. This painful condition typically follows a traumatic injury or noxious event to an extremity, with a disproportionate response respective to the original insult. Medical conditions including stroke and myocardial infarction may also be precipitating factors. The pain pattern is not limited to the distribution of a single peripheral nerve, and physical findings include edema, alterations in skin blood flow, abnormal sudomotor activity in the region of pain, allodynia or hyperalgesia. Treatment for complex regional pain syndrome is only compensable if directly caused by an injury received in the course of and resulting from employment.

51.2. CRPS Type I (Reflex Sympathetic Dystrophy).

a. Type 1 CRPS is a syndrome that may ~~develops~~ develop after an initiating noxious event.

b. Spontaneous pain or allodynia/hyperalgesia occurs, but is not limited to the territory of a single peripheral nerve and is disproportionate to the inciting event.

c. There is or has been evidence of edema, skin blood flow abnormality, or abnormal sudomotor activity in the region of the pain since the inciting event.

d. The diagnosis is excluded by the existence of conditions that would otherwise account for the degree of pain and dysfunction.

51.3. CRPS Type II (Causalgia).

a. Type II CRPS is a syndrome that develops after a nerve injury. Spontaneous pain or allodynia/hyperalgesia occurs and is not necessarily limited to the territory of the injured nerve.

b. There is or has been evidence of edema, skin blood flow abnormality, or abnormal sudomotor activity in the region of the pain since the inciting event.

c. The diagnosis is excluded by the existence of conditions that would otherwise account for the degree of pain and dysfunction.

51.4. Diagnostic Criteria:

a. History of a noxious event or cause of immobilization.

b. Continued pain, allodynia or hyperalgesia out of proportion to the injury.

c. Physical evidence of edema, trophic skin changes, hair loss, alterations in skin blood flow or abnormal sudomotor activity in the region of pain.

d. The diagnosis is excluded by the existence of conditions that otherwise account for the degree of pain and dysfunction.

51.5. Diagnostic Studies.

a. Surface temperature measurements indicating at least I degree Celsius asymmetry between the normal and injured sides. The existence of a skin temperature differential may vary, and repeated measurements are helpful. The injured side may be warmer or cooler.

b. A three-phase radionuclide bone scan may assist in diagnosis. A normal study does not exclude this diagnosis, however.

c. Radiographic studies of the injured extremity may show patchy demineralization in some cases.

51.6. Treatment: Treatment for compensable complex regional pain syndrome type I (reflex sympathetic dystrophy) should be directed at providing pain control in an effort to

promote participation in a directed physical and/or occupational therapy program to restore use and function of the injured extremity. Treatment options include:

a. Pharmacologic Agents.

1. Nonsteroidal anti-inflammatory drugs.

2. Tricyclic antidepressants.

3. Anticonvulsants.

4. Oral opioids.

5. Oral steroids.

b. Physical Modalities.

1. Range of motion exercises (passive, active assisted, active).

2. Weight-bearing exercises.

3. Edema-control garments (stocking or glove).

c. Injection Techniques.

1. Somatic and sympathetic nerve blocks.

d. Surgical Sympathectomy. Surgical sympathectomy is rarely considered effective in resolution of complex regional pain syndromes. These syndromes, including causalgia and reflex sympathetic dystrophy, are related to receptor supersensitivity, and are not caused by over-activity of the sympathetic nervous system. Most patients undergoing a surgical sympathectomy obtain only transient improvement in pain levels, and may suffer serious or disabling complications from the surgery.

51.7. The assistance of a pain management psychologist or psychiatrist may be helpful in providing motivational support, assessing and treating co-existing conditions such as depression, and may aid in the establishment of realistic treatment goals and objectives.

51.8. This condition may be appropriate for treatment in a multidisciplinary program and the estimated duration of care shall not exceed the periods outlined in the Presley Reed Guide referenced in section 63.1 of this Rule.

§85-1-52. Procedure in Occupational ~~Pneumoconosis~~ Pneumoconiosis Cases.

52.1. A properly completed application must he received before the potential claim will be considered by the Commission. A properly completed application must include 1) a completed WC-105 form; 2) a completed WC-205 form; 3) an ILO form properly completed by a certified "B" reader; 4) a valid pulmonary function study complying with the requirements of this Rule demonstrating permanent pulmonary impairment; and 5) a listing of all alleged

exposures to harmful dust, including type of dust, and extent and duration of exposure with each named employer.

52.2. If the employer provides information as part of the application process demonstrating that it has been in compliance with OSHA or MSHA limitations on exposure to the dust alleged by the injured worker, during the periods of exposure alleged by the ~~Injured~~ injured worker, then the Commission shall determine that the dust exposure alleged by the ~~Injured~~ injured worker was not harmful and does not suffice to satisfy the exposure requirement of West Virginia Code Sections 23-4-1(b) and 23-4-15(b).

52.3. Nonmedical hearing.

Upon receipt of a proper application, employer's reports and investigation (if requested by the Commission), the Commission shall determine the nonmedical questions, and shall notify all interested parties of ~~his~~ the decision. A properly completed application must be filed or the application shall be rejected. After the Commission makes or has made a determination, any dissatisfied party may, within thirty (30) days after receipt of written notice of the Commissions decision, file objection thereto in writing, whereupon the Office of Judges will set a time and place for a hearing thereon. These hearings shall be subject to the provisions of the rules promulgated by the Office of Judges (Title 93, Series 1).

Upon completion of the nonmedical hearing, the Office of Judges will enter a final nonmedical ruling and shall notify the injured worker and employer of this decision. The Office of Judge's final nonmedical ruling will be subject to appeal to the Workers' Compensation ~~Appeal~~ Board of Review.

52.4. Occupational pneumoconiosis board hearing.

Subject to and upon the completion of, the protest and/or appellate review of the Commissions initial nonmedical order, the Commission shall refer this claim to the Occupational Pneumoconiosis Board: Provided That, the requirements of West Virginia Code section fifteen-b, article four, chapter twenty-three have been satisfied. In the case of such reference, the Commission will notify the injured worker to appear before the Board for an examination and shall state the date, time, and location thereof. The Commission will notify the employer or employers of the date, time and place of the examination. A quorum of the Board will then proceed to hear and determine all medical questions relating to the claim.

At such hearing the injured worker and each employer must produce as evidence all reports of medical and X ray examinations that may be in their respective possession or control showing the past or present condition of the employee.

52.5. Report of Occupational Pneumoconiosis Board.

Upon completion of the hearing the participating members of the Occupational Pneumoconiosis Board shall prepare a written report to the Commission setting forth their findings and decision, and shall prepare a sufficient number of signed copies of report so that the Commission may file one in his office, send one to the injured worker and one to each employer interested in the claim.

52.6. Objections.

Any interested party who objects, in whole or in part, to the findings and conclusions of the Board may, within the statutory period after the mailing to him of the copy of the report, or within such additional time as may be allowed by the Commission for good cause shown, file with the Commission his written objections, specifying the particular statements of the Board's findings and conclusions to which ~~he~~ the party objects. Upon receipt of such objection, the Commission. shall set a time and place for a hearing thereon and shall notify each interested party and each member of the Board of the time and place of the hearing.

52.7. Hearings on protest.

Hearings held upon protest to the findings of the Occupational Pneumoconiosis Board will be held at the offices of the Commission in Charleston unless the Commission shall otherwise direct. The procedure in protest hearings shall be governed by the provisions of Section 16 of these Rules, except that evidence shall be limited to medical testimony and other competent medical evidence, unless the Board has passed upon non-medical aspects under the Commission's referral. Cross-examination of the Board shall be limited to those members who examined the injured worker. However, if the Commission, or ~~his~~ a duly authorized representative, decides that testimony of other members of the Board is necessary or desirable, ~~he~~ the Commission may permit such testimony at the protest hearing.

52.8. Employer's Request For Medical Examination.

An employer's request for medical examination of the injured worker by a physician of its choice, shall be rejected if filed before the findings of the Occupational Pneumoconiosis Board have been transmitted to the injured worker and the employer. Such requests shall be entertained only when filed subsequent to the transmittal of the Occupational Pneumoconiosis Board findings.

52.9. Standards for medical examination.

a. The following standards specify examination and evaluation criteria to guide the Occupational Pneumoconosis Board in its examination and evaluation of injured workers, and to guide other physicians and medical technicians who conduct examinations and evaluations of injured workers on behalf of such injured workers and their employers. These standards are established for the further purpose of ensuring that uniform procedures are used in administering and interpreting ventilatory function tests and arterial blood gas studies and that the best available medical evidence will be obtained in support of a claim for occupational pneumoconiosis benefits. The physician supervising any such testing and/or the technician administering any such testing will so indicate by signing the reports. Any report of test results submitted to the Occupational Pneumoconosis Board must affirmatively state, as to each of the standards individually, the fact that the particular test or study was performed in compliance with that standard. In the event that any such report fails to affirmatively show compliance with these standards, the Occupational Pneumoconiosis Board may disregard all or any part of such test or study or give such test or study such weight as the Board believes it deserves.

b. When two (2) or more ventilatory function tests performed in reasonably close proximity in time produce differing but acceptable results, the Commission, at the request of the Occupational Pneumoconiosis Board, may direct the parties to furnish additional evidence and/or order additional testing at the laboratory utilized by the Occupational Pneumoconiosis Board or other laboratories, all for the purpose of determining whether any of the results are unreliable or incorrect or are clearly attributable to some identifiable disease or illness other than occupational pneumoconiosis.

c. When blood gas studies are performed and abnormal values are obtained and thereafter new blood gas studies are performed and normal or significantly higher values are further obtained, the Commission, at the request of the Occupational Pneumoconiosis Board, may direct the parties to furnish additional evidence and/or order additional studies at the laboratory utilized by the Occupational Pneumoconiosis Board or other laboratories, all for the purpose of determining whether any of the values are unreliable or incorrect or are clearly attributable to some identifiable disease or illness other than occupational pneumoconiosis.

d. As used herein, the following terms shall have the meanings indicated:

1. FVC -forced vital capacity -- Volume of air that can be forcefully exhaled from the lungs after a maximal inspiration.

2. FEV -forced expiratory volume -- Same as FVC.

3. FEV -forced expiratory volume in one (1) second -- Volume of air that can be exhaled forcefully from the lungs in one (I) second after a maximal inspiration.

4. FEV_3 -forced expiratory volume in three seconds-- Volume of air that can be exhaled forcefully from the lungs in three (3) seconds after a maximal inspiration.

5. FEV_1 FEV -forced expiratory volume (timed) to forced expiratory volume. -- A ratio expressed as a percentage.

6. MVV -maximal voluntary ventilation -- The volume of air that can be exchanged over a unit period of time, usually twelve (12) to fifteen (15) seconds.

7. BTPS -- Body temperature, ambient pressure, saturated with water.

8. Kpm -kilopond meter -- The amount of work required to lift one (1) kilogram one (1) meter.

9. NIOSH -- National Institute for Occupational Safety and Health.

10. BOARD -- West Virginia Occupational Pneumoconiosis Board.

e. Ventilatory function tests.

1. Instruments to be used for the administration of ventilatory function tests should conform to the following criteria:

A. The instrument must be accurate within plus (+) fifty (50) ml or within plus (-+-) three percent (3%) of reading, whichever is greater.

B. The instrument must be capable of measuring vital capacity from zero (0) to seven (7) liters BTPS.

C. The instrument must have a low inertia and offer low resistance to airflow such that the resistance to airflow at twelve (12) liters per second must be less than 1.5 cm H_20/liter/second.

D. The zero time point for the purpose of timing the FEV_1 must be determined by extrapolating the steepest portion of volume-time curve back to the maximal inspiration volume or by aim equivalent method.

E. Instruments incorporating measurements of airflow to determine volume must conform to the same volume accuracy stated in Subdivision ~~20.8(e)(1)(A)~~ 52.9.e.1.A of this regulation when present with flow rates from at least zero (0) to twelve (12) liters per second.

F. The instrument or user of the instrument must correct volumes to body temperature saturated with water vapor (BTPS) under conditions of varying ambient spirometer temperatures and barometric pressures.

G. The instrument used must provide ~~attracing~~ a tracing of either flow versus volume or volume versus time during the entire forced expiration and volume versus time during the MVV Maneuver. Such tracing must be furnished to the Board with the test results. No results will be considered by the Board unless they are accompanied by the corresponding tracings. A tracing is necessary to determine whether the subject has performed the test properly. The tracing must be of sufficient size that hand measurements may be made within the requirement of Subdivision ~~20.8(e)(1)(A)~~ 52.9.e.1.A of this regulation.

H. The instrument must be capable of accumulating volume for a minimum of ten (10) seconds after the onset of exhalation.

I. The forced expiratory volume in one (1) second (FEV_1 measurement must comply with the accuracy requirements stated in Subdivision ~~20.8(e)(1)~~ 52.9.e.1 of these Regulations; that is, the FEV_1 must be accurately measured to within plus (+) fifty (50) ml or within plus (+) three percent (3%) of reading, whichever is greater.

J. The instrument must be capable of being calibrated in the field with respect to the FEV_1. This calibration of the FEV_1 maybe done either directly or indirectly through volume and time base measurements. The volume calibration source must provide a volume displacement of at least three (3) liters and must be accurate to within plus (+) thirty (30) ml.

K. For measuring maximum voluntary ventilation (MVV), the instrument must have a response which is flat within plus (±) ten percent (10%) at flow rates up to twelve (12) liters per second over the volume range. The time for exhaled volume integration

or recording must be no less than twelve (12) seconds and no more than fifteen (15) seconds. The ~~in dicated~~ indicated time must be accurate to within plus (+) three percent (3%). A recording of the spirometer tracing is required, and the volume sensitivity must be such than ten (10) mm or more deflection corresponds to one (I) liter volume.

2. The administration of ventilatory function tests must conform to the following criteria: For ascertainment of the FEV_1 and FVC, a nose clip or alternative should be used. The procedures must be explained in simple terms to the subject who shall be instructed to loosen any tight clothing and sit or stand in front of the apparatus. Although the subject may sit or stand, care should be taken on repeat testing that the same position is used. Particular attention must be given to insure that the subject's chin is slightly elevated with the neck slightly extended. The subject must be instructed to make a full inspiration, either from the spirometer or the open atmosphere, and then blow into the apparatus, without interruption, as hard, fast, and completely as possible.

At least three (3) forced expirations must be carried out. During the maneuvers, the subject must be observed for compliance with instructions. The expirations must be checked visually for reproducibility by examining the flow-volume or volume-time tracings. The effort shall be judged unacceptable and cannot be considered in evaluating pulmonary functional impairment when the subject:

A. Has not reached full inspiration preceding the forced expiration; or

B. Has not used maximal effort during the entire forced expiration; or

C. Has not continued the expiration for at least five (5) seconds or until an obvious plateau in the volume-time curve has occurred; or

D. Has an obstructed mouthpiece or a leak around the mouthpiece (obstruction due to tongue being placed in front of mouthpiece, false teeth failing in front of mouthpiece, etc.); or

E. Has coughed or closed his glottis; or

F. Has an unsatisfactory start of expiration, one characterized by excessive hesitation (or false starts), and therefore did not allow back extrapolation of time zero (0) (extrapolated volume on the volume-time tracing must be less than ten percent (10%) of the FVC); or

G. Has an excessive variability between the three (3) satisfactory curves. The variation between the two (2) largest FEV_1's and/or two (2) largest FVC's of the three (3) satisfactory tracings should not exceed ~~seven~~ five percent (~~7~~ 5%) of the largest FEV_1 or FVC, or one hundred (100) ml, whichever is greater.

~~H~~ 3. Predicted values are derived from Kory's Nomogram.

~~3~~ 4. For ascertainment of the MVV, the subject must be instructed before beginning the test that he or she will be asked to breathe as deeply and as rapidly as possible for

approximately fifteen (I5) seconds. The test may be performed with the subject in either a sitting or standing position. Care shall be taken on repeat testing that the same position is used. The subject should breathe normally into the mouthpiece of the apparatus for ten (10) to fifteen (15) seconds to become accustomed to the system. The subject should then be instructed to breathe as deeply and as rapidly as possible and shall be continually encouraged during the remainder of the maneuver. The subject shall continue the maneuver for twelve (12) seconds. The subject should be allowed to rest between maneuvers, At least three (3) MVV's must be observed to determine if there was compliance with instructions. The effort must be judged unacceptable and cannot be considered in evaluating pulmonary functional impairment when the patient:

A. Has not maintained consistent effort for at least twelve (12) to fifteen (15) seconds; or

B. Has coughed or closed his glottis; or

C. Has an obstructed mouthpiece or a leak around the mouthpiece (obstruction due to tongue being placed in front of mouthpiece, false teeth falling in front of mouthpiece, etc.); or

D. Has an excessive variability between the three (3) satisfactory curves. The variation between the three (3) satisfactory tracings must not exceed ten percent (10%) and should approximate forty (40) times the greatest FEV~~{1 {s~~ $_1$ volume.

~~4.~~ 5. A calibration check must be performed on the instrument each day before use, using a volume source of at least three (3) liters, accurate to within +one percent (1%) of full scale. The room air in the syringe must be introduced into the spirometer once with a flow rate of approximately five tenths (5/10) liters per second (six (6) seconds emptying time with a three (3) liter syringe) and once with a higher flow rate of approximately three (3) liters per second (one (1) second emptying time with a three (3) liter syringe). The volume measured by the spirometer must be between two and nine tenths (2.90) and three and one tenth (3.10) liters for both trials. Accuracy of the time measurement used in determining the ~~FEV1~~ FEV $_1$ must be checked using the manufacturer's stated procedure and must be within +three percent (3%) of actual. The procedure described herein must be performed as well as any other procedures suggested by the manufacturer of the spirometer being used.

~~5~~ 6. The first step in evaluating a spirogram for the ~~FEV~~ FVC and FEV_1 shall be to determine whether or not the subject has performed the test properly or as described in Subdivision ~~20.8.5.(b)(FEV)~~ 52.9.e.2 of this regulation ~~and the forced expiratory volume, Subdivision 20.8.5.(a)(1) of this regulation~~. From the three (3) satisfactory tracings, the forced vital capacity (FVC) and the forced expiratory volume in one (1) second (FEV_1) must be measured and recorded. The largest observed ~~FEV_1~~ values must be used in the analysis, corrected to BTPS.

~~6~~ 7. Only MVV maneuvers which demonstrate consistent effort for at least twelve (12) seconds shall be considered acceptable. The largest accumulated volume for a twelve (12) second period corrected to BTPS and multiplied by five (5) shall be reported as the MVV.

f. Arterial blood gas studies.

1. In order to ensure comparability of data obtained in arterial blood studies, the following guidelines should be observed:

A. The puncture site should be infiltrated with a local anesthetic to minimize pain and arterial spasm.

B. The barrel of the syringe used to draw the blood sample should be wetted with heparin and the excess heparin must be expelled just prior to obtaining the blood sample.

C. The subject should be allowed to rest for fifteen (15) minutes prior to beginning the study.

D. Resting blood samples should be drawn with the subject in the sitting position.

E. On occasions when the subject is unable to be exercised due to physical impairments; La, heart disease, artificial leg, etc., a resting sample of arterial blood may be drawn by direct puncture with a twenty -twenty-five (20-25) gauge needle and a heparinized syringe.

F. Blood samples must be discarded if contaminated by an air bubble.

G. All blood samples should be analyzed immediately (less than ten (10) minutes). If not, the sample should be iced in water. If the analysis is not performed within ten (10) minutes, the metabolic activity of the cells in the blood will cause the $P^{0}2$ to fall and the pCO_2 to rise.

H. If an exercise sample is to be obtained, a plastic catheter must be inserted into the radial or brachial artery for both the resting as well as the exercise sample

I. Exercise must be accomplished by having the subject pedal the bicycle ergometer at a rate of fifty (50) -sixty (60) revolutions per minute against a resistance of seventy-five (75) Watts or four hundred fifty (450) Kilopond Meters (Kpm) per minute for a period of five (5) minutes. A treadmill may be used, and when used, exercise must be done at two (2) mph and ten percent (10%) grade. During the last twenty (20) seconds of the fifth minute of exercise, the exercise sample must be drawn into a heparinized syringe and the pulse and respiration rates noted. If an added level of exercise is performed, this must be done at one hundred twenty (120) Watts on the bicycle, or on the treadmill at two and five tenths (2 5/10) mph and twelve percent (12%) grade. Exercise testing beyond the level set forth herein shall be considered to be measurements of physical conditioning rather than of blood gas transfer abnormalities due to occupational pneumoconiosis. The EKG leads are then removed and the subject allowed to sit on a chair while the catheter is removed. Pressure must be held at the site of arterial cannulation for five (5) minutes, and if there is no bleeding or hematoma present, a compression bandage must be placed on the radial artery. This bandage must be left in place for four (4) hours. After about fifteen (15) minutes of observation, the subject will be allowed to leave. The arterial blood sample should be drawn while exercise continues, not following cessation of exercise,

J. EKG monitoring with a single lead should take place during exercise to determine the heart rate. It should be noted that this is not an EKG Stress Test.

K. The report should indicate the place, date and time of the study, altitude of the testing site and barometric pressure at the testing site on the day of the testing, name and claim number of the subject, name of any assisting personnel, name and signature of the supervising physician, duration and type of exercise (if performed), pulse rate at the time the blood sample was drawn, and whether analysis equipment was calibrated before each test.

2. It is recognized that arterial blood gas studies done in laboratories throughout this state are obtained at different altitudes. Only by 'Standardizing' for altitude can an equitable assessment be made of impairment when values of arterial oxygen are being measured at remarkably different altitudes. Therefore, the results reported from laboratories should include the name of the laboratory and the date and time of the testing, altitude of the laboratory and barometric pressure at the laboratory on the day the samples were collected. The Occupational Pneumoconiosis Board will evaluate the arterial blood gas values by converting those values to the average altitude of Charleston, West Virginia. For this purpose, it shall be sufficient to add one (1) mmHg to each arterial oxygen tension for each three hundred (300) feet or fraction thereof that the testing laboratory is located above the average altitude of Charleston, because the relationship of barometric pressure (altitude) and alveolar oxygen is approximately linear up to four thousand (4,000) feet as long as the subject breathes room air.

As an example, Bluefield is located approximately two thousand six hundred (2,600) feet above sea level. Charleston is approximately six hundred (600) feet above sea level. Thus, arterial oxygen values obtained in Bluefield should have 6.67 mmHg added to them before applying the table to them to obtain "percent impairment". The calculations are as follows:

"Bluefield (2,600) minus Charleston (600') equals 2,000' differential

2,000' divided by 300' altitude equals 6.67

6.67 multiplied by 1 mmHg per 300' altitude equals 6.67 mmHg

g. See the attached Table 85-20A, "Impairment of Pulmonary Function."

52.10 Treatment Issues

The following services may be provided without prior authorization if carried out under the standards referenced and if the service is documented as to its medical necessity.

1. **MEDICAL VISITS**: Office visits will be considered for payment according to the following schedule based on the FEV_1/FVC ratio or upon percent of disability award (where there is a conflict, FEV_1 will be the controlling factor):

FEV_1/FVC[1]	WCF % OP	LEVEL OF	

[1] Based on Actual Results rather than Nomograms.

	AWARD	IMPAIRMENT	MEDICAL VISITS
70-74%	10-15%	I	One intermediate visit per year.
61-69%	20-30%	II	One comprehensive or extended visit per year for medically necessary pulmonary follow-up care.
60% or less	40%>	III	One comprehensive or extended visit per year. Up to four limited visits per year for medically necessary pulmonary follow-up care.

2. **TESTING**: The testing referenced below will only be considered for payment when the medical necessity is documented by the treating physician. Equivalent testing performed in conjunction with the claimant's examination by the OP board shall he considered toward satisfaction of the limits herein referenced. This testing, with the exception of chest X-rays, is not applicable to claimants with Zero Level of Impairment.

a) Spirometry: Annually in conjunction with a comprehensive, extended or intermediate office visit. This testing must be performed in compliance with the standards outlined in the Commission rules and regulations.

b) Single Breath Diffusion Study: Once for all eligible claimants. Repeat every two years if less than 60% of predicted. Repeat every four years if 60% of predicted or greater.

c) Chest X-Ray: Normal — every four years maximum. Positive reading for OP —every two years maximum.

d) Blood Tests: Theophylline level annually for claimants taking theophylline medication. Additional theophylline testing will be considered when necessary to monitor and stabilize the blood levels during the first year of ingestion. Complete blood count and Chemistry — 12 every four years for claimants in Level II. Complete blood count and Chemistry — 12 annually for claimants in Level III.

This testing is not authorized for claimants in Levels 0 and I.

3. **MEDICATIONS**: The following will be considered for payment prescribed for an acute or chronic condition or problem caused or exacerbated by OP and when such has been documented by the treating physician.

- **All above 15% PPD—**

a) Bronchodilators for claimants with a 15% or greater improvement in FEV1 or FVC on a current post bronchodilator study.

b) Other medications on the Medicaid formulary including antibiotics., steroids and diuretics when required for treatment of pulmonary conditions related to OP for up to 14 days of treatment. Longer treatment may be authorized but will require prior authorization based upon a statement of medical necessity from the treating physician and appropriate prescribing practices.

c) Expectorants or mucolytics will, not be approved.

d) Pneumococcal vaccine once and annual flu vaccine for all eligible claimants where the physician certifies that the vaccine is consistent with national guidelines of immunization practices regarding health status and age of the patient.

e) Cardiac medications may be authorized when the cardiac problem is a complication of the pneumoconiosis. Authorization will not be granted for treatment of cardiac conditions unrelated to occupational pneumoconiosis, nor for cardiomyopathy, coronary heart disease or coronary bypass surgery.

4. PULMONARY REHABILITATION: Pulmonary rehabilitation services are authorized according to the following schedule when such services are provided by a certified pulmonary rehabilitation center approved by the U. S. Department of Labor and provided in accordance with the guidelines of the WV Department of Health.

LEVEL OF IMPAIRMENT	WCF% AWARD	FEV_1/FVC*	AUTHORIZED TREATMENT
A	5%	75% or greater	None
B	10-15%	70-74%	One hour of education focusing on the nature of pulmonary disease and prevention of progression.
C	20-40%	56-69%	Additional four hours of education and training focusing on techniques and dealing with shortness of breath and pulmonary distress management. (5 hours total) Two hours of follow-up education and training one ear later.
D	40%>	55% or less	Additional two hours of education training focusing on individualized treatment of severe pulmonary impairment. (7 hours total) Two hours of follow-up education and

			training one year later.
Homebound claimants (as result of pulmonary impairment)			Seven hours of education and training by home visitation. Two hours of follow-up education and training each subsequent year.

Pulmonary rehabilitation programs coverage includes: Prevention of disease progression, smoking, nutrition, hygiene, anatomy, recognition of symptoms, cessation, physical conditional, weight control, breathing techniques, drug evaluation, stress reduction and follow-up.

Pulmonary rehabilitation services must be provided by a registered nurse, licensed practical nurse or respiratory therapist.

The following services require prior authorization and the request for such authorization must be accompanied by a statement of, medical necessity from the treating physician.

1. Arterial Blood Gas (Or Oximetry):

a) Administration of arterial blood gases or oximetry shall be restricted to situations where it is necessary to evaluate the need for chronic oxygen therapy consistent with American Thoracic Society Guidelines.

b) Prior authorization is also required to repeat blood gases and is contingent upon the treating physician providing documentation that the claimant's initial study showed a $P0_2$ over 80 or ~~02~~ 0_2 saturation over 95%. The $P0_2$ levels listed below will be the determining factor in how frequently the repeat test will be considered for authorization.

$P0_2$ less than 55 or 0_2 less than 90% saturation — repeat no more than annually.
$P0_2$ 55 to 80 or 0_2 saturation 90 to 95% - repeat no more than every two years.
$P0_2$ over 80 or 0_2 saturation over 95% - repeat no more than every four years.

2. Durable medical equipment and nursing care:

a) Purchase or rental of durable equipment such as hospital beds, commode chairs and lifts. Authorization of durable medical equipment, including oxygen delivery systems, shall be given in the sole discretion of the Commission.

b) In-home nursing care or home health care for bedridden claimants.

e) Nursing home care in properly licensed and operated facilities,

d) Mechanical nebulizer: Authorization for Mechanical nebulizers shall only be granted upon certification of medical necessity from the treating physician which indicated why the use of less expensive medication delivery such as hand nebulizers or metered dose devices is not feasible.

3. **Oxygen:** Except when administered for medical emergency, oxygen therapy requires prior authorization and will only then be authorized when in compliance with the guidelines of the American Thoracic Society.

§85-20-53. Long-Term Opioid Therapy Guideline.

53.1. These guidelines are used by the provider in the management of chronic nonmalignant pain. Chronic nonmalignant pain is defined as pain persisting beyond the expected normal healing time for an injury, for which traditional medical approaches have been unsuccessful. These guidelines do not apply to claimants whose pain is the result of a compensable malignant process (cancer), or when the pain therapy is aimed at relieving intractable pain and suffering in the terminally ill when other measures fail, ~~regardless of the~~ assuming a compensable diagnosis.

53.2 Successful management of intractable chronic non-malignant pain (hereinafter referred to as "chronic pain") usually does not require the use of opioid medications. There are other effective and non-pharmacologic treatment interventions available. Some carefully selected claimants with chronic pain may benefit from opioid maintenance analgesia (OMA). These claimants function better, are sometimes able to resume working, maintain improved pain control with acceptable side effects, and continue to use their medications in a responsible manner,.

53.3 In some claimants, long-term OMA fails. Pain control is marginal, function does not improve, side effects prohibit ongoing therapy, or the claimant's ability to use the medication properly is poor or erratic. The key to success in the management of OMA is careful selection of candidates and monitoring.

53.4. Candidates for long —term OMA should:

A. Have an established diagnosis that is consistent with chronic pain.

B. Have not responded to non-opioid treatment.

C. Not be pregnant. Claimants likely to become pregnant during the course of treatment must be advised of the risks to the fetus should pregnancy occur.

D. Not be using illegal drugs or abusing alcohol.

E. Be reliable claimants who are known to the physician and are expected to be compliant with the treatment protocol.

53.5 Long term OMA is **contraindicated** for claimants who have persistent pain out of proportion to physical findings and/or with no demonstrable lesion, and who meet the criteria for the diagnosis of "chronic pain syndrome". ~~For such claimants, a trial of multidisciplinary pain management program is recommended.~~

53.6. Documentation recommendations for controlled substances prescribed within the guidelines.

a. A thorough medical history, physical examination, diagnosis and treatment plan should be documented, with particular attention focused on determining the cause(s) of the injured worker's pain, sleeplessness or anxiety.

b. The treatment plan should include the following information:

1. A list of all current medications (with doses), including medications prescribed by other physicians (whenever possible);

2. Therapies and procedures other than medications to manage/relieve pain;

3. Consultations with health care professionals;

4. Further planned diagnostic evaluation; and

5. Follow-up plan to assess progress.

e. The above standards for documentation are being recommended for inclusion in the provider's records. These records should be submitted to the Commission.

53.7 Claimants with a personal history of addiction (*or in their immediate family*) or poor impulse control are at an increased risk of failing to comply with an OMA regimen.

The risk of abuse or adverse outcome is high if any of the following factors are present:

A. History of active use of alcohol or other substance abuse.

B. Co-morbid psychiatric disorders.

C. Poor response to opioids in the past for the same condition,

53.8 All potential candidates for tong-term OMA, with a positive history of any of the above risk factors, must undergo a psychiatric or psychological evaluation to determine the appropriateness of long-term OMAR to rule out co-morbid psychiatric disorders and the potential for addiction.

53.9 In addition, any claimant who has been on opioids without evidence of improvement must also undergo a psychological evaluation.

53.10 The report of such an evaluation must be provided to the claimant's Workers' Compensation Division Claims Manager as soon as possible after starting the OMA.

53.11 There is no clinical indication for using injectable opioid preparations for claimants with chronic pain. Injectable opioid preparations should only be used in cases of acute pain. They should never be prescribed as a self-medication on an as needed basis.

53.12 Continuation of Long-Term OMA:

A. If low to moderate dose opioid therapy has not provided at least partial analgesia, then long-term OMA is not indicated

B. **Complete analgesia is not the goal of long-term OMA**. The efficacy of the therapy is measured not only by reduction in pain but also by improvement in physical and social function. Therefore, documentation of pain and function is essential to monitor the success of the therapy. Functional tool: Table 18.3 of the AMA Guides, Fifth Edition, or a comparable tool.

C. Monitoring of the progress of the therapy must be documented on the attached forms every 30 days the first three months and every 60 days the next six months,

D. A specialist experienced in. pain management selected by the Workers' Compensation Division shall evaluate every claimant on tong-tern OMA annually to determine the need for continuing OMA.

E. The "Narcotic Contract" shall be renewed annually.

53.13 Definitions for this Section:

A. Acute pain is the normal, predicted physiological response to an adverse chemical, thermal, or mechanical stimulus and is associated with surgery, trauma, and acute illness. It is generally time-limited and is responsive to opioid therapy among other therapies.

B. Chronic Non-malignant Pain is an evolving pathological process that can be defined as pain persisting beyond the expected reasonable healing time for an injury despite medical treatment.

C. Chronic Pain Syndrome (CPS): Any claimant presenting with persistent pain of at least three months duration, which may be consistent with or significantly out of proportion to physical findings, and who has at least two of the four criteria listed below should be considered a CPS patient.

1. A progressive deterioration in ability to function at home, socially, or at work.

2. A progressive increase in health care utilization *(such as repeated physical evaluations, diagnostic tests, requests for pain medications, and/or invasive procedures).*

3. Demonstrable mood disturbance.

4. Clinically significant anger.

53.14. Guidelines for the prescription for controlled substances schedules II - IV (refer to Table § 85-20-B for controlled substances schedule)

a. Schedule II drugs should be prescribed on an outpatient basis for no longer than two weeks after initial injury or following a subsequent operative procedure.

b. Schedule Ill drugs should be prescribed on an outpatient basis for no longer than six weeks after initial injury or following a subsequent operative procedure.

c. Schedule IV opioid drugs should be prescribed on an outpatient basis for no longer than six weeks after initial injury or following a subsequent operative basis.

d. Schedule IV sedative and anxiolytic drugs should be prescribed on an outpatient basis for no longer than six months after initial injury or following a subsequent operative procedure.

e. To prescribe medications beyond the above guidelines, authorization must be obtained from the Commission. Authorization requests must include documentation as described in the Rule. it is recommended that providers utilize less potent medications when continued use is indicated.

53.15 The Commission will not reimburse for treatment in methadone maintenance programs. These programs are specifically intended to manage opiate addiction and the Commission shall not reimburse costs of treatment, medication, or any other expense associated with these programs.

V. SPECIAL RULES ON DRUGS AND MEDICATIONS

§85-20-54. Drugs with Specific Limitations.

54.1 Injectables. Prescriptions for injectable opioids or other analgesics, sedatives, antihistamines, tranquilizers, psychotropics, vitamins, minerals, food supplements, and hormones are not covered.

54.2. Exceptions: The Commission covers injectable medications under the following circumstances.

a. Indicated injectable drugs for the following:

1. Inpatients; or

2. During emergency treatment of a life-threatening condition/injury; or

3. During outpatient treatment of severe soft tissue injuries, burns or fractures when needed for dressing or cast changes; or

4. During the perioperative period and the postoperative period, not to exceed forty-eight hours from the time of discharge.

b. Prescriptions of injectable insulin, heparin, anti-migraine medications, or impotency treatment, when proper and necessary directly related to a compensable injury.

54.3. Noninjectable scheduled drugs administered by other than the oral route. Nonoral routes of administration of scheduled drugs that result in systemic availability of the drug equivalent to injectable routes will also not be covered,

54.4. Sedative-hypnotics. During the chronic stage of an industrial injury or occupational disease, payment for scheduled sedatives and hypnotics will not be authorized.

54.5. Benzodiazepines. Payment for prescriptions for benzodiazepines is limited to the following types of patients:

a. Hospitalized patients;

b. Injured workers with an accepted psychiatric disorder for which benzodiazepines are indicated;

c. Injured workers with an unrelated psychiatric disorder that is retarding recovery but which the Commission has temporarily authorized treatment and for which benzodiazepines are indicated; and

d. Other outpatients for not more than thirty days for the life of the claim.

54.6. Cancer. When cancer or any other end-stage disease is an accepted compensable condition, the department or self insurer may authorize payment for any indicated scheduled drug and by any indicated route of administration.

54.7. Spinal cord injuries. When a spinal cord injury is an accepted condition, the Commission or self insurer may authorize payment for anti-spasticity medications by any indicated route of administration (e.g., some benzodiazepines, Baclofen). Prior authorization is required.

§85-20-55. Drugs and Medications: Actions by the Commission.

55.1. The Commission may take any or all of the following steps when concerned about the amount or appropriateness of drugs the patient is receiving:

a. Notify the attending physician of concerns regarding the medications such as drug interactions, adverse reactions, prescriptions by other providers;

b. Require that the attending physician send a treatment plan addressing the drug concerns;

c. Request a consultation from an appropriate specialist;

d. Request that the attending physician consider reducing the prescription, and provide information on chemical dependency programs;

e. Limit payment for drugs on a claim to one prescribing doctor.

55.2. If the attending physician or worker does not comply with these requests, or if the probability of imminent harm to the worker is high, the Commission may discontinue payment for the drug after adequate prior notification has been given to the worker, pharmacy and physician.

55.3. Physician failure to reduce or terminate prescription of controlled substances, habit forming or addicting medications, or dependency inducing medications, after the Commission request to do so for an injured worker may result in a transfer of the worker to another physician of the workers choice

§85-20-56. Physician's Records of Medication.

The physician's record must contain the name and reason for the medication, the dosage, quantity prescribed and/or dispensed, the route of administration, the frequency, the starting and stopping dates, the expected outcome of treatment, and any adverse effects that occur. Failure to maintain these records may be considered abuse under West Virginia Code Section 23-4-3c.

§85-20-57. Payment for oral opioid treatment for chronic, noncancer pain.

Chronic, noncancer pain may develop after an acute injury episode. It is defined as pain that typically persists beyond two to four months following the injury. The Commission, in its sole discretion, may pay for oral opioids for the treatment of chronic, noncancer pain caused by an accepted condition when that treatment is reasonably required.

§85-20-58. Required authorization for treatment of chronic, noncancer pain with opioids.

58.1. No later than thirty days after the attending physician begins treating the worker with opioids for chronic, noncancer pain, the attending physician must submit a written report to the department or sell-insurer in order for the Commission to pay for such treatment. The written report must include the following:

a. A treatment plan with time-limited goals, including a time schedule to wean the injured worker from opiod use;

b. A consideration of relevant prior medical history;

c. A summary of conservative care rendered to the worker that focused on reactivation and return to work;

d. A statement on why prior or alternative conservative measures may have failed or are not appropriate as sole treatment;

e. A summary of any consultations that have been obtained, particularly those that have addressed factors that may be barriers to recovery;

f. A statement that the attending physician has conducted appropriate screening for factors that may significantly increase the risk of abuse or adverse outcomes (e.g., a history of alcohol or other substance abuse); and

g. An opioid treatment agreement that has been signed by the worker and the attending physician. This agreement must be renewed every six months. The treatment agreement must outline the risks and benefits of opioid use, the conditions under which opioids will be prescribed, the physician's need to document overall improvement in pain and function, and the worker's responsibilities.

§85-20-59, Required documentation to be submitted for continued coverage of opioids to treat chronic, noncancer pain.

59.1 In addition to the general documentation required by the Commission, the attending physician must submit the following information at least every sixty days when treating with opioids:

a. Documentation of drug screenings, consultations, and all other treatment trials;

b. Documentation of outcomes and responses, including pain intensity and functional levels; and

e. Any modifications to the treatment plan.

The physician must use a form developed by the Commission, or a substantially equivalent form, to document the patient's improvement in pain intensity and functional levels. This form may be included as part of a sixty-day report.

§85-20-60. Duration Commission Will Continue to pay for opioids to treat chronic, noncancer pain.

60.1. The Commission will continue to pay for treatment with opioids if directly related to a compensable condition so long as the physician documents in addition to the information required in section 58 of this rule:

a. Substantial reduction of the patient's pain intensity; and

b. Continuing substantial improvement in the patient's function. Once the worker's condition has reached maximum medical improvement, further treatment with opioids is not payable. Opioid treatment for chronic, noncancer pain past the first three months of such treatment without documentation of substantial and progressive continuing improvement is presumed to be not proper and necessary.

§85-20-61. Denial of payment of opioid medications used to treat chronic, noncancer pain.

62.1. Payment for opioid medications may be denied in any of the following circumstances:

- Absent or inadequate documentation;
- Noncompliance with the treatment plan;
- Pain and functional status have not substantially improved after three months of opioid treatment; or
- Evidence of misuse or abuse of the opioid medication or other drugs, or noncompliance with the attending physician's request for a drug screen.

§ 85-20-62. Payment for nonopioid medications for the treatment of chronic, noncancer pain.

The Commission may pay for nonopioid medication for the treatment of chronic, noncancer pain when it is proper and necessary and directly related to a compensable injury. For example, some drugs such as anticonvulsants, anti-depressants, and others have been demonstrated to be useful in the treatment of chronic pain and may be approved when proper and necessary not to exceed six (6) months after an injury or operative procedure. Payment for medications beyond this six (6) month period is presumed to be not proper or necessary and will not be paid without written documentation as outlined in sections 58 and 60 of this Rule, and documented progression continuing improvement.

VI. EXPECTED PERIOD OF TIME TO REACH MAXIMUM MEDICAL IMPROVEMENT

§85-20-63. Expected period of time to reach maximum medical improvement.

Pursuant to West Virginia Code Section 23-4-3b(b), the Commission hereby incorporates by reference the Medical Disability Advisor, Workplace Guidelines for Disability Duration, Presley Reed, MD (4th Edition) ("Presley Reed Guide") for purposes of establishing the expected period of time to reach maximum medical improvement and for continued treatment for various injuries and diseases. The requirements, standards, parameters and limitations of the Presley Reed Guide shall have the same force and effect as this Rule. All requirements, standards, parameters and limitations of the Presley Reed Guide are hereby deemed medically reasonable and any requirements, standards, parameters and limitations of the Presley Reed Guide which ~~exceeds~~ exceed those set forth in the Presley Reed Guide are hereby deemed medically unreasonable. It will require clear and convincing evidence, including but not limited to, detailed and documented medical findings, peer reviewed medical studies, and the elimination of causes not directly related to a compensable injury or disease, to establish that requirements, standards, parameters and limitations in excess of those provided for in the Presley Reed Guide are medically reasonable.

VII. RANGE OF PARTIAL DISABILITY AWARDS FOR COMMON INJURIES AND DISEASES

§85-20-64. Ranges of partial disability awards for common injuries and diseases.

64.1. Pursuant to West Virginia Code Section 23-4-3h(b), the Commission hereby adopts the following ranges of permanent partial disability for common injuries and diseases. Permanent partial disability assessments shall be determined based upon the range of motion models contained in the Guides Fourth. Once an impairment level has been determined

by range of motion assessment, that level will be compared with the ranges set forth below. Permanent partial disability assessments in excess of the range provided in the appropriate category as identified by the rating physician shall be reduced to the within the ranges set forth below:

64.2. Lumbar Spine Impairment: The range of motion methodology for assessing permanent impairment shall be used. However, a single injury or cumulative injuries that lead to a permanent impairment to the Lumbar Spine area of one's person shall cause an injured worker to be eligible to receive a permanent partial disability award within the ranges identified in Table §85-20-C. The rating physician must identify the appropriate impairment category and then assign an impairment within the appropriate range designated for that category.

64.3. Thoracic Spine Impairment: A single injury or cumulative injuries that lead to a permanent impairment to the Thoracic Spine area of one's person shall cause an injured worker to be eligible to receive a permanent partial disability award within the ranges identified in Table §85-20-D. The rating physician must identify the appropriate impairment category and then assign an impairment within the appropriate range designated for that category.

64.4. Cervical Spine Impairment: A single injury or cumulative injuries that lead to a permanent impairment to the Thoracic Spine area of one's person shall cause an injured worker to be eligible to receive a permanent partial disability award within the ranges identified in Table §85-20-E. The rating physician must identify the appropriate impairment category and then assign an impairment within the appropriate range designated for that category.

64.5. Carpal Tunnel Syndrome Impairment: An injured worker who can otherwise show entitlement to a permanent partial disability award for carpal tunnel syndrome shall be eligible to receive a permanent partial disability award of 0%-6% in each ~~effected~~ affected hand.

64.6. Mental Impairment: See 85 CSR 22, which sets forth disability ranges. These ranges, along with all other ranges in this Rule, must be strictly adhered to and ratings in excess of the ranges shall be considered evidence of abuse under West Virginia Code 23-4-3c.

64.7. Arm: The statutory impairment for the amputation of an injured worker's arm is 60%. Accordingly, a single or all cumulative injuries to an individual's arm shall not total more than 60%. As an example, if an injured worker receives a 6% award for unilateral carpal tunnel, a 30% award for a shoulder injury, and a 10% award for an elbow injury, he shall not be entitled to any future award for injuries sustained to his shoulder in excess of 14%. The "bundling" of awards for injuries to the arm shall not exceed the 60% amputation award.

64.8. Leg: The statutory impairment for the amputation of an injured worker's leg is 40%. Accordingly, a single or all cumulative injuries to an individual's leg shall not total more than 40%. As an example, if an injured worker is awarded a 20% award for a permanently impaired hip and then is later awarded a 15% permanent impairment for an injury to his knee, then he shall only be entitled to an additional 5% permanent award in future injuries to his hip,

then he shall only be entitled to an additional 5% permanent award in future injuries to his hip, thigh, knee, shin, ankle, foot, or any other part of his leg. The "bundling" of awards for injuries to the leg shall not exceed the 40% amputation award.

§85-20-65. Adoption of Standards.

65.1. Except as provided for in section 66 of this Rule, on and after the effective date of this rule all evaluations, examinations, reports, and opinions with regard to the degree of permanent whole body medical impairment which an injured worker has suffered shall be conducted and composed in accordance with the "Guides to the Evaluation of Permanent Impairment," (4th ed. 1993), as published by the American Medical Association. If in any particular claim, the examiner is of the opinion that the Guides or the section ~~6~~ 64 substitutes cannot be appropriately applied or that an impairment guide established by a recognized medical specialty group may be more appropriately applied, then the examiner's report must document and explain the basis for that opinion. Deviations from the requirements of the Guides or the section ~~6~~ 64 substitutes shall not he the basis for excluding evidence from consideration. Rather, in any such instance such deviations shall be considered in determining the weight that will be given to that evidence. An example of an acceptable recognized medical specialty group's own guides is the "Orthopedic Surgeons Manual in Evaluating Permanent Physical Impairment."

65.2. These revised rules are not applicable to any permanent impairment rating examination performed prior to the effective date of these revised rules. Accordingly, the revised rules are not applicable to any reports or opinions based upon those examinations, in whole or in part, which are submitted either before or after the effective date of these revised rules.

65.3. These rules are applicable to examinations and opinions provided to the ~~commission~~ Commission by an injured worker's treating physician pursuant to W. Va. Code §23-4-7a(c)(1).

§85-20-66. Evidentiary Requirements.

66.1 The evidentiary weight to be given to a report will be determined by how well it demonstrates that the evaluation and examination that it memorializes were conducted in accordance with the applicable Guides and that the opinion with regard to the degree of permanent whole body medical impairment suffered by an injured worker was arrived at and composed in accordance with the requirements of the applicable Guides.

66.2. The report must state the factual findings of all tests, evaluations, and examinations that were conducted and must state the manner in which they were conducted so as to clearly indicate their performance in keeping with the requirements of the Guides. For any evaluation and examination of a compensable back injury, the back examination form previously adopted by the health care advisory panel must be completed and submitted with the narrative report. A copy of the current edition of the back examination form can be obtained from the Commission. A report and opinion submitted regarding the degree of permanent whole body medical impairment as a result of a back injury without a completed back examination form shall be disregarded.

66.3 The opinion stated in the report as to the degree of permanent whole body medical impairment must reflect the process of calculation as stated in the applicable Guides so as to demonstrate how the degree of permanent whole body medical impairment was arrived at and calculated.

66.4 To the extent that factors other than the compensable injury may be affecting the injured worker's whole body medical impairment, the opinion stated in the report must, to the extent medically possible, determine the contribution of those other impairments whether resulting from an occupational or a nonoccupational injury, disease, or any other cause.

66.5 In any claim for occupational pneumoconiosis benefits, for noise induced hewing loss, or for mental and emotional loss, the application of these evidentiary requirements of this section shall be based upon the guidelines referred to below in lieu of the Guides. All of the other requirements of this section shall be accordingly applied.

§85-20-67. Exceptions to the Guides.

The following portions of the applicable Guides or their successor provisions shall not be used in the determination of the degree of permanent impairment that has been suffered by an injured worker for workers' compensation benefits.

67.1 In claims for occupational pneumoconiosis benefits, the provisions of Chapter 5, "The Respiratory System," are exempted from this rule. The provisions of the statute related to occupational pneumoconiosis, rules adopted in accordance with the statute, and policies and procedures adopted by the occupational pneumoconiosis board adequately and separately control the determination of the degree of permanent impairment suffered by such an insured worker. The occupational pneumoconiosis board may, in any given case and in its discretion, utilize the Guides to the extent the board deems appropriate.

67.2 In claims for noise induced hearing loss, the provisions of section 9.1, Chapter 9, "Ear, Nose, Throat, and Related Structures," are exempted from this rule. The applicable exempt legislative rule has been promulgated for such claims.

67.3 In claims for mental and emotional loss, the provisions of chapter 14, "Mental and Behavioral Disorders," are exempted from this rule. The legislative rule styled "Guidelines for Psychiatric Permanent Impairment Evaluations, Evidence and Ratings of Psychiatric Impairment Due to Workers' Compensation Injuries," 85 CSR 22 (1995), shall be utilized.

67.4 In those claims affected by the provisions of W. Va. Code §23-4-6(f, the degree of disability stated there shall be applied.

67.5 In those claims affected by the provisions of W. Va. Code §23-4-6(m), the conclusive presumption of total disability stated there shall be applied.

§85-20-68. Payment for Evaluations.

The Commission shall not make payment to any impairment examiner whose reports, opinions, examinations, or evaluations are not conducted, performed, and composed in accordance with this Rule. In the event payment was made prior to a determination that the report, opinion, examination, or evaluation was not conducted, performed, or composed in accordance with this ~~rule~~ Rule, then the amount so paid shall be recovered from the examiner either by way of a direct repayment to the Commission or by way of an offset against any future sums that may be owed by the Commission to the examiner for any services rendered for or to the Commission or for or to an injured worker. A later submission or supplement to the report, which demonstrates compliance with these rules, shall serve to permit such payment.

§85-20-69. Violation and Penalties: Without limiting the general nature of various statutes respecting criminal fraud, and by way of illustration and not in limitation, the following are deemed unlawful acts and practices:

a. Billing for services not actually performed;

b. Billing for expenses not actually incurred;

c. Billing services on dates other than the date on which they were actually performed;

d. Offering consideration of any kind, including gifts, services or gratuities to Commission employees in exchange for or as a past reward for referring cases to the provider;

e. Failing to close claims at the earliest practicable date when the injured worker can no longer benefit from such services;

f. Providing false information in any statement to the Commission, or forging or falsifying any record required to be kept by these Rules or any other statute or rule governing providers; and

g. "Rolling in" unreimbursable time or expenses by adding hours for billable time or expenses.

All providers and employers shall retain for five (5) years and provide to the Commission on request and without a subpoena hard copies of the source underlying any bill, invoice, report, etc. submitted to the Fund by electronic or other means.

§85-20-70. Severability.

If any provision of this ~~rule~~ Rule or the application thereof to any entity or circumstance shall be held invalid, such invalidity shall not affect the provisions or the applications of this ~~rule~~ Rule which can be given ~~affect~~ effect without the invalid provisions or application and to this end the provisions of this rule are declared to be severable.

TABLE 85-20A. Impairment of Pulmonary Function. Page 1 of 2.

a. The following table will be used as an indicator of impairment of pulmonary function if any of the acceptable values appear in the percentage of impairment column:

% IMPAIRMENT:	0	10	15	20	25	30	40	50	60	TOTAL
FVC%PRED.	80	75	70	67	64	61	58	55	52	50
FEV_1.0%PRED.	75	73	70	67	64	61	58	55	52	50
~~FEV_1.0%FVC~~	~~75~~	~~73~~	~~70~~	~~67~~	~~64~~	~~61~~	~~56~~	~~51~~	~~48~~	~~45~~
MVV1%PRED.	80	75	70	67	64	61	58	55	52	50
$PaCO_2$				Pa02 Values Equal to or Less Than						
30 or below	85	81	78	75	73	70	68	67	66	65
31	84	80	77	74	72	69	67	66	65	64
32	83	79	76	73	71	68	66	65	64	63
33	82	78	75	72	70	67	65	64	63	62
34	81	77	74	71	69	66	64	63	62	61
35	50	76	73	70	68	65	63	62	61	60
36	79	75	72	69	67	64	62	61	60	59
37	78	74	71	68	66	63	61	60	59	58
38	77	73	70	67	65	62	60	59	58	57
39	76	72	69	66	64	61	59	58	57	56
40 or above	75	71	68	65	63	60	58	57	56	55

TABLE 85-20A. Impairment of Pulmonary Function. (page 2)

(b) Exercise pO_2 values that rise above the resting pO_2 values will indicate a lesser degree of impairment of pulmonary function, and if they are less than the resting values will indicate a greater degree of impairment of pulmonary function.

(c) The results of any medically acceptable tests or procedures reported by a physician which are not addressed in this table but which tend to demonstrate the presence or absence of pneumoconiosis or sequela of pneumoconiosis or the presence or absence of a respiratory pulmonary impairment may be submitted and given appropriate consideration (Airway Resistance, Ear Oximetry, DLCO and A-a gradient, etc.). It is also important that the Occupational Pneumoconiosis Board use all clinical history and physical findings that would enhance or detract from any percentage of impairment in the above table.

(d) Where an employee has a definitely ascertainable impairment which is not resulting from occupational pneumoconiosis, but which is contributing to the employee's over-all pulmonary impairment, such impairment, the effect thereof, and any aggravation thereof will not be taken into consideration in fixing the amount of compensation allowed for occupational pneumoconiosis, and such compensation will be awarded only in the amount that would have been allowable had such other impairment not been present.

(e) The degree of such impairment attributable to a cause that is not occupational pneumoconiosis may be established at any time by competent medical or other evidence. Competent medical or other evidence will include reasoned medical judgment that is based on the medical record in a given claim and on generally accepted medical science.

(f) The method of establishing impairment attributable to a cause that is not occupational pneumoconiosis need not be a matter of exact mathematical or scientific formulation, but should based upon the entirety of the evidentiary record, including but not limited to: 1) a recognition of the magnitude and type of impairment that is typically associated with different types of pneumoconiosis; 2) a recognition of the magnitude and type of impairment typically associated with medical conditions other than pneumoconiosis that cause pulmonary impairment; 3) a recognition of the type, intensity and duration of the physical insults that have given rise to any pneumoconiosis and other causes of pulmonary impairment; and 4) a recognition that where two or more medical conditions likely to cause pulmonary impairment exist in combination, every effort should be made to fairly allocate responsibility for any over-all pulmonary impairment among the several conditions.

(g) Cigarette and cigar smoking are recognized by the medical community as the principal causes of pulmonary impairment and primary lung cancers in the general population. Special attention will be given to assuring that, wherever possible, pulmonary impairment caused by cigarette or cigar smoking is not included in awards for impairment cause by occupational pneumoconiosis.

TABLE §85-20-B. Schedule of Controlled Substances.

a. The Controlled Substances Act of 1970 regulates the manufacturing, distribution and dispensing of drugs that have abuse potential. The Drug Enforcement Administration (DEA) within the US Department of Justice is the chief federal agency responsible for enforcement.

A. DEA Schedules: Drugs under jurisdiction of the Controlled Substances Act are divided into five schedules based on their potential for abuse and physical and psychological dependence. All controlled schedule as follows:

Schedule I (C-I)	High abuse potential and nonaccepted medical use (eg, heroin, marijuana, LSD).
Schedule II (C-LI)	High abuse potential with severe dependence liability narcotics, amphetamines, dronabinol, some barbiturates).
Schedule III (C-Ill)	Less abuse potential than schedule II drugs and moderate dependence liability (eg, nonbarbiturate sedatives, non-amphetamine stimulants, limited amounts of certain narcotics).
Schedule IV (C-TV)	Less abuse potential than schedule LIT drugs and limited dependence liability (eg, some sedatives, antianxiety agents, non-narcotic analgesics).

Schedule V (C-V) Limited abuse potential. Primarily small amounts of narcotics (codeine) used as antitussives or antidiarrheals. Under federal law, limited quantities of certain c-v drugs may be purchased without a prescription directly from a pharmacist if allowed under specific state statutes. The purchaser must be at least 18 years of age and must furnish suitable identification. All such transactions must be recorded by the dispensing pharmacist.

TABLE §85-20-C. PPD Ranges for Lumbar Spine Impairments

Criteria for Rating Impairment Due to Lumbar Spine Injury				
Lumbar Category I **0% Impairment of the Whole Person**	**Lumbar Category II** **5% - 8% Impairment of the Whole Person**	**Lumbar Category III** **13% Impairment of the Whole Person**	**Lumbar Category IV** **20% - 23% Impairment of the Whole Person**	**Lumbar Category V** **25% - 28% Impairment of the Whole Person**
No significant clinical findings, no observed muscle guarding or spasm, no documentable neurologic impairment, no documented alteration in structural integrity and no other indication of impairment related to injury or illness; no fractures.	Clinical history and examination findings are compatible with a specific injury; findings may include significant muscle guarding or spasm observed at the time of the examination, asymmetric loss of range of motion, or nonverifiable radicular complaints, defined as complaints of radicular pain without objective findings; no alteration of the structural integrity and no significant radiculopathy or individual had a clinically significant radiculopathy and has an imaging study that demonstrates a herniated disk at the level and on the side that would be expected based on the previous radiculopathy, but no longer has the radiculopathy following conservative treatment or fractures: (1) less than 25% compression of one vertebral body; (2) posterior element fracture without dislocation (not developmental spondylosis) that has healed without alteration of motion segment integrity; (3) a spinous or transverse process fracture with displacement without a vertebral body fracture, which does not disrupt the spinal canal	Significant signs of radiculopathy, such as dermatomal pain and/or in a dermatomal distribution, sensory loss, loss of relevant reflex(es), loss of muscle strength or measured unilateral atrophy above or below the knee compared to measurements on the contralateral side at the same location; impairment may be verified by electrodiagnostic findings or history of a herniated disk at the level and on the side that would be expected from objective clinical findings, associated with radiculopathy but are now asymptomatic or fractures: (1) 25% to 50% compression of one vertebral body; (2) posterior element fracture with displacement disrupting the spinal canal; in both cases, the fracture has healed without alteration of the structural integrity	Loss of motion segment integrity defined from flexion and extension radiographs as at least 4.5 mm of translation of one vertebra on another or angular motion greater than 15° at L-1-2, L2-3 and L3-4, greater than 20° at L4-5, and greater than 25° at L5-S1 (figure 15-3_; may have complete or near complete loss of motion segment due to developmental fusion, or successful or unsuccessful attempt at surgical arthodesis or factures: (1) greater than 50% compression of one vertebral body without residual neurologic compromise(2)	Meets the criteria of DRE lumbosacral categories III and IV; that is, both radiculopathy and alteration of motion segment integrity are present; significant lower extremity impairment is present as indicated by atrophy or loss of relex(es), pain and/or sensory changes within an anatomic distribution (Dermatomal), or electromyographic findings as stated in lumbosacral category III and alteration of spine motion segment integrity as defined in lumbosacral category IV or factures: (1) greater than 50% compression of one vertebral body with unilateral neurologic compromise

TABLE §85-20-C. PPD Ranges for Thoracic Spine Injury

Criteria for Rating Impairment Due to Thoracic Spine Injury				
Thoracic Category I 0% Impairment of the Whole Person	**Thoracic Category II 5%-8% Impairment of the Whole Person**	**Thoracic Category III 10%13% Impairment of the Whole Person**	**Thoracic Category IV 20%-23% Impairment of the Whole Person**	**Thoracic Category V 25%-28% Impairment of the Whole Person**
No significant clinical findings, no observed muscle guarding, no documentable neurologic impairment, no documented changes in structural integrity and no other indication of impairment related to injury or illness; no fractures	History and examination findings are compatible with a specific injury or illness; findings may include significant muscle guarding or spasm observed at the time of the examination, asymmetric loss of range of motion (dysmetria), or nonverifiable radicular complaints, defined as complaints of radicular pain without objective findings; no alteration of motion segment integrity or herniated disk at the level and on the side that would be expected from objective clinical findings, but without radicular signs following conservation treatment or fractures: (1) less than 25% compression of one vertebral body; (2) posterior element fracture without dislocation that has healed without alteration of motion segment integrity or radiculopathy; (3) a spinous or transverse process fracture with displacement, but without a vertebral body fracture	Ongoing neurologic impairment of the lower extremity relate to a thoracolumbar injury, documented by examination of motor and sensory functions, reflexes or findings of unilateral atrophy above or below the knee related to no other condition; impairment may be verified by electodiagnostic testing or clinically significant radiculopathy, verified by an imaging study that demonstrates a herniated disk at the level and on the side that would be expected from objective clinical findings; history of radiculopathy, which was improved following surgical treatment or fractures: (1) 25%-50% compression fracture of one vertebral body; (2) posterior element fracture with mild displacement disrupting the canal; in both cases the fracture has healed without alteration of structural integrity; differentiation from a congenital or developmental condition should be accomplished, if possible, by examining preinjury roentenograms, if available, or by a bone scan performed after the onset of the condition	Alternation of motion segment integrity of bilateral or multilevel radiculopathy; alteration of motion segment integrity is defined from flexion and extension radiographs as translation of one vertebra or another of more than 2.5 mm; radiculopathy as defined in thoracic category III need not be present if there is alteration of motion segment integrity; if an individual is to be placed in DRE thoracic category IV due to radiculopathy, the latter must be bilateral or involve more than one level fractures: (1) greater than 50%compression of one vertebral body without residual neural compromise	Impairment of the lower extremity as defined in thoracolumbar category III and loss of structural integrity as defined in thoracic category IV or fractures: (1) greater than 50%compression of one vertebral body neural motion compromise but no bilateral involvement that would qualify the individual for corticospinal tract evaluation

TABLE §85-20-C. PPD Ranges for Cervical Disorders

Criteria for Rating Impairment Due to Cervical Disorders

Cervical Category I 0% Impairment of the Whole Person	Cervical Category II 5%-8% Impairment of the Whole Person	Cervical Category III 10% 13% Impairment of the Whole Person	Cervical Category IV 20%-23% Impairment of the Whole Person	Cervical Category V 25%-28% Impairment of the Whole Person
No significant clinical findings, no observed muscle guarding or spasm, no documentable neurologic impairment, no significant loss of motion segment integrity and no other indication of impairment related to injury or illness; no fractures	Clinical history and examination findings are compatible with a specific injury; findings may include muscle guarding or spasm observed at the time of examination by a physician, asymmetric loss or range of motion, or nonverifiable radicular complaints, defined as complaints of radicular pain without objective findings; no alteration of the structural integrity or individual had a clinically significant radiculopathy and an imaging study that demonstrates a herniated disk at the level and on the side that would be expected based on the previous radiculopathy, but has improved following nonoperative treatment or fractures: (1) less than 25% compression of one vertebral body; (2) posterior element fracture without dislocation that has healed without loss of structural integrity or radiculopathy (3) a spinous or transverse process fracture with displacement	Significant signs of radiculopathy, such as pain and/or sensory loss in a dermatomal distribution, loss of relevant reflex(es), loss of muscle strength or unilateral atrophy above or compared with the unaffected side, measured at the same distance above or below the elbow; the neurologic impairment may be verified by electrodiagnostic findings or individual had clinically significant radiculopathy, verified by an imaging study that demonstrates a herniated disk at the level and on the side expected from objective clinical findings with radiculopathy or with improvement of radiculopathy following surgery or fractures: (1) 25% to 50% compression of one vertebral body; (2) posterior element fracture with displacement disrupting the spinal canal; in both cases the fracture is healed without loss of structural integrity; radiculopathy may or may not be present; differentiation from congenital and developmental conditions may be accomplished, if possible, by examining preinjury roentgenograms or a bone scan performed after the onset of the condition	Alternation of motion segment integrity or bilateral or multilevel radiculopathy; alteration of motion segment integrity is defined from flexion and extension radiographs as at least 3.5 mm of translation of one vertebra on another, or angular motion of more than 11° greater than at each adjacent level (Figures 15-3a and 15-3b)' alternatively, the individual may have loss of motion of a motion segment due to a developmental fusion or successful or unsuccessful attempt at surgical arthrodesis; radiculopathy as defined in cervical category III need not be present if there is alteration of motion segment integrity fractures: (1) more than 50% compression of one vertebral body without residual neural compromise	Significant upper extremity impairment requiring the use of upper extremity external functional or adaptive device(s); there may be total neurological loss at a single level or severe, multilevel neurologic dysfunction or fractures: structural compromise of the spinal canal is present with severe upper extremity motor and sensory deficits without lower extremity involvement

WEST VIRGINIA WORKERS' COMPENSATION COMMISSION'S RESPONSES TO PUBLIC COMMENTS RECEIVED ON RULE 20

On March 4, 2004, the public comment period for Series 20 of Title 85 of the Code of State Rules ("Rules") expired. The Rules previously had been filed by the West Virginia Workers' Compensation Commission ("Commission") after receiving approval by the Workers' Compensation Board of Managers. The following are the Commission's responses to selected public comments. See Rule presented to the Board on March 23, 2004 for responses to the comments.

RULE 20: MEDICAL MANAGEMENT OF CLAIMS

I. Mick Bates

1. **Section 3.4:** Typo – qualified rehabilitation professional should read qualified rehabilitation professionals.

   Recommendation:

2. **Section 8.1:** (E) If the worker has not returned to work, a doctor's estimate of physical capacities should be included with the report. If further information regarding physical capacities is needed or required, a performance-based physical capacities evaluation can be requested. Performance-based physical capacities evaluations should be conducted by a licensed occupational therapist or a licensed physical therapist.

   It is suggested that Section 8.1 is amended to read: If the worker has not returned to work, a doctor's estimate of physical and functional capacities should be included with the report. If further information regarding physical and functional capacities is needed or required, a performance-based functional capacity ~~physical capacities~~ evaluation (FCE) can be requested. FCE's ~~Performance-based physical capacities evaluations~~ should be conducted by a licensed health care provider, approved by the Commission to perform this testing, with documented education, training and experience in the area of Occupational Rehabilitation and Functional Assessment ~~occupational therapist or a licensed physical therapist~~.

   Recommendation:

3. **Section 9.10:** Reads: The following services require prior review and authorization before services are rendered and reimbursement made:
   K. Durable Medical Equipment in excess of $500.00.
   X. All rehabilitative services.

   It is suggested that Section 9.10 be amended to read: The following services require prior review and authorization before services are rendered and reimbursement made:
   K. Durable Medical Equipment in excess of ~~$500.00~~ $125.00.
   X. All physical and vocational rehabilitative services in excess of this rule.

   Recommendation:

4. **Section 9.2:** Medical Vendor – It is suggested that Section 9.2 be amended to read: Health Care Provider to be consistent with the Definition given in Section 3.4.

   Recommendation:

5. **Section 9.27:** Orthodics – typo – should read Orthotics.

   Recommendation:

6. **Section 17.1:** 17.1 Medical Vendor should read Health Care Provider.

Recommendation:

7. **Section 17.2:** 7.2 Trail – typo – should read Trial.

Recommendation:

8. **Section 19.1:** f. medically unnecessary – it is suggested that Section 19.2 is amended to read: f. medically unsupported as defined under Exempt Legislative Rule 85.28.9.

Recommendation:

9. **Sections 19 and 21:** 19.3 No payment will be made for the following services:

d. Educational materials

17. Weight loss programs

18. Physical fitness programs

m. swimming therapy/aquatic therapy (unless under direct supervision of a physical therapist)

n. Massage therapy

21.1 The Commission may pay for treatment of a condition which was not caused by the injury if the Commission determines, in its sole discretion, that the unrelated condition is preventing recovery by aggravating the occupational injury ---

1. Obesity is clearly the best and most prevalent example of an unrelated condition preventing recovery by aggravating the occupational injury. Diabetes and Hypertension are two additional and related medical conditions that fit this definition.
2. West Virginia has some of the highest incident rates of these conditions in the US and the world.
3. Poor physical health and conditioning and specifically obesity are well-documented risk factors for occupational injury.
4. It is not suggested that the Commission pay for Health Club Memberships and Weight Watchers.
5. There appears to be at least a partial contradiction between these Sections 19 and 21.
6. Massage and Aquatic Therapy are established interventions, clearly defined under the AMA CPT Code Section 97000 Series requiring direct one on one supervision by a licensed health care provider.
7. It is suggested that a greater number of injured workers would be assisted in returning a suitable gainful employment by receiving educational materials, supervised medical weight loss programs incorporating physical fitness and nutritional counseling under the direct supervision of a physical therapist than would benefit from aquatic therapy.
8. It is suggested that Section 19.2 is amended to read:

19.3 No payment will be made for the following services

d. Medically unsupported educational materials

j. Medically unsupported weight loss programs

k. Medically unsupported physical fitness programs

m. swimming ~~therapy/aquatic therapy~~ (unless as part of medically supported aquatic therapy program under direct supervision of a licensed physical therapist)

o. Massage ~~therapy~~ (unless as part of medically supported massage therapy program under direct supervision of a licensed physical therapist)

10. **Section 34:** Guidelines for these programs are of great need and an advisory panel has been assembled to assist in the process. May 1st is an achievable but challenging deadline.

Recommendation:

11. **Section 36.3.1d:** *Myelography with CT scan is the established test for evaluating the presence of nerve root compression.* It is beyond my professional level of expertise but this may not be the current recognized established standard of practice.

Recommendation:

12. **Section 36.3.4:** Rehabilitation may be required should read Additional physical and or vocational rehabilitation may be required.

Recommendation:

13: **Section 36.4.b:** Comprehensive pain management should read multidisciplinary pain management.

Recommendation:

14. Section 37.4.2A & 38.4.a.1.A:

Short-term bed rest for approximately two days…

Short period of bed rest, up to 10 days with analgesics ……..

Is in contradiction with the language

The value of periods of bed rest has not been demonstrated **in the following section and is not the current recognized established standard of practice for spinal injuries or disorders** and as such it strongly suggested that the recommendation for bed rest be removed.

Recommendation:

15. **Section 38.1:** ***Refer to an orthopedic surgeon or neurosurgeon for consultation and treatment.*** Not all orthopedic surgeons are qualified or perform surgery on spinal disorders. It is recommended that this Section be altered to read: ***Refer to an orthopedic spinal surgeon or neurosurgeon for consultation and treatment.***

Recommendation:

16. **Section 39.3:**

- Measure twice and cut once.
- You can always cut but you can never uncut.
- The rates of return to work for individuals following spinal sugary are around 16%.
- Commercial insurance routinely require a second opinion prior to surgical intervention.

Consideration should be given to the requirement on a second concurring surgical opinion in all cases of spinal surgery unless clear evidence of a medical emergency exists.

Recommendation:

17. **Sections 41.3 and 41.7.d.2: EMG/NCS is the standard diagnostic modality and has high sensitivity and specificity.** Is in contradiction with the language and current recognized established standard of practice. **Regarding EMG and NCS, there is variability .....**

Recommendation:

18. **Section 41.9:**

41.9 Rehabilitation-Keeping Workers on the job. This section is numbered and reads as if it pertains to Carpal Tunnel Syndrome. The information and recommendations are relevant to all occupational injuries and disorders. There is overlap and relevance to the recommendation made within Rule 15. It is recommended that it be re titled ***Physical and Vocational Rehabilitation*** given its own Section and placed prior to ***IV. SPECIFIC TREATMENT GUIDLEINES.***

Recommendation:

18. **Section 46 Physical Medicine Guidelines:**

d. Inappropriate treatment is the exclusive use of passive modalities throughout the course of treatment. It is recommended that this language be changed to read: ***d. Medically unsupported treatment is the exclusive use of physical medicine modalities in the course of treatment use of***

46.2 Reimbursement shall disallowed for any treatment rendered after the injured worker reaches maximal medical improvement

There appears to be in contradiction in the following sections which outline responsible, appropriate and a medically supported rational for continuing to provide limited physical medicine in instances where an individual has returned to work and experiences an exacerbation of an impairment.

It is an established standard of care for occupational injuries and disorders to continue treatment beyond MMI when impairment is present and is limiting an injured worker to be suitably gainfully employed.

MMI is primarily an indemnity benefit not a treatment issue.

The Commission is cautioned not to discriminate against the health care providers and the injured workers that do the right thing and not inadvertently encourage the practice of extending TTD and delaying a return to work as a means of continuing treatment. Nor should the Commission encourage the practice of filing a claim reopening application or new claim simply to receive treatment that would allow an injured worker to "stay on the job".

Recommendation:

II. Pat Maroney, Attorney

1. **Section 85-20-4.1:** Requirement of "clear and convincing" proof to exceed treatment guidelines violates Chapter 23-4-1g which utilizes the standard in civil cases that issues in civil cases are to be determined in accordance with the preponderance of the evidence standard. The utilization of clear and convincing evidence is only used in special instances in civil cases. Professor Franklin Cleckley, a former member of the West Virginia Supreme Court of Appeals and the author of the Handbook on West Virginia Evidence, reports that clear and convincing evidence is only used in special civil cases such as judicial disciplinary proceeds, termination of parental rights, and extradition.

   Workers' compensation is a civil system, which should rely on the civil standard, i.e., preponderance of the evidence and be governed by the statutory language of Chapter 23-4-1g. Given the remedial purpose of workers' compensation, the claimant should receive the treatment if it is reasonable and necessary.

   If treatment is denied, it will likely be impossible for a claimant to satisfy the "clear and convincing" standard, and will require the treating physician who is requesting the additional treatment to supply a detailed medical report which would meet the clear and convincing evidence standard. Therefore, potentially beneficial treatment will be withheld and the claimant will remain off work and receiving indemnity benefits longer than necessary.

   Recommendation:

2. **Section 85-20-4.3:** Unreasonable limitations and/or reporting requirements forced on physicians will drive even more treaters from the system, exacerbating an already serious shortage of doctors willing to treat claimants.

   Recommendation:

3. **Section 85-20-6.5 and 6.9:** Unreasonable limitations and/or reporting requirements forced on physicians will drive even more treaters from the system, exacerbating an already serious shortage of doctors willing to treat claimants.

   Recommendation:

4. **Section 85-20-7.1:** At line 6, beginning with the word "Failure", delete the remainder of 7.1.

   Recommendation:

5. **Section 85-20-7.2:** Unreasonable limitations and/or reporting requirements forced on physicians will drive even more treaters from the system, exacerbating an already serious shortage of doctors willing to treat claimants.

Recommendation:

6. **Section 85-20-8.6:** Section should include language stating that there shall be no discussions about the claimant's medical history or medical records unless the claimant or his/her representative is a party to the conversation.

Recommendation:

7. **Section 85-20-18.1:** Treatment guidelines unnecessarily limit treating physicians' ability to render care and are burdensome. The only limitation should be "reasonable and necessary" or "customary".

Recommendation:

8. **Section 85-20-19.1:** The cross-examination fee for a doctor appearing at a hearing to testify should be paid by the party who submitted the doctor's report or treatment notes into evidence. This is the way doctors are paid currently and there is no reason to change it.

Recommendation:

9. **Section 85-20-21.1:** At Line 2, strike the word "clearly" and delete the last sentence of 21.1.

Recommendation:

10. **Section 85-20-21.1: IV. Specific Treatment Guidelines (Preamble)** – Second sentence should be changed as follows: However, the usage of the term "guidelines" should not be interpreted to suggest that the guidelines are to be given greater weight than the recommendations and opinions of the treating physician. The last sentence of the preamble should be deleted.

Recommendation:

11. **§85-20-24 through §85-20-53.6.2 Specific Treatment Guidelines:** These treatment guidelines may unnecessarily limit treating physicians' ability to render care and are burdensome. The only limitation should be "reasonable and necessary" or "customary". If the guidelines are approved, they must allow for consideration of non-listed treatment. This will allow for use of new/improved modalities.

Requirement of "clear and convincing" proof to exceed treatment guidelines violates Chapter 23-4-1g which utilizes the standard in civil cases that issues in civil cases are to be determined in accordance with the preponderance of the evidence standard. The utilization of clear and convincing evidence is only used in special instances in civil cases. Professor Franklin Cleckley, a former member of the West Virginia Supreme Court of Appeals and the author of the Handbook on West Virginia Evidence reports that clear and convincing evidence is only used in special civil cases such as judicial disciplinary proceeds, termination of parental rights, and extradition.

Workers' compensation is a civil system, which should rely on the civil standard, i.e., preponderance of the evidence and be governed by the statutory language of Chapter 23-4-1g. Given the remedial purpose of workers' compensation, the claimant should receive the treatment if it is reasonable and necessary.

If treatment is denied, it will likely be impossible for a claimant to satisfy the "clear and convincing" standard. Therefore, potentially beneficial treatment will be withheld and the claimant will remain off work and receiving indemnity benefits longer than necessary.

By enforcing the proposed treatment guidelines, the Board of Managers is essentially practicing medicine without a license. In all cases, the opinion of the claimant's treating physician regarding necessary treatment should be given great deference unless it is clearly outside established norms of care.

The "preponderance of the evidence" standard is included in West Virginia Code §23-4-1g, which was recently adopted as part of Senate Bill 2013. This creates an inherent conflict for the regulations to be subject to a more stringent evidentiary standard.

Recommendation:

12. **§85-20-52. Procedure In Occupational Pneumoconiosis Cases:**

52.1: Requires that a claimant must include in his application for occupational pneumoconiosis a pulmonary function study meeting the new requirements under this regulation. WV Code §23-4-1 does not require a PFT in which to file a claim for occupational pneumoconiosis.

Recommendation:

52.2: Provides that if an employer provides "information" that is has been in compliance with the OSHA limitations on exposure to dust, the claimant has not met his burden to file a claim for OP under WV Code §23-4-1(b) and §23-4-15(b). This regulation is clearly onerous. As we have seen in the past, employers falsify records regarding dust levels. Furthermore, dust samplings conducted by employers are oftentimes taken when the plant is not operating or in areas where the dust level is low. If an employee provides evidence of OP, he should be entitled to file a claim for that disease.

Recommendation:

52.4: Requires the appeal process to be completed on the non-medical issue before the claimant is referred to the OP Board for an examination. In some cases, this can delay for years the claimant's examination before the OP Board and can limit his right to medical treatment for OP during the appeal process. Furthermore, is contrary to the WV Code, which provides that non-medical rulings are interlocutory and can only be appealed in conjunction with the medical issue.

Recommendation:

13. **§85-20-55:** Unreasonable limitations and/or reporting requirements forced on physicians will drive even more treaters from the system, exacerbating an already serious shortage of doctors willing to treat claimants.

Recommendation:

14. **§85-20-58.1:** Unreasonable limitations and/or reporting requirements forced on physicians will drive even more treaters from the system, exacerbating an already serious shortage of doctors willing to treat claimants.

Recommendation:

15. **§85-20-59.1:** Unreasonable limitations and/or reporting requirements forced on physicians will drive even more treaters from the system, exacerbating an already serious shortage of doctors willing to treat claimants.

Recommendation:

16. **§85-20-63.1:** In general, the Presley –Reed Guidelines fail to adequately take into account physical differences among claimants and other factors such as the claimant's age, prior injuries, or pre-existing conditions.

The requirement of "clear and convincing" proof to exceed Reed-Reed Guidelines and treatment guidelines violates Chapter 23-4-1g which utilizes the standard in civil cases that issues in civil cases are to be determined in accordance with the preponderance of the evidence standard. The utilization of clear and convincing evidence is only used in special instances in civil cases. Professor Franklin Cleckley, a former member of the West Virginia Supreme Court of Appeals and the author of the Handbook on West Virginia Evidence, reports that clear and convincing evidence is only used in special civil cases such as judicial disciplinary proceeds, termination of parental rights and extradition.

Workers' compensation is a civil system, which should rely on the civil standard, i.e., preponderance of the evidence and be governed by the statutory language of Chapter 23-4-1g. Given the remedial purpose of workers' compensation, the claimant should receive temporary benefits if supported by reliable medical evidence.

Recommendation:

17. **§85-20-64.2 through §85-20-64.7:** The Commission has adopted the AMA Guide 4th Edition to Impairments in Section 64.1. Therefore, permanent partial disability assessments should be determined based upon the range of motion models contained the AMA 4th Edition.

Recommendation:

18. **§85-20-64.8:** Incremental PPD is to compensate for physical loss, diminished earning capacity, and loss of enjoyment of every day living. Statutory awards are by definition specific awards for specific injuries. The statutory percentage of disabilities under §23,4.6 should apply for the severance of any body part named in that subdivision.

Recommendation:

19. **§85-20-64.9:** Incremental PPD is to compensate for physical loss, diminished earning capacity, and loss of enjoyment of every day living. Statutory awards are by definition specific awards for specific injuries. The statutory percentage of disabilities under §23,4.6 should apply for the severance of any body part named in that subdivision. Further, they have the percentage of disabilities incorrect.

Recommendation:

20. The proposed rule as presented to the Board of Managers contains many areas of professional disagreement among the parties. Therefore, we respectfully request that a special subcommittee be established by the Board of Managers and additional public hearings be held for input by all affected parties.

Recommendation:

21. **§85-20-65.1 – Adoption of Standards:** The use of different impairment guides creates inconsistent standard and an increase for inconsistent results in independent medical examinations.

The use of an alternative guide shall not be permitted unless the impairment is clearly not provided for in either the AMA Guides 4th Edition or elsewhere in Chapter 23.

Recommendation:

22. §85-20A – Impairment of Pulmonary Function:

(b) No medical reason to give an exercise blood gas study more weight than a resting blood gas study.

(d) There is no medical test that can objectively factor out the different causes of pulmonary impairment. Any attempt to do so is purely speculative.

(e) As above, there are no objective tests that a physician can give you to factor out the different causes of occupational pneumoconiosis. Any attempt by a physician to do so is speculative.

(f) Allows for opinions by physicians as to the allocation of impairment between various causes when there is not a specific, objective scientific test that can be fairly used to apportion the causes of the pulmonary impairment.

(g) Cigarette smoking affects people differently. One cannot assume that it causes impairment in every instance. Additionally, a physician cannot use an objective test to factor out impairment caused from cigarette smoking as apposed to industrial dust exposure. Any such apportionment is purely speculative and not based upon any sound medical testing.

Recommendation:

III. Robert J. Smith, Attorney

1. The guidelines that have been drafted are comprehensive and complex. Because of that, it is my hope that the Board of Managers will carefully scrutinize the proposal to make certain that it accomplishes the overall objectives of the statute and that it represents a consistent application of the statute and the policies adopted in accordance with the statute. In addition, I urge the board of Managers to carefully review the proposed rule to assure that it is not contrary to the statute. As will be more fully explained below, I am firmly convinced that several of the key provisions contained in the proposed rule are contrary to the statute and to certain Supreme Court decisions that have construed the statute.

Recommendation:

2. ...By reducing benefit levels as this rule has done in many respects, the Commission seeks to invade the exclusive authority of the Legislature. It is hoped that the Board of Managers will not permit this intrusion.

Recommendation:

3. **85-20-4.1:** In this section, the Commission attempts to establish that treatment and limitations on treatment set forth in the rule are presumed to be medically reasonable and treatments in excess of those are presumed to be medically unreasonable. That is neither good medicine nor good policy. Moreover, this section of the rule seeks to require clear and convincing evidence to obtain treatment in excess of the rule. That standard of proof is contrary to the statute. In Section 23-4-1g(a), the statute provides that the resolution of all awards made on or after the effective date of the amendment shall be based upon a

weighing of all evidence and a finding that a preponderance of the evidence supports the chosen manner of resolution. The clear and convincing standard is substantially more onerous than the preponderance of the evidence standard. The Legislature has plainly decided that the old liberality rule should no longer apply and should be replaced with a preponderance of the evidence standard. The Commission now seeks to impose an even more onerous standard of proof in this rule. That more onerous standard is clearly contrary to the law.

Recommendation:

4. **85-20-6.2:** In this provision, the treating physician is charged with using the least costly mode of treatment wherever possible. Certainly, the financial status of the Fund is significant and important. However, the heart of the statute is making certain that claimants receive medically appropriate treatment. By the language used in this section of the rule, it appears that the most important thing is making sure that the treatment is the least costly. The most important thing should be making certain that the claimant receives reasonable medical care designed to return him to work. Certainly, that reasonable care should be provided at the least possible cost. But the emphasis should be on making certain that the claimant receives appropriate and reasonable medical care. Indeed, the statute requires it.

Recommendation:

5. **85-20-7.1:** This section is entitled "Initial Reporting of Injury". It imposes the responsibility for reporting the injury on the injured worker. While I have absolutely no quarrel with requiring an injured worker to report the injury wherever possible, this section fails to follow established insurance practices by requiring the employer to report the injury as soon as it has knowledge of the injury. In every insurance system, it is the policyholder that is obligated to make the report of injury or occurrence. In this case, the policyholder effectively is the employer. The employer should be required to report an injury very promptly to the Commission. After all, what we want is to get the injury reported as quickly as possible so the Commission may implement the case management techniques that are being implemented as a part of this rule. It is well established that the most efficient way to get the injury reported as quickly as possible is to have the employer do it. I suggest this rule be amended to require the employer to also report to the Commission the injury as quickly as possible.

Recommendation:

6. **85-20-18:** This section seeks to regulate organ transplants. Section 18.1 provides that transplants are not generally accepted or reimbursed. The issue in organ transplants, as it is in other treatment, is not whether it is generally approved or not approved, but rather whether it is reasonable necessary. The statement that such treatment is not generally accepted or reimbursed is overly broad and inappropriate as a matter of law. In addition, refusing transplants because they are needed in part because of a non-occupational condition is inappropriate. Again, the question is whether or not the injury occurred in the course of employment and whether the treatment needed is reasonable necessary from a medical standpoint. This rule, in effect, seeks to deal with the compensability of the condition and not with the treatment needed. As such, it is contrary to the statute.

Recommendation:

7. **85-20-19:** This section lists a host of services for which no payment will be allowed. While I agree that many of the diagnostic studies and services listed are not ordinarily appropriate treatment, the decision about hose issues should be made on a case-by-case basis and not on a blanket rule basis. Again, the issue is whether or not the treatment is

reasonably necessary from a medical standpoint. By eliminating treatment possibilities, the Commission oversteps its legal bounds.

Recommendation:

8. **85-20-20:** This section seeks to require a claimant or an employer to pay the appearance fee for a treating physician who is required to be at a hearing if the request is made by the claimant or by the employer. That is a deviation from past practice. As a practical matter, most physicians are not subpoenaed to hearings. Rather, they are deposed over the telephone and are not required to come to hearings. It is assumed that this rule does not change the practice that physicians will be paid by the Commission for such depositions. In any event, to impose upon the claimant the burden of paying for the testimony of the treating physician is inappropriate. The claimants simply do not have the economic resources to be able to pay those costs and will be put at a substantial disadvantage in trying to prove their claims.

Recommendation:

9. **85-20-21:** This section attempts to deal with the treatment of "unrelated" conditions. Once again, it is contrary to the statute. The standard for determining whether treatment should be paid for is whether it's reasonably necessary under all the circumstances. Again, it is subject to litigation and the preponderance of the evidence. The Commission in this rule proposes that it shall have the sole discretion to determine what is unrelated and what is not and whether such conditions will be paid for. The sole discretion language seems to imply that once they decide the matter it cannot be changed in the adjudication process. That is clearly beyond the statute.

Recommendation:

10. **85-20-23.1:** This section, once again, seeks to limit the circumstances under which the Commission will approve payment for treatment. Again, by limiting treatment with out regard to whether it is medically necessary is contrary to the statute. And, once again, the Commission is seeking to further limit benefits available to the claimant by rule making. The Legislature is empowered to limit benefits, not the Commission.

Recommendation:

11. **Specific Treatment Guidelines:** Many of the guidelines that are set forth in the various sections of the rule are essentially the same as those in the previous Rule 20. Guidelines about treatment are appropriate. However, where guidelines become overly inflexible, as the Commission seeks to make them in this rule, they cease to be guidelines and become limitations. Guidelines provide treating physicians with guidance about treatment, but give them the flexibility to provide the treatment medically necessary to return the injured worker to suitable gainful employment.

The Commission attempts to impose the clear and convincing standard on the guidelines that are proposed. As stated above, the standard is contrary to the statute. Both claimants and employers should be able to prove by a preponderance of the evidence that treatment is needed in a given circumstance.

Moreover, to the extent that the rule threatens medical providers with charges of abuse because they may exceed treatment guidelines under the circumstances imposed by the rule is a heavy-handed attempt to coerce in an inappropriate way medical providers. By threatening medical providers with charges of abuse, the Commission has dramatically impaired the ability of the adjudication process to function in a proper manner. It will be a rare occasion when a physician will seek to go beyond the guidelines and treatment

even though it is necessary when he is faced with the specter of a charge of abuse. Medical providers should be permitted to recommend treatment beyond the guidelines without the specter of a charge of abuse. To do otherwise vitiates the adjudication process.

In many cases throughout the treatment guidelines on specific injuries, the Commission seeks to decide things "in its sole discretion". That phrase implies that it is not subject to adjudication. To the extent that the Commission attempts to decide medical treatment issues based on its sole discretion, the Commission acts contrary to the statute. Once again, the statute requires payment for treatment that is medically necessary. Nowhere does the statute indicate that the Commission may decide in its sole discretion what occurs. Again, the Commission seeks to limit benefits contrary to the law.

Recommendation:

12. **85-20-41:** The Legislature has required the Commission to promulgate rules in regard to carpal tunnel syndrome. While there is much in the proposed rule that is entirely appropriate, there are also sections, which are inappropriate in the sense that they appear to mandate a noncompensable ruling under certain circumstances. Compensability decisions are set up by the statute. The Commission cannot further limit compensability situations by rule. That is a legislative province.

Moreover, certain of the provisions in the proposed rule state matters to be a medical fact when, in reality, there is still substantial dispute about those matters. That is, it is extraordinarily difficult from a medical standpoint to make broad statements about compensability. Rather, each case, from a medical standpoint, should be evaluated on its own merits.

For example, in Section 41.5, the Commission asserts that studies have failed to show a relationship between normal clerical activities and CTS. That seems to imply that a person who performs clerical duties should not have compensable CTS. That is disputed by a number of organizations. For example, the American Academy of Family Physicians, in its website, indicates that if you use a keyboard a lot, you should adjust the height of your chair or take other actions so that you don't have to flex your wrists to type. That same website indicates that people at risk include those who use computers. Similarly, the National Institute of Occupational Safety & Health website indicates that job tasks involving highly repetitive manual acts or necessitating wrist bending are connected with CTS. NIOSH notes that the hazard of carpal tunnel syndrome is not confined to a single industry or job, but occurs in many occupations. Finally, the journal of the American Medical Association, in its patient page, notes that people who type or do any kind of repetitive motion may be at risk of developing CTS. Accordingly, the suggestion that there is no relationship between clerical activities and CTS is an assertion that is subject to substantial disagreement in the medical community. For the Commission to adopt it is clearly inappropriate under these circumstances.

In addition, Section 481.6 indicates that work-related CTS is associated with years of repetitive activity. Again, that is an overstatement. A review of the medical literature indicates that different people succumb to the disease after differing periods of exposure. Everyone is different. To say that years of exposure are required is simply not supported in medicine. It once again seeks to impose a limitation inappropriately on a compensable condition. The test is whether the disease occurred in the course of employment and as a result of the employment. Plainly, medical providers may differ about that and it then becomes an issue for the adjudication process.

Recommendation:

13. **85-20-52:** This section deals with occupational pneumoconiosis cases. Generally speaking, the entire section seeks to limit treatment received by claimants who suffer from the debilitating effects of occupational pneumoconiosis. Instead of limiting the treatment by a rule, the standard should be whether the treatment is medically necessary. Once again, the Commission seeks to limit treatment without regard to whether the treatment is necessary in a given case for a given claimant. By limiting treatment in that manner, the Commission acts contrary to the statute. More fundamentally, it fails to provide treatment that human beings need.

The sections in regard to occupational pneumoconiosis impairment appear to be contrary to the West Virginia Supreme Court of Appeals decision in Martin v. Workers' Compensation Division, 210 W.Va. 270, 557 S.E.2d 234 (2001). Obviously, how the Supreme Court of Appeals ultimately deals with the liberality rule will determine this issue. However, at this point, it appears that the impairment limitations may well run contrary to Martin.

Recommendation:

14. **85-20-63:** This section deals with the implementation of the Medical Disability Advisor for use in establishing the expected period of time to reach maximum medical improvement. I heartily endorse the use of this methodology. It should be remembered, however, that the Presley Reed Guide is merely that, a guide. Over and over, in both the forward and preface, the guide is noted to be a valuable tool and resource but must be utilized in conjunction with the recommendations of the treating physician. The author himself notes that, "No reference text can take into account all of the important variables that may potentially have an impact on any individual medical case. No text can (or should) attempt to mandate the recommendations of the treating caregiver. No text can (or should) substitute for the strategy agreed upon by the patient and their caregiver." Unfortunately, the Commission is ignoring the basic concepts, which have been adopted by the author of the Presley Reed Guide. Moreover, by adopting the guides in this manner, contrary to the recommendation of the author, the Commission once again seeks to inappropriately limit treatment. That treatment which is reasonable necessary is what has to be provided to the claimant under the law. To limit the treatment as the Commission has done is contrary to the statute.

Moreover, by attempting to impose a clear and convincing proof standard, the Commission once again oversteps the statute. As noted above, the statute provides for a preponderance of the evidence test for adjudication. Clear and convincing is more onerous and is contrary to the statute.

Recommendation:

15. **85-20-64:** This section deals with the range of permanent partial disability awards for certain injuries. The Legislature has mandated that the Commission develop guidelines. What the Commission has developed is not guidelines at all. Rather, the Commission has developed limitations on awards, which are contrary to the statute. Moreover, the proposal made by the Commission is contrary to the Supreme Court decision in Repass, supra.

The heart of the ranges adopted by the Commission is found in Tables 85-20-C, 85-20-D and 85-20-E. Those are ranges for lumbar, thoracic and cervical disorders, respectively. In fact, what the Commission has done is to have adopted the impairment rating tables developed by the American Medical Association in its Guides to the Evaluation of Permanent Impairment, Fifth Edition, under the diagnosis related estimate model. Table 15-3 found on page 384 of that volume is the same as Table 85-20-C; Table 15-4 found

on page 389 of that volume is the same as Table 85-20-D; and, Table 15-5 found on page 392 of that volume is the same as Table 85-20-E.

This approach to developing guides is not in fact a guide. Rather, it imposes limitations on physicians' recommendations and attempts to impose limitations on adjudicators in finding what whole body impairment has been suffered by a claimant. The way the proposed rule structures the impairment evaluation is that it cannot exceed the values that are stated in the rule. That once again tends to limit impairment awards contrary to the statute. The statute requires awards be based upon whole body medical impairment. By limiting them to a specific amount set forth in a chart, the Commission is once again proposing what is in effect a benefit reduction for claimants. That's a legislative function, not an administrative function. See Repass, supra.

In addition, the methodology adopted by the Commission invites the legal battle which as already taken place in regard to the differences between the range of motion model and the diagnosis related estimate model. The issues between those models were litigated thoroughly and dealt with by the West Virginia Supreme Court of Appeals in Repass, supra. In that case, the Supreme Court of Appeals found the diagnosis related estimate model as utilized in the Fourth Edition to be contrary to the West Virginia statute. While one could attempt to distinguish Repass by asserting that the charts utilized are from the Fifth Edition, it is suggested that that is a distinction without a difference. The basis flaws in the diagnosis related estimate model are still present in the Fifth Edition. By adopting the diagnosis related estimate model of impairment, the Commission simply invites the same legal battle and the same result, at least the same uncertainty as existed prior to Repass.

Moreover, by bifurcating the examination and the award, the Commission has mixed apples and oranges, but I am not sure what it has come up with. The Commission requires the examination to be conducted in accordance with the range of motion model in the Fourth Edition. Yet, the PPD award is based on the diagnosis related estimate model set forth in the Fifth Edition. The examination process should not be bifurcated as the Commission has done from the award process. They are part and parcel of reaching an impairment award. However, the West Virginia Supreme Court of Appeals has found a diagnosis related estimate model to be inconsistent with the West Virginia statute. The 2003 amendments did not change any of those statutory provisions with which the DRE is inconsistent. Accordingly, the same result appears dictated here.

The Commission should let sleeping dogs lie and devise a guideline which does not have all of the legal problems associated with what it has done.

Recommendation:

16. While the proposed rule has many good provisions, it is hoped that the board of Managers will review with an open mind the above comments and require the Commission to adopt a rule which is consistent with the statute and Supreme Court decisions and which illustrates a policy which is not anti-claimant.

Recommendation:

IV. William T. Griffin, Athletic Trainer

1. Athletic Trainers are highly qualified medical practitioners recognized by the American Medical Association as Allied Health Professionals. All Athletic Trainers meet the same rigorous standards for certification, sit for a comprehensive certification exam and complete 80 hours of continuing education every 3 years. The foundation of athletic

training education is the Domains of Athletic Training. They are: prevention of injuries and illness; recognition, evaluation and assessment; immediate care, treatment, rehabilitation and reconditioning; organization and administration; and professional development and responsibility. Each one of these areas of academic and practical preparation uniquely qualifies us to work with "industrial athletes." First and foremost we take a preventative approach. From there we are expected to evaluate, treat and assess the ability to return to play before the next change of possession (to use a football analogy). Nearly everything we do is related to orthopaedics and musculoskeletal injuries. Our goal is a quick and safe return to play. This translates to a positive outcome for the injured worker and overall decreased costs to the employer and Workers' Compensation Carriers. Thank you for allowing me to comment on this proposed rule. I urge you to not adopt this rule, and rather, grant greater access for the injured workers of West Virginia to the cost-effective and efficient care of Certified Athletic Trainers.

Recommendation:

V. E. William Harvit, Attorney

1. **§85-1-51 – Procedure in Occupational Pneumoconiosis Cases:** I note that the FEV_1/FVC ratio has been eliminated from the Table for Impairment of Pulmonary Function found in §85-1-51.9.7. The elimination of the FEV_1/FVC ratio is not supported by the medical community including the Occupational Pneumoconiosis Board and is used by 100% of the 139 testing facilities last surveyed in this Country, Puerto Rico and Canada.

   The FEV_1/FVC ratio is used to detect obstructive breathing disease in persons with larger lungs who may appear normal when compared with the FVC and FEV_1 of other "predicted" persons with normal lungs. The FEV_1/FVC ratio has been used by the Occupational Pneumoconiosis Board for 25-30 years and the majority of the breathing centers surveyed for many years.

   In 1990, a survey of institutions with respiratory disease training programs was conducted to determine which reference equations were used to predict normal pulmonary function. In that survey, the institutions were asked which reference as used for FVC, FEV_1 and the FEV_1/FVC ratio. ONE HUNDRED PERCENT (100%) OF THE TESTING FACILITIES USED THE RATIO along with the FVC and FEV_1, to determine pulmonary impairment.

   In *Lung Function Testing: Selection of Reference Values and Interpreted Strategies*, AM.Rev.Respir.Dis. 1991; 144; 1202-1218, the American Thoracic Society, Medical Section of the American Lung Association, stated **"[t]he FEV_1/FVC ratio is the most important measurement for distinguishing an obstructive impairment."** Id. at page 1212. Accordingly, the FEV_1/FVC ratio is extremely important in correctly evaluating impaired lung function and should not be eliminated to the detriment of West Virginia workers whose lungs have been damaged from exposure to occupational dust.

   Section 85-1-51.2 requires the Commission to determine that a claimant's dust exposure was not harmful if the employer was in compliance with the Occupational Safety and Health Administration ("OSHA") limitations on exposure. This regulation assumes that the inspections by OSHA are conducted regularly, under normal operating conditions, that the equipment measuring the concentration of dust is accurate and that the results are reported accurately. These ideal situations do not exist and this regulation is totally unfair to workers who develop lung damage on the job.

Section 85-1-51.4 requires the completion of the protest and/or appellate review of the non-medical order before the claimant is referred to the Occupational Pneumoconiosis Board. This regulation is contrary to the stated purpose of Workers' Compensation – to provide expedient medical and disability benefits to injured workers who give up their rights to file a civil action against their employer.

Recommendation:

VI. Greg Mclaughlin, Acordia Employers Service

ADD/DELETE LANGUAGE AS INDICATED:

1. **§85-1-52.1:** A properly completed application must be received before the potential claim will be considered by the Commission. A properly completed application must include 1) a completed WC-105 form; 2) a completed WC-205 form; ~~3) an ILO form properly completed by a certified "B" reader; 4) a valid pulmonary function study complying with the requirements of this Rule demonstrating permanent pulmonary impairment~~; and 5) a listing **by the claimant** of all alleged exposures to harmful dust, including type of dust, and extent and duration of exposure with each named employer.

   Recommendation:

2. **§85-1-52.2:** If the employer provides information as part of the application process demonstrating that it has been in compliance with OSHA/**MSHA** limitations on exposure to the dust alleged by the ~~injured worker~~ **claimant**, during the periods of exposure alleged by the ~~injured worker~~ **claimant**, then the Commission shall determine that the dust exposure alleged by the ~~injured worker~~ **claimant** was not harmful and does not suffice to satisfy the exposure requirement of West Virginia Code Sections 23-4-1(b) and 23-4-15(b).

   Recommendation:

3. **§85-1-52.3 - Nonmedical hearing:**

   Upon receipt of a proper application, employer's reports and investigation (if requested by the Commission), the Commission shall determine the nonmedical questions, and shall notify all interested parties of his decision. ~~A properly completed application After the Commission makes or has made a determination,~~ Any dissatisfied party may, within thirty (30) days after receipt of written notice of the Commission's decision, file objection thereto in writing, whereupon the Office of Judges will set a time and place for a hearing thereon. These hearings shall be subject to the provisions of the rules promulgated by the Office of Judges (Title 93, Series 1).

   Upon completion of the nonmedical hearing, the Office of Judges will enter a final nonmedical ruling and shall notify the ~~injured worker~~ **Claimant** and employer of this decision. The Office of Judge's final nonmedical ruling will be subject to appeal to the Workers' Compensation ~~Appeal Board~~ **Board of Review.**

   Recommendation:

4. **§85-1-52.4.** Occupational pneumoconiosis board ~~hearing~~. **exam**.

   Subject to and upon the completion of, the protest and/or appellate review of the Commission's initial nonmedical order, the Commission shall refer this claim to the Occupational Pneumoconiosis Board: Provided That, the requirements of West Virginia

Code section fifteen-b, article four, chapter twenty-three have been satisfied. In the case of such reference, the Commission will notify the ~~injured worker~~ **claimant** to appear before the Board for an examination and shall state the date, time, and location thereof. The Commission will notify the employer or employers of the date, time and place of the examination. A quorum of the Board will then proceed to ~~hear~~ **examine** and determine all medical questions relating to the claim.

At such ~~hearing~~ **examination** the ~~injured worker~~ **claimant** and each employer ~~must~~ **may** produce as evidence all reports of medical and X ray examinations that may be in their respective possession or control showing the past or present condition of the employee.

Recommendation:

5. **§85-1-52.5. Report of Occupational Pneumoconiosis Board.**

Upon completion of the ~~hearing~~ **examination,** the participating members of the Occupational Pneumoconiosis Board shall prepare a written report to the Commission setting forth their findings and decision, and shall prepare a sufficient number of signed copies of report so that the Commission may file one in his office, send one to the ~~injured worker~~ **claimant** and one to each employer interested in the claim.

Recommendation:

6. **§85-1-52.6. Objections.**

Any interested party who objects, in whole or in part, to the findings and conclusions of the Board may, within the statutory period after ~~the mailing to him of the copy of the report~~ **receipt of the Board's report**, or within such additional time as may be allowed by the Commission for good cause shown, file with the ~~Commission~~ **Office of Judges** his written objections, specifying the particular statements of the Board's findings and conclusions to which he objects. Upon receipt of such objection, the ~~Commission~~ **Office of Judges** shall set a time and place for a hearing thereon and shall notify each interested party and each member of the Board of the time and place of the hearing.

Recommendation:

7. **§85-1-52.7. Hearings on protest.**

Hearings held upon protest to the findings of the Occupational Pneumoconiosis Board will be held at the offices of the ~~Commission~~ **Office of Judges** in Charleston unless the ~~Commission~~ **Office of Judges** shall otherwise direct. The procedure in protest hearings shall be governed by the provisions of Section 16 of these Rules, except that evidence shall be limited to medical testimony and other competent medical evidence, unless the Board has passed upon non-medical aspects under the Commission's referral. Cross-examination of the Board shall be limited to those members who examined the ~~injured worker~~ **claimant**. However, if the ~~Commission~~ **Office of Judges,** or his duly authorized representative, decides that testimony of other members of the Board is necessary or desirable, he may permit such testimony at the protest hearing.

Recommendation:

8. **§85-1-52.8. Employer's Request For Medical Examination.**

An employer's request for medical examination of the ~~injured worker~~ **claimant** by a physician of its choice, shall be rejected if filed before the findings of the Occupational Pneumoconiosis Board have been transmitted to the ~~injured worker~~ **claimant** and the

employer. Such requests shall be entertained only when filed subsequent to the transmittal of the Occupational Pneumoconiosis Board findings.

Recommendation:

9. **§85-1-52.9.a:** The following standards specify examination and evaluation criteria to guide the Occupational Pneumoconiosis Board in its examination and evaluation of ~~injured workers~~ **claimants**, and to guide other physicians and medical technicians who conduct examinations and evaluations of ~~injured workers~~ **claimants** on behalf of such ~~injured workers~~ **claimants** and their employers. These standards are established for the further purpose of ensuring that uniform procedures are used in administering and interpreting ventilatory function tests and arterial blood gas studies and that the best available medical evidence will be obtained in support of a claim for occupational pneumoconiosis benefits. The physician supervising any such testing and/or the technician administering any such testing will so indicate by signing the reports. Any report of test results submitted to the Occupational Pneumoconiosis Board must affirmatively state, as to each of the standards individually, the fact that the particular test or study was performed in compliance with that standard. In the event that any such report fails to affirmatively show compliance with these standards, the Occupational Pneumoconiosis Board may disregard all or any part of such test or study or give such test or study such weight as the Board believes it deserves.

Recommendation:

10. **§85-1-52.9.d.6:** ~~52.9.d.6. MVV -maximal voluntary ventilation -- The volume of air that can be exchanged over a unit period of time, usually twelve (12) to fifteen (15) seconds.~~

Recommendation:

11. **§85-1-52.9.e.1.E:** Instruments incorporating measurements of airflow to determine volume must conform to the same volume accuracy stated in Subdivision ~~20.8(e)(1)(A)~~ **52.9** of this regulation when present with flow rates from at least zero (0) to twelve (12) liters per second.

Recommendation:

12. **§85-1-52.9.e.1.G:** The instrument used must provide ~~a tracing of either flow versus volume or volume versus time~~ **volume vs. time tracings** during the entire forced expiration ~~and volume versus time during the MVV Maneuver.~~ Such tracing must be furnished to the Board with the test results. No results will be considered by the Board unless they are accompanied by the corresponding tracings. A tracing is necessary to determine whether the subject has performed the test properly. The tracing must be of sufficient size that hand measurements may be made within the requirement of Subdivision ~~20.8(e)(1)(A)~~ **52.9** of this regulation.

Recommendation:

13. **§85-1-52.9.e.1.I:** The forced expiratory volume in one (1) second (FEV_1 measurement must comply with the accuracy requirements stated in Subdivision ~~20.8(e)(1)(A)~~ **52.9** of these Regulations; that is, the FEV_1 must be accurately measured to within plus (+) fifty (50) ml or within plus (+) three percent (3%) of reading, whichever is greater.

Recommendation:

14. **§85-1-52.9.e.1.K:** ~~For measuring maximum voluntary ventilation (MVV), the instrument must have a response which is flat within plus (+) ten percent (10%) at flow rates up to twelve (12) liters per second over the volume range. The time for exhaled volume integration or recording must be no less than twelve (12) seconds and no more than fifteen (15) seconds. The in dicated time must be accurate to within plus (+) three percent (3%). A recording of the spirometer tracing is required, and the volume sensitivity must be such than ten (10) mm or more deflection corresponds to one (1) liter volume.~~

Recommendation:

15. **§85-1-52.9.e.3:** ~~For ascertainment of the MVV, the subject must be instructed before beginning the test that he or she will be asked to breathe as deeply and as rapidly as possible for approximately fifteen (15) seconds. The test may be performed with the subject in either a sitting or standing position. Care shall be taken on repeat testing that the same position is used. The subject should breathe normally into the mouthpiece of the apparatus for ten (10) to fifteen (15) seconds to become accustomed to the system. The subject should then be instructed to breathe as deeply and as rapidly as possible and shall be continually encouraged during the remainder of the maneuver. The subject shall continue the maneuver for twelve (12) seconds. The subject should be allowed to rest between maneuvers. At least three (3) MVV's must be observed to determine if there was compliance with instructions. The effort must be judged unacceptable and cannot be considered in evaluating pulmonary functional impairment when the patient:~~

~~A. Has not maintained consistent effort for at least twelve (12) to fifteen (15) seconds; or~~

~~B. Has coughed or closed his glottis; or~~

~~C. Has an obstructed mouthpiece or a leak around the mouthpiece (obstruction due to tongue being placed in front of mouthpiece, false teeth falling in front of mouthpiece, etc.); or~~

~~D. Has an excessive variability between the three (3) satisfactory curves. The variation between the three (3) satisfactory tracings must not exceed ten percent (10%) and should approximate forty (40) times the greatest FEV{11{s volume.~~

Recommendation:

16. **§85-1-52.9.e.6:** ~~Only MVV maneuvers which demonstrate consistent effort for at least twelve (12) seconds shall be considered acceptable. The largest accumulated volume for a twelve (12) second period corrected to BTPS and multiplied by five (5) shall be reported as the MVV.~~

Recommendation:

17. **§85-1-52.9.f.1.I:** Exercise must be accomplished by having the subject pedal the bicycle ergometer at a rate of fifty (50) -sixty (60) revolutions per minute against a resistance of seventy-five (75) Watts or four hundred fifty (450) Kilopond Meters (Kpm) per minute for a period of five (5) minutes. A treadmill may be used, and when used, exercise must be done at two (2) mph and ten percent (10%) grade. During the last twenty (20) seconds of the fifth minute of exercise, the exercise sample must be drawn into a heparinized syringe and the pulse and respiration rates noted. If an added level of exercise is performed, this must be done at one hundred twenty (120) Watts on the bicycle, or on the treadmill at two and five tenths (2 5/10) mph and twelve percent (12%) grade. Exercise testing beyond the level set forth herein shall be considered to be measurements of

physical conditioning rather than of blood gas transfer abnormalities due to occupational pneumoconiosis. **The arterial blood sample should be drawn while exercise continues, not following cessation of exercise. If arterial samples are drawn after exercise, it must be noted on the report.** The EKG leads are then removed and the subject allowed to sit on a chair while the catheter is removed. Pressure must be held at the site of arterial cannulation for five (5) minutes, and if there is no bleeding or hematoma present, a compression bandage must be placed on the radial artery. This bandage must be left in place for four (4) hours. After about fifteen (15) minutes of observation, the subject will be allowed to leave. ~~The arterial blood sample should be drawn while exercise continues, not following cessation of exercise.~~

Recommendation:

18. **§85-1-52.9.f.1.K:** The report should indicate the place, date and time of the study, altitude of the testing site and barometric pressure at the testing site on the day of the testing, name and claim number of the subject, name of any assisting personnel, name and signature of the supervising physician, duration and type of exercise (if performed), pulse **and respiration** rate at the time the blood sample was drawn, and ~~whether analysis~~ **date and time** equipment was **last** calibrated ~~before each test~~ **prior to testing.**

Recommendation:

19. **§85-1-52.9 – Medical Treatment - 52.9.4 – Pulmonary Rehabilitation:** Pulmonary rehabilitation programs coverage includes: Prevention of disease progression, nutrition, hygiene, anatomy, recognition of symptoms, smoking cessation, physical conditional **conditioning**, weight control, breathing techniques, drug evaluation, stress reduction and follow-up.

Recommendation:

20. **§85-1-52.9.2.a. – Durable medical equipment and nursing care:** Authorization for purchase or rental of durable equipment such as hospital beds, commode chairs, lifts, **and oxygen delivery systems will be considered only upon certification of medical necessity from the treating physician**. Authorization of durable medical equipment, including oxygen delivery systems, shall be given in the sole discretion of the Commission.

Recommendation:

21. **§85-20-47.1: A properly completed application must be received before the potential claim will be considered by the Commission. A properly completed application must include 1) a completed WC-1HL form, which has been properly filled out by a certified otologist/otolaryngologist; 2) a completed WC-1HL-A form and 3) a listing by the claimant of all alleged exposures to harmful noise, including type of noise, and extent and duration of exposure with each named employer.**

Recommendation:

22. **§85-20-47.2: If the audiometric testing submitted by the claimant shows no impairment in the compensable hearing and speech range, the claim will not be ruled compensable.**

Recommendation:

23. **§85-20-47.3: If the employer provides information as part of the application process demonstrating that it has been in compliance with OSHA/MSHA limitations on**

exposure to the noise alleged by the claimant, during the periods of exposure alleged by the Claimant, then the Commission shall determine that the noise exposure alleged by the Claimant was not harmful and does not suffice to satisfy the exposure requirement of West Virginia Code Sections 23-4-6b(g).

Recommendation:

24. **§85-20-47.4. Compensability Ruling**

Upon receipt of a proper application, employer's reports and investigation (if requested by the Commission), the Commission shall determine the compensability of the claim, and shall notify all interested parties of his decision. After the Commission makes or has made a determination, any dissatisfied party may, within thirty (30) days after receipt of written notice of the Commission's decision, file objection thereto in writing, whereupon the Office of Judges will set a time and place for a hearing thereon. These hearings shall be subject to the provisions of the rules promulgated by the Office of Judges (Title 93, Series 1).

Upon completion of the compensability hearing, the Office of Judges will enter a final compensability ruling and shall notify the claimant and employer of this decision. The Office of Judge's final compensability ruling will be subject to appeal to the Workers' Compensation Board of Review.

Recommendation:

25. **§85-20-47.5:** Only audiometric test results obtained by an audiologist having a certificate of clinical competence in audiology (CCC-A) or a West Virginia audiology licensure are acceptable for purposes of awarding compensation. An audiogram performed at the request of any physician may be utilized by the ~~injured worker~~ **claimant** for the purpose of completing the workers' compensation application form, ~~WC-123HL~~ **WC-1HL**. However, only physicians who are qualified otologists or otolaryngologists may interpret the results of audiograms in assessing the degree of the ~~injured worker~~ **claimant's** noise-induced hearing loss impairment for the purpose of determining the percentages of the ~~injured worker~~ **claimant's** whole person impairment, if any.

Recommendation:

26. **§85-20-47.6:** A physician examining and evaluating a ~~injured worker~~ claimant in a noise-induced hearing loss claim must consider the ~~injured worker~~ claimant's medical and occupational history, as well as available audiograms, in determining the etiology of the hearing loss. It is not necessary to use a uniform brand and model of audiometer.

Recommendation:

27. **§85-20-47.7:** Establishing a definitive margin of error: Two audiograms are said to be in acceptable test-retest variability when the total of four frequencies (500, 1000, 2000, 3000 Hz) is 15 decibels or less and the audiometric curves are similar. ~~Because the two audiograms are technically identical and one cannot be chosen over the other~~, the calculation of whole person impairment will be based on the audiogram that yields the ~~highest~~ **lowest** degree of impairment for the ~~injured worker~~ **claimant**.

Recommendation:

28. **§85-20-47.8.1:** Speech Reception Threshold (SRT)/Pure Tone Average Comparison: SRT should be within 10 decibels of the best two frequency average for the pure tone thresholds of 500, 1000, 2000, **3000** Hz.

Recommendation:

29. **§85-20-47.9:** The Commission will inform all physicians evaluating noise-induced hearing loss ~~injured workers~~ **claimants** on the Commission's behalf that standard air conduction and bone conduction testing, speech reception threshold, speech discrimination, tympanometry and acoustic reflex testing must routinely be performed as a part of audiometric evaluation. Other testing, including otoacoustic emission testing, may be required at the discretion of the otologist/otolaryngologist. If the required audiometric tests have not been done, the report is unacceptable and the physician will not be compensated. W. Va. Code §23-4-8.

Recommendation:

30. **§85-20-47.10:** When a sensorineural hearing loss is present it may be the result of noise induced hearing loss and/or other disease processes. The medical evaluator should consider all causes of sensorineural hearing loss. When a conductive loss is present, the bone conduction levels will show the purist hearing a ~~injured worker~~ **claimant** could have as a result of noise induced hearing loss.

Recommendation:

31. **§85-20-47.11:** The audiologist shall perform speech discrimination (word recognition) testing using W-22 word lists. Both live voice and recorded presentation methods for testing speech discrimination are acceptable; each method has its advantages. The audiologist should use the method that provides the best representation of the ~~injured worker~~ **claimant's** true speech discrimination score.

The otologist or otolaryngologist interpreting the speech discrimination results shall use the formula set forth in W. Va. Code §23-4-6b, to calculate the ~~injured worker~~ **claimant's** impairment rating.

Recommendation:

32. **§85-20-47.12:** Occupational noise induced hearing loss (NIHL) typically starts in the high frequencies; usually 3000, 4000 or 6000 Hz. With progression, these frequencies worsen and the hearing loss extends to the lower frequencies; (2000 and 1000 Hz). Even with progression, however, the audiometric pattern remains one that descends from the low frequencies to the high frequencies, sometimes with recovery at 6000 or 8000 Hz. Occupational NIHL does not cause an ascending audiometric pattern (where the low frequencies would be worse than the high frequencies). A flat audiometric curve is also not typical of an etiology of solely occupational NIHL. If an audiogram presents a pattern that is atypical of an occupational NIHL pattern, then the physician interpreting the audiogram should consider causes other than occupational noise exposure in determining the hearing loss etiology. If the otologist/otolaryngologist determines that a ~~injured worker's~~ **claimant's** hearing loss is not all noise induced hearing loss, he or she should ~~estimate the true noise induced hearing loss thresholds and~~ **make an adjustment for the nonoccupational portion of the claimant's hearing loss** and explain his or her calculations on the basis of medical and audiological findings.

Recommendation:

33. **§85-20-47.13:** When a ~~injured worker~~ **claimant** has been exposed to steady state noise, his or her NIHL will usually be symmetrical between both ears. If the ~~injured worker~~ **claimant** has a hearing loss that is asymmetric then the evaluating physician should consider all causes for hearing loss, including nonoccupational noise, trauma or disease processes and whether there is more noise exposure on one side than the other.

Recommendation:

34. **§85-20-47.14:** If a physician determines that a ~~injured worker's~~ **claimant's** hearing loss is the result of occupational noise exposure, the total hearing loss impairment rating shall be calculated pursuant to the formula set forth in W. Va. Code 23-4-6b.

Recommendation:

35. **§85-20-47.15:** The Commission will not **authorize nor** reimburse for hearing aids when there is no compensable permanent impairment.

Recommendation:

VII. Joseph M. Carter, UMWA

1. An application for occupational pneumoconiosis (black lung, silicosis or asbestosis) must have a B-read x-ray and full pulmonary testing that meets the criteria of the Occupational Pneumoconiosis Board. These are very expensive tests not required of workers now. The law does not require this test. Also, there will be no awards for what was called the FEV_1/FVC ratio on these tests. The ratio takes into account workers who are abnormally tall.

Recommendation:

2. Beginning February 2004 and every month after, 500 permanent total disability claimants will be contacted. Failure to "fully and adequately respond" will result in suspension of benefits. Benefits will be reinstated prospectively if and when the recipient complies but the benefits lost during the suspension will not be paid.

Recommendation:

3. Doctors will no longer determine how long you should stay off work if you are injured. There is a book called Presley Reed Guide that lines out how long a person should be off work for certain injuries. The new rules state, "any requirements, standards, parameters and limitations...which exceeds those standards set forth in the Presley Reed Guide are hereby deemed medically unreasonable." which exceeds those standards set forth in the Presley Reed Guide are hereby deemed medically unreasonable." Your treating doctor should decide how long you need to recuperate from an injury.

Recommendation:

4. The Commission may re-open any permanent total disability claim and may vacate, modify or affirm. They may also require the offset of any benefits from a retirement plan, a wage replacement plan, salary continuation, or any other benefit plan.

Recommendation:

5. Under permanent total disability any claim awarded on or after April 8, 1993 will be required to submit tax returns, an affidavit demonstrating level of income, recreational

activities and work activities. Any claim awarded before April 8, 1993 but re-opened for a benefit adjustment shall be eligible for this review.

Recommendation:

VIII. Deborah L. Wills

1. I object to workers applying for occupational pneumoconiosis benefits being required to have full pulmonary function testing (which meets the Board's criteria) and a B-read chest x-ray prior to application. These are expensive tests. The law does not require the tests. Many workers now make applications from local physicians and/or primary care clinics. These offices are not equipped to do full testing and would have to refer each patient to the hospital upon each application. This is not fair for workers and it is not fair to the physicians who have historically served this population. Further, the table of pulmonary impairment has eliminated the ratio awards. The ratio takes into account workers who are abnormally tall.

   Recommendation:

2. Another area of objection is the exclusive use of the Presley Reed Guide. The treating physician should be able to make individual assessments based on each patient's needs.

   Recommendation:

3. If Workers' Compensation begins to review all PTD awards, many claimants will be temporarily suspended from payment. Many of these patients are elderly and most are undereducated. Lack of education and poor reading skills will make it difficult, if not impossible, for these claimants to "fully and adequately" respond to inquiries. Benefits lost during a suspension will not be paid. This is terribly unfair to a group of workers who were promised lifetime benefits and who are truly and totally disabled. There will be no help from the lawyers who handled their original claims as they have already been paid and could not add an additional charge.

   Recommendation:

4. Some changes may be necessary to keep the Fund solvent. However, the burden of solvency should not be on the backs of injured or diseases workers. It should be shared among the employers who have been delinquent in payments. Not all employers should be expected to pay these bills. Most have always paid their premiums. Thos who did not should bear the expense now.

   Recommendation:

IX. William T. Brotherton, Spilman Thomas & Battle

1. **Section 52.9.d.1:** Delete the term FEV – forced expiratory volume – same as FVC.

   Recommendation

2. **Section 52.9.d.4:** Add the following language: MVV – Maximal Voluntary Ventilation – The volume of air that can be exchanged over a unit period of time, (usually performed for 12 to 15 seconds and converted to liters per minute).

   Recommendation:

3. **Sections 52.9.d.9 through 52.9.d.16:** Add the following sections:

9. NBRC – National Board for Respiratory Care
10. CPFT – Certified Pulmonary Function Technician
11. RPFT – Registered Pulmonary Function Technologist
12. R_{aw} – Airway resistance
13. DLCO – Carbon monoxide diffusing capacity of the lungs
14. DL/VA – Carbon monoxide diffusing capacity per unit of alveolar volume
15. VA – Alveolar Volume (single breath equivalent to TLC)
16. TLC – Total Lung Capacity (measured by plethysmograph, Nitrogen washout, or Helium dilution)

Recommendation:

4. **Section 52.9.e.1.g:** Add the following language:

The instrument used must provide tracings of volume versus time during the entire forced expiration. Flow versus volume tracings may be added. If MVV maneuver is performed, the volume versus time tracings must also be provided. Such tracings must be furnished to the Board with the test results.

Volume scale: When a volume – time curve is plotted or displayed, the volume scale must be **at least:** 10 mm/L (BTPS).

Time Scale: **at least** 10 mm/S.

No results will be considered by the Board unless they are accompanied by the corresponding (minimum of 3) tracings. Tracings are necessary to determine whether the subject has performed the test properly. The tracing must be of sufficient size that hand measurements may be made within the requirement of paragraph 1.a. above.

Recommendation:

5. **Section 52.9.e.1.j:** Add the following language:

The instrument must be capable of being calibrated in the field with respect to the FVC and time scales. This calibration of the FVC may be done either directly or indirectly through volume and time base measurements. The volume calibration source must provide a volume displacement of at least 3 liters and must be accurate to within + or = 30 ml.

Recommendation:

6. **Section 52.9.e.2:** Add the following language:

The administration of ventilatory function tests must conform to the following criteria: For ascertainment of the FEV_1 and FVC, a nose clip or alternative must be used. The procedure must be explained in simple terms to the subject who shall be instructed to loosen any tight fitting clothing and sit in front of the apparatus. Although the subject may sit or stand, care should be taken on repeat testing that the same position be used. Sitting position will be considered the preferred method although standing may be utilized for obese patients and notations made as to the position. Particular attention must be given to insure that the subject's chin is slightly elevated with the neck slightly extended. The subject must be instructed to make a full inspiration and then blow into the apparatus, with interruption, as hard, fast and completely as possible.

Recommendation:

7. **Section 52.9.e.2.a through 52.9.e.2.e:** Insert the following new language:

a. The largest and second largest FVC are not within 7% of each other; or
b. The largest and second largest FEV_1 are not within 7% of each other; or
c. Has not continued the expiration for at least 6 seconds or until an obvious plateau in the volume time curve has occurred. Exceptions: Young adults and patients with restrictive defects tend to plateau early. Reduced FVC with a normal or high FEV_1/FVC ratio is suggestive of restriction, although measurement of TLC is required to confirm restriction, or;
d. Tracings indicate cough prior to the FEV_1 measurement or;
e. Early termination of flow (glottis closure) or;

Continue with Section 52.9.e.2.f and 52.9.e.2.g: Has an unsatisfactory start of expiratory…

Recommendation:

8. **Section 52.9.e.2.h:** Add the following language:

h. Predicted values for spirometry are derived from Kory (1961) nomogram.

Recommendation:

9. **Section 52.9.e.3:** Add the following language:

For ascertainment of the MVV, the subject must be instructed before beginning the test that he or she will be asked to breathe as deeply and as rapidly as possible for approximately 12 seconds. Sitting position will be considered the preferred method although standing may be utilized for obese patients and notations made as to the position. Care shall be taken on repeat testing that the same position is used. The subject should breathe normally into the mouthpiece of the apparatus for 10 to 15 seconds to become accustomed to the system. The subject should then be instructed to breathe as deeply and as rapidly as possible and shall be continually encouraged during the remainder of the maneuver. The subject shall continue the maneuver for 12 seconds. Only one (1) MVV maneuver is necessary. The effort must be judged unacceptable and cannot be considered in evaluating pulmonary functional impairment when the patient:

Recommendation:

10. **Section 52.9.e.5:** Add the following language:

The first step in evaluating a spirogram for the FVC and FEV_1 shall be to determine whether or not the subject has performed the test properly or as described in B. (FVC) and the forced expiratory volume A.1. above. From the three satisfactory tracings, the forced expiratory volume in one second (FEV_1) must be measured and recorded. The largest FVC and the largest FEV_1 must be used in the analysis, corrected to BTPS.

Recommendation:

11. **Section 52.9.f and 52.9.g:** Insert new language after Section 52.9.e.

f. SINGLE BREATH CARBON MONOXIDE DIFFUSION CAPACITY

1. For ascertainment of the Single Breath DLCO, the subject must be instructed before beginning the test that he or she will be asked to breath normally through the system for a number of breaths to achieve stable tidal breathing, then exhale to the level of residual volume (RV). At that point, the patient will be instructed to inhale quickly to the level of Total Lung Capacity (TLC) and hold their breath for approximately 10 seconds, then exhale for sample collection in the instruction of the technician administering the test.
2. Single breth carbon monoxide diffusion capacity tests are performed using the Jones-Meade method of measurement.
3. Predicted values are derived from Crapo (1981) nomogram.
4. Total Hemoglobin and Carboxyhemoglobin are to be reported. Subjects with anemia will have results corrected to hemoglobin of 14.6 (males) and 13.4 (females).
5. Reports will include DLCO, Alveolar Volume (VA) and DLCO/VA ratio.
6. At least two (2) maneuvers are to be carried out. During the maneuvers, the subject must be observed for compliance of instructions, with tracings checked for acceptability and reproducibility. The effort(s) shall be judged unacceptable and cannot be considered in evaluating pulmonary function impairment when the subject:
   a. IVCs do not achieve 90% of previously measured vital capacity.
   b. Actual DLCO measurements are not within 3 ml or 10% whichever is larger.
   c. IVCx (SVCs) are not reported for each acceptable maneuver.
   d. Inspiratory time exceed 2.5 seconds.
   e. Breath hold time is less than 9 seconds or exceeds 11 seconds.
   f. Sample is not obtained within 4 seconds after breath hold.
   g. Carboxyhemoglobin is not reported or value is 3.1% or higher.

g. AIRWAY RESISTANCE (Raw)

1. Airway resistance measurements will be measured using a body plethysmograph. For ascertainment of the Raw, the subject must be instructed before beginning the test that he or she will, after being sealed in the plethysmograph, be asked to breath normally while temperature equilibration occurs and then to hold cheeks with hands and gently pant which open and closed shutter measurements are taken. The effort must be judged unacceptable and cannot be considered in evaluating pulmonary functional impairment when the patient:
   a. Has panting rate too slow or too fast.
   b. Breaths are too large or too small.
   c. Tracings are not reproducible.

Continue with **Section 52.9.h ARTERIAL BLOOD GAS STUDIES.**

Recommendation:

12. **Section 52.9.h.1.b through 52.9.h.1.g:** Add/change language as indicated.

b. The barrel of the syringe used to draw the blood sample should contain a coating of lithium heparin. If wetted syringes are used, the excess heparin must be expelled just prior to obtaining the blood sample.
c. The subject should be allowed to rest while breathing room air for fifteen (15) minutes prior to drawing the sample.

d. Resting blood samples should be drawn with the subject in the sitting position. If supine position is necessary, a notation is to be make on the report.

e. NO CHANGES.

f. All blood samples should be analyzed immediately (less than ten minutes). If not, the sample should be placed in an ice water slush for up to 1 hour.

g. If an exercise sample is to be obtained, a plastic catheter may be inserted into the radial or brachial artery for both the resting as well as the exercise sample. Single stick exercise samples may also be obtained if drawn **during the last 30 seconds of the exercise.**

Recommendation:

13. **TABLE 85-20A.a:** Add the following section to the bottom of the chart:

Impairment >	0%	10-25%	26-50%	51-100%
DLCO	≥ 80% pred	60-79% pred	41-59% pred	≤ 40% pred

Recommendation:

X. Edward G. Atkins, Attorney

1. **85 CSR 20-4.1:** Relates to the Adoption of Standards for Treatment and Acceptance of Rules. The rule provides in part as follows:

"However, the treatments and limitations on treatments set forth in this Rule are presumed to be medically reasonable and treatments and excess of those set forth in this rule are presumed to be medically unreasonable. It will require clear and convincing evidence to establish that treatments and excess of those provided for in this Rule are medically reasonable."

COMMENT: While I fully recognize the authority of the Commission to establish standards of care, I do not believe the statute authorizes the Commission to establish, without any further facts, that treatment beyond the period established by a particular rule is presumptively unreasonable. Presumptions have specific legal meaning whereas the establishment of what is "medical reasonable" would be within the Commission's jurisdiction assuming that a particular standard of care has medical foundation. If the Commission proposes to establish what is a standard of reasonable care it should do so without presenting additional barriers to a claimant who may have a medical situation not fitting the established norm.

Recommendation:

2. My second comment relates to the second sentence of the above quotation expressing a requirement of "clear and convincing evidence" to establish that additional treatment is medically reasonable. The proposal for a "clear and convincing standards directly contravenes the provisions of the WV Code § 23-4-1 G (a) effective July 1, 2003. As you know that statute provides in part as follows:

> "...resolution of any issue raised in administering this chapter shall be based on a weighing of all evidence pertaining to the issue and the finding that a preponderance of the evidence supports the chosen manner of resolution."

This part of Rule 20-4.1 should be amended to reflect a preponderance of evidence standard.

Recommendation:

3. I do wish to comment on the specific treatment guidelines. For the most part the duration of care defined by the proposed guidelines generally coincide with periods set forth in "The Medical Disability Advisor" Presley Reed, M.D. 4th Edition. These duration of care periods seem dramatically shorter than current experience. While some may argue that current treatment periods are too long the proposed guidelines seem unreasonable short. Duration of care should not be based upon a single source but validated from other studies and from experience from other Workers' Compensation Programs.

It should further be noted that the Presley Reed Guidelines recognize the importance of comorbid conditions, which may effect periods of care. Comorbid conditions have not been specifically addressed in the treatment guidelines. A claimant may have more than one injured body part and a combination of injuries may have a significant effect on the duration of care and disability. Such situation should be recognized as an exception to the specific treatment guidelines. It is suggested that a regulation be incorporated in Rule 20, which specifically notifies a treating physician that he may take into consideration comorbid conditions in a treatment regime.

Recommendation:

XI. **Sally Smith, Bowles Rice McDavid Graff & Love**

1. **§85-20-2.1:** Add the following language after first sentence:

The Workers' Compensation Commission finds that a deficit exists in the workers' compensation fund of such critical proportions that it constitutes an imminent threat to the immediate and long-term solvency of the fund. The Workers' Compensation Commission further finds that addressing the workers' compensation crisis requires the efforts of all persons and entities involved. Modification to the rate system, alteration of the benefit structure, improvement of current management practices and changes in perception must be merged into a unified effort to make the workers' compensation system viable and solvent. It is the intent of the Workers' Compensation Commission that the provisions of this Rule be strictly applied so as to enforce the amendments to the Workers' Compensation Act enacted by the West Virginia Legislature in 2003 and that the provisions of the Rule shall be effective immediately. The Workers' Compensation Commission finds that an emergency exists as a result of the combined effect of this deficit, other state budgetary deficits and liabilities and other grave social and economic circumstances currently confronting the state and that unless the changes provided by the enactment of the amendments to this Rule, as well as other legislation and regulations designed to address the problem are made effective immediately, the fiscal stability of this state will suffer irreparable harm. Accordingly, the Workers' Compensation Commission finds that the need of the citizens of this state for the protection of the state treasury and the solvency of the workers' compensation funds requires the limitations on any expectations that may have arisen from prior rules.

COMMENT: The implementation of certain amendments to this rule suggests the need to repeat some of the legislature's basis for the immediate effective date.

Recommendation:

2. **§85-20-3.3:** Add the following language after first sentence:

Effective July 1, 2004, some references to the Commission may also include the self-insured employer.

Recommendation:

3. **§85-20-3.4:** Add the letter "s" to "qualified rehabilitation professional"s" in last sentence.

Recommendation:

4. **§85-20-3.6:** Capitalize "Rule" – "This Rule…"

Recommendation:

5. **§85-20-3.8:** Insert the following language to first sentence: "…(4th ed. 1993), and "Guides Fifth" means the Guides to the Evaluation of Permanent Impairment (5th ed. 2001), as published by the American Medical Association.

Recommendation:

6. **§85-20-3.10:**

Change "it's" to "its" in second sentence.

Change third sentence as follows: Remove capitalization from "injured" and add the word "Fourth" at the end of the sentence – "An "injured" worker's degree of permanent whole body medical impairment is to be determined in keeping with the determination of whole person permanent impairment as set forth in the applicable Guides "Fourth".

Change fourth sentence as follows: Remove the word "Guides"" and insert "Guides Fourth's and Guides Fifth's".

Recommendation:

7. **§85-20-4.2:** Remove capitalization from work "providing" – "…5.9 of this Rule, providing treatment to an injured worker…"

Recommendation:

8. **§85-20-5.3:** Change "Workers' Compensation" to "the Commission" at end of last sentence.

Recommendation:

9. **§85-20-5.10:** Change "Workers' Compensation" to "the Commission" in two places and insert word "schedule" as follows: "…and that provider does not accept the Commission's fee "schedule" as payment in full…"

Recommendation:

10. **§85-20-6.4:** Remove italics and capitalization from word "guidelines" in first sentence and add following text: "…rating pursuant to applicable guidelines as provided in this Rule for the injured worker."

Recommendation:

11. **§85-20-7.2.c:** Add the words "or her" to first sentence as follows: "...injured worker in completing his or her portion of..."

Recommendation:

12. **§85-20-7.2.c.6:** Add letter "d" to "Estimate".

Recommendation:

13. **§85-20-9.6:** Change "E1" to "III" in first sentence.

Recommendation:

14. **§85-20-9.9:** Change "Workers' Compensation" to "the Commission" in the first sentence.

Recommendation:

15. **§85-20-9.10:** It appears you have designated two paragraphs with "e". Either these paragraphs should be combined or the remaining subsections should be re-numbered.

Recommendation:

16. **§85-20-9.10.m:** Change word "diagnosis" to "diagnostic".

Recommendation:

17. **§85-20-9.10.cc and 85-20-9.10.dd:** Remove word "and" from section 9.10.cc and remove period from section 9.10.dd and add a semicolon and the word "and".

Recommendation:

18. **§85-20-9.14:** Bullets are mis-numbered. Last two bullets should be re-numbered "f" and "g".

Recommendation:

19. **§85-20-20:** Change language in last sentence as follows: "...payments must be made by the party ~~requesting~~ on whose behalf the testimony is given."

COMMENT: If the claimant is evaluated on behalf of the employer and the claimant requests to cross-examine the doctor, the employer should be responsible to pay for the testimony of the doctor. The same is true for the claimant's witnesses. Unless the language is changed as proposed, the party requesting the right to cross-examine unfairly bears the cost of the fee for the testimony of an adverse witness.

Recommendation:

20. **85-20-21:** Change language as indicated:

The Commission ~~may~~ shall not pay for treatment of a condition which was not caused by the injury ~~if the Commission determines, in its sole discretion, that the unrelated condition is preventing recovery by aggravating the occupational injury~~. Any unrelated condition must be reported to the Commission before payment is considered. Pre-

existing conditions which ~~prevent recovery but do not~~ aggravate the compensable injury shall not be covered.

COMMENT: Noncompensable conditions such as diabetes are not work-related and should not be paid by the Commission.

21. **§85-20-22.1:** Insert the following language to the first sentence as indicated: "…first-time consultation related to conditions previously ruled compensable without prior authorization…" and to the last sentence as indicated: "…same specialty field or for conditions not previously ruled compensable be performed,…"

Recommendation:

23. **§85-20-25.3:** Change the word "fungus" to "fundus".

Recommendation:

24. **§85-20-26.6:** Add period at end of sentence.

Recommendation:

25. **§85-20-27.4.a.3:** Correct word(s) "predni sone" to "prednisone".

Recommendation:

26. **§85-20-32.4.a:** Insert words as indicated: "…Normal visual function should be restored after six weeks."

Recommendation:

27. **§85-20-32.4.c:** Insert words as indicated: "…Six months are normally required to achieve stability…"

Recommendation:

28. **§85-20-36.3.b.3:** Remove word "and" at end of paragraph.

Recommendation:

29. **§85-20-36.3.b.4:** Remove semicolon after word "agents" and replace with a comma and add word "and" at end of paragraph.

Recommendation:

30. **§85-20-37.3.c:** Remove words "is obtained" from end of sentence.

Recommendation:

31. **§85-20-37.8:** Add the following words to the end of the paragraph: "but are not compensable conditions."

Recommendation:

32. **§85-20-39.1:** Insert word as indicated: "Indications of compensable lumbar fusion:"

Recommendation:

33. **§85-20-39.1.b and 85-20-39.2:** Insert new paragraphs:

b. For a second or third time disc surgery, the claimant must have a second medical opinion and prior approval from the Workers' Compensation Commission.

39.2 Lumbar fusion may also be appropriate treatment for other noncompensable conditions for w hich treatment will not be authorized.

Re-number the following sections:
85-20-39.1.b to 85-20-39.1.a;
85-20-39.1.c to 85-20-39.1.b;
85-20-39.1.d to 85-20-39.1.c;
85-20-39.1.d.1 to 85-20-39.1.d and strike "~~For first surgery only,~~";
85-20-39.1.d.2 to 85-20-39.1.e;

Strike 85-20-39.1.d.3.

COMMENT: We have recommended changes to separate compensable and noncompensable conditions.

Recommendation:

34. **§85-20-39.2 and 85-20-39.2.a:** Re-number 39.2 to 39.3 and make 39.2.a. part of 39.3.

Recommendation:

35. **§85-20-39.3 and 85-20-39.3.a:** Re-number 39.3 to 39.4 and make 39.3.a. part of 39.4.

Recommendation:

36. **§85-20-41.2:** Insert the following words in the last sentence: "Providers considering the diagnosis and compensability of CTS are advised…"

Recommendation:

37. **§85-20-41.4:** Insert the following words in the last sentence: "A careful look for contributing noncompensable factors may impact causality and response to treatment."

Recommendation:

38. **§85-20-41.8.c.2.B:** Typo – correct "surgic" to "surgical".

Recommendation:

39. **§85-20-41.8.d.1.B:** Add words to end of sentence: "…of symptoms and as outlined in the Presley Reed Guide referenced in section 63 of this Rule."

Recommendation:

40. **§85-20-41.8.d.2.A:** Add words to end of sentence: "…global guidelines and as outlined in the Presley Reed Guide referenced in section 63 of this Rule."

Recommendation:

41. **§85-20-44.5 and 85-20-44.6:** Re-number 85-20-44.5 to 85-20-44.4 and re-number 85-20-44.6 to 85-20-44.5.

Recommendation:

42. **§85-20-46.1.b:** Insert the following words as indicated: "Evaluations and treatment authorized by the Commission must be provided by professionals licensed to perform such activities."

Recommendation:

43. **§85-20-46.1.e:** Typo – change the word "form" to "from" in the last sentence.

Recommendation:

44. **§85-20-46.1.f:** Change the words "workers' compensation" to "the Commission" in the first sentence.

Recommendation:

45. **§85-20-46.3:** Typo – remove the letter "l" from the word "may" in the first sentence.

Recommendation:

46. **§85-20-46.4:** Add the letter "d" at the end of the word "determine" in the first sentence and change the words "continue case" to "continuing care".

Recommendation:

47. **§85-20-46.8:** Remove the number "3" from the last sentence.

Recommendation:

48. **§85-20-47.1:** Remove the words "or a West Virginia audiology licensure" from the first sentence.

Recommendation:

49. **§85-20-47.3:** Change last sentence as indicated:

"Because the two audiograms are technically identical and one cannot be chosen over the other, ~~the calculation of whole person~~ impairment will be based on the average between the two audiograms ~~that yields the highest degree of impairment for the injured worker~~."

Recommendation:

50. **§85-20-47.4.d:** Remove the words "and/or licensed".

Recommendation:

51. **§85-20-47.6:** Add the following words as indicated to the end of the second sentence: "...sensorineural hearing loss and shall separately designate compensable hearing loss related to noise from noncompensable causes."

Recommendation:

52. **§85-20-48.1:** Insert indicated language to first sentence: "Treatment of mental conditions to injured workers…"

Recommendation:

53. **§85-20-48.2:** Insert indicated language to second sentence: "…, and treatment plan are to be sent to the injured worker's attending provider,…"

Recommendation:

54. **§85-20-48.4:** Insert word as indicated: "…to the requirements of Section 12…"

Recommendation:

55. **§85-20-49.1, 85-20-49.2 and 85-20-49.3:** Change section 49.1 as indicated:

~~Chronic pain is one of the most common conditions in Western Society. Chronic pain is also a costly condition for society due to health care expenditures and indirect costs associated with disability compensation and loss of productivity. It is now well accepted that chronic~~ Chronic pain and treatment therefore, including multidisciplinary interventions, is only compensable if specifically diagnosed as caused by an injury received in the course of and resulting from employment. ~~is a complex problem that involves physical, emotional and behavioral components. Given this complexity, multidisciplinary interventions have been advocated to address all the features that comprise the pain experience.~~

Strike Sections 85-20-49.2 and 85-20-49.3.

COMMENT: Unlike the rest of this Rule that is objective and regulatory in tone, this section is editorial and lacks an objective factual and medical basis. Statements such as "chronic pain is one of the most common conditions in Western Society" has no place in these regulations.

Recommendation:

56. **§85-20-49.4:** Re-number section to 85-20-49.2 and spell out CPS (Chronic pain Syndrome) in first sentence.

Recommendation:

57. **§85-20-49.5:** Re-number section to 85-20-49.3 and insert language as indicated:

If an injured worker is diagnosed with Chronic Pain Syndrome directly related to a compensable injury, any authorized pain management program shall contain the following objectives and guidelines.~~Program Guidelines~~

Recommendation:

58. **§85-20-49.5.1 and 85-20-49.5.2:** Strike both paragraphs.

Recommendation:

59. **§85-20-49.5.2.a through 85-20-49.5.2.f:** Re-number to 85-20-49.3.a through 85-20-49.3.f.

Recommendation:

60. **§85-20-49.5.3:** Strike entire section.

Recommendation:

61. **§85-20-49.5.4, 85-20-49.5.4.a and 85-20-49.5.4.b:**

Strike 85-20-49.5.4.

Re-number section 49.5.4.a to 49.4.1 and change language as indicated: For an injured worker to be authorized to participate in a pain management program, the claimant must prove: ~~indicators For Admission: 1) at~~ At least three months of ongoing pain-related temporary total disability or inability to safely return to work; 2) The need for such a program must be related to the compensable injury and subsequent consequences.; ~~3)t he~~ 3) The patient should be able to express a vocational goal whether related to return to work or retraining for return to work; and 4) Presence of psychosocial barriers to rehabilitation (such as depression, anxiety, fear/avoidance behaviors, poor coping/adaptation skills, anger).

Re-number section 49.5.4.b to 49.4.2 and change language as indicated: ~~Contra indicators To Admission~~ Pain management program shall not be authorized if any of the following factors exist: 1) Presence of concurrent noncompensable health or mental health condition that would prohibit full understanding and participation in the program; 2) Medical instability that may warrant continued medical intervention (such as surgery, etc.); ~~or~~ 3) Presence of a substance addiction/dependence that prohibits safe and effective participation in the program; or 4) A failure to fully cooperate with the program. ~~Such patients would require successful completion of a drug rehabilitation program prior to consideration (see Chronic Opioid Guidelines).~~

Recommendation:

62. **§85-20-49.5.5 and 85-20-49.5.5.a:** Strike.

Recommendation:

63. **§85-20-49.5.5.b and 85-20-49.5.5.b.1:** Re-number section 49.5.5.b to 49.5 and change language as indicated:

~~Treatment:~~ Individual pain management treatment plans will address the following prior to approval by the Commission: **Remove number 1 from section 49.5.5.b.1 and continue as part of section 49.5 with changes as indicated.** *Frequency and Intensity of the program*: The frequency, intensity and duration of the program should be sufficient to demonstrate improvement in the following areas: work capabilities, strength, stamina and psychosocial barriers to improved functioning. ~~(may include fear avoidance, depression, anxiety, coping strategies, anger…)~~ In order to achieve these goals through an interdisciplinary approach and simulate a typical work day, this treatment requires a minimum of five (5) and a maximum of eight (8) hours per day, five (5) days per week. Daily attendance is therefore imperative and integrated into the goals of the program ~~(see section 7)~~. Effective outcome from interdisciplinary treatment is usually accomplished within a maximum of 20 treatment days. Thus, this 20 treatment-day upper limit for intervention with ~~CPS~~ chronic pain syndrome patients is recommended;

Recommendation:

64. **§85-20-49.5.5.b.2:** Re-number section 49.5.5.b.2 to 49.6.

Recommendation:

65. **§85-20-49.5.5.c, 85-20-49.5.5.c.1 and 85-20-49.5.5.c.2:** Strike.

Recommendation:

66. **S85-20-49.5.5.d:** Re-number to 85-20-49.7 and change language as indicated:

~~Services Provides: Services~~ Pain management services shall include, but not be limited to:

Recommendation:

67. **§85-20-49.5.5.d.1:** Change language as indicated:

1) Medical assessment by a physician; ~~2) Weekly staff meetings that include the core treatment team (or their assigned. Representatives).; 3~~ 2) Ongoing reappraisal of each participant's clinical and functional work status; 3) Performance of appropriate medical diagnostic and treatment procedures; ~~4~~ 3) Providing information needed to assist participant to return to work; ~~5~~ 4) The practice, modification and instruction of component work tasks through real or simulated work; ~~6~~ 5) The development of strength and endurance of the participant related to the performance of work tasks; ~~7~~ 6) education to teach safe job performance and prevent re-injury; ~~8~~ 7) Promotion of self management strategies; and ~~9~~ 8) The development of attitudes and behaviors that will improve the ability of the participant to return to work or benefit from other rehabilitation.

Recommendation:

68. **§85-20-49.5.5.e and 85-20-49.5.5.f:** Strike.

Recommendation:

69. **§85-20-5.5.f.1:** Re-number section to 85-20-49-8.a and change language as indicated:

"Whenever possible, pain management programs shall offer outpatient rather than inpatient services and clear and convincing documentation proving that outpatient treatment is inappropriate in a particular claim is required before inpatient treatment can be authorized. a. Documentation of interdisciplinary evaluation prior to admission shall include: a) A quantitative report by a licensed physical…"

Recommendation:

70. **§85-20-49.5.5.f.2:** Re-number section 49.5.5.f.2 to 49.8.b.

Recommendation:

71. **§85-20-49.5.5.g:** Re-number section 49.5.5.g to 49.9 and change language as indicated:

"Discharge Criteria: Discharge of a participant from an interdisciplinary rehabilitation program shall be based upon the following: 1) Goals of the program have been achieved; 2) The ~~patient~~ injured worker has failed to fully participate and/or comply with program requirements; 3) The physician of record has discontinued the program for the participant; 4) A ~~situation~~ condition has arisen directly related to the compensable injury requiring further medical or other health care intervention, not present at initiation of the program.;…"

COMMENT: We have proposed substantial changes to this section, as treatment for, and even the existence of, chronic pain syndrome is a slippery slope, fraught with the potential for abuse. We strongly recommend further study before this section is included in this rule. If included, we recommend our proposed changes to simplify and clarify the treatment objectives and guidelines.

Recommendation:

72. **§85-20-50.3:** Change the word "t here" to "three" in the first sentence:

Recommendation:

73. **§85-20-50.12, 85-20-50.12.1, 85-20-50.12.2 and 85-20-50.12.3:** Strike.

COMMENT: A claimant's social goals and such lifestyle issues as tertiary gains are not work-related nor appropriate compensable care.

Recommendation:

74. **§85-20-50.13:** Re-number section to 50.12.

Recommendation:

75. **§85-20-50.14:** Re-number section to 85-20.50.13 and change text as indicated:

In contusion and sprain/strain cases, and in non-surgical disk cases, claimants who are being considered for injections for the treatment of chronic pain, but who have not had a trial of physical medicine, including exercise and/or manipulation, will be required to be evaluated by a physical medicine practitioner or other independent medical evaluator. The physical medicine practitioner or other evaluator will determine whether a 30-day regimen of physical medicine in conjunction with initiation of chronic pain therapy ~~might~~ is likely to provide full or partial relief prior to initiating a series of injections.

COMMENT: Self-insured employers should be permitted to utilize more qualified evaluators or case managers if deemed appropriate.

Recommendation:

76. **85-20-50.15:** Re-number section to 85-20-50.14 and change text as indicated:

When chronic pain patients do not respond to initial specialist-directed efforts, a nurse case manager ~~will~~ may be assigned to coordinate the ~~interdisciplinary~~ pain management effort. The nurse case manager's or other case manager's report will include an assessment as to the benefits of chronic pain management, such as the likelihood that the claimant will be able to return to work. A psychiatric evaluation ~~must~~ be part of the assessment process. Psychiatric conditions must be evaluated and under treatment as indicated before use of long-term narcotics or implantable devices will be authorized by the Workers' Compensation Commission.

Recommendation:

77. **§85-20-50.16:** Re-number section to 85-20-50.15 and change text as indicated:

Claimants who have injuries greater than six (6) months old with continued symptoms, and who are not actively being treated for chronic pain may be eligible for an additional (6) months further treatment or management of pain ~~,if procedures not previously offered are now available and may provide full or partial pain relief Such cases require an assessment by a nurse case manager and an interdisciplinary file review before the claim will be reopened for pain management~~ only if an independent medical evaluator agrees that the recommended treatment, including pain management, is reasonable, necessary, related to the compensable injury, and likely to be successful in substantially reducing the claimant's symptoms.

Recommendation:

78. **§85-20-50.18:** Typo – change word "for" to "form" in last sentence.

Recommendation:

79. **§§85-20-50.19:** Add following text to end of paragraph: "Pain management shall be terminated if the injured worker fails to fully cooperate with the required exercise program.

Recommendation:

80. **§85-20-50.25.1:** Change the word "will" to "may" in the second sentence: "...4 cycles total, the claim may be assigned..."

Recommendation:

81. **§85-20-50.49.1:** Change text in second sentence as indicated: "If t his needs to be repeated more than twice in 1 year or 4 ~~cylces~~ cycles, a nurse case manager ~~will~~ may be assigned to the claim."

Recommendation:

81. **Cancer Pain (section right after 85-20-50.56.1):** Change the word "will" to "may" in the second sentence.

Recommendation:

82. **§85-20-50.57:** Change text in second sentence as indicated: Other ~~diagnosis~~ diagnoses will be considered by a case by case basis, but only as a treatment option of last resort.

Recommendation:

83. **§85-20-50.57.4:** Make two sentences out of section. Begin second sentence with: "If a history of substance abuse..."

Recommendation:

84. **§85-20-50.58.2:** Add sentence to end of paragraph: "Any violation discovered requires immediate drug tapering and discontinuation of opiod maintenance therapy."

Recommendation:

85. **§85-20-50.58.8:** Change language as indicated:

Every ~~3 years~~ year, ~~a multidisciplinary team at~~ the Commission~~, or designated by the Commission,~~ must review the treatment plant to determine the appropriateness of care. The Commission ~~or designated team~~ may call for more frequent review if the use of narcotic medication increases. Long term opiod use shall be authorized for no longer than three years after a compensable injury.

Recommendation

86. **§85-20-50-58.9:** Change language as indicated:

Evidence of acquisition of opioids from other physicians or persons, uncontrolled increases in ~~does~~ dose requirements, drug hoarding, abuse of alcohol or other drugs, conviction of a crime related to drug possession or trafficking, or other behaviors in violation of the narcotic contract should be followed by immediate drug tapering and discontinuation of opioid maintenance therapy.

Recommendation:

87. **§85-20-50-60.1:** Replace semicolon at end of last sentence with a period.

Recommendation:

88. **§85-20-50-60.3:** Typo – Change last word "devise" to "device".

Recommendation:

88. **§85-20-50-61.6:** Remove capitalization from word "Injured".

Recommendation:

89. **§85-20-50-61.12:** Replace semicolon at end of last sentence with a period.

Recommendation:

90. **§85-20-51.1:** Add "(CRPS)" after Complex regional pain syndrome in first sentence. Also add the following sentence at the end of the paragraph: "Treatment for complex regional pain syndrome is only compensable if directly caused by an injury received in the course of and resulting from employment.

Recommendation:

91. **§85-20-51.2.a:** Replace "develops" with "may develop".

Recommendation:

92. **§85-20-51.2.b:** Add word "but" before the words "is not limited to…".

Recommendation:

93. **§85-20-51.6:** Add the word "compensable" as indicated: "Treatment for compensable complex regional…"

Recommendation:

94. **§85-20-51.8:** Add the following language to the end of the sentence: "...program and the estimated duration of care shall not exceed the periods outlined in the Presley Reed Guide referenced in section 63.1 of this Rule.

Recommendation:

95. **§85-20-52:** Typo – "Pneumoconiosis" is misspelled.

Recommendation:

96. **§85-20-52.2:** Add "or MSHA" after OSHA in first sentence and removed capitalization from "Injured" in two instances in paragraph.

Recommendation:

97. **§85-20-52.3:** Change language in first and second sentences as indicated: "...shall notify all interested parties of ~~his~~ the decision. A properly completed application must be filed or the application shall be rejected."

Also, in second paragraph, change "Appeal Board" to Board of Review".

Recommendation:

98. **§85-20-52.6:** Change language at the end of the first sentence as indicated: "...the Board's findings and conclusions to which ~~he~~ the party objects."

Recommendation:

99. **§85-20-52.7:** Change language in last sentence as indicated: "However, if the Commission, or ~~his~~ a duly authorized representative, decides that testimony of other members of the Board is necessary or desirable, ~~he~~ the Commission may permit such testimony at the protest hearing.".

Recommendation:

100. **§85-20-52.9.e.1.E:** Replace "20.8(e)(1)(A)" with "52.9.e.1.A".

Recommendation:

101. **§85-20-52.9.e.1.G:** Typo in first sentence – "attracing" should be "a tracing" and replace "20.8(e)(1)(A)" with "52.9.e.1.A".

Recommendation:

102. **§85-20-52.9.e.1.I:** Replace "20.8(e)(1)" with "52.9.e.1.".

Recommendation:

103. **§85-20-52.9.e.1.K:** Typo in third sentence – "in dicated" should be "indicated".

Recommendation:

104. **§85-20-52.9.e.2.G:** Change language as indicated: "Has an excessive variability between the three (3) satisfactory curves. The variation between the two (2) largest FEV_1's and/or two (2) largest FVC's of the three (3) satisfactory tracings should not

exceed ~~seven~~ five percent (~~7~~ 5%) of the largest FEV_1 or FVC, or one hundred (100) ml, whichever is grater.

Recommendation:

105. **§85-20-52.9.e.2.H:** Re-number to 85-20-52.9.e.3.

Recommendation:

106. **§85-20-52.9.e.3:** Re-number to 85-20-52.9.e.4.

Recommendation:

107. **§85-20-52.9.e.3.D:** Typo – "FEV {I1 {s" should be "FEV_1"

Recommendation:

108. **§85-20-52.9.e.4:** Re-number to 85-20-52.9.e.5 and a TYPO in fourth sentence – "FEV1" should be "FEV_1".

Recommendation:

109. **§85-20-52.9.e.5:** Re-number to 85-20-52.9.e.6 and change language as indicated: "The first step in evaluating a spirogram for the ~~FEV~~ FVC and FEV_1 shall be to determine whether or not the subject has performed the test properly or as described in Subdivision ~~20.8.5.(b)(FEV)~~ 52.9.e.2 of this regulation ~~and the forced expiratory volume, Subdivision 20.8.5.(a)(1) of this regulation~~. From the three (3) satisfactory tracings, the forced vital capacity (FVC) and the forced expiratory volume in one (1) second (FEV_1) must be measured and recorded. The largest observed ~~FEV_1~~ values must be used in the analysis, corrected to BTPS.

Recommendation:

110. **§85-20-52.9.e.6:** Re-number to 85-20-52.9.e.7.

Recommendation:

111. **§85-20-52.10.f.4.1.b:** Change language in first sentence as indicated: "...showed a PO_2 over 80 or ~~02~~ 0_2 saturation over 95%."

Recommendation:

112. **§85-20-53.1:** Change second sentence as indicated: "These guidelines do not apply to claimants whose pain is the result of a compensable malignant process (cancer), or when the pain therapy is aimed at relieving intractable pain and suffering in the terminally ill when other measures fail, ~~regardless of the~~ assuming a compensable diagnosis."

Recommendation:

113. **§85-20-53.5:** Strike last sentence.

Recommendation:

114. **§85-20-54.2.b:** Add indicated language to end of sentence: "...necessary directly related to a compensable injury.".

Recommendation:

115. **§85-20-54.6:** Add indicated language: "...end-stage disease is an accepted compensable condition, the...".

Recommendation:

116. **§85-20-58.1.a:** Add indicated language to end of sentence: "...time-limited goals, including a time schedule to wean the injured worker from opiod use."

Recommendation:

117. **§85-20-60.1:** Add indicated language: "The Commission will continue to pay for treatment with opioids if directly related to a compensable condition so long as the physician documents in addition to the information required in section 58 of this rule:"

Recommendation:

118. **§85-20-60.1.b:** Insert indicated language in last sentence: "...without documentation of substantial and progressive continuing improvement is presumed to be not proper and necessary."

Recommendation:

119. **§85-20-62:** Add indicated language: "The Commission may pay for nonopioid medication for the treatment of chronic, noncancer pain when it is proper and necessary and directly related to a compensable injury. For example, some drugs such as anticonvulsants, anti-depressants, and others have been demonstrated to be useful in the treatment of chronic pain and may be approved when proper and necessary not to exceed six (6) months after an injury or operative procedure. Payment for medications beyond this six (6) month period is presumed to be not proper or necessary and will not be paid without written documentation as outlined in sections 58 and 60 of this Rule, and documented progression continuing improvement."

Recommendation:

120. **§85-20-63:** Add indicated language: "Pursuant to West Virginia Code Section 23-4-3b(b), the Commission hereby incorporates by reference the Medical Disability Advisor, Workplace Guidelines for Disability Duration, Presley Reed, MD (4th Edition) ("Presley Reed Guide") for purposes of establishing the expected period of time to reach maximum medical improvement and for continued treatment for various injuries and diseases. The requirements, standards, parameters and limitations of the Presley Reed Guide shall have the same force and effect as this Rule. All requirements, standards, parameters and limitations of the Presley Reed Guide are hereby deemed medically reasonable and any requirements, standards, parameters and limitations of the Presley Reed Guide which ~~exceeds~~ exceed those set forth in the Presley Reed Guide are hereby deemed medically unreasonable. It will require clear and convincing evidence, including but not limited to, detailed and documented medical findings, peer reviewed medical studies, and the elimination of causes not directly related to a compensable injury or disease, to establish that requirements, standards, parameters and limitations in excess of those provided for in the Presley Reed Guide are medically reasonable."

Recommendation:

121. **§85-20-64.5:** TYPO – Change "effected" to "affected".

Recommendation:

122. **§85-20-65.1:** Change "section 6" to "section 64" in second and third sentences.

Recommendation:

123. **§85-20-65.3:** Capitalize "commission".

Recommendation:

124. **§85-20-68:** Capitalize "rule" in second sentence.

Recommendation:

125. **§85-20-70:** Capitalize "rule" in two instances and TYPO – "affect" should be "effect".

Recommendation:

126. **TABLE 85-20A:** Strike third row of Table (FEV_1.0%FVC).

Recommendation:

WORKERS' COMPENSATION BOARD OF MANAGERS

March 23, 2004 – 1:00 p.m.
Charleston Civic Center
Rooms 207-209

AGENDA

1. Call To Order ..... Steve White

2. Response to Comments ..... T. J. Obrokta, Jr.
   85CSR20, "Medical Management of Claims, Guidelines for Impairment Evaluations, Evidence and Ratings, and Ranges of Permanent Partial Disability Awards"

3. Old Business ..... Steve White

4. New Business ..... Steve White

5. Comments from the Public ..... Steve White

6. Next Meeting ..... Steve White
   Tuesday, March 30, 2004, 1:00 p.m., Civic Center, Rooms 207-209
   85CSR15, "Vocational and Physical Rehabilitation"
   85CSR20, "Medical Management of Claims"

7. Executive Session – Coal Litigation

8. Adjourn ..... Steve White

WEST VIRGINIA WORKERS' COMPENSATION COMMISSION

BOARD OF MANAGERS

MARCH 23, 2004

Minutes of the meeting of the Board of Managers held on Tuesday, March 23, 2004, 1:00 p.m., at the Charleston Civic Center, Rooms 207-209, 100 Civic Center Drive, Charleston, West Virginia.

Board of Managers Members Present:

Steve White, Chairman
Gene F. Bailey
Richard W. Humphreys
John L. Johnson
Brooks McCabe
Chris Jarrett
Douglas W. Merritt
Vic Sprouse
Bob Phalen
Craig Slaughter
Everette E. Sullivan
Paul E. Thompson

Staff Members Present:

Dr. James Becker
Gregory Burton
Lynn Divjak
Alan Drescher
Sally Edge
Timothy Leach
Phil Lynch
T. J. Obrokta, Jr.
Phil Shimer
Ed Shoop
Kimberly Stitzinger-Jones
Randall Suter
Andy Wessels

1. Call to Order

Chairman Steve White called the meeting to order at 1:00 p.m.

Chairman White: I would like to have silent roll call. Let the minutes reflect that a quorum is present.

2. Response to the Comments – Rule 20 – T. J. Obrokta, Jr.

Chairman White: The first item on the agenda is the response to the comments that have been received with respect to Rule 20. I will call up to speak, Mr. Obrokta.

T. J. Obrokta, Jr.: Chairman, Members of the Board, I'm T. J., Obrokta, General Counsel, Workers' Compensation Commission. You have before you a green folder that has

various documents I'm going to work through today. Please don't be too intimidated by the amount of paper. We are going to try to keep this like we did with the rehab rule last week and hit the high points. I think that format worked well last week, so hopefully it will work again this week as well. We are here today to talk about Rule 20, which as you can discern from the documents before you is a very comprehensive rule. It is over 100 pages long, single-spaced. It is a rule you first saw in an original format last December. It is a rule that was filed, after going through the stakeholder process, filed with the Secretary of State's Office on December 31, 2003, a sixty day public comment period ensued, there was a public hearing recently that most of you attended. We are now here today to discuss our responses to the comments we've received during the public hearing process. What I would like to do is, before we get into the rule itself, I would like to review once again why it is we are doing this. Taking a step back. The first document, I believe in your packet will be a one page document entitled "Legislative Mandate for Rule 20." This is part of Senate Bill 2013 passed last summer and it sets forth your charge with regards to the documents before you. The Legislature in Senate Bill 2013 instructed the Commission and you as a Board to promulgate a rule establishing the process for the medical management of claims and awards of disability. The rule should include but is not limited to reasonable and standard guidelines and parameters for appropriate treatment, expected period of time to reach maximum medical improvement, and range of permanent partial disability awards for common injuries or diseases. The rule continues on to say if we don't want to write our own rule, we can reference material that is developed in professional settings, but we have chosen to write our own rule by and large. So that is the charge this Board has from the Legislature and we as the Commission have, and that's why we are here today to discuss Rule 20.

The second document in your folder should be a document entitled, "West Virginia Workers' Compensation Commission's Responses to Public Comments Received on Rule 20." That is a summary of all the comments we've received from the public. I've attached the actual written comments we've received from the public. I'll leave it to you at your leisure to go through those if you choose. What I'd like to do is what we did with Rule 15 last week and that is to look at the final document in your packet and that's the rule itself. What I'd like to do is go through the rule, show you the changes we've made and at the end of that I would raise what I think are still the outstanding issues with the stakeholders. Suffice it to say before I get into the rule you should know that we spend about 220 roughly $225 million dollars a year in medical expenses. We spend another $120 million roughly in permanent partial disability awards. This rule is intended to bring structure and discipline to the medical management of claims and the permanent partial disability award processes. This rule covers then roughly over $300 million dollars of the expenditures we make at Workers' Compensation. This is a significant rule. It is comprehensive in nature, and yes there are provisions which will ultimately lead to stakeholders not agreeing with every piece of it. But with that said, I'd like to go through the rule and then again address some of the outstanding issues that there is disagreement on. And again, just instead of going through the "these" versus "the's" and "tomatoes/tomato," I'm just going to hit the salient big changes. You are not going to make any vote today on anything. We have

another week, as I understand the process, to digest this significant document and I'll be back before you next week to answer any additional questions you'll have.

Looking at page two of the rule itself, paragraph 3.3, we define "Commission" as being the Workers' Compensation Commission. The self-insured community asked that this rule be changed to reflect the fact that they will be self-administering claims come July 1, 2004. The statute says they have the same powers that the Commission has as of July 1, 2004. So we modified the definition of "Commission" to make it clear that the reference will also include self-insured employers to be consistent with the code.

If you will turn to page four of your document, you will recall during the public hearing process significant comments were made particularly from the claimant bar on the standard of review that was in this rule. Essentially what the rule provided for in its earlier draft was that the guidelines and parameters in this rule could only be overcome by showing of clear and convincing evidence. Mr. Maroney, former Commissioner Smith and others objected to that standard of evidence. They thought it was too high. They asked that we adjust it downward to a preponderance of the evidence to otherwise be consistent with Senate Bill 2013 in their view. We had a lot of internal debate and ultimately conceded that point and I have made the changes where appropriate throughout the document to accept their comment and change the standard of a review from "clear and convincing" down to "preponderance of the evidence." What that means is in order to overcome the provisions of this rule an employer or a claimant – depending on who the requested party is – has to introduce enough evidence to win. What you are doing is weighing the evidence. . .clear and convincing kind of. . .it's like a 75%. You're going to show us and make us reasonably certain by about 75%. Preponderance of the evidence means well you have to prove your case about 51% to 49%. You just barely have to win it. I think that was a reasonable suggestion by Mr. Maroney and the others and we've adopted it. You will see that in paragraph 4.1 and at other places throughout the rule. I do ask that Mr. Maroney and others double check me to make sure I got it everywhere. I think I did, but we will double check.

If you will turn to your document to page six, at the very bottom of page six paragraph 5.9, this is something Dr. Becker from of our Office of Medical Services requested making it clear that if you are going to do an IME you will only be paid if you comply with the Commission's policies and procedures. Apparently there has been some issue historically on that so we are making it clear that we welcome provider's participation in the IME process, but again to be paid you have got to comply with our policies and procedures.

Page 10 of your document, this was a request made by the physical rehabilitation community. If you look at the very bottom of page 10, you will see some new language requiring physicians to estimate physical and functional capacities. This should help in the physical rehab process, so we have added the language as requested by that community at the bottom of page 10 and the top of page 11.

If you could turn to page 17 of the rule, paragraph 9.20. One of the changes in Senate Bill 2013 was that prior to Senate Bill 2013 a medical provider had to submit an invoice within two years of the date of service. There was no way to audit or track health care expenditures if some. . .a limited number of folks are not submitting invoices for two years at a time, so the Legislation required and we have put in the rule, "Providers must submit their bills to us within six months of the date of service."

Page 21 of the document, paragraph 18.1. This has to do with organ transplants. We at the Commission are seeing an increased number of requests for organ transplants in particularly very speculative areas of medicine. This causes us great concern. I know of one lung transplant requested – ultimately the bill was $1.2 million dollars and the individual got the transplant and still did not live very long thereafter. So what the language in here on organ transplants says is that they're generally not accepted or reimbursed but we will look at them on a case by case basis. We will require pre-approval from the Office of Medical Management before we issue authorization. So we will approve transplants, but again it's going to require very sound medical judgment, very sound medical evidence submitted to us that makes sense and ultimately it will be a decision made by our Office of Medical Management.

If you will turn to page 22, section 20, the medical community has been concerned that they're scheduled for depositions and frequently are cancelled at the last minute. They've requested language that enables a $100.00 cancellation fee be charged to the party causing the cancellation of a deposition or hearing. Doctors are very busy and the charge only takes place if you don't give them 48 hours notice, I'm sorry. Physicians are very busy and I think a minimum of 48 hours notice is reasonable under the circumstances. That's the request I received from the medical community, and it made sense to us so we put it in.

If you will turn to page 42 of your document, you will see some language on section 39 regarding lumbar fusion practices. It was requested that we add some language that says for a second or third disc surgery there must be a second medical opinion provided. I think that protects the Commission and also protects the claimant before you go into a second or third back surgery. I think it's reasonable to have a second opinion, so we have added that language.

If you will turn to page 46, at the very, very bottom of page 46 you will see section 41. This begins roughly a nine-page guideline on carpel tunnel syndrome. The Legislature. . .we've not made any real substantive changes since the last time you saw this. I'm just drawing your attention to this in case you want to spend some time to review it. The Legislature was very clear they wanted carpel tunnel addressed. We've done that in this treatment guideline. Of course Dr. Becker and various resources he has at his disposal have worked this up. I believe HCAP was involved as well. Again, we think this satisfies the legislative mandate that we put together a comprehensive treatment guideline on carpel tunnel. It's there for your review.

If you would turn to page 59 of the document. . .on page 59 you will see a treatment guideline of physical medicine. We've received extensive comments on this treatment guideline from the various stakeholders. You will see, particularly on pages 60 and 61, significant strike-throughs and underlines. The primary purpose in physical medicine and the changes was to confirm this treatment guideline to provisions passed by HCAP, which is the board of expert physicians. I've gone over this physical medicine guideline with members particularly in the chiropractic community. I believe by and large they are comfortable with it. Mr. Robinson is here and he mentioned he may have a couple additional thoughts he may want to share with me over the next week and we will sit down and iron anything out, but I can tell you that significant work has gone into the physical medicine section of this rule. We are pleased with it. I believe the provider community is generally pleased with it. There may be some additional tinkering, but the language you see in front of you is language I sat down with Dr. McDonald, a chiropractor, and we worked through together with Dr. Becker. You may hear some comments on the physical medicine guideline, but I think we are in pretty good shape there.

If you will turn to page 64, "Treatment Guideline for Multi-Disciplinary Pain Management," this is to us laypeople, this is a very nebulous area of the practice of medicine and we tried to put some structure and discipline into this area. We received some last minute comments, not last minute. . .we've received some comments over the past week, I should say on this both from employers and from the provider community. I've tried to make what I think are the reasonable changes. This is probably the one section I will tell you will definitely need some additional tinkering between now and next Tuesday when it is up for final vote. I believe there may be some representatives of the industry here. Yesterday they contacted me and had some concerns with some of the most recent rounds of changes. What I will do is pledge to the Board that I will sit down with them for the balance of this week and try to work out any remaining issues on this section 49, Multi-Disciplinary Pain Management Section." I feel very confident in telling you as a board that we will get this resolved and get it worked out to the mutual satisfaction of everybody. I just need a little more time to do that.

If you could please, turn to page 70. There were some changes made to the interventional management of chronic pain. These were by and large requested by the employer and medical provider communities. It is my belief that these changes are agreeable to the employer and medical provider communities who made the suggestive changes. I will confirm that over the next few days, but I think everybody is on the same page with regard to this guideline. But again these pain management and chronic pain issues are somewhat tough to get our hands around, and we are doing the best we can and ultimately I think we will have agreement from everybody on these guidelines.

If you will turn to page 83, page 83 begins about a 14-page section on how we process and handle occupational pneumoconiosis claims (OP claims). Parts of this used to be in the old Rule One. We've moved it over and significantly overhauled it. You will see changes made throughout these 14 pages. Virtually all of these changes actually were suggested by Dr. Walker who heads the OP Board. I will defer to him on the substance of these changes. There

are a couple in here that our folks requested as well, I think there may be an issue or two that some stakeholders are still not pleased with, but I'll wait to hear their comments today. But, I can tell you that by and large the changes in the OP section and the OP section itself is consistent with the desires of the doctors who run the OP Board. So my guess is you may hear some comments to them on the OP section. I look forward to those comments as well to see if there are any remaining outstanding issues and if there are, I would propose that we just defer to maybe next week if we need to bring in a representative from the OP Board and get their opinion on any outstanding issues. And I would. . .reserving the right to say that's absolutely unreasonable I would otherwise defer to their judgment. And if they think something in here is incorrect, if the OP Board members think something in here is off base I would most likely defer to their judgment. They are the experts in this and I'm certainly willing to do that, but it's my belief that 95% of this has all been blessed by the OP Board.

If you'll turn to page 104 of the rule, at the very bottom you will see a paragraph on "chelation therapy." I'm probably not even saying that correctly. It is significant, although I would have to have Dr. Becker up here, who will be up here in a little bit to explain its significance, but that is some new language and I will let him address that if the board so desires.

Finally, on page 105, you will see in the middle of the page a paragraph that begins, "Nothing in this rule. . ." What this section does is there is a service called *Pressley Reed* and what *Pressley Reed* is, it's a book several inches thick and it lists almost every ailment you can think of and it says, "If you have this condition you're probably going to be off work about this long." And these are the stages of your recovery things of this nature. There is a competing authority called the *ODG*. Some employers like *ODG*, some like *Pressley Reed*. Some stakeholders like *ODG*, some like *Pressley Reed*. What this language does it says, "If and when the employers begin having their own workers' comp, HMO's, PPO's, those PPO's have to be approved by the Commission." What this language says is, "If they want, they can come up with an alternative to *Pressley Reed* and we will consider it." That's all this says. They can offer up other guidelines for the purposes of establishing expected period of time in medical treatment protocols. You will see at the very end, "If a part of a managed care plan otherwise approved by the Commission. . ." So all this language does is say they can suggest other resources or other guidelines that may be applicable under their PPO or HMO, but that would require Commission approval first.

With that, those are the high points of the comments that I wanted to address today. Again, in response to the public comments received, I would like to go over a handful of issues that I know are still outstanding similar to the $20,000 cap last week in the rehab rule. These are rules or issues that I am sure there is a diverse opinion on and I would just like to spend a minute or two giving you our side and explaining our decisions.

With regard to the employer community there are at least two requests from the employer community that we have not adopted at this point. The first is on an OP issue. If you

will look in your rule on page 110, you will see a table on page 110 and if you will look at, I believe, the third line down, FEV_1 FVC there are some members of the employer community that believe that should be stricken from the chart and not be considered in assessing OP impairment. Consistent with my approach on OP, I ran that by the OP Board members and the OP Board members would like to see it stay in. I think that's generally Dr. Becker's belief as well, although I'll let him speak for himself. I personally don't understand the science enough to take any contrary position to oppose the OP Board, so you may hear something about that. That has been our decision.

The other recommendation from the employer community that we have decided not to adopt came to us late in the game and it may make sense down the road, but it is too much for this rule at this stage in my opinion. The employer community conceptually would like to see a network of nurses across the State, similar to the QRP's we use in rehab. These would be folks who would get involved day one, two or three of a claim, just after the injury occurs. Let's say an injury occurs in Wheeling. We would give notice of it, get a hold of one of our nurses up on the Wheeling area and get him or her on the case immediately – immediate intervention by a nurse to help manage the medical side of these claims. That idea may have some merit. I believe it's been kicked around before. There may have been a trial study in the coal industry several years ago. I'm not sure of that, but someone mentioned that to me. This idea may have some merit, but I think it was just brought to me a couple of weeks ago. I think it's just too much, too big of an idea to put into this rule at this stage. I believe Dr. Becker can further enlighten you on. . .WVU and Marshall have offered up this idea in the past and would like to be involved, so it may be an idea that whose time may come at some point. I don't think at this stage we have enough time to think it all through, the cost associated, etc. I just don't think we have enough time to do all that to get it in this rule. Those are the two primary issues I think the employer communities would see as outstanding.

I'd like to turn now to two issues before I close – two issues I believe certain other stakeholders would deem to be outstanding issues. As you will recall, during the public hearing process you received a lot of feedback as to the issues of guidelines, and the suggestion being that guidelines are flexible with no limits at all versus some of the provisions in these treatment protocols that some deemed to be limitations. There is quite a bit of conversation about guidelines versus limitations. Well, the very first document I gave you was the excerpt from the Legislation and that Legislation made it clear that this Board is required to come up with guidelines and parameters. That's what the Legislature says – parameters for appropriate treatment. A medical management of claims rule that has parameters for appropriate treatment. I'm a simple person so I did something radical and went to the dictionary and looked up parameter. You each have a definition of the work parameter in front of you and you will see highlighted the word parameter means among other things, "a fixed limit or boundary; constant." So it is my view that to the extent you receive public comment that these rules are not guidelines, that they some how draw impermissible lines in the sand that it seems to me that is the exact charge we've received from the Legislature – to come up with parameters, and parameters are fixed limits. The second and final issue I really want to address. . .

Chairman White: T. J., could you make sure that some copies are available at the back for anyone in the audience who may want to look at what we are being given? Thank you.

Mr. Orbrokta, Jr.: The final subject matter I would like to address has to do with the requirement in the Legislation that you come up with ranges for permanent partial disability awards. We have done that in the rule before you. You will see that beginning on page 105 and continues for several pages, and then the last three charts that are in the rule. I'd like to take a step back for a minute and remind everybody what role a permanent partial disability award plays in this system. We have all these different benefit types and I think it's important to focus on first of all – what is this benefit and why did the legislature tell us to do something with it? Under our Workers' Comp system if I'm injured at work and I'm off for more than three days I get what is called temporary total disability. This is a wage replacement benefit – 66 2/3% of the money I was making. It's tax free so it's almost dollar for dollar. I get that temporary total disability until I can go back to work or two years. I will also get my medical benefits paid on that claim indefinitely. Once I'm ready to go back to work, I'm better and I go back to work and by and large I'm working – old job, same money. I nevertheless can go to the doctor. Let's say I had a back injury. I can say doctor, "I can't bend quite as well as I used to be able to bend. I'm back at work. I'm working fine, back at the same salary. Everything is fine, but I have some permanent impairment to my back." What our system allows for is the doctor to take a look at that back injury and say, "Yeah, I think you can't bend quite as well as you used to bend or this, that or the other. I think you have impairment to your back, permanent impairment. I'm going to get out a couple of charts here and I'm going to say it's a 10% impairment." What happens then is the claimant brings that 10% award. . .usually what happens is the claimant goes to one doctor who gives a high percentage. The employer sends the claimant to another doctor who gives an unreasonably low percentage, and we send them to a third doctor that comes somewhere in the middle. The reason it is important is, ultimately the percentage is brought to comp. Let's say it's the 10% award. The claimant brings his doctor's report and says I have a 10% award. What we do under the Code then is take that 10% and you will see the first page of the document I gave you – this is a hypothetical on how this claimant would be treated in various states. What we do in West Virginia, again you'll see this hypothetical has a 10% – assumes an injured worker with a 10% rating for a back injury. What we do in West Virginia is we take that 10% and we multiply it by 4. That's what the code says to do, so now you get the number 40, then I multiply it by $375.00 because that's the maximum benefit rate in West Virginia for permanent partial disability awards – 40 X $375 gives me $15,000.00. We at comp write a $15,000.00 check to that individual to compensate them for their permanent impairment to their back. Sometimes we pay it over a year or so; sometimes we give them a lump sum. That same individual in Ohio, if they were injured in Ohio put forth how their award would be calculated. In Ohio the award would be about $4,400.00 compared to our $15,000. In Kentucky I've set forth how they would calculate the award the award. Their award would be about $3,800. In Virginia the award would be zero. They don't give permanent partial disability for back injuries. In North Dakota it would be zero. I think North Dakota is another monopolistic state. In North Dakota if you have impairment between zero and 15%, you do not get an award.

You have to have impairment of more than 15% from your doctor before you get an award. So my point in showing you this is West Virginia is certainly extremely generous in the area of permanent partial disability awards and the Legislature clearly saw that and instructed us to address this. They instructed us by coming up with ranges, reasonable ranges that people can be awarded for common injuries. There has been some discussion that ranges should not be limitations – that ranges really should just be guidelines that you need to come in or out of them. It doesn't really matter. Well, again I went to Webster's and you have this in your packet. You will see it highlighted – the word "range." Range is defined, "as a sequence, series, or scale between limits; the limits of a series." You can read the rest of the definition for yourself. When the Legislature used the word "ranges," the word "range" has a very clear definition in the dictionary to the extent there is continued criticism that our ranges are limits. Well I think that is what we've been instructed to do and I think the first page will show you why we were instructed to do it. The last criticism on these PPD's and these ranges for PPD's will be based on a Supreme Court case. We will hear something called *Repass*. You'll hear a lot of conversation about *Repass*. The last document in your handout is a two-page document giving you my general overview of the *Repass* decision. *Repass* looked at the issues on the methodology – about how you go about rating injured workers. What methodology do you use – something called range of motion or something called DRE? Which can you use when you are assessing these permanent impairments for the injured workers in West Virginia? The Supreme Court weighed in – and this was before Senate Bill 2013 - the Supreme Court weighed in on this issue and said we know the American Medical Association says you should use the DRE unless certain circumstances exist. We know that. But as the West Virginia Supreme Court, we disagree with the AMA on this medical issue and we think you should use the range of motion test. So under the statutory language that existed at the time, the court in *Repass* said, "Use range of method as the methodology." Well, the ranges we have given you in this rule are tied to the DRE methodology. The rule does not say use DRE, but says it sets out percentages that are based on a DRE format. But again it says you can use the methodology of range of motion all you want, but you need to adjust the award into the ranges. There has been some discussion that that idea violates *Repass*. I've given you an overview of *Repass* and let me briefly touch on four reasons why I don't think *Repass* governs this matter. In *Repass* the court said it was going with the range of motion methodology because "Workers' Comp law is remedial in it's nature and must be given a remedial construction to accomplish the purpose intended." Fine. That's what the court said in *Repass*. Well since then the legislature has come by in Senate Bill 2013 and changed the rules. I'll show you the next portion of your paper; it shows you Senate Bill 2013, "It is the specific intent of the Legislature that the workers' compensation cases shall be decided on their merits and that a rule of 'liberal construction' based on any 'remedial' basis of workers' compensation legislation shall not affect the weighing of the evidence in resolving such cases." You'll see another excerpt from Senate Bill 2013 again, making it clear that the remedial nature of workers' comp has changed because of the fiscal crisis facing the fund. So I think the fundamental foundation that *Repass* was based on – the remedial nature of the system has been changed by Senate Bill 2013. Secondly, if you want to rely on *Repass*, I'm happy to do that. This is what the Supreme Court said in *Repass* – a three to two decision by the way – the court said in *Repass*, "Any rules or regulations drafted by

an agency must faithfully reflect the intention of the Legislature, as expressed in the controlling legislation where a statute contains clear and unambiguous language, an agency rules or regulations must give that language the same clear and unambiguous force and effect that the language commands in the statute." Well, we now have new controlling legislation that did not exist when *Repass* was decided. That language is Senate Bill 2013. Senate Bill 2013 clearly instructs us to come up with ranges for PPD awards. Ranges is clearly defined in the dictionary and I think this language in *Repass* actually supports us. The court continued in *Repass* – this is critical. The Supreme Court says, "Of course the Legislature can adopt any system it wants, within the ambit of our constitution to evaluate injuries, impairments or disabilities." Again, the Legislature can adopt any system it wants. Finally, look at the next paragraph, "It's fundamental law that the Legislature can delegate to an agency the power to make rules and regulations to implement a statute." *Repass* says right there, "The Legislature can do anything it wants with regards to impairments," and if they want they can delegate it to the agency. That is exactly what has happened in Senate Bill 2013. The Legislature said clearly they want ranges and the Legislature delegated to us the duty to come up with the ranges.

If you will turn to the second page, I'm almost finished. You will see the first full paragraph is number three. Again, additional language in *Repass*, that I think supports our position. In *Repass* the court said, "If the system, meaning workers' compensation system, is not producing the desired results, then the Legislature can change the statute, and in doing so craft a solution suitable to a majority of the electorate. We recognize that the ultimate responsibility for the fiscal health of the West Virginia Workers' Compensation system rests with the Legislature. Balancing the conflicting goals of minimizing premiums while providing full and fair compensation to injured workers is the exclusive providence of our publicly elected legislators and it not to be invaded by the Commissioner or the Courts." This is the language in *Repass* – clearly saying the Legislature is responsible for the financial condition of the Fund. The earlier language I read to you from *Repass* makes it clear they can come up with whatever system for impairments they want or they can delegate it to us, and that's what they've done. Again, I don't think *Repass* is applicable here.

Just finally, you'll see point number four towards the bottom. *Repass* was a three to two decision. Again decided based on the remedial nature of workers' comp. I think a decision would be different if we take this issue back up to them. It was three to two as I mentioned with Justices Davis and Maynard authoring a very powerful dissent. Justice Davis wrote, "It has been said that the law is the only profession which records its mistakes carefully, exactly as they occurred and yet does not identify them as mistakes. Truer words could not be spoken of the majority's decision in the case where with one fail swoop, the Court completely ignores the directives of the workers' compensation legislation which it claims to uphold. . . " Finally in her closing Justice Davis writes, "I only hope that the Legislature can uncover this illusion before the Workers' Compensation Fund is depleted to the detriment of future claimants disabled by work-related injuries." She hopes the Legislature could uncover the illusion created by *Repass*. I would submit to you that the Legislature did uncover that illusion created by *Repass*. It passed Senate Bill 2013 and instructed us to come up with ranges and we have done so. With that I

would certainly make a concluding remark before, if it would please the Board, that Dr. Becker make a couple remarks. A ton of work has gone into this rule – a lot of people. I'm very thankful to a lot of people for all their help. Keep this in mind if you would as you hear additional public comments. Not a single doctor has come to me and said, "T. J., this rule ties my hands and prevents me from delivering quality care to a claimant." Not a single doctor has told me that. Not a single doctor, chiropractor or osteopath has come to me and said, "T. J., we think the ranges on PPD that you have created impermissibly tie our hands and prohibit us from adequately compensating claimants." Not a single doctor has come to me and said that. I ask that you consider that as you hear additional comments from the public. Thank you.

Chairman White: Thank you Mr. Obrokta. Dr. Becker. . .

Dr. James Becker: Thank you. Mr. Chairman, members of the Board, I'm going to keep my comments relatively brief, fairly general in regard to the Medical Management of Claims Rule. I wanted to tell you that almost everyday we receive requests for authorization for medication for the treatment of insomnia and if you will check with my wife, I think she has discovered that this rule has significant curative affect in that regard and perhaps we could save money by sending copies of this rule to claimants who need something to put them to sleep at night. It certainly has had that affect on me several times.

I really. . .I want to take this opportunity to talk to you in my capacity as a physician about the Medical Management of Claims Rule. There are some particular issues here that I think are extremely important. My role at Workers' Compensation is to make sure that the health of injured workers is a number one priority for us, and there is some reasons why I see the Medical Management of Claims Rule being very important in that regard. For one thing I really do think that the Medical Management of Claims Rule is going to guarantee that there is a certain quality of care for injured workers, and I think that's an important thing going forward. As I look at how claims management has progressed at Workers' Compensation, some days I've gotten the impression that it's kind of a crapshoot as to how you get cared for in our system. That is partly because we don't have very good structure in place to protect workers and to set down some guidelines as to how injured workers should be taken care of. There are parts of this Medical Management of Claims Rule that I think miss everybody's attention that are really the most important parts, and those are the parts that specify what it is to take care of someone, what documentation it requires, what level of care needs to be provided. These are areas that none of the providers would find controversial at all, but they are areas that need to be put into writing so that we can actually hold people to these standards. We have a few providers around the State who don't adhere to those standards and it would be nice to say to them, "This is the standard that we expect with regard to our injured workers." The other reason that I see the Medical Management of Claims Rule as being very important to us is that providers have been asking for it for a long time. As we traveled around the State with both our town hall meetings and the meetings that I've been doing with providers for their continuing medical education, they always approach me after these meetings and they say, "Why don't you put out your rules and your guidelines more clearly for us so that we understand what the expectation is? That way

when we make a request we will know that we are requesting what we really can expect to be delivered. And if it can't be delivered, then we would understand that and we wouldn't go down that road in the treatment." I really think that by bringing these Medical Management of Claims rules into a consolidated document that can be reduced down to a cheat sheet for providers that we make the life of those providers a lot easier and make them able to care for our injured workers a lot faster and a lot more effectively. The other thing that it does is it simplifies internal management for us with the claims. We see claims that go off in a direction because there really been no guidance or expectation. These are the main reasons that I think the Medical Management of Claims Rule is good. I second what T. J. said about the people who should be thanked for the development of these rules because there is no one person whose hand is on the Medical Management of Claims rules. This is really a product of work that's been done by a variety of HCAP panels over the years. The vast majority of what is contained in the document has passed through HCAP. There have been subcommittees, there have been outside consultants, there have been many providers who have come to the table and volunteered their time to give us input to help us draft guidelines that would be helpful. A lot of those providers have said to me, "I worked on a committee. We developed a guideline and it never saw the light of day and I've never seen it applied." We have made an effort to make sure that guidelines that have been developed in that setting have actually had a chance to be discussed here. You might ask why we do need these kind of rules and, in fact, for a provider it is not a very difficult question to answer. Actually as a patient, it's not difficult to answer. I've been subject to the same sort of rules myself. I broke my leg in January and I was in the hospital and my insurance company called me on a Sunday afternoon after I had had surgery on Saturday and they wanted to remind me that they had only authorized one day for me to stay in the hospital and I would have to get home. So I did. I went home. That was a requirement of my insurance company and what that meant for me was that my wife, who normally works full time, cut down to working half time so she could stay home half a day to take care of me while I couldn't get up on my leg and get around. So you see this as a personal thing that happens to you. Also as a provider, I've had to practice in an environment where guidelines, recommendations and rules are out there all the time. I have the National Cholesterol Education Program that tells me how to manage cholesterol elevation in patients. I have the JNC that tells me how to manage hypertension and I have the HCPR that talks to me about low back pain and primary care patients, and I have those kind of guidelines all the time. At first I was a little insulted by those while I was a resident and then I realized there is a reason for that. There is a reason because it sets a standard that we can see across the country and it does not lock us in but it guides us to proper medical care.

I want to say a word about the *Pressley Reed Guidelines*, *The Pressley Reed Disability Advisor*. I brought a copy of it for you if you haven't seen it. It is a guideline and it's got to be viewed that way. The wording in the Medical Management of Claims Rule is fairly firm wording, but what is says is that we take the book and we take the whole book. We are not picking pieces of that book out and saying, "Well we believe this guideline and we don't believe this one." We are actually accepting the entire book and the book includes not only durations of disability but it also includes a very complex discussion of what might interfere with recovery

and return to work. So claimants should not feel threatened by the use of something like the *Pressley Reed Disability Guides*. In fact they serve as a great aid to us in the management of claims. The real role for the *Pressley Reed Guidelines* is to help us to have a tool so that when a claim is approaching the duration that would be normally expected for recovery and still does not show signs of recovery we would start asking additional questions and ask for additional documentation. That keeps the process moving along and it prevents people from missing diagnosis from hanging out in the system forever without a specific diagnosis, and it may help us to pick up some serious illnesses that complicate recovery that normally wouldn't be discovered. So the *Pressley Reed* is a very useful tool to us, and T. J. mentioned the *ODG*. Both of these, both the *Official Disability Guides* and the *Pressley Reed Guides* are excellent books. They both have a lot to recommend them. I actually do not have a preference on these books, but a couple of years ago when the selection process had to be done *Pressley Reed* had come out with a new edition and that lead to our feeling that that was the preferable tool. I'm sure that our self-insureds may be thinking about using the *ODG*. Overall, I've reviewed these Medical Management of Claims rules with most of the providers that I keep in close contact with and all of them are supportive of the rule as it is written now. I've contacted IME providers around the State and members of our IEB regarding the permanent partial disability ranges and they all feel that those ranges are extremely fair. So that said I'm going to limit my comments now and I'd be happy to take direct questions if you have such questions and if not, thank you for your time.

Everette Sullivan: Mr. Chairman.

Chairman White: Mr. Sullivan.

Mr. Sullivan: Dr. Becker, in the explanation that was given by Mr. Obrokta, he referred to fixed limits. What does that mean?

Dr. Becker: If you are referring to fixed limits for permanent partial disability, I believe. . .is that the quote Mr. Obrokta? It specifically talks about fixed limits for common medical conditions and we were. . .I think one of the areas of confusion is that there are uncommon conditions thrown into the ratings that are not included at all in this suggestion that we set ranges. Common conditions would be lumbar strain, lumbar disc herniation, things that we see fairly regularly. And for those there are fixed ranges and those ranges are set in the *AMA Guides* at a range. . .let's say for lumbar from zero – 28%. Now in talking to IME providers and talking to treating physicians, most physicians would tell you that 95% of those injuries wind up in the 10% to 15% range. And so fixed ranges I think, if I understand what he was referring to, refers to that particular idea that there is a range that certain maxi's out for a common diagnosis. T. J. do you want to say something about that?

Mr. Sullivan: Thank you doctor.

Chairmen White: Any further questions, members of the Board? Thank you Dr. Becker.

Bob Phalen: I've got a question.

Chairmen White: T. J., a question from the board.

Mr. Phalen: Mr. Obrokta, in regards to the 4.1 where. . .

Mr. Obrokta, Jr.: Yes sir.

M. Phalen: You changed the evidence from "clear and convincing" to the "preponderance of evidence," but you also added the caveat. That caveat is the details of documented medical findings. Does that caveat added to the preponderance of evidence make it more than the preponderance of evidence?

Mr. Obrokta, Jr.: No sir, not in my opinion. The preponderance of the evidence is the standard. The balance of the sentence simply gives examples and it says, "Including but not limited to ways to show that preponderance of the evidence." We are talking about medical issues so what we say is you should show us, "detailed and documented medical findings, peer reviewed medical studies, etc." So we are just showing ways that one can go about meeting their burden of proof.

Chairman White: To follow up on that T. J. . . .The way this is written, does it require to meet the preponderance of evidence to have each of those additional items that you would have to have detailed and documented medical findings, peer review medical studies or is it. . .?

Mr. Obrokta, Jr.: It's not intended to. . .to the extent it's not clear, I'll be happy to clarify that.

Chairman White: Okay, so these are just examples of ways that they can meet the preponderance of evidence?

Mr. Obrokta, Jr.: Yes sir.

Chairman White: That's what. . .that's where I read it. Any further questions?

Gene Bailey: I just have a comment Chairman.

Chairman White: Yes sir.

Mr. Bailey: Mr. Obrokta, I want to commend you and your staff, Dr. Becker and others for the work that you have done. I think you have done a tremendous job and I'm very pleased with the product I see in hand at this time. Thank you very much. That's in lieu of a raise. . . recommendation for next year. . .attempting to cut costs.

Mr. Obrokta, Jr.: Thank you.

Chairman White: I'd like to announce two adjustments to the agenda. The agenda has the public comments after the old business and new business. Any public comments with respect to the Rule 20 that we've just been discussing we will entertain now in order to have some continuity with the Board. The other adjustment is the agenda reflects that there will be an Executive Session pertaining to coal litigation. There will not be an Executive Session. Coal litigation will be on the agenda and we will discuss that. That will be an open session. With that, I will call the people that have signed up to speak. If in fact you have something to say about Rule 20, you are welcome to come up now. If in fact your comments do not relate to Rule 20, then we will take them at the end of the meeting. Dr. Gross. . .

Dr. Richard T. Gross [Oasis Occupational Rehabilitation]): Thank you members of the Board for the opportunity to present my comments. My comments are. . .referring to multi-disciplinary pain management, which I believe is Section 49, page 64 in your document. I'm a clinical psychologist and I'm the director of Clinical Services for Oasis Occupational Rehabilitation, the provider of multi-disciplinary pain management Services in West Virginia. I have 23 years of experience in providing multi-disciplinary pain management in North Carolina, Georgia as well as West Virginia, and I publish and presented national and internationally on multi-disciplinary pain management. And in fact four years ago, I was asked by Workers' Compensation to assist in the development of these current guidelines, which I understand were previously accepted by HCAP.

The reason I'm here today is I have a number of concerns about the proposed revisions which I became aware of just recently, which I believe weaken multi-disciplinary pain management in general and in particular weaken the importance of behavioral and psychological component in providing this unique treatment. I see no apparent reason to water down the guidelines, no evidence that there is a benefit to injured workers or to the workers' compensation system with the revisions and what I would like to do is take a moment and just go through some of my concerns with you. I appreciated Mr. Obrokta talking to me before the meeting and indicating we are going to have an opportunity to talk in detail about some of my concerns, but if I could take just a few moments of your time and briefly review my concerns.

Multi-disciplinary pain management is unique and it is different and one of the things that make it unique is the interdisciplinary aspect of it and in particular the psychological or behavioral aspect of it. That's what differentiates it from other medical or physical therapy interventions. Proposed changes I believe are significantly weak in the role of behavioral intervention throughout the document, and this is particularly important because the best predictors of functional change including return to work are related to psychosocial factors not medical or physical factors in terms of helping injured workers return to work.

In Sections 49.1, 49.2 and 49.3, my recommendation is for reinstatement of the deleted sections primarily because of the importance of emphasizing the importance of behavioral interventions as something that uniquely differentiates this treatment from other treatment and approaches. In particular, on Section 49.3, I recommend the reinstatement of the psychological evaluation as a precursor to considering multi-disciplinary rehabilitation because that's very important in identifying indications as well as contraindications for this very intensive and expensive treatment. In fact the best predictors of a favorable response to multi-disciplinary treatment are not medical exams findings or physical therapy findings, but again psychosocial factors.

Regarding Section 49.5 and 49.5.1, I recommend reinstating the idea of a program goal. The idea of a program goal is consistent with CARF, the Committee on Accreditation of Rehab Facilities guidelines, explicitly stating what is the goal of the program. And the goal, as I see multi-disciplinary rehabilitation, is an intensive multi-disciplinary program that is designed to overcome behavioral barriers that are preventing an individual from improving function to return to work. In other words, multi-disciplinary rehabilitation needs to be differentiated from other physical and medical interventions such as work hardening or work conditioning or intensive physical therapy. It is a different program and it needs to be explicitly stated.

In 49.3, under program direction, there was an elimination of the requirement for a program director. I recommend reinstating that. That has an obvious negative impact on program quality. The program director's role is to ensure over all program quality, monitor the injured workers progress in meeting program objectives, and as well as to serve as the contact point for relevant parties including other treatment providers, workers' compensation, vocational rehabilitation specialists. That's a very critical role and again consistent with national standards for multi-disciplinary rehabilitation. I also recommend reinstating the education and experience requirement. Again, this is a complex specialty and there should be some expectation that providers have some experience with this patient population and this approach prior to becoming a program director or a medical director.

Regarding 49.5, scope of service, again I recommend reinstating the scope of service as originally written. The scope of service criteria is consistent again with the Committee on the Accreditation of Rehab Facility guidelines for occupational rehabilitation programs. What I would consider a gold standard for the development of multi-disciplinary pain management or occupational rehabilitation programs. It's important as it serves to identify the continuity of care, coordination of care, and as well as emphasizing importance of not just treatment but evaluation. Throughout the document there was an elimination of the evaluation component and that's critically important in identifying patients that are likely to benefit or unlikely to benefit from this program. Then again that goes to my comments on 49.5.5 on evaluation. Again I recommend reinstatement of that as originally written. Interdisciplinary evaluation is consistent with national benchmarks for inter-disciplinary pain management, as well as CARF guidelines. And it's critically important for identifying physical as well as behavioral barriers to return to work

and then developing a comprehensive as well as an individualized treatment plan. One size does not fit all.

Regarding 49.5.c., treatment team members. Again I would recommend reinstatement of the original guidelines. I think it's important in this document that there is some definition of what team members go into a multi-disciplinary program; some quality assurance from the payor. Defining teams members is important for quality assurance. Specifying core teams members provides consistency in programs and an inclusion of a physician and psychologist as core members is again consistent with national benchmarks. One aside as an additional recommendation and that is that occupational therapy also be included as an alternative physical therapy. Again that's consistent with national benchmarks.

I recommend also the guideline set standards on 49.5.5.c.2 regarding external team members. This is very, very important with chronic pain patients who have had an extended period out of work. Multi-disciplinary treatment is for the most treatment refractory patients. It is not for patients that have been injured for three weeks or three months, but typically six, nine, twelve, eighteen, twenty-four months. And having a standard where there is an expectation of the payor that the multi-disciplinary team interact with external team members, including case managers, vocational specialists. And there is an expectation from the payor that there is significant involvement of those parties in the management of those patients.

Regarding 49.5.5.d.2 on services provided. I see no logic for weakening guidelines regarding eliminating the requirement of a weekly staffing that includes all the team members. That's critically important for quality assurance as well as monitoring treatment progress, including the failure to progress. It is imperative and consistent with national benchmarks that all team members meet regularly, and required to meet regularly to address those issues.

And on space 49.5.5.e., again I recommend reinstatement. This guideline I think is particularly important because it ensures a high quality and consistent treatment environment for injured workers and ensures quality communication among all teams members. It ensures that the treatment is not done in a piecemeal manner across multiple sites by providers that are only nominally connected, but requires that the multi-disciplinary team be a real team not a virtual team. This recommendation again is consistent with CARF guidelines as well as other state guidelines.

Those are a brief comment on my concerns and I again appreciate the opportunity to speak with you all and I look forward to the opportunity to work with Mr. Obrokta in more detail. If you have any questions, I'll be glad to take them.

Chairman White: Thank you Dr. Gross.

Dr. Gross: Thank you.

Chairman White: Mr. Bates.

Mick Bates [Praxis Corporation]: I'm here again. It's nice to come to agree with everybody and not disagree, so I'm essentially. . .I will throw a couple of minor issues that I think that I can discuss outside this room with Dr. Becker before next week and also Mr. Obrokta. I echo what Dr. Gross has said regarding the change of the multi-disciplinary program. They are highly specialized programs. If you lose the standard there will result in additional providers seeking to make some money in this particular area and so those. . .that change should be cautioned against from the version that was filed with the Secretary of State's Office. . . .will be minor comments at this point and I'll shelve anything else I might have to say until next week. Thank you.

Chairman White: Thank you Mr. Bates. Garth Atkins.

Edward Garth Atkins: Thank you gentleman. My name is Edward Garth Atkins and I regularly represent claimants in these kinds of cases. I just got these yesterday so my questions. . .my comments are more on questions about how to use these rules. Perhaps Mr. Obrokta can help me on this. . .there he is. . .particularly the range of partial disability awards for common injuries and diseases, § 85-20-64. Basically what I see here is, correct me if I'm wrong, it's a range of motion criteria basically caped by a DRE. Is that a fair description of how these work?

Mr. Obrokta, Jr.: Just to respond to Mr. Atkins, I think the rule as written certainly blesses and encourages the use of the range of motion methodology in an effort to adhere to *Repass*, although I don't think *Repass* governs this issue for the reasons I've already set forth. And "yes," as I also indicated to the Board, the percentages, the ranges that are taken and put into the rule come from the *American Medical Guidelines Fourth*, based on the DRE process.

Mr. Atkins: For example it will talk about. . .it says, "Permanent partial disability assessments in excess of the range provided in the appropriate category as identified by the rating physician shall be reduced to within the range set forth below," and then we talk about the various categories and classes of various tables. So if a physician using the range of motion criteria comes up with a value which is higher than what the tables identify, then that value would be reduced to what the table says. Is that correct determination?

Mr. Obrokta, Jr.: That partially correct. I want to make this very clear to the Board. If an evaluator uses the range of motion and comes up with a percentage, they've got to look at our charts and if the percentage they come up with is in excess of the maximum, they have to reduce it down. But there are safeguards in place that actually help the claimants as well. If the evaluator gives an unreasonably low percentage 2% or 3%, we have categories. It's not just zero to 28. It sets forth how you do zero to five. What about six to ten, 11 to 15, etc.? So if it's a medical provider who some people may think is unreasonably low and a pro-employer evaluator and they give an unreasonably low percentage, well then our charts are going to

require that percentage be increased. So I want to make it clear. These rules do not solely require the reduction in any award. In fact it could require the increase of an award if in fact merited. . .otherwise merited by the rule. So it does both.

Mr. Atkins: Another point. . .from a working standpoint, and I don't know how this works as well. You have say. . .someone evaluating someone for an impairment and let's just take a common category here on lumbar spine since we seem to have a lot lumbar spines. Someone does an evaluation on range of motion and comes up with a 10% permanent partial disability award. Which category is the person. . .does the physician use? You've got four categories here going all the way up to 23%. Does the evaluator have to find that these particular items exist within these categories determination because it's not quite clear from the rule what category that person is to take a look at when he does the evaluation from a range of motion standpoint?

Mr. Obrokta, Jr.: Let me first say I'm going to have to give Mr. Atkins my card because these rules have been out since December 31, 2003, and I'll be happy to sit down with him at any point to go over these issues before we're up here before the Board. With that said, the ranges provide categories and within each category gives the doctor guidance. We did not write these. This is out of the *AMA Guides*, which Mr. Atkins I'm sure is very familiar with, so some of his questions may have to be pointed to the authors of that text. But I can tell you that each category sets forth certain criteria that will give the evaluator guidance as to which percentage to award. So if it is set forth in the rule, the authors of the *American Medical Association Guides Fourth* have deemed this adequate, that meets my standards as well.

Dr. Becker: Maybe I could make a comment too. This is a complicated issue. First of all I think it depends on how you read the Legislative instruction to us for setting these ranges. The ranges that have been set. . .let's say for a lumbar. The common lumbar range would be a zero to 28% range. Outside of that range we see uncommon conditions like cauda equina syndrome or transection of the spinal cord or something like that. These are conditions that are not common. It's my interpretation that the Legislature did not want us to address those issues any differently than they had previously been evaluated. What they were asking us for, and I'm reading a little bit into this I think, they've asked us to give ranges for some of the common conditions that would set a top number and a bottom number. The bottom number always seems to be zero. But for these common conditions. . .and so within that range we have merged the concepts again of the DRE and the range of motion. I really believe when they fall within that range, if the range of motion is considered to be the best test to test that individual for the calculation of their impairment, then the range of motion would be argued by that impairment rater as the model to be used. But the range of motion would not exceed what was obtained by category 5 using the DRE, which is 28%. That is how I interpret this.

Mr. Atkins: Thank you. That satisfies my question on that issue. There is one other one here – the carpel tunnel issue, § 85-20-64.5. It's my understanding that – by rule – the most a

person can be awarded from a permanent partial disability from a carpel tunnel syndrome is 6% in each affected hand. Is that correct?

Mr. Obrokta, Jr.: Mr. Atkins that's correct under the rule. Just for the Board's. . . background for the board. . .there was significant discussion in the Legislative process of eliminating carpel tunnel completely from Workers' Compensation system, not making it compensable at all. A compromise was reached whereby certain very specific restrictions were to be placed on carpel tunnel. We had to come up with various rules, which are a part of this rule. Carpel tunnel can no longer be considered. . .the percentages can no longer be considered when you are looking at permanent total disability determination – any carpel tunnel awards excluded from that. Finally, the Legislature instructed us again to come up with ranges on the common injuries and of course carpel tunnel is a common injury, so we came up with a range on carpel tunnel as well. I'll let Dr. Becker address the specific 6% issue.

Dr. Becker: The 6% numbers that we arrived at setting that as a cap came from really a poll of IME providers, members of the IEB regarding what they considered to be the reasonable range for isolated carpel tunnel syndrome without other problems complicating it. If you are familiar with the *Fourth Edition* of the *AMA Guides*, you are well familiar with table 16 regarding carpel tunnel, which is a table that has been abandoned going forward into the *Fifth Edition*, partly because it seems to excessively award these particular nerve entrapments and set numbers that everyone thought were unrealistically high, so they've abandoned that going forward into the *Fifth* Edition. The other thing that's happened simultaneously is that everyone in the country seems to be well aware of carpel tunnel, so there is quite a bit of early reporting by workers now of carpel tunnel symptoms and a lot of early treatment. Outcomes have improved nationally. We expect that with good outcomes there will be little residual deficit or impairment. Most of the claimants that we are seeing are winding up with very small impairment or no significant physical findings, and so the reasonable range for the vast majority of our cases in the common condition of carpel tunnel was deemed to be 6% and that's how we arrived at it.

Mr. Atkins: Thank you very much Dr. Becker. The point I'm making is that there is of course the exception case. And these rules don't seem to take that into consideration where someone has a really significant impairment with their hands, which could significantly affect that person's ability to work and you could show definitively by range of motion or any other kind of test that the impairment is much greater than 6%. But is there any provision in the rule that would take that into consideration or are we just still under the 6% on that situation?

Dr. Becker: I think that in the majority of these cases there are more complicated issues than simply the carpel tunnel median nerve compression. There are ways that it could be documented, and I'm of the opinion that if someone had severe – severe carpel tunnel with significantly atrophy and inability to work, that we would wind up accepting higher ratings based on appropriate documentation on a case by case basis. And I think that that's the reasonable way to approach it. As it has been the system has allowed. . .let me back up. As it has been,

the *AMA Guides* have not very clearly defined what is mild, moderate and severe carpel tunnel. I assume that severe means you've transected the nerve and you have no nerve function, but this is not very clear in the way the *AMA Guides* have dealt with carpel tunnel. It is my belief, and the belief of many other providers, that 6% is a very fair award for mild to moderate carpel tunnel, which is what we commonly see.

Mr. Atkins: Well I have no problems with the commonly accepted one here. It's just that I have seen on few occasions situations where the carpel tunnel was greater than 6%. I believe that probably 64.5 should be amended to reflect the fact that the rates or values could be increased on a case-by-case basis. We're just getting a situation where someone could have a. . .from any other standpoint as much as 15% or 20% impairment but they are limited to 6% under this rule. That's just not fair. Hands do work. This is the most significant impairment an individual can have is with his hands and I've seem people come in with wrists braces and things like that with numbness and tingling, loss of fine motor control, can't pick up a pencil or anything like that simply because they've got a well documented carpel tunnel – these people running jack hammers and things like that; heavy equipment and those sort of things. I think that it's too simplistic to just put a 6% on it based upon a survey of what people think it should be. There should be some more objective criteria for determining what an actual PPD should be in that particular situation.

There is one other matter. It is sort of a housekeeping matter. Again, if I can find it here. . . payment for appearance at hearings. T. J., it says that. . .when we are talking about a medical provider are we talking about somebody like a treating physician?

Mr. Obrokta, Jr.: Yes, that would be one of the medical providers.

Mr. Atkins: The practice at the present time I believe is to have the Commission pay for the appearance fee and the treating physician in that particular situation. Is that correct?

Mr. Obrokta, Jr.: I believe that is correct, yes.

Mr. Atkins: Why do we change that from the present practice?

Mr. Obrokta, Jr.: The suggestion was made early on in this process that the Commission should not be financing the litigation of these claims. Where it really comes up is when we deny a claim – deny it. Say it's not compensable, then the claimant protests that and they litigate that and we end up paying the litigation costs for a claim that has been denied. I just don't think we have the money to do that.

Mr. Atkins: I can understand that but occasionally and what we are seeing more and more of are treatment issues. That is it's not necessarily a situation where claim is compensable or not. It boils down to treatment issues. The treating physician offers an opinion that a certain diagnosis should be compensable. It's turned down, usually for no reason that

you can determine based upon what the claims examiner says. It's just plain denied, so you have to go through the whole process of figuring out why a particular diagnosis should be compensable based upon the particular injury involved and you have to ask the doctor. So this is pretty expensive as far as the claimants are concerned as well. So it may mean the difference as to whether or not a person gets treated for a compensable condition or not. I understand the expense involved in something like that. But you know fairness would indicate that in situations like that that we ought to have access to the treating doctors so that we don't have to pay $300.00 to $400.00 an hour for somebody to come and testify and pay the court reporter fee and all that stuff. So I think that is a situation that should be addressed otherwise. I think the present should continue. That's my opinion. That's my comments on that.

Chairman White: Thank you Mr. Atkins. From a housekeeping standpoint I would ask that on the public hearing portion if there are comments. . .questions and comments, in order to keep it moving let's have the appropriate person from the Commission respond at the end of the comments to that particular person. The next public person to request a public hearing is Pat Maroney, Mr. Maroney. . .

Thomas P. Maroney: Thanks very much Mr. Chairman. I appreciate the opportunity to be here again today to address the members on this issue. We would still stand behind our original comments where these rules have not changed that we submitted sometime ago. Unfortunately the Fund's computer I guess broke down on Friday and we didn't get these comments until yesterday morning, and then this morning at about 8:30 we got a second set. But I believe that they're the same set, if I'm not mistaken, came out this morning and yesterday. Is that correct?

Mr. Obrokta, Jr. They are some minor changes.

Mr. Maroney: Oh, there are some minor changes? Okay. So we got a set yesterday and we have a set today that we got at 8:30. So, you know, we haven't had a chance to really go through them in their totality, and we would like the opportunity to do that and to respond. But if I could, I would like to go through these as Mr. Obrokta did. And number one, on page 2, giving self-insured the same power as it gives this Board of Managers and the Commission is the biggest absurdity that I have ever heard in my lifetime in the practice of law. Why not give it to the claimants? Why not let them decide their own issues? This is a function of determining issues and determining fairness. To give the same power to an employer as this Board has and this Commission has is not right. I know it's in the statute for self-administration, but you folks still have the opportunity to create a set of rules and regulations which has equalness and fairness in the program. And that should not be in that provision. It should be stricken.

Number two. I would join in with Mr. Atkins on his comments about carpal tunnel, and particularly when we talk about what is an isolated case, what is a common or what is a severe case of carpal tunnel. I believe that there do need to be some exceptions made there so that the rule is fair for those that have the exceptional case. We would also join in with the doctor's comments on pain management and believe that those should not be changed.

I would like to get now to the OP Section, which starts on page 83. This rule as it is now drafted drastically changes the present procedure, which has been used by requiring a valid pulmonary function study to accompany the application. That is an expensive process for the claimant. If the x-ray is positive, the question then becomes for the Fund to determine whether or not this person does have an impairment within the guidelines that you're establishing. The requirement for a pulmonary function study is a real financial burden upon a claimant and should be removed. That's in 52.1, number 4.

The next area which should be removed is on page 84 at 52.2, which says, "If the employer provides information as a part of the application process demonstrating that it has been in compliance with OSHA or MSHA limitations on exposure to dust alleged by the injured worker, during the periods of exposure alleged by the injured worker, then they shall determine that it was not compensable." Number one, one only has to pick up the newspapers on a regular basis to see the number of incidences in the mining industry where people have fraudulently submitted dust samples which were erroneous, and that should not be a requirement here. Number two, every human being has a different body that accepts or rejects dust in differing amounts. We all know that the OSHA and MSHA guidelines, and they are merely guidelines to determine what are acceptable levels of exposure are compromises, that there are high limits and low limits. That some people can be exposed to a low limit and still get occupational pneumoconiosis. Some people can be exposed to a high limit and never get it. This is merely – this is merely a guideline. But if a person has occupational pneumoconiosis demonstrable by x-ray and has worked in an industry, then that should not be a rejected claim. In addition to that, dust sampling is only a snapshot which occurs on a very limited basis. What were the exposure limits on a particular day or over a particular series of days? Maybe 30 days, but not during the entire period of time that a person was exposed – 10, 20, 30 or 40 years in a particular work place. So that should be removed from this regulation.

Again, on occupational pneumoconiosis. . .look at my notes here, I apologize. This would be under 85-20A(f), which has to do with the allocation with smoking. There is no medical scientific evidence, and that any doctor will tell you that, the OP Board will tell you that – that they can separate out the amount of disability that is caused by smoking and the amount that is caused in the work place. That is particularly jumbled and tumbled up when you have a work place exposure which has dust, fumes, and smoke in the work place superimposed over a worker who may or may not smoke. So there is no way medically, and none of the doctors. . .

Chariman White: What page?

Mr. Maroney: I'm sorry. I may have given you the wrong page Steve. I'm sorry. It's 85-20A, subparagraph (g). I'm not sure of the page number. I don't have the page number here.

T. J. Obrokta, Jr.: Page 111, in the back.

Chairman White: Thank you T. J.

Mr. Maroney: There is no way that that can be siphoned out and determined that 10% of it is smoking and 90% of it is occupational exposure. The way these rules are written they completely ignore the primary rule and I want to get to this on the evidentiary standard. The evidentiary standard – and we appreciate the fact that there have been some considerations given to us on doing away with clear and convincing – but it still does not satisfy the statutory provisions which goes one step farther which was enacted by members that are sitting here at this table – that if it is evenly balanced – if it is evenly balanced, then the claimant gets the benefit. It is more than just a 49/51. It's a 50/50 deal. And if it's 50% – 50% – the claimant gets the benefit of the doubt. And that's the way the rule is. . .the statute is written, and we would respectfully request that that be changed – and to reflect exactly what statutory language is. And if I could. . .I didn't realize we were going to talk about the *Repass* case or I would have come more prepared to do so. But as I understand the presentation of the *Repass* case by the Fund here, they believe that the *Repass* case supports wholeheartedly the statutory provisions as enacted by the Legislature and that that would be the ruling because *Repass* says that the Legislature can do any and everything that it wants to do. And I would agree with that. And I am proud to say that the three members of the Court who wrote that appear to be very business oriented. And I'm proud to say that those three gentlemen wrote that decision and it would support the upholding of this piece of Legislation. As far as the dissent, I think that the dissent was just criticizing the decision in that one particular case.

As to the other issues that we had here today, if I could just go through the final parts of it. We have not had an opportunity to compare West Virginia's PPD rates with all of the states in the country, but I have no doubt – maybe Ohio would be $4,400.00 on a 10%, depending upon how you arrive at that. However, I'm not sure what Maryland's or Pennsylvania's or New York's, Illinois, Indiana. . .when you look at other contiguous or close by contiguous states as to what the percentages would be. I do know in some states that you can settle cases and come up with much higher award basis. As far as what the doctors may say about – that they do or do not like the guidelines which we have – I noticed Dr. Becker said they could put you to sleep and I know they put me to sleep too. I'm sure that there are very few doctors who have read all of these guidelines from start to finish or even have seen them, so I'm not sure how many of them would say that these are good or bad. But I don't want to speak for the medical profession on that.

But with that we do appreciate the opportunity to participate in these, but we think their still short of accomplishing what needs to be done to make this rule a fair rule for both the claimants and the employers – and in particular those who are self-insured. They should not have the right to utilize these rules in the way that you use them. There should be specific – and I understand that they're being developed now – rules for self-insured, but that particular provision in this rule should be removed. Thanks very much.

Chairman White: Thank you, thank you Pat.

Mr. Obrokta, Jr.: Just briefly Mr. Chairman, as much as I would like to remain the person that more shocked Pat Maroney than anyone else in his legal career, I would go ahead and agree. We can remove that sentence. The law gives him that right anyway. He may disagree with that, but the law gives him that right. If they don't want it in this rule, I'll be more than happy to take it out. It's not worth arguing about. On the balance 50/50 – it should go to the claimant. That's fine. I'll put that language in as well. Everything else I think I would take issue with, but we can make those adjustments.

Chairman White: Thank you T.J. With that, I will declare five-minute recess and we will continue with respect to the rest of the agenda after the recess. Thank you.

Chairman White: We are back into session. Just for a clarification, the question was asked about further public comment on 15 and 20. The public comment – we've now had the public comment period in today's. . .on the Rehab and other rule. And the public comment period on both of those has been concluded. With respect to any other input that people wish to get to the Commission, it should be directly to the staff to work with the next seven days. But as far as public comment, that portion of the proceedings has concluded.

3. Old Business

Chairman White: The next item on the agenda is old business. . .Director. . .

Gregory Burton: Real quickly Mr. Chairman, regarding the budget that was passed on, I guess it was Sunday, there were some newspapers accounts that we had received $10 million dollars for the self-insured pool, but we're still trying to get some clarification. The way that I read the budget Bill – if you recall under Senate Bill 2013, there was $5 million dollars that was to come out of the general fund to come to us during fiscal year 2005 and 2006. That is in there. And then there is an additional $5 million dollars that comes from the surplus and the excess lottery account, which we won't know whether or not there is any surplus until June 30, 2004. So the way I read it we only have $5 million dollars to apply to the self-insured pools that we have been talking about setting up instead of the $10 million dollars. So I wanted to make sure that that was clear. We're still trying to make sure that we're reading that right and that there's no money there someplace that we did not see. So we'll have some further discussion with you on the 3rd.

Chairman White: Thank you.

WORKERS' COMPENSATION BOARD OF MANAGERS

March 30, 2004 – 1:00 p.m.
Charleston Civic Center
Rooms 207-209

AGENDA

1. Call To Order ..... Steve White
2. Commission Report ..... Greg Burton
3. Office of Judges Report ..... Timothy Leach
4. Claims Committee Report ..... Everette Sullivan
5. Audit Committee Report ..... Bob Phalen
6. Finance & Administration Report ..... Chris Jarrett
7. Risk Management Report ..... Doug Merritt
8. General Counsel's Report ..... T. J. Obrokta, Jr.
   a. Vocational and Physical Rehabilitation 85CSR15
   b. Employer Violator System
   c. Coal Litigation
   d. Medical Management of Claims, Guidelines for Impairment Evaluations, Evidence, and Ratings, and Ranges of Permanent Partial Disability Awards 85CSR20
9. Old Business ..... Steve White
10. New Business ..... Steve White
11. Comments from the Public ..... Steve White
12. Next Meeting – April 20, 2004, 1:00 p.m. ..... Steve White
    Charleston Civic Center, Rooms 207-209
13. Adjourn ..... Steve White

WEST VIRGINIA WORKERS' COMPENSATION COMMISSION

BOARD OF MANAGERS

MARCH 30, 2004

Minutes of the meeting of the Board of Managers held on Tuesday, March 30, 2004, 1:00 p.m., at the Charleston Civic Center, Rooms 207-209, 100 Civic Center Drive, Charleston, West Virginia.

Board of Managers Members Present:

Steve White, Chairman
Gene F. Bailey
Paul Hardesty (Designee for David Satterfield)
Richard W. Humphreys
Chris E. Jarrett
John L. Johnson
Robert S. Kiss
Matthew Jones (Designee for Craig Slaughter)
Brooks McCabe
Douglas W. Merritt
Bob Phalen
Vic Sprouse
Everette E. Sullivan
Paul E. Thompson

Staff Members Present:

Dr. James Becker
Gregory Burton
Lisa Hamrick
Chris Howat
Melinda Ashworth Kiss
Timothy Leach
Phil Lynch
Becky Neal
T. J. Obrokta, Jr.
Sherry Risk
Kimberly Stitzinger-Jones
Phil Shimer
Randall Suter
Lisa Teel
Dave Townsend
Andy Wessels

1. Call to Order

Chairman Steve White called the meeting to order at 1:15 p.m.

Chairman White: I would like to have silent roll call. Let the minutes reflect that we have a quorum for conducting business. The first item on the agenda is the Commission Report, Director Burton.

Chairman White: We have a motion by Mr. Sullivan, seconded by Mr. Phalen that the resolution that has been presented by the Commission to the Board of Managers be adopted. Further discussion? All those in favor please signify by saying "aye." Opposed?

Mr. Johnson: Opposed.

Chairman White: I declare the motion has been adopted.

Mr. Obrokta, Jr.: Mr. Chairman, the final matter I have been asked to address today is a small little matter here. The package you have before you has a final document. It is the 117 page Medical Management Claims Rule. Attached to the front of the rule is an eight-page amendment. I would suggest we shouldn't be too overwhelmed by the eight-page amendment because significant chunks of it are just putting some language back in that originally came out.

With that, what I'd like to do is the rule itself – the big document – is the same rule this Committee saw on March 23, 2004, that I went through and highlighted the significant changes that have been made from the earlier version that had been filed with the Secretary of State's Office. Since March 23, 2004, we have continued to work with the stakeholders to try to get resolution and agreement on this rule. We've got it down to about four or five items that simply do not look like they are going to be resolved. The bulk of all the eight-page amendment – to my knowledge – it's good to go with all the stakeholders. So if I could just walk through the amendment. . .again it won't take me that long because significant chunks of it are just some language we are putting back in. What I'd like to do is walk through the amendment and explain to you our reasoning for suggesting it. There are copies in the back for the public.

Point number one, we are striking a sentence and a definition on Page Two. This has to do with the definition of the Commission. Mr. Pat Maroney has suggested this change and we've agreed to it. The change happens in Paragraph 3.3, which is Page Two of the big rule. We had added a sentence saying essentially that self-insured employers would, under certain circumstances, act as the Commission when it comes to the medical management of claims. The reason we put that there is because that's what the law says. But some folks are uncomfortable with that nevertheless. So we as the Commission are willing to take it out quite frankly because it's in the law anyway, so it's not going to hurt or help whether or not its in this rule. If a stakeholder wants it to come out, we'll take it out. That's point one.

Back to the amendment document – the next amendment is on Page Four, Section 4.2. This is just a clarification. Paragraph 4.2 references Section 5.9. That's just a typo. It should be 5.11. As I mention that point, I'm going to skip over the typos or the stylistic changes unless someone on the Committee wants me to address them.

Amendment 3, Page Five – Amendments number 3 and 4 deal with Pages Five and Six. Just some clarifications requested by the medical community to make it clear. The original

language made it clear that chiropractors would only be reimbursed if they had a certification for the service they provided. The chiropractic community requested that that be expanded to any medical provider. You are only going to get paid for what you're licensed to do. It made sense to us so Amendments 3 and 4 simply make that clarification.

Amendment Number 5, you will insert the word "podiatrist" as a treating physician on Page Seven. We are agreeable to that suggestion. That is simply a recognition of a current practice. Podiatrists can be treating physicians.

Amendment Number 6 is simply a typo.

Amendment Number 7 is on Page 14 of the rule itself. This has to do with what requires an authorization. We had originally written it that durable medical equipment purchases in excess of $250.00 required authorization. Dr. Becker and our Office of Medical Management thinks that that number is too low and we really should not have to authorize anything unless it's $500.00. So we are just going to increase it from $250.00 to $500.00, the cost of durable medical equipment, before we have to issue authorization.

Mr. Phalen: So it will be $500.00 instead of $250.00?

Mr. Obrokta, Jr.: Yes sir.

Mr. Phalen: You got a line drawn through $500.00.

Mr. Obrokta, Jr.: Right. We went from $500.00 to $250.00, but now we are going back to $500.00.

Mr. Obrokta, Jr.: Amendment Number 8, which is on Page 21 of the big rule. If you will turn to Page 21 of the rule, Section 19.2. There is a form that has to be completed by the medical community – a WC-219 Form. It is filled out by the attending physician. Apparently a practice has developed among some physicians to charge a claimant $5.00 or $10.00 or some amount like this to fill out this form. We think that is unacceptable. Mr. Maroney made us aware of that practice. I think it is probably in violation of the code anyway. But just to clarify we are going to add a sentence, which is amendment Number 8, "Providers shall not charge injured workers or any others for completion of the WC-219 Form."

The next numbered amendment is Amendment Number 9, which changes language on Page 22 of the big rule. We had excluded payment for massage therapy. There are apparently some legitimate uses of massage therapy and the chiropractic industry asked us and we added some language to authorize three sessions of massage therapy, if massage therapy is not the sole means of treatment. They would have to say, "If massage therapy is part of your other treatment, we will go ahead and pay for three massage therapy visits and that's it."

Amendment Number 10, which again amends text on Page 22 of the rule, Section 20 – this language is one of the five I mentioned earlier. There is still some disagreement among some stakeholders. What this sets forth is – if we deny a claim or deny treatment or deny anything else as a Commission, we are no longer going to continue the practice of paying for the treating physician to give a deposition or to give testimony. If we deny something, it's our belief we should not have to then turn around and finance the litigation against our decision. So what this says is, "If a party disagrees with our denial and if that party protests it, they are going to pay the fees and expenses associated with taking the deposition or the testimony of a treating physician.

Amendment Number 11 – modifies language on Page 53 of the rule. This is the carpel tunnel syndrome of the rule. Dr. Becker has learned of a procedure called "Cold Laser" that he tells me is a very experimental and unproven therapy. We are starting to see an increase request for this type of treatment. Dr. Becker's belief is that it is fully inappropriate at this time for us to pay for this, so we are going to add a sentence on Page 53 that says, "Cold Laser is an experimental and unproven therapy. The Commission will not pay for such treatment." Dr. Becker is here, if afterwards you want to ask him any questions about that.

Beginning on Amendment Number 12 through 16, so numbers 12, 13, 14, 15 and 16 – it all changes language on one page of the rule, Page 60. The chiropractic community asked us, first of all to reorganize – not change any language – just reorganize the numbering in a manner that they thought flowed better. So we did that and added some clarifying language to again accommodate the requests of the chiropractic community. I'm not aware of any disagreement from any of the other stakeholders on those changes.

Beginning with amendment suggestion Number 17, which again is on Page Two of the amendment document. Beginning on Number 17 continuing all the way onto Page Six through Number 32 – so it is Amendments 17 through 32. This is language that has historically been in our treatment guidelines. One stakeholder suggested that we take it out so we floated that and you heard Dr. Gross and some others strongly object to that during the public hearing. So what all this does from 17 through number 27 – Pages Two through Six of the amendment document – that in essence is putting back in language that had been in our guidelines for quite awhile. Dr. Becker is here and he can comment afterwards if you would like if you have any questions on what that language really does. But essentially it puts back in language on the multi-disciplinary pain management section of the rule, and again it was in essence language that had been in our treatment guidelines for a while. We were going to take it out. I thought it was rather nebulous. Some folks disagreed with me so I put it back in. I heard from that same person who wanted it out that they really don't disagree with this, but I've not heard any outcry from the business of other communities about this language.

Starting with Amendment Number 28 and going through 32 – Numbers 28, 29, 30, 31 and 32. It's on the top part of Page Six of the amendment document. Similar to what I just said, except this goes in the interventional management of chronic pain – same thing – mostly

language that had been in, came out and now we are just putting it back in. Dr. Becker is here to address it if you want to talk about the substance of that language.

Otherwise if you will look at Number 33. . .Amendment Number 33 to the middle of Page Six of the document – this is an important change, one that was discussed intensely among the stakeholders. This amends language on Page 83 of the rule and this has to do with what a claimant must produce to us to meet the requirements of a completed occupational pneumoconiosis application. We had various requirements. One of those requirements was objected to by the claimant community through Mr. Maroney. It was a requirement that a valid pulmonary function study complying with the requirements of this rule had to be produced along with the application. There apparently is a financial burden to a claimant to get that study produced that would likely be produced after the application anyway. We will obtain it. So we agreed to strike that language, Number 4, 52.1, Number 4. The requirement of a valid pulmonary function study – that language we would propose coming out.

The next is Number 34, which addresses language on Page 105 of the rule. This really is just clean up. It takes out the words of the *Pressley Reed Guideline* because I had it in there twice. So just remove it. It's some duplicative language.

Change Number 36, we are entering into now the last five suggestive changes that came over on Friday and the weekend, so they are tacked on here at the end. Change Number 36 changes language on Page 63 of the document. If you will go back to Page 63 of the document, it addresses paragraph 47.11 on Page 63 of the document. The way it was written it could have been interpreted as requiring a 29% hearing loss before we would pay for hearing aids. Mr. Maroney brought that to our attention. I think that we can all agree that requiring 29% hearing loss before we pay for hearing aids is probably a bit strong to say the least, so we came up with some language and we will pay for hearing aids assuming there is a 5% or more permanent industrial hearing loss. As long as there is a 5% or more we will pay for the hearing aids.

Amendment Number 37 addresses language on Page 71 of the document. This is talking about the interventional management of chronic pain. If you will look on Paragraph 50.16, it talks about if you have a condition that is greater than six months old you can get another six months worth of treatment. The language was, "If an independent medical evaluator agrees you need it. . ." It was suggested by the claimant community and Mr. Maroney that we say, "The treating physician pick the independent medical evaluator." We were fine with that so we've inserted Amendment Number 37.

Amendment Number 38 changes language on Page 84 of the document. This is the second amendment that there is still some controversy on or some disagreement on. Paragraph 52.2 – what this language does in essence is – this is in the occupational pneumoconiosis area OP – what the language as drafted intended to do was if an employer. . . let me back up. In order to get an OP award the claimant has to show that he or she has been

exposed to certain dust levels over a certain period of time. This new language that we put in the rule was requested by various stakeholders and it says, "If an employer can show during some part of that time that it was in compliance with MSHA or OSHA's dust levels. . .," then that period of time should be taken out and not counted towards the duration of exposure because they have evidence from the regulating authorities showing that they are in compliance on dust levels. We've gone back and forth trying to massage this language particularly with Mr. Maroney to try to reach an agreement. We've accommodated various aspects of his request but I think there are still some outstanding issues. But essentially the amendment, which is my purpose of talking now, is the amendment keeps that concept that we are going to back out and not count towards time of exposure the periods where an employer can prove it was in compliance with MSHA or OSHA. But I added a sentence at the end that basically allows the employees to come back and if they can show creditable evidence that the employer's testing was erroneous in some manner, then we will put that time back in. That's my attempt to try to placate all the stakeholders. I don't think I'm quite there yet with some, but that's where we are.

Amendment Number 39 is an amendment that impacts Page 100 of the document. It inserts some definitions really that were requested by the medical community. I'm not aware of anyone that has a problem with this. Basically if you are going to be a pain management specialist, we want you to be board certified. If you are going to be a psychologist treating claimants, we think you should be licensed in the State of West Virginia. If you are going to be a psychiatric addition specialist, you should be licensed and board certified in psychiatry. So obviously just some quality control issues there and Dr. Becker, and actually some doctors at WVU, wanted us to put in. It seems very reasonable to us.

The last and final suggestion is Number 40, which is just moving one sentence that Dr. Becker thought should be relocated in the document. It's taking. . .on Page 40 of the rule, Section 41.3. . .I'm sorry it's Page 47 of the rule. I think I said 40. Page 47 of the rule, Section 41.3, it's just taking the last sentence and relocating it back into Section 41. It makes more medical sense to Dr. Becker to be there.

So with that said, the Commission would request similar to the rehab rule – that the rule presented to you on March 23, 2004, be amended, consistent with the amendment document I've given you, and assuming that passes, we would ask for a passage of the Board.

Chairman White: Assuming that there will be questions prior to the vote, I'd like to declare a five-minute recess.

[Five-minute recess]

Chairman White: We are back in session. We left the meeting with Mr. Obrokta going through the suggested amendment to the rule and I believe that he might have some other comments to make. Mr. Obrokta. . .

Mr. Obrokta, Jr.: Mr. Chairman, members of the Board, I've just finished going through the eight page amendment. I would like to. . .I guess amend that amendment slightly before I submit it to the Board. If you will look on the first page of the proposed amendment, Amendment Item 10, Page 22, Section 20. This is the language. . .the status quo of claims litigation is that the Commission pays for the deposition of a treating physician – period. The language that we were putting in here would say, "We don't pay if in fact we've denied the claim." Upon further consideration we think it may make some sense to go ahead and strike that language and return to the status quo. So what we are doing to our amendment that we are proposing is striking the first two sentences. Margaret would reflect the official copy. Just take your pen out and strike, beginning with the word "strike" the first, second, third, fourth and fifth lines until the word "fees." So strike that out and we would just be left with a cancellation fee – that if anyone cancels a doctor's deposition they have to pay $100.00. So with that I would submit this amendment to the Board and request that it be approved and then that Rule 20 as amended be approved. Thank you.

Chairman White: Thank you very much Mr. Obrokta. Again, I commend you for all the hard work you have done, attempted to try to get the input from the various stakeholders and trying to mold this into a product that people. . .everybody is comfortable with. With that, are there questions of Mr. Obrokta with respect to the proposed amendment? Do we have a motion on the floor to amend Rule 20 in the manner proposed by the Commission?

Mr. Bailey: Chair, I would like to move that we approve the motion as presented by the Commission prior to the break.

Chairman White: We have a motion. Do we have a second?

Mr. Merritt: I'll second that motion.

Mr. Sullivan: What was the recommendation prior to the break?

Chairman White: Point of clarification, I would ask Mr. Obrokta to attempt to explain to the Board the difference in the amendment before the break and subsequent to the break.

Mr. Obrokta, Jr.: One single difference, and that is before the break the language was such that we would not pay the deposition fee of a treating physician if we had denied a claim. Now, after the break the recommendation is that we return to the status quo and that we continue the practice of paying the deposition charges of the treating physician regardless of whether or not we denied a claim.

Chairman White: Mr. Obrokta, again, the change that the Commission is making puts us back to the status quo that we have in the present scenario. Is that correct?

Mr. Obrokta, Jr.: Yes sir.

Chairman White: Discussion on the motion of Mr. Bailey? Senator Sprouse. . .

Senator Sprouse: Yes, thank you, just a question I guess. My only concern with the second motion is that we are actually going to approve the. . .you all are going to approve the rule itself without any other discussion on other parts of the rule. Could I ask a question about another part of the rule at this time?

Chairman White: Certainly.

Senator Sprouse: T. J., just a couple points. One is, and I hate to step. . .because we're almost. . .I'm stepping into another. . .I guess I don't want to go into another area or should we deal with this area first before we go into another area?

Chairman White: I think it would be preferable to deal with this first, Senator Sprouse.

Mr. Sprouse: Let me. . .I'll step back and let you all talk.

Mr. Phalen: Mr. Chairman, if I may, I believe the motion would be out of order in as much as the final report was given after the break. I believe the motion would certainly be out of order.

Chairman White: Mr. Phalen, I would agree with that. Mr. Bailey, is your motion to amend the Commission's recommendation to reflect the change that we just discussed?

Mr. Bailey: No sir, it is not. I'll withdraw my motion if it is out of order.

Chairman White: Motion has been withdrawn. Mr. Obrokta. . .

Mr. Obrokta, Jr.: If I could just make a suggestion. . .perhaps we could. . .whatever the Board wants to do. . .but one possible approach would be to pass the amendment if the votes are there and then allow for subsequent amendments. That may be one way to do it.

Chairman White: I think that is a very good suggestion Mr. Obrokta. Is there a motion on the floor to pass the amendment? I think there is a. . .the question is – is there a motion on the floor to adopt the amendment to Rule 20 that it has been presented by the Commission?

Mr. Sullivan: I so move Mr. Chairman.

Chairman White: We have a motion. Is there a second?

Mr. Bailey: Second.

Chairman White: A motion and second. Discussion?

Mr. Phalen: Mr. Chairman, I believe in all due respect, I believe that motion would be out of order. Likewise you have a rule with amendments from the Division that certainly is open for discussion and open for further amendments from this Board. I believe that that should be the protocol that we address this particular issue first. If there are additional amendments to be made as to what has been presented, I believe those additional amendments should be heard prior to any action being taken on the amendment rule as presented by the Division.

Chairman White: I believe the motion, Mr. Phalen, was to amend to adopt the recommendations of the Commission which is to amend the rule in front of you to reflect their recommendations.

Mr. Phalen: To reflect the recommendations of the Division?

Chairman White: That's correct.

Mr. Phalen: If that motion is approved, then no one can come back with additional amendments to the rule.

Chairman White: No. I believe that is not correct. If in fact that is approved, then it would still be subject to further amendments of the Committee.

Mr. Phalen: That is ruling of the chair?

Chairman White: Yes sir.

Mr. Phalen: Thank you sir.

Mr. Bailey: Mr. Chairman, one question for clarification. Now the motion that is on the floor includes that which we have in written form, plus the oral change, or does not include the oral change?

Chairman White: The motion before the Committee is to approve the amendment to Rule 20 recommended by the Commission which entails what we have in front of us in writing with the oral change made by Mr. Obrokta after the break. Is there discussion on the motion? All those in favor please signify by saying "aye." Opposed?

Chairman White: I declare that the Rule 20 proposal has been amended to reflect the recommendations of the Commission. Are there further motions before the Committee?

Mr. Phalen: I would like to. . .again I'm depending on the Chair's explanation in regards to offering amendments to the proposed rule by the Division itself. If I would be in order at this time I would like to do so.

Chairman White: You are in order.

Mr. Phalen: Thank you sir. The first item is on Page Seven, and don't ask me which document. I've got about a thousand here. Let me go back to the one that. . .it's on Page Seven, at the top of the page. It's § 85-20-5, Section 5.10, dealing with out of state providers. Is everybody with me?

Chairman White: Page Seven did you say?

Mr. Merritt: What page? I don't see it on Page Seven.

Mr. Phalen: Page Seven.

Chairman White: I don't have that available.

Mr. Obrokta, Jr.: It should be Page Seven at the very top, Paragraph 5.10, Page Seven of the rule itself.

Mr. Phalen: Page Seven of the rule itself unless the page numbers have changed. Mr. Chairman I would like to offer an amendment in regards to this particular section. The way I believe it reads now is, "Out of state providers. If an injured worker elects or is directed to receive health care services from an out of state provider, and that provider does not accept the Commission's fee as payment in full, then the injured worker may be liable for the difference between the Commission's payment and the amount charged by the out of state health care provider." And I'll explain the reason that I think. . .my amendment would be that, "or is directed" be stricken from this language. And without question, if a claimant elects to go out of state to receive health care services and that fee is more than what the Commission allows, then certainly that claimant should be responsible for that. However, if he is directed to go out of state, then I believe the Commission should actually pay the difference if he is actually directed to go out of state for further health care services. What I'm concerned with here is that this could become cost prohibitive for the claimant himself or herself in regards to not being able to pay the difference between what the Commission allows and what an out of state health care provider may charge. So I do offer that as an amendment that the words "or is directed" be eliminated. If an injured elects, that's true. But if he is directed, then certainly the Commission should pay for that.

Chairman White: Is there a second?

Mr. Sullivan: I'll second it Mr. Chairman.

Chairman White: Mr. Sullivan has seconded the amendment. Discussion?

Mr. Bailey: I would like to hear a response from Mr. Obrokta as to why that needs. . . whether it does.

Chairman White: I think that would be appropriate. Is there a response from the Commission?

Mr. Obrokta, Jr.: Mr. Chairman, simply to provide the Board with the reasoning behind why that language is in there – the Legislature went through significant effort to give employers and the Commission the right to create HMO's and PPO's. So the language "or is directed" was simply a recognition of the fact that once those HMO's and PPO's are established, claimants will be, if necessary, directed as to which types. . .as to who to go to for health care services. So that's the origin behind why that language is inserted. We have to approve the HMO's and PPO's, and we certainly would never approve an HMO or PPO that is going to direct claimants to get out of state care when there is plenty of in state care available.

Chairman White: If in fact though, Mr. Obrokta, if that occurs, would there be an occasion when that would occur – that they would be directed out of state?

Mr. Obrokta, Jr.: If there is some specialty that is not offered in the State of West Virginia, in theory that could happen.

Chairman White: Is there further questions of the Commission for Mr. Obrokta? Is there further discussion? There is a motion for the Board to eliminate, and correct me if I misstate this Mr. Phalen, to eliminate the words "or is directed" in 5.10 on Page Seven of Rule 20. Is that correct?

Mr. Phalen: That's correct sir.

Chairman White: That's correct. That is the motion before this Board. All those in favor, please signify by saying "aye." Opposed? I'd like a showing of hands of those who signified by saying "aye." Opposed (showing of hands). It's a tie.

Mr. Obrokta, Jr.: Mr. Chairman, under your rules, Rule 14 requires a vote of six to carry a motion.

Chairman White: I declare that the motion did not pass – a five to five vote. Are there further motions before this Board?

Mr. Phalen: Yes sir. I won't give up that easily. § 85-20-1. Let me find the page number.

Mr. Obrokta, Jr.: Page One.

Mr. Phalen: Mr. Chairman, I would propose an amendment basically to this 1.1 Section, and what it would do would be to eliminate "and parameters" and "parameters and limitations." Nowhere in the code that I can find or other folks can find where parameters are listed. That's guidelines and those are I believe the *Reed Pressley* guidelines. My amendment would be as follows: Under the "Scope of W. Va. Code § 23-4-3b(b) requires the Workers' Compensation Board of Managers to promulgate a rule establishing the process for the medical management of claims and awards of disabilities, disability which includes but is not limited to reasonable and standard guidelines," and again striking 'and parameters for appropriate treatment,' "expected period of time to reach maximum medical improvement and range of permanent partial disability awards for common injuries and diseases or in the alternative which incorporates by reference medical and disability management guidelines, plan or program being utilized by the Commission for the medical and disability management of claims with requirements and standards," and again striking 'parameters and limitations of such guidelines'. . ."plan or program having the same force and effect as the rule promulgated in compliance herewith."

Chairman White: A motion?

Mr. Phalen: That's my motion, sir.

Mr. Sullivan: I'll second it.

Chairman White: Mr. Phalen, we have a motion that has been read by Mr. Phalen. We have a second by Mr. Sullivan.

Mr. Obrokta, Jr.: The Commission would like to be heard on this at the Chairman's discretion.

Chairman White: Certainly. Does the Commission have a response to the motion of Mr. Phalen?

Mr. Obrokta, Jr.: That paragraph is a direct quote out of Senate Bill 2013 – direct word for word. W. Va. Code § 23-4-3b(b) – it is also language that I gave to this Committee at the last meeting, an excerpt from the code. So the Commission would strongly and unequivocally object to this amendment. It would be contrary to the code and it would take all the teeth out of this rule.

Chairman White: Thank you Mr. Obrokta.

Mr. Phalen: Could you show me. Mr. Obrokta, in regards to the Senate Bill 2013 as to where it's located? I haven't been able to find it.

Chairman White: Mr. Obrokta, for the benefit of the rest of the Committee could you indicate what page that is on?

Mr. Humphreys: Is discussion possible?

Chairman White: I was waiting to see if Mr. Phalen had a follow-up with Mr. Obrokta.

Mr. Phalen: I stand corrected. It is in the Senate Bill 2013 in regards to parameters. I hadn't been able to find that. Again, I think what it does it broadens this situation. Parameters can take on many meanings and again. . .I will. . .again move my amendment.

Chairman White: Thank you Mr. Phalen. Further discussion? Mr. Humphreys. . .

Mr. Humphreys: What does parameters add to the phrase "standardized guidelines?" If it's not there, what is missing?

Mr. Obrokta, Jr.: Mr. Humphreys, if you will recall from the last Board meeting, I brought excerpts from the dictionary and provided those to you, so I would stand behind that definition. It does. . .there is no doubt about it that word will be interpreted by a court someday but it's clear that it can note certain limitations. There is no doubt about it, as I read the dictionary.

Chairman White: Further discussion? Senator McCabe. . .

Senator McCabe: I would like to speak against it just because it is clearly contrary to what is in the legislation and been presented to us by counsel. I would further say that no matter what you say in the rule or not in the rule, particularly if you would try to eliminate that word, the Commission would continue to operate under that because it is in the law. As I would understand, the law would take precedence. You don't need a rule to restate the law and by taking that word out of the rule – you may be successful in that – I would urge you not to. But the fact of the matter is the Commission would still go ahead and follow the law on that. Am I not correct?

Mr. Obrokta, Jr.: Senator McCabe is correct. . .it's customary in rule writing the first paragraph. . .statutory authority for why you are doing the rule, so that is why it restates the code.

Mr. Phalen: Let me ask something here too. Again, this is supposed to be in conjunction with *Reed Pressley* guidelines, correct? I mean this is where we are at. The *Reed Pressley* is guidelines. It doesn't set forth parameters. It doesn't set forth standards. It's guidelines. And you broaden this. . .again, I mean it broadens the meaning of it in my opinion.

Chairman White: Is there a response to that?

Mr. Obrokta, Jr.: I would simply say again the code speaks for itself. I'm simply restating the code. I would also say the Medical Management of Claims Rule is partially intended to address *Pressley Reed*, but the statute sets forth all kinds of other requirements as well. It's not just *Pressley Reed*, so it's simply a restatement of the code as it reads, and we would, as the Commission, stand behind following the law.

Chairman White: Senator McCabe. . .

Senator McCabe. Mr. Chairman, and again, it is just one individual recalling, but in the discussions we had in the Legislature there was some discussion on this matter and related matters, and the context of that was the Legislature was trying to salvage a system that was quickly going down the tubes that was insolvent and spending what little assets it had at an accelerated rate almost daily. And as such, the Legislature chose to ask the Commission to pick guidelines and to set parameters with I think the understanding that parameters are outer bounds to be sure that the Commission could put in place certain parameters to keep the system solvent. This was not your normal time. If you look at the beginning of the bill and the legislative findings, there were a variety of issues pointed or descriptions presented. . . statements made about the situation that workers' compensation was under and because of that, you know, this is one case where parameters were added. I don't disagree with where you are coming from or what you're saying, really, other than the dire straits that workers' compensation was in and continues to be in. That was an added condition put in by the Legislature, which was a collection of a lot of people looking at it very hard. I think, as I recall, that was something that was agreed upon and we were instructed – the Legislature, through this piece of legislation, instructed Workers' Compensation to act accordingly.

Mr. Obrokta, Jr.: Mr. Chairman, if I could, just as a closing point. Not a single doctor, chiropractor or osteopath has come to me and said the parameters set forth in this rule would lead to poor treatment being provided to claimants. Not a single one.

Mr. Phalen: No one is suggesting that they have. That's not to say that they won't.

Mr. Obrokta, Jr.: Again, this has been out for over 60 days and no provider has come to me and said, "We don't think this is reasonable." Dr. Becker spoke with you at length on why we believe the parameters of this rule are reasonable, and we would stand on that.

Chairman White: Further discussion? The question before the Committee is the adoption of a motion by Mr. Phalen to amend the Rule 20 before the Committee. All of those in favor, please signify by saying "aye." Opposed? A show of hands of all of those in favor, please signify by saying "aye." I declare the motion is not passed. Further motions before the Committee?

Mr. Phalen: I don't have anymore. I don't take defeat gracefully. I'll be back. I'll be back.

Chairman White: Do we have a motion before the Committee to pass Rule 20 as amended?

Mr. Bailey: I move that we approve it as amended, Mr. Chairman.

Chairman White: Is there a second?

Mr. Merritt: I'll second the motion.

Chairman White: There's a motion and a second. . .Senator Sprouse. . .

Senator Sprouse: Yes, just. . .maybe a point and then a question for T. J. T. J., I'm looking back at the changes that you made around the exposure requirements and the additional sentence that you put in there, "The periods for which employees can demonstrate by credible evidence, that the employer's dust level testing is not accurately reflecting changed conditions in the workplace may be included by the Commission for a period of dust exposure." Are you not fearful that this sentence basically makes every dust, every one of them. . .I mean you're going to litigate every one or is every one going to be litigated anyhow?

Mr. Obrokta, Jr.: Well, first of all, the language as written is a drastic improvement over what currently exists. Secondly, I do think it is fair to allow claimants an opportunity to rebut this new evidentiary ability we've given employers, and thirdly, I will tell you that that language was written with the assistance of Mr. Maroney but also with counsel from the larger – some of the larger employers in the area. So they seem to be comfortable with it.

Chairman White: Further discussions? The question before the Committee is the adoption of Rule 20 as amended. All those in favor please signify by saying "aye." Opposed?

Mr. Phalen: Nay.

Chairman White: I declare that the motion has passed, Rule 20, as amended, as passed by the Board.

9. Old Business

Chairman White: Next item on the agenda is old business. No old business.

10. New Business