WEST VIRGINIA
SECRETARY OF STATE
KEN HECHLER
ADMINISTRATIVE LAW DIVISION

Form #1

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OFFICE OF WEST VIRGINIA SECRETARY OF STATE

NOTICE OF PUBLIC HEARING ON A PROPOSED RULE

AGENCY: Workers' Compensation Division Bureau of Employment Programs TITLE NUMBER: 85

RULE TYPE: Exempt Legislative ; CITE AUTHORITY §21A-2-6(1),-6(2),-6(14); §21A-2-19;§21A-3-7(b),-7(c); §23-1-1

AMENDMENT TO AN EXISTING RULE: YES____ NO X

IF YES, SERIES NUMBER OF RULE BEING AMENDED: _____

TITLE OF RULE BEING AMENDED: _____

IF NO, SERIES NUMBER OF NEW RULE BEING PROPOSED: 20

TITLE OF RULE BEING PROPOSED: Protocols and Guidelines for the Treatment of Workers' Compensation Injuries

There will be two (2) public hearings.

DATE OF PUBLIC HEARING: April 10 & 13, 1995 TIME: 10:00 a.m.

LOCATION OF PUBLIC HEARING: Jerry West Lounge, WVU Coliseum, Morgantown-April 10, 1995
Room 202, Charleston Civic Center, Charleston-April 13,1995

COMMENTS LIMITED TO: ORAL____, WRITTEN____, BOTH X

COMMENTS MAY ALSO BE MAILED TO THE FOLLOWING ADDRESS: Lisa M. Kern, Counsel
Legal Services Division
P.O. Box 3922
Charleston, WV 25339-3922

Until May 1, 1995

The Department requests that persons wishing to make comments at the hearing make an effort to submit written comments in order to facilitate the review of these comments.

The issues to be heard shall be limited to the proposed rule.

ATTACH A **BRIEF** SUMMARY OF YOUR PROPOSAL

Andrew N. Richardson
Andrew N. Richardson

11.20

Bureau of Employment Programs
Legal Services Division
Post Office Box 3922
Charleston, West Virginia 25339-3922

Gaston Caperton
Governor
Andrew N. Richardson
Commissioner

M E M O R A N D U M

TO: Interested Persons

FROM: Lisa M. Kern, Counsel
Legal Services Division

DATE: March 1, 1995

RE: Filing of Proposed Rules

You are receiving this notice either because you previously requested to be placed on the Workers' Compensation Division's interested person's mailing list or because we believe you will be interested in these proposed rules. The division has filed for public comment a proposal for three exempt legislative rules titled: "Protocols and Guidelines for the Treatment of Workers' Compensation Injuries," Title 85, Series 20, "Guidelines for Controlled Substances," Title 85, Series 21 and "Guidelines for Psychiatric Permanent Impairment, Evaluations, Evidence and Ratings of Psychiatric Impairment Due to Workers' Compensation Injuries," Title 85, Series 22.

A summary of each rule is enclosed for your reference. Series 20 provides treatment guidelines for eleven types of injuries. It also has a section regarding physical therapy and a section providing guidelines for physical medicine. Series 21 provides guidelines for use by a physician in the management of chronic nonmalignant pain. Series 22 provides guidelines for psychiatric impairment ratings, evaluations and evidence.

Public comments are being solicited on these proposals. The division will hold two (2) public hearings on the rules as noted on the cover sheet. Both meetings will start at 10:00 a.m. on the dates indicated and at the locations noted. We suggest that you file written comments along with any oral comments that you wish to make at the hearing. In lieu of attendance at a hearing, you may mail written comments to me at the address noted above until 5:00 p.m. on Monday, May 1, 1995. Copies of the rules can be obtained through the Secretary of State's Office.

These are exempt legislative rules which means they do not have to have the approval of the Legislature before they become effective. Following the receipt of the comments, the Compensation Programs Performance Council will review the comments, adopt such changes as they may find appropriate, and then vote to either accept or reject each proposed rule. If accepted, the rule will become effective thirty (30) days after final filing with the Secretary of State.

Your comments are invited.

Summary of Proposed Exempt Legislative Rule
Protocols and Guidelines for the Treatment of
Workers' Compensation Injuries

Title 85, Series 20

This rule has been recommended by the Health Care Advisory Panel. It provides protocols and guidelines for the treatment of eleven different types of injuries including post concussion syndrome, injuries to the eye, cervical musculoligamentous injury, herniated cervical disk, low back musculoligamentous injury, herniated lumbar disk, lumbar fusion, shoulder injuries, carpal tunnel syndrome, injuries to the knee and foot and ankle injuries. This list includes those injuries most commonly experienced by workers' compensation claimants. The list is not exhaustive and will be amended periodically to include additional conditions as the Health Care Advisory Panel completes those treatment guidelines.

This rule provides a background description of the injury, the pertinent diagnostic criteria, the treatment required, oftentimes enumerating inappropriate treatment as well as appropriate treatment and the anticipated outcome, including when the claimant may be expected to return to work.

The rule provides for deviation from the guidelines as long as the deviation is medically justified and supported in the physician's report.

The intent of the rule is to ensure that claimants receive appropriate treatment thus promoting recovery and a return to full performance.

This rule also has a section outlining when and at what point therapy may be appropriate as well as the appropriate duration of the therapy. The rule also contains a physical medicine guideline which addresses claims where physical medicine is provided by setting time frames for the duration of care depending on a variety of circumstances. The recommendations in this section do not supersede the previous diagnostic related treatment guidelines.

FISCAL NOTE FOR PROPOSED RULES

Rule Title: Protocols and Guidelines for the Treatment of Workers' Compensation Injuries

Type of Rule: Exempt
X Legislative ___Interpretive ___Procedural

Agency: Workers' Compensation Division, Bureau of Employment Programs

Address: P. O. Box 3922
Charleston, WV 25339-3922

1. Effect of Proposed Rule

	ANNUAL		FISCAL YEAR		
	INCREASE	DECREASE	CURRENT	NEXT	THEREAFTER
ESTIMATED TOTAL COST	$111,520	$0	$111,520	$152,500	$201,500
PERSONAL SERVICES	100,500	0	100,500	152,500	201,500
CURRENT EXPENSE	0	0	0	0	0
REPAIRS & ALTERNATIONS	0	0	0	0	0
EQUIPMENT	0	0	0	0	0
OTHER	11,520	0	11,520	0	0

2. Explanation of above estimates:

Personnel services for the current fiscal year represent the cost of weekly meetings of the Medical Support Group to review claims and one third of the Health Care Advisory Panel's monthly meeting time for support of these guidelines. The increase in personnel services for the next year and thereafter represent an additional Medical Services Group each year for a total of three groups to support Division staff on the use and interpretation of these guidelines. The cost designated as "other" represents a one time training cost to train Division staff on these guidelines.

3. Objectives of these rules:

These guidelines are intended to establish parameters for the treatment of claimants work-related injuries sustained in Workers' Compensation claims and to assist health care providers to better manage treatment in Workers' Compensation cases.

Rule Title: Protocols and Guidelines for the Treatment of Workers' Compensation Injuries

4. Explanation of Overall Economic Impact of Proposed Rule.

A. Economic Impact on State Government.

Division will experience one time training costs and yearly expensesthereafterr for medical professionals to assist Division staff in monitoring treatment rendered to injuredworkerss. These costs should be offset somewhat by reducing unnecessary and inappropriate medical treatment. However, any savings are difficult to quantify.

B. Economic Impact on Political Subdivisions; Specific Industries; Specific groups of Citizens.

Industries; Specificgroupss of citizens. No significant economic impact anticipated. Utilization of these guidelines should ensure better quality of medical care. This improved medical care should benefit both injured workers and employers.

C. Economic Impact on Citizens/Public at Large.

No significant impact anticipated. Medical health providers should have improved relations with the Division in the treatment of injured workers by utilizing these guidelines.

Date: March 1, 1995

Signature of Agency Head or Authorized Representative

Andrew N. Richardson

Andrew N. Richardson
Commissioner, Bureau of Employment Programs

TITLE 85
EXEMPT LEGISLATIVE RULES
BUREAU OF EMPLOYMENT PROGRAMS
WORKERS' COMPENSATION DIVISION

SERIES 20
Protocols and Guidelines for the Treatment of Workers' Compensation Injuries

§85-20-1. General.

1.1. Scope. -- This rule implements the provisions of West Virginia Code, §23-4-3(a), §23-4-3a(1), 23-4-3a(2), §23-4-3b, and 23-4-8 regarding the protocols and guidelines required for the medical, surgical, dental and hospital treatment of claimants for injuries sustained in the course of and resulting from work.

1.2. Authority. -- West Virginia Code, §21A-2-6(1), -6(2) & -6(14); §21A-2-19; §21A-3-7(b) & -7(c); and §23-1-1. Pursuant to West Virginia Code, §21A-3-7(c), rules adopted by the compensation programs performance council and the commissioner are not subject to legislative approval as would otherwise be required under West Virginia Code, §29A-3-1 et seq. Public notice requirements of that chapter and article, however, must be followed. Pursuant to Enrolled Committee Substitute for House Bill 4030, Regular Session, 1994, the Department of Commerce, Labor and Environmental Resources was abolished. Pursuant to that same bill and to Executive Order No. 5-94 by the Governor, the Commissioner of the Bureau of Employment Programs is empowered to promulgate rules and regulations without the consent or approval of a departmental secretary.

1.3. Filing Date. --

1.4. Effective Date. --

§85-20-2. Purpose of these rules.

The purpose of this rule is to implement the provisions of West Virginia Code, §23-4-3(a), -3(a)(1) & -3a(2), §23-4-3b, §23-4-7a(a), -7a(b) and -7a(h) and §23-4-8 which relate to the development of protocols and guidelines for the treatment of claimants for injuries sustained in the course of and resulting from work. Payment for other services including mechanical appliances and devices pursuant to W. Va. Code §23-4-3(a)(1) is to be made when such services or mechanical devices are

reasonably required. The protocols and guidelines adopted by this rule have been approved by the health care advisory panel and recommended to the compensation programs performance council for its adoption. The rule is applicable to evidence submitted by any party to a claim and to evidence gathered by the division.

§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. "Commissioner" means the Commissioner of the Bureau of Employment Programs pursuant to West Virginia Code, §21A-2-1, and West Virginia Code, §23-1-1, and any deputies designated pursuant to West Virginia Code, §21A-2-12 & -13.

3.3. "Division" means the Workers' Compensation Division within the Bureau of Employment Programs as provided for by West Virginia Code, §21A-1-4, and West Virginia Code, §23-1-1 et seq.

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

3.4.1. Magnetic resonance imaging - MRI

3.4.2. Encephalogram - EEG

3.4.3. Cat Scan - CT scan

3.4.4. Electromyogram - EMG

§85-20-4. Adoption of Standards.

4.1. The treatment provided for the injuries listed in this section shall be conducted in accordance with the recommendations in this guide. If in any particular claim the treater/examiner is of the opinion the treatment recommended is not appropriate and alternative measures must be taken, then the treater's/examiner's report must thoroughly document and explain the action taken and the basis for the deviation from the guide.

§85-20-5. Treatment guidelines: post concussion syndrome.

5.1. 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.

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

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

5.3.1. Neurological examination;

5.3.2. MRI;

5.3.3. EEG;

5.3.4. Electronystagmyogram; and

5.3.5. Neuropsychological testing if no improvement after four weeks.

5.4. Symptomatic therapy for post concussion syndrome includes:

5.4.1. Analgesia;

5.4.2. Medication for labyrinthine dysfunction;

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

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

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

5.6. 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.

§85-20-6. Treatment guidelines: corneal abrasion.

6.1. 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.

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

6.3. Appropriate diagnostic tests and evaluations include a determiniation of visual acuity, a slit lamp examination and, when indicated, a dilated fundus examination.

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

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

6.6. The anticipated outcome is full recovery.

§85-20-7 Treatment guidelines: corneal foreign body.

7.1. 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 toxicologic effect.

7.2. 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.

7.3. 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.

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

7.4.1. Removal of embedded foreign body;

7.4.2. Topical antibiotics, cycloplegics, and pressure patch;

7.4.3. Analgesics for the first several days;

7.4.4. Daily visits until the cornea is healed; and

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

7.5. In uncomplicated cases the claimant is expected to return to full work within one to two days.

7.6. 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.

§85-20-8 Treatment guidelines: hyphema.

8.1. 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. Claimants at considerable risk for complications include those with sickle cell or other coagulopathy.

8.2. Diagnostic criteria consists 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.

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

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

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

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

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

8.4. Appropriate treatment is as follows:

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

a. Strict bed rest for five days;

b. Daily eye examination;

c. Medication which may include the following: topical cycloplegics, steroids, ocular hypotensive and oral prednisone and/or aminocaproic acid;

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

e. A gonioscopy after 2-3 weeks.

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

a. Medication as noted for outpatient care;

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

c. Surgical evacuation of the clot.

8.5. 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.

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

§85-20-9 Treatment guidelines: eyelid laceration.

9.1. Eyelid lacerations may occur from blunt injuries or from laceration by a sharp object. They may involve only skin,

eyelid muscles, eyelid margin, the lacrimal drainage system and may be associated with an orbital foreign body.

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

9.3. 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.

9.4. Appropriate treatment is as follows:

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

9.4.2. 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 claimant, a one to two day hospital stay may be required. Medications may include topical, oral or parenteral antiobiotics and analgesics.

9.5. In uncomplicated cases the claimant 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.

9.6. The anticipated outcome is full recovery.

§85-20-10. Treatment guidelines: canalicular laceration.

10.1. 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.

10.2. 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.

10.3. 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.

10.4. Appropriate treatment is as follows:

10.4.1. 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.

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

a. Surgical repairing; may include complex reconstruction;

b. Antibiotics and topical medications as indicated; and

c. Lacrimal bypass surgery if repair is unsuccessful.

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

§85-20-11 Treatment guidelines: orbital contusion.

11.1 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.

11.2 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 .

11.3. The appropriate diagnostic tests and examinations consist of:

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

11.3.2. Orbital x-rays; and

11.3.3. CT scan may be indicated.

11.4. The appropriate treatment is as follows:

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

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

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

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

§85-20-12 Treatment guidelines: orbital fracture.

12.1. 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.

12.2. 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.

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

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

12.3.2. X-ray of the orbits; and

12.3.3. Coronal CT scan.

12.4. Appropriate treatment is as follows:

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

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

12.4.1.b. Oral antibiotics; and

12.4.1.c. Analgesics may be required.

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

a. Surgical repair;

b. Medications include antibiotics and analgesics; and

c. Hospitalization from 1 - 3 days.

12.5. 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.

12.6. 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.

§85-20-13 Treatment guidelines: corneoscleral lacerations.

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

13.2. The appropriate diagnostic criteria consists of:

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

13.2.2. CT scan of orbits may be required.

13.3. Appropriate treatment is as follows:

13.3.1. Small partial thickness lacerations:

13.3.1.a. Follow-up and/or patching; and

13.3.1.b. Bandage contact lens application and follow-up.

13.3.2. Full thickness corneal lacerations:

a. Bandage lens application;

b. Cyanoacrylate tissue adhesive and protective shield;

c. Surgical repair under general anesthesia and hospitalization;

d. Cycloplegic, steroid and antibiotic drops; and

e. Hospitalization: 0 - 7 days.

13.4. The estimated duration of care and anticipated outcome:

13.4.1. Partial thickness laceration:

The claimant should wear a protective shield for three to six weeks. Modified work may be done after several days. Normal visual function after six weeks.

13.4.2. 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 in three to four months if vision is adequate for fusion.

13.4.3. Lacerations involving lens, uveal tissue and retina:

Six months to achieve stability after which contact lens correction of the aphakic condition may allow good visual recovery.

§85-20-14. Treatment guidelines: chemical ocular injuries.

14.1. 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.

14.2. 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.

14.3. The appropriate treatment is as follows:

14.3.1. Acute phase (0 to 7 days).

a. Immediate copious irrigation using any nontoxic irrigating solution;

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

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

d. Follow-up outpatient for 3 weeks;

e. Immediate referral to ophthalmologist for alkaline burns; and

f. Monitoring for systemic effect of toxin.

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

14.4. 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.

§85-20-15. Treatment guidelines: cervical musculoligamentous injury (sprain/strain).

15.1. 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.

15.2. The appropriate diagnostic criteria consists of the following:

15.2.1. 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.

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

15.3.1. 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.

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

15.4. The appropriate treatment is as follows:

15.4.1. Outpatient treatment:

a. Nonoperative treatment:

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

B. Treatment options:

(a) Analgesics;

(b) Muscle relaxants;

(c) Anti-inflammatory drugs, non-steroidal;

(d) Physical modalities and/or rehabilitative procedures may be helpful;

(e) Occasional trigger point injections may be helpful; and

(f) Manual manipulation and mobilization.

15.4.2. Inappropriate treatment:

a. Operative treatment is inappropriate for cervical strain;

b. Narcotic medication for prolonged period of time; and

c. Inpatient treatment.

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

15.6. The anticipated outcome:

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

15.7. Modifiers (age, and co-morbidity).

15.7.1. If the claimant has not responded to the above-outlined treatments within four weeks, the claimant must be referred to an appropriate specialist.

§85-20-16. Treatment guidelines: acute herniated cervical disc.

16.1. 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 claimant 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.

16.2. 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.

16.3. Appropriate diagnostic tests and treatments are as follows:

16.3.1. 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.

16.3.2. Non-operative treatment:

a. Home cervical traction, e.g. in bed 7 lbs 2 hrs 4x/d for 7-10 days;

b. Use of hard cervical collar at all other times; and

c. Use of analgesics, mild relaxants, and non-steroidal anti-inflammatory drugs.

d. Indications for inpatient admission:

A. Inability to control pain; and

B. Progressive neurological deficit.

16.3.3. Claimants 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.

16.3.4. Neuro-Imaging examinations:

a. 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 claimant. There is no reason to admit a claimant 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;

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

c. 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.

16.3.5. Inappropriate diagnostic tests and examinations:

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

b. Myeloscopy;

c. Dermatomal somatosensory evoked potentials;

d. Thermography; and

e. Spinoscopy.

16.3.6. Operative treatment:

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

b. Quality of claimant's life significantly impaired;

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

16.3.7. Procedure options:

a. 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.

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

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

d. Rehabilitation may be required.

16.4. The estimated duration of care is as follows:

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

16.4.2. Operative treatment - depending on degree of neurological impairment and persistent pain. If pain persists over three months after surgery, the claimant 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 claimant may require short and/or long term modified work.

§85-20-17 Treatment guidelines: low back musculoligamentous injury (sprain/strain).

17.1. 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 claimants, are of short duration and complete recovery is the general rule. Most claimants with a musculoligamentous injury to the low back recover rapidly, with 50% to 60% of claimants recovering within one week.

17.2. 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 claimant may stand with a list to the side or in a flexed position. The neurological examination and nerve root stretch tests usually are negative.

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

17.3.1. 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.

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

a. CT scan;

b. MRI;

c. Bone scan;

d. Myelography;

e. EMG;

f. *Thermogram;

g. *Evoked Potentials;

h. *Myeloscopy; and

i. *Spinoscopy;

*Never appropriate

17.3.3. Failure to improve in four weeks warrants an appropriate second opinion be obtained.

17.4. Treatment considerations are as follows:

17.4.1. Nonoperative treatment:

a. Indications: Almost all claimants 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.

b. 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.

17.4.2. Inappropriate treatment:

a. Operative treatment is inappropriate for low back strain;

b. Prolonged bed rest beyond two days;

c. Narcotic medication for prolonged period;

d. Home traction; and

e. Inpatient treatment.

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

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

17.7. Modifiers (age, and co-morbidity).

Co-mobidity (e.g., degenerative disc disease, spondylolisthesis, segmental instability, osteoporosis, spine deformity) may be associated with a higher incidence of persistent symptoms.

§85-20-18. Treatment guidelines: herniated lumber disc.

18.1. Claimants 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 claimant 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.

18.2. 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 claimant 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.

18.3. Diagnostic test and examination considerations are as follows:

18.3.1. Clinical diagnosis is supported by these studies:

a. 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;

b. MRI; and

c. Myelography with CT scan.

18.3.2. Inappropriate diagnostic tests and examinations:

a. Myeloscopy;

b. Dermatomal somatosensory evoked potentials;

c. Thermography; and

d. Spinoscopy.

18.3.3. Supporting evidence.

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

18.4. The appropriate treatment is as follows:

18.4.1. Outpatient treatment:

a. Nonoperative treatment:

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

B. Physical therapy 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 claimants will respond to a nonoperative treatment program for herniated lumbar disc. The physician should be aware that those claimants who have marked, early limitation of straight leg raising and those claimants who have symptoms or physical findings suggestive of cauda equina syndrome may need early surgery. Close monitoring is indicated in those settings.

18.4.2. Inpatient treatment.

a. Nonpoperative treatment.

A. Indications for admission.

(a) Inability to control pain; and

(b) Severe or progressive neurologic deficit.

B. Treatment options.

(a) Monitored bedrest with parenteral medications.

C. Indications for discharge.

(a) Uncomplicated - relief or improvement of leg and/or back pain.

(b) 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.

b. Operative treatment:

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

(a) Failure of nonoperative treatment to relieve symptoms;

(b) Quality of claimant's life significantly impaired; and

(c) Presence of significant or progressive neurologic deficit.

B. Procedure options:

(a) Open removal; and

(b) Percutaneous diskectomy by special approval.

C. Indications for discharge:

(a) Uncomplicated - One to three days after diskectomy.

(b) 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.

(a) Some monitoring of the claimant's activities may be necessary;

(b) General fitness, flexibility, and simple spinal muscle strengthening are all important;

(c) Claimant should be instructed in walking program with a gradual increase in physical activities; and

(d) Strengthening exercises or work simulation activities may be indicated for some claimants.

F. Supporting evidence.

Diskectomy has been proven to be a safe and effective procedure in some claimants 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 judgement and the claimant's personal assessment of the extent to which quality of life has been impaired.

18.5. The estimated duration of care is as follows:

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

18.5.2. Operative treatment - 0 - 12 weeks.

18.6. Modifiers (age, and co-morbidity).

Claimants 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 claimant should undergo prompt referral and neurodiagnostic evaluation.

§85-20-19 Treatment guidelines: lumbar fusion.

19.1. Indications of lumbar fusion:

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

19.1.2. Cancer;

19.1.3. Symptomatic spondylolisthesis; and

19.1.4. Documented instability for other cause.

a. For first surgery only, degenerative disc disease with pre-operative documentation of instability.

b. Pseudoarthrosis.

c. For second or third time disc surgery, must have second, medical opinion and prior approval.

19.2. Contraindications for lumbar fusion.

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

19.3. Surgical procedures.

19.3.1. Bony fusion with or without instrumentation.

§85-20-20 Treatment guidelines: shoulder injury guidelines.

20.1. The term "shoulder complex" refers to the humerus, clavicle, scapula and their 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.

20.2. The appropriate diagnostic criteria are as follows:

20.2.1. History and physical.

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

b. 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).

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

d. Palpation - point or zone of maximum tenderness.

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

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

20.3. The appropriate diagnostic tests are as follows:

20.3.1. Routine imaging:

a. 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).

b. Special imaging - requires pre-authorization and

specialty referral.

A. CT scan;

B. MRI;

C. Arthrogram; and

D. EMG/NCV

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

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

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

20.4.3. Initial presentation of hemarthrosis;

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

20.4.5. Suspected neurologic injury.

20.5. Appropriate treatment is as follows:

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

a. 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.

20.5.2. Sternoclavicular or acromioclavicular strain or grade 1 (nondisplaced sprain).

a. Nonoperative:

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.

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

20.5.3. Rotator cuff tendinitis/bursitis.

a. 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.

b. Operative (specialty referral).

A. Indications.

(a). Failure of improvement after three to six months of conservative care;

(b). Positive impingement sign; and

(c). Arthrogram or MRI to determine integrity of rotator cuff.

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

20.5.4. Rotator cuff tear.

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

b. Nonoperative.

A. Physical therapy one to three weeks;

B. Specialty referral if no improvement.

c. Operative (specialty referral).

A. Arthrogram or MRI confirms tear; and

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

20.5.5. Adhesive capsulitis (frozen shoulder).

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

b. 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.

c. Operative (specialty referral).

A. Manipulation if no improvement after three months.

d. Other conditions which (require specialty referral).

A. Thoracic outlet syndrome;

B. Brachial plexus injuries; and

C. Ruptured biceps tendon, proximally or distally.

§85-20-21 Treatment guidelines: carpal tunnel syndrome.

21.1. Median nerve compression at the wrist, commonly called carpal tunnel syndrome, is characterized by paresthesia in the thumb and radial digits and wrist pain which may radiate proximally. It is often bilateral. The causative factor is felt to be compression of the median nerve in the carpal tunnel, either directly from the transverse carpal ligament or from crowding by other structures within the carpal tunnel. Predisposing factors include (1) overuse or repetitive motion of the hand and/or wrist; highly repetitive wrist movements, awkward wrist positions, vibratory tools, significant grip forces, (2) systemic conditions such as diabetes mellitus, pregnancy, arthritis, thyroid dysfunction or other metabolic conditions, (3) space-occupying altering conditions within the carpal tunnel such as fracture, tenosynovitis, tumor or aberrant muscles; (4) external compression from constrictive bandages or jewelry etc; (5) peripheral neuropathy; or (6) idiopathic.

21.2. The appropriate diagnostic criteria consist of:

Claimants usually complain of painful, burning paresthesia or numbness involving the thumb, index finger, long finger and occasionally the radial aspect of the ring finger or the entire hand. These symptoms are usually worse while lying down or sitting quietly. Activities such as driving, holding a telephone, or fixing one's hair often precipitate the paresthesia. The most common complaints usually include nocturnal paresthesia, clumsiness with loss of fine dexterity, and dropping things. The claimant often feels as if there is a loss of circulation. The paresthesia are often relieved by actively working the fingers, shaking the hand, or holding it in a dependent position. Pain is usually present over the palmar wrist area and may radiate proximally as far as the shoulder or neck.

Findings are consistent with those of a nerve irritation. Tinel's test may be positive over the median nerve in the proximal palm, or wrist. Numbness in the fingers may be elicited with the wrist in extreme extension or flexion (Phalen's test). There may be decreased sensation distal to the wrist particularly over the thumb, index, and long fingers, inability to flex or oppose the thumb or abduct it in its own plan; and thenar muscle atrophy. There can be significant variations in location of pain and sensory changes. The examiner also needs to evaluate additional or alternate sites of compression which can produce similar symptoms.

21.3. Appropriate diagnostic tests and examinations are as follows:

21.3.1. Radiographs of hand and wrist if indicated by history and exam;

21.3.2. EMG and NCS;

21.3.3. Response to rest, splinting of wrist, and carpal tunnel steroid injection;

21.3.4. Laboratory studies if symptoms suggest an underlying disease such as diabetes mellitus or thyroid dysfunction; and

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

21.4. Evolving diagnostic tests and examinations:

21.4.1. CT scan and MRI; only if indicated by previous plain films and history of space occupying deformity or mass;

21.4.2. Wrist arthrogram; if findings suggestive of carpal instability; and

21.4.3. Carpal canal pressure measurements and vibratory measurements are not indicated for clinical management.

21.5. Supporting evidence.

Since double crush syndromes (entrapment of a nerve at more than one level) and systemic diseases causing carpal tunnel syndrome are not unusual, a thorough evaluation is essential. Steriod injections are usually not curative, but an improvement following injection is normally a good predictor of improvement following surgical release. Nerve conduction studies have approximately a 95 percent accuracy rate. However, it must be understood that there is variability in skill of test and diagnostic reference criteria do vary. This should be carefully monitored by the referring physician and by a question and answer mechanism.

21.6. The appropriate treatment consists of the following:

21.6.1. Nonoperative treatment.

a. Indications:

A. Symptoms mild;

B. Recent onset of symptoms;

C. Pregnancy; other systemic problems which may be treated medically;

D. Onset of symptoms associated with work or non-work exposure plausibly associated with subjective and/or objective findings; and

E. Associated with other surgical conditions i.e. cervical radiculopathy.

b. Treatment options.

A. Splint wrist in neutral;

B. Nonsteroidal anti-inflammatory drugs;

C. Steroid injections;

D. Eliminate or modify aggravating activities;

E. Treatment of systemic disease;

F. Manipulation by a DC or DO no longer than 8 weeks; and

G. Self care - ice, elevation, range of motion, stretching, postural correction, etc.

c. Rehabilitation.

A. Modification of activities, postural and upper extremity position(s) and tools; and

B. Gradual progression of strengthening and endurance activity and exercises once symptoms have decreased or subsided.

21.6.2. Ambulatory surgery.

a. Indications:

A. Unresponsive to, or progression of symptoms and objective findings despite, nonoperative treatment;

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

C. Intolerable numbness and pain; and

D. Mass or deformity in carpal tunnel.

b. Treatment option.

A. Surgical intervention as indicated by presentation and intraoperative findings.

b. Home health care: When self-care is compromised during the early post-op period, homemaker services may be required in some instances. Examples: amputation or limiting injury of the opposite hand.

d. Rehabilitation.

A. Brief post-operative splinting;

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; and

F. Progressive activity reintroduction.

e. Supporting evidence: Carpal tunnel release relieved pain and paresthesia in up to 90% of claimants with correct diagnosis. Significant pre-operative median nerve involvement, concurrent medical conditions and/or inability to modify aggravating exposures may affect post-operative functional recovery.

21.6.3. Inpatient treatment.

a. Nonoperative: rare, only if associated with other trauma or condition, i.e. crush injury, burn, etc.

b. Operative treatment.

A. Indications for admission:

(a). Compartment syndrome of forearm;

(b). Other serious medical condition which increases surgical or anesthetic risk; and

(c). Complication at time of out-patient procedure.

B. Treatment options: same as for ambulatory claimant.

C. Indications for discharge: medical condition stabilized.

D. Home health care: same as for ambulatory claimant.

E. Rehabilitation: same as for ambulatory claimant.

21.7. The estimated duration of care is as follows:

21.7.1. Nonoperative treatment: zero to three months - permanent activity modification may be indicated depending on objective findings and past duration of symptoms.

21.7.2. Operative treatment: Usually only several days unless there is profound weakness or sensory loss.

21.8. The anticipated outcomes are as follows:

21.8.1. Improved sensation and/or motor function and/or autonomic dysfunction;

21.8.2. Elimination of paresthesia; and

21.8.3. Improvement in pain.

21.9. Modifiers (age, sex, and co-morbidity): Pregnant and nursing women usually have decreased or resolved symptoms shortly after delivery or cessation of lactation, but persistent symptoms may require surgical release. Age and gender do not matter. A coexistent neurological or systemic disorder, i.e. diabetes, thyroid dysfunction, amyloidosis etc., may make symptoms more severe and less likely to fully resolve following treatment.

§85-20-22. Treatment guidelines: injuries to the knee.

22.1. 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 protocol 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:

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

22.1.2. Radiographic evidence of an associated fracture;

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

22.1.4. An acutely locked or an acutely dislocated knee;

22.1.5. Clinical evidence of gross ligamentous instability; and

22.1.6. A presumed diagnosis of a meniscal injury.

§85-20-23. Treatment guidelines: knee sprains.

23.1. 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.

23.1.1. The appropriate diagnostic tests.

a. Plain x-rays.

23.2. The appropriate and inappropriate treatment is as follows:

23.2.1. Nonoperative treatment.

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

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

c. Physical modalities and/or rehabilitative procedures;

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

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

23.3.2. Inappropriate treatment:

a. Surgery;

b. Inpatient; and

c. Greater than three weeks without consultation.

§85-20-24. Treatment guidelines: meniscal injuries.

24.1. 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.

24.2. The appropriate diagnostic tests are as follows:

24.2.1. Plain x-rays;

24.2.2. Arthrocentesis;

24.2.3. MRI;

24.2.4. Arthrogram; and

24.2.5. Diagnostic arthroscopy.

24.3. The appropriate treatment is as follows:

24.3.1. Outpatient/nonoperative treatment.

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

b. Physical modalities and/or rehabilitative procedures.

24.3.2. Outpatient/operative treatment.

a. Options include arthroscopic meniscectomy and/or arthroscopic meniscal repair; and

b. Physical therapy/rehabilitation.

24.3.3. Inpatient/nonoperative treatment not indicated.

24.3.4. 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.

24.5. The duration of treatment may vary up to three (3) months. The claimant's age and pre-existence of arthritic changes within the joint will influence the duration of treatment.

24.6. The anticipated outcome is as follows:

24.6.1. Improved knee function with minimal residual symptoms; and

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

§85-20-25. Treatment guidelines: foot and ankle injuries.

25.1. 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, hindfoot, midfoot, forefoot or phalanges).

25.2. The appropriate diagnostic criteria is as follows:

25.2.1. Pertinent historical and physical findings:

a. 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.

25.3. Diagnostic test and examination considerations are as follows:

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

25.3.2. 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;

25.3.3. 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).

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

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

25.3.6. Inappropriate diagnostic tests:

a. Thermogram.

25.3.7. Indications for specialty referral:

a. Displaced fractures;

b. Neurovascular compromise; and

c. Pain and swelling greater than three weeks.

25.4. The appropriate treatment is as follows:

25.4.1. Non-operative.

a. 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.

b. Fractures.

A. Simple non-displaced:

(a). 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.

(b). Hind foot - Same as ankle.

(c). Midfoot - Same as ankle but course is usually two to four weeks shorter.

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

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

c. Displaced fractures.

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

25.4.2. Operative.

All operative decisions require specialty referral.

a. 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.

b. 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.

§85-20-26. Appropriate intervention and time frame.

26.1. Therapy may be initiated as early as the day of injury; indications for the focus of (early) intervention include:

26.1.1. Acute management of pain/spasms;

26.1.2. Instruction in range of motion and stretching exercises;

26.1.3. Use of passive modalities;

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

26.1.5. Claimant education in healing process and body mechanics.

Time Frame: May range from one visit only to 1 to 2 hours per day.

26.2. Expansion of therapy programs is indicated when claimants do not return to work at their former level. Exercise programs are progressively increased to include strengthening and conditioning exercises. Work simulation activities (also gradually increased) focus on essential work tasks needed, such as pushing, pulling, lifting, etc.

Time Frame: 1 to 4 hours per day, 3 to 5 days per week.

26.3. Progress reports to physician and employer should identify continuing complaints, progress made, further rehabilitation needs, and level of return to work readiness. A claimant may continue in therapy, if indicated, after return to work.

26.4. Therapy evaluations must be provided by a

professional licensed to perform such activities.

26.5. Initiation of therapy intervention may not be indicated when:

26.5.1. Few objectively measured deficits are found on evaluations;

26.5.2. Subjective cause of pain is only finding;

26.5.3. Pain behaviors are interfering with return to work process;

26.5.4. Claimant is not compliant with treatment pain; and

26.5.5. Inappropriate treatment is exclusive use of passive modalities.

§85-20-27. Physical medicine.

27.1. Physical medicine guidelines were developed to avoid monitoring of 100% of claims where physical medicine is provided. However, these guidelines do not supersede the previous diagnostic related treatment guidelines.

27.2. Case management will begin at any point lack of progress is identified. In some instances this may be before sixty days post injury. If physical medicine treatment exceeds 60 days post-injury, case management is a necessity.

27.3. If there is a question about the frequency and duration of physical medicine treatments, refer to the appropriate diagnostic related treatment guidelines.

27.3.1. All treatment is expected to be terminated as soon as the claimant reaches maximum medical improvement. Claimants who continue to report pain and dysfunction, while showing no significant measurable or objective signs of improvement, have reached maximum medical improvement and must be discharged or referred to an appropriate specialty.

27.4. If claimant care continues to the 30th day and the claimant has not returned to work, the treating physician may arrange a consultation for a second opinion; care cannot continue past the 45th day unless the consulting physician recommends further care.

27.5. If claimant care continues to the 30th day and the claimant is back to work, shows significant documented functional

and clinical signs of improvement, and has not reached maximum medical improvement, continued care is appropriate. Such treatment should not exceed the 60th day.

27.6. Treatment is not to exceed 10 visits in the initial 14 days and must decrease in frequency thereafter. In no case should the treatment exceed 16 visits in the initial 30 days or 12 in the second 30 days.

27.7. Case management will be appropriate according to treatment protocol. It is incumbent upon the provider to monitor the claimant's progress and to notify the case manager in a timely manner to ensure continuity of care.

27.8. Care beyond the 60th day is limited to claimants who 1) display a significant complicating factor, 2) are back to work or enrolled in a work conditioning/hardening program, and 3) have significant documented functional and clinical signs of improvement. Such claimants are to be treated on an as needed basis only, with treatment not to exceed 2 visits per week.

27.9. 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.

27.10. Claimants with complicating factors which have prevented a return to work by the 60th day require case management, with independent medical evaluator guidance, for determination of appropriate care.

27.10.1. Recommendations 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:

A. Acute management of pain and spasms;

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

C. Manual therapy for restoring joint function;

D. Instruction in range of motion and stretching exercises;

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

F. Claimant education in healing process, body mechanics, proper resting positions, and home treatment program; and

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

b. Evaluations must be provided by professionals licensed to perform such activities.

c. Initiation of treatment may not be indicated when:

A. Few objectively measured deficits are found on evaluations;

B. Subjective complaints of pain are the only finding;

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

D. Claimant 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 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, and the employer should identify continuing complaints, progress made, further rehabilitation needs, and level of return to work readiness. A claimant may continue in therapy, if indicated, after return to work in accordance with above treatment guidelines.

§85-20-28. Severability

28.1. If any provision of these rules or the application thereof to any entity or circumstance shall be held invalid, such invalidity shall not effect the provisions or the applications of these rules which can be given affect without the invalid provisions or application and to this end the provisions of these rules are declared to be severable.