



## Notice of Independent Review Decision

**DATE OF REVIEW:** 07/06/10

**IRO CASE #:**

### **DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE**

Outpatient Lumbar Epidural Steroid Injection (ESI) at L5-S1 with Post Injection Physical Therapy (PT) Two (2) Times a Week for Two (2) Weeks to Consistent of Therapeutic Exercise, Neuromuscular Re-Education, Manual Therapy and Electrical Stimulation (e-stim). Not to exceed more than four units per session.

### **A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION**

Board Certified in Physical Medicine & Rehabilitation

### **REVIEW OUTCOME**

Upon independent review the reviewer finds that the previous adverse determination/adverse determinations should be:

- Upheld (Agree)
- Overturned (Disagree)
- Partially Overturned (Agree in part/Disagree in part)

Provide a description of the review outcome that clearly states whether or not medical necessity exists for each of the health care services in dispute.

Outpatient Lumbar Epidural Steroid Injection (ESI) at L5-S1 – UPHELD

Post Injection Physical Therapy (PT) Two (2) Times a Week for Two (2) Weeks to Consistent of Therapeutic Exercise, Neuromuscular Re-Education, Manual Therapy and Electrical Stimulation (e-stim). Not to exceed more than four units per session. - UPHELD

### **INFORMATION PROVIDED TO THE IRO FOR REVIEW**

- Emergency Department Medical Record, , M.D
- Head/Brain CT, M.D
- Thoracic Spine CT, J. M.D.,
- Cervical Spine CT, Dr.
- Lumbar Spine CT, Dr
- Chest, Abdomen, Pelvis CT, Dr.
- Cervical Spine MRI, M.D.,
- Thoracic Spine MRI, M.D., 03/03/10
- Lumbar Spine MRI, , 03/03/10
- Initial Consultation, M.D., 03/26/10
- Cervical Spine X-Rays, Dr., 03/26/10
- Thoracic Spine X-Rays, Dr., 03/26/10
- Physical Performance Evaluation (PPE), Dr., 04/01/10, 05/10/10
- DWC Form 73, Dr., 04/01/10, 04/09/10, 05/11/10, 06/15/10
- Re-Examination, Dr., 04/09/10, 04/23/10, 05/11/10, 05/25/10
- Physical Therapy, 03/29/10, 04/12/10, 04/14/10, 04/15/10, 04/16/10, 04/19/10, 04/22/10, 04/26/10, 04/29/10, 05/04/10, 05/05/10, 05/06/10, 05/07/10, 05/27/10, 06/02/10, 06/08/10, 06/10/10, 06/14/10
- Initial Consultation, M.D., 04/28/10
- DME Prescription Form, Dr. 05/10/10
- Electrodiagnostic and Nerve Conduction Study, Dr. 05/13/10, 05/20/10
- Pre-Authorization, 05/21/10, 06/02/10
- Denial Letter, 05/26/10, 06/09/10
- Request for Reconsideration, 06/01/10, 06/14/10
- Evaluation of Cervical Scans, M.D., 06/07/10
- Evaluation of Pelvis and Lumbar Scans, Dr. 06/07/10
- The ODG Guidelines were not provided by the carrier or the URA.

### **PATIENT CLINICAL HISTORY (SUMMARY):**

The patient presented to the emergency room with a headache and back pain resulting from a fall from the top of a ladder that was approximately 15 feet high. A CT of the brain was performed, which was negative. A CT scan of the thoracic spine was normal as well. A CT of the cervical spine revealed a disc herniation at C4-C5. A CT scan of the lumbar spine was negative. A CT scan of the chest, abdomen and pelvis was normal. An MRI of the cervical spine showed cervical spondylosis resulting in mild spinal

stenosis at C4-C5, as well as mild left C4-C5 foraminal stenosis. An MRI of the thoracic spine revealed a 9 mm T10 vertebral body hemangioma. An MRI of the lumbar spine showed the interspace at L5-S1 had a diminished T2 brightness consistent with degenerative change in desiccation. The posterior central disc bulged 3 mm. There was a defect in the posterior left para midline L2-L3 interspace consistent with an annular tear. The posterior disc margin at L2-L3 and projects 3 mm toward the left in the para midline. The patient was initially prescribed Hydrocodone 5/500 mg and Flexeril 10 mg, which he was maintained on. He then underwent approximately 18 sessions of physical therapy. It was then indicated due to the fact the patient had failed conservative care, including NSAIDs, physical therapy and a home exercise program with medications, it was medically warranted for him to undergo a lumbar Epidural Steroid Injection (ESI) as diagnostic modality. An electromyography was performed, which was normal and there was no evidence of radiculopathy, plexopathy or neuropathy noted.

### **ANALYSIS AND EXPLANATION OF THE DECISION INCLUDE CLINICAL BASIS, FINDINGS AND CONCLUSIONS USED TO SUPPORT THE DECISION.**

Per ODG on the use of ESIs:

Epidural Steroid Injections are "Recommended as a possible option for short-term treatment of radicular pain (defined as pain in dermatomal distribution with corroborative findings of radiculopathy) with use in conjunction with active rehab efforts. See specific criteria for use below. Radiculopathy symptoms are generally due to *herniated nucleus pulposus or spinal stenosis*, although ESIs have not been found to be as beneficial a treatment for the latter condition."

#### **Criteria for the use of Epidural steroid injections:**

*Note: The purpose of ESI is to reduce pain and inflammation, thereby facilitating progress in more active treatment programs, and avoiding surgery, but this treatment alone offers no significant long-term functional benefit.*

**(1) Radiculopathy must be documented. Objective findings on examination need to be present. For unequivocal evidence of radiculopathy, see AMA Guides, 5th Edition, page 382-383. (Andersson, 2000)**

(2) Initially unresponsive to conservative treatment (exercises, physical methods, NSAIDs and muscle relaxants).

(3) Injections should be performed using fluoroscopy (live x-ray) and injection of contrast for guidance.

(4) *Diagnostic Phase:* At the time of initial use of an ESI (formally referred to as the "diagnostic phase" as initial injections indicate whether success will be obtained with this treatment intervention), a maximum of one to two injections should be performed. A repeat block is not recommended if there is inadequate response to the first block (< 30% is a standard placebo response). A second block is also not indicated if the first block is accurately placed unless: (a) there is a question of the pain generator; (b) there was possibility of inaccurate placement; or (c) there is evidence of multilevel pathology. In these cases a different level or approach might be proposed. There should be an interval of at least one to two weeks between injections.

(5) No more than two nerve root levels should be injected using transforaminal blocks.

(6) No more than one interlaminar level should be injected at one session.

(7) *Therapeutic phase:* If after the initial block/blocks are given (see "Diagnostic Phase" above) and found to produce pain relief of at least 50-70% pain relief for at least 6-8 weeks, additional blocks may be

required. This is generally referred to as the “therapeutic phase.” Indications for repeat blocks include acute exacerbation of pain, or new onset of symptoms. The general consensus recommendation is for no more than 4 blocks per region per year. (CMS, 2004) (Boswell, 2007)

(8) Repeat injections should be based on continued objective documented pain relief, decreased need for pain medications, and functional response.

(9) Current research does not support a routine use of a “series-of-three” injections in either the diagnostic or therapeutic phase. We recommend no more than 2 ESI injections for the initial phase and rarely more than 2 for therapeutic treatment.

(10) It is currently not recommended to perform epidural blocks on the same day of treatment as facet blocks or sacroiliac blocks or lumbar sympathetic blocks or trigger point injections as this may lead to improper diagnosis or unnecessary treatment.

(11) Cervical and lumbar epidural steroid injection should not be performed on the same day. (Doing both injections on the same day could result in an excessive dose of steroids, which can be dangerous, and not worth the risk for a treatment that has no long-term benefit.)

### **Per the AMA Guides, 5th addition:**

**Radiculopathy** (page 382-383) “is defined as significant alteration in the function of a nerve root or nerve roots and is usually caused by pressure on one or several nerve roots. The diagnosis requires a dermatomal distribution of pain, numbness, and/or paresthesias in a dermatomal distribution. A root tension sign is usually positive. The diagnosis of herniated disk must be substantiated by an appropriate finding on an imaging study. The presence of findings on an imaging study in and of itself does not make the diagnosis of radiculopathy. There must also be clinical evidence as described above.”

### **Electrodiagnostic evidence of acute nerve root pathology** (page 382-383)

“includes the presence of multiple positive sharp waves or fibrillation potentials in muscles innervated by one nerve root. However, the quality of the person performing and interpreting the study is critical. Electromyography should be performed only by a licensed physician qualified by reason of education, training, and experience in these procedures. Electromyography does not detect all compressive radiculopathies and cannot determine the cause of the nerve root pathology. On the other hand, electromyography can detect noncompressive radiculopathies, which are not identified by imaging studies.”

### **Instability** (page 379)

The Guides define loss of motion segment integrity as an “anteroposterior motion of one vertebra over another that is greater than 3.5 mm in the cervical spine, greater than 2.5 mm in the thoracic spine, and greater than 4.5 mm in the lumbar spine.”

Rating: 9a

### Radiculopathy, page 382-383:

#### Weekly Impairment Evaluation Tip-Radiculopathy

The preferred methodology in the AMA Guides 5th ed. for rating impairment of the spine is the Diagnosis- Related Estimate (DRE). Table 15-3, Criteria for Rating Impairment Due to Lumbar Spine Injury, Table 15-4, Criteria for Rating Impairment Due to Thoracic

Spine Injury, and Table 15-6, Criteria for Rating Impairment Due to Cervical Disorders, outline the five applicable categories and impairment ranges based upon historical, physical examination, and other clinical findings. Box 15-1, Definitions of Clinical Findings Used to Place an Individual in a DRE Category, on pages 382-383 contains essential definitions of clinical findings to help assess the proper placement of an examinee in a DRE category. In our experience, after reviewing thousands of reports over the past years, the diagnosis of Radiculopathy presents one of the more challenging concepts when determining the correct DRE placement. The Guides define Radiculopathy as a "significant alteration in the function of a nerve root or nerve roots and is usually caused by pressure on one or several nerve roots". The most important clinical components required to support the diagnosis of a compressive Radiculopathy include:

- Pain, numbness, and/or paresthesias in a dermatomal distribution
- *An imaging study documenting correlating concordant nerve root pathology*
- Associated clinical findings such as loss of relevant reflexes, muscle weakness and/or atrophy of appropriate muscle groups, loss of sensation in the corresponding dermatome(s)

Electrodiagnostic studies are helpful in supporting the diagnosis of a compressive radiculopathy but are not required, and do not substitute for imaging studies.

Impairment Tip Archives at [www.impairment.com/tips](http://www.impairment.com/tips)

Sincerely, Christopher Brigham, MD, FACOEM, FAADEP, CIME

Instability, page 379:

Loss of structural integrity is present if there has been a surgical fusion (or an attempted fusion). It is present if flexion and extension films of the region show instability. Translations which indicate instability: cervical inter-segmental movement of more than 3.5 mm; thoracic inter-segmental movement of more than 2.5 mm; or, lumbar inter-segmental movement of more than 4.5 mm.

On page 379, the Guides define loss of motion segment integrity as an "anteroposterior motion of one vertebra over another that is greater than 3.5 mm in the cervical spine, greater than 2.5 mm in the thoracic spine, and greater than 4.5 mm in the lumbar spine." Id. As a reference, the Guides cite White AW, Punjabi MM. Clinical Biomechanics of the Spine. 2nd ed. Philadelphia, Pa: JB Lippincott; 1990.

Excessive motion, page 384:

AMA Guides Edition 5 chapter 15 table 15-3 which is found on page 384. This would include or define it as evidence on flexion extension radiographs at least four in a half millimeters as translation one vertebra another or angular motion greater than 15 degrees at L1-2, L2-3, L3-4, and greater than twenty degrees, to L4-5 and greater than twenty five degrees at L5-S1.

At this time, the patient does not have objective evidence of radiculopathy on imaging studies or electrodiagnostic studies. Though the patient does have some objective findings of radiculopathy on examination, there is not unequivocal evidence of a radiculopathy. The 03/03/10 MRI study performed by Dr. Nadalo shows a 3mm L5-S1 posterior central disc bulge, however there is no herniation. The EMG reports from Dr. on 05/13/10 show no evidence of radiculopathy on either the lower or upper extremity.

Therefore, at this time the requested ESI with additional physical therapy does not meet guideline requirements.

**A DESCRIPTION AND THE SOURCE OF THE SCREENING CRITERIA OR OTHER CLINICAL BASIS USED TO MAKE THE DECISION:**

- ACOEM - AMERICAN COLLEGE OF OCCUPATIONAL & ENVIRONMENTAL MEDICINE UM KNOWLEDGEBASE
- AHCPR - AGENCY FOR HEALTHCARE RESEARCH & QUALITY GUIDELINES
- DWC - DIVISION OF WORKERS COMPENSATION POLICIES OR GUIDELINES
- EUROPEAN GUIDELINES FOR MANAGEMENT OF CHRONIC LOW BACK PAIN
- INTERQUAL CRITERIA
- MEDICAL JUDGEMENT, CLINICAL EXPERIENCE AND EXPERTISE IN ACCORDANCE WITH ACCEPTED MEDICAL STANDARDS
- MERCY CENTER CONSENSUS CONFERENCE GUIDELINES
- MILLIMAN CARE GUIDELINES
- ODG - OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES
- PRESSLEY REED, THE MEDICAL DISABILITY ADVISOR
- TEXAS GUIDELINES FOR CHIROPRACTIC QUALITY ASSURANCE & PRACTICE PARAMETERS
- TEXAS TACADA GUIDELINES
- TMF SCREENING CRITERIA MANUAL
- PEER REVIEWED NATIONALLY ACCEPTED MEDICAL LITERATURE (PROVIDE A DESCRIPTION)
- OTHER EVIDENCE BASED, SCIENTIFICALLY VALID, OUTCOME FOCUSED GUIDELINES (PROVIDE A DESCRIPTION)