

# P&S Network, Inc.

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**DATE OF REVIEW:** October 7, 2008

**IRO CASE #:**

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

This case was reviewed by a Pain Management doctor, Licensed in Texas and Board Certified. The reviewer has signed a certification statement stating that no known conflicts of interest exist between the reviewer and the injured employee, the injured employee's employer, the injured employee's insurance carrier, the utilization review agent (URA), any of the treating doctors or other health care providers who provided care to the injured employee, or the URA or insurance carrier health care providers who reviewed the case for a decision regarding medical necessity before referral to the IRO. In addition, the reviewer has certified that the review was performed without bias for or against any party to the dispute.

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

Epidural steroid injection, left L5-S1 transforaminal

## **REVIEW OUTCOME**

Upon independent review the reviewer finds that the previous adverse determination/adverse determinations should be: Overturned (Disagree)

## **PATIENT CLINICAL HISTORY [SUMMARY]:**

According to the medical records, the patient sustained an industrial injury on xx/xx/xx. A request for a lumbar epidural steroid injection was reviewed on July 31, 2008 and a non-certification was rendered. The rationale was that the claimant reported 80% improvement with an epidural steroid injection and then was given a prescription for OxyContin, Amrix, and provided a Toradol injection. The MRI was not remarkable for a specific compressive lesion. Radiculopathy was not established.

A telephone note, dated August 25, 2008, states that the patient had a left L5-S1 transforaminal epidural steroid injection with an 80% decrease in his pain. He was seen on July 15, 2008, 6 weeks later, and his pain was just beginning to recur. The physician argued that the first injection was justified as the MRI from March 19, 2008 showed an L5-S1 extension of the disk into the neural foramina on the left side. His physical exam showed an unequal Achilles reflex and decreased sensation.

The request was reviewed again on August 26, 2008 and another non-certification was provided. This report states that a note of August 15, 2008 documented that the patient received 80% relief from an epidural steroid injection, but then the pain returned and the patient was given the above-captioned medications. The first epidural steroid injection was on May 29, 2008. The medications were prescribed on July 15, 2008 due to worsening of symptoms. The report notes that the symptoms are not consistent as the patient reported low back pain with right lower extremity radiation on April 14 and left lower extremity radiation on July 15. The MRI of March 19, 2008 documents that the patient has a bulge at L5-S1, but without nerve root compression.

The records include a March 19, 2008 lumbar spine MRI report with an impression as follows: Mild disc protrusion at L5-S1 with some facet hypertrophy and arthropathy at that level on the right. The magnetic resonance of the lumbar spine demonstrated no other significant abnormality. The findings specifically state that there is a moderate disk protrusion centrally at the L5-S1 level, but without compression of the thecal sac or displacement of nerve root of significant degree. There does appear to be some extension of the disk into the neural foramen on the left, but without definite significant compromise the exiting L5 nerve root.

A physical examination on April 14, 2008 revealed a decreased right Achilles reflex, 4/5 motor strength of the left great toe in dorsiflexion and foot plantar flexion, and decreased sensation of the left L5 and S1 dermatomes. The review of the submitted records confirms that the first lumbar epidural steroid injection was administered on May 29, 2008. On June 26, 2008, the patient reported 80% improvement following the injection. However, he stated that the decrease in pain had lasted until the day prior to presentation and the pain was then coming back. He was given a refill of oxycodone 5 mg q.i.d. as needed. On July 26, 2008, the patient reported stabbing bilateral back pain with radiation to the left leg with the back pain greater than the leg pain. Examination findings were changed as the left Achilles reflex was decreased, left plantar flexion was normal, left dorsiflexion of the great toe remained at 4/5, and sensation was found to be decreased again at the L5 and S1 dermatomes on the left. It should be noted that this report states that the March 19, 2008 lumbar spine MRI demonstrated some appearance of extension of the neural foramen on the left at L5-S1 with mild disc protrusion at that level. The patient was started on Amrix, prescribe Norflex and provided an intramuscular injection of Toradol for an exacerbation of back pain.

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

According to the Official Disability Guidelines, 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 June 26, 2008 note, approximately four weeks following the first injection, did note that the patient's pain was coming back after an 80% improvement. However, the records do not indicate that the patient complained that the pain had returned completely. The treating doctor has stated that the pain actually returned on July 15, 2008. By July 26, 2008, the patient did require a Toradol injection due to significant pain levels. Although the patient does not demonstrate evidence of frank neural compromise upon magnetic resonance imaging, he does demonstrate indications of a focal neurologic deficit upon physical examination. There is no conclusive evidence that the patient did not achieve at least 50% pain relief for a six to eight week period following the first epidural steroid injection. There is an indication that the patient obtained relief until July 15, 2008, however. Given these factors, it is reasonable to pursue a second epidural steroid injection. Therefore, my determination is to overturn the decision to non-certify the request for an epidural steroid injection, left L5-S1 transforaminal.

The IRO's decision is consistent with the following guidelines:

**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
- X\_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

According to the Official Disability Guidelines (2008): Low Back Chapter  
Fluoroscopy (for ESI's):

Recommended. Fluoroscopy is considered important in guiding the needle into the epidural space, as controlled studies have found that medication is misplaced in 13% to 34% of epidural steroid injections that are done without fluoroscopy. See Epidural steroid injections (ESI's).

According to the Official Disability Guidelines (2008): Low Back Chapter  
Epidural steroid injections (ESIs), therapeutic:

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.

Short-term symptoms: The American Academy of Neurology recently concluded that epidural steroid injections may lead to an improvement in radicular pain between 2 and 6 weeks following the injection, but they do not affect impairment of function or the need for surgery and do not provide long-term pain relief beyond 3 months. (Armon, 2007) Epidural steroid injection can offer short-term pain relief and use should be in conjunction with other rehab efforts, including continuing a home exercise program. There is little information on improved function or return to work. There is no high-level evidence to support the use of epidural injections of steroids, local anesthetics, and/or opioids as a treatment for acute low back pain without radiculopathy. (Benzon, 1986) (ISIS, 1999) (DePalma, 2005) (Molloy, 2005) (Wilson-MacDonald, 2005)

Use for chronic pain: Chronic duration of symptoms (> 6 months) has also been found to decrease success rates with a threefold decrease found in patients with symptom duration > 24 months. The ideal time of either when to initiate treatment or when treatment is no longer thought to be effective has not been determined. (Hopwood, 1993) (Cyteval, 2006) Indications for repeating ESIs in patients with chronic pain at a level previously injected (> 24 months) include a symptom-free interval or indication of a new clinical presentation at the level.

Transforaminal approach: Some groups suggest that there may be a preference for a transforaminal approach as the technique allows for delivery of medication at the target tissue site, and an advantage for transforaminal injections in herniated nucleus pulposus over translaminar or caudal injections has been suggested in the best available studies. (Riew, 2000) (Vad, 2002) (Young, 2007) This approach may be particularly helpful in patients with large disc herniations, foraminal stenosis, and lateral disc herniations. (Colorado, 2001) (ICSI, 2004) (McLain, 2005) (Wilson-MacDonald, 2005)

Fluoroscopic guidance: Fluoroscopic guidance with use of contrast is recommended for all approaches as needle misplacement may be a cause of treatment failure. (Manchikanti, 1999) (Colorado, 2001) (ICSI, 2004) (Molloy, 2005) (Young, 2007)

Factors that decrease success: Decreased success rates have been found in patients who are unemployed due to pain, who smoke, have had previous back surgery, have pain that is not decreased by medication, and/or evidence of substance abuse, disability or litigation. (Jamison, 1991) (Abram, 1999) Research reporting effectiveness of ESIs in the past has been contradictory, but these discrepancies are felt to have been, in part, secondary to numerous methodological flaws in the early studies, including the lack of imaging and contrast administration. Success rates also may depend on the technical skill of the interventionalist. (Carette, 1997) (Bigos, 1999) (Rozenberg, 1999) (Botwin, 2002) (Manchikanti, 2003) (CMS, 2004) (Delpont, 2004) (Khot, 2004) (Buttermann, 2004) (Buttermann2, 2004) (Samanta, 2004) (Cigna, 2004) (Benzon, 2005) (Dashfield, 2005) (Arden, 2005) (Price, 2005) (Resnick, 2005) (Abdi, 2007) (Boswell, 2007) Also see Epidural steroid injections, "series of three" and Epidural steroid injections, diagnostic. ESIs may be helpful with radicular symptoms not responsive to 2 to 6 weeks of conservative therapy. (Kinkade, 2007) Epidural steroid injections are an option for short-term pain relief of persistent radiculopathy, although not for nonspecific low back pain or spinal stenosis. (Chou, 2008) As noted above, injections are recommended if they can facilitate a return to functionality (via activity & exercise). If post-injection physical therapy visits are required for instruction in these active self-performed exercise programs, these visits should be included within the overall recommendations under Physical therapy, or at least not require more than 2 additional visits to reinforce the home exercise program.

Criteria for the use of Epidural steroid injections:

Note: The purpose of ESI is to reduce pain and inflammation, restoring range of motion and 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 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.)

According to the Official Disability Guidelines (2008): Low Back Chapter

Epidural steroid injections, "series of three":

Not recommended. Original recommendations that suggested a "series of three injections" generally did so prior to the advent of fluoroscopic guidance. These previous recommendations were based primarily on case studies and anecdotal evidence (Class IV and V data). (Abram, 1999) (Warr, 1972) (Hickey, 1987) There does not appear to be any evidence to support the current common practice of a series of injections. (Novak, 2008) Contemporary research studies with higher levels of evidence (including two controlled trials) have suggested that on average, two or less ESIs are required in patients with successful outcomes from the use of ESIs to treat disc related lumbar radiculopathy. (Lutz, 1998) (Vad, 2002) (Riew, 2000) While all of these latter studies have utilized repeat injections, there has been no evidence-based research to explain why this practice is required, or the mechanism for possible action. Since the introduction of fluoroscopically guided ESIs, it has been suggested that there is little evidence to repeat an accurately placed epidural injection in the presence of mono-radiculopathy, regardless of whether there is partial or no response. (McLain, 2005) A recent randomized controlled trial of blind ESIs found no evidence to support repeat injections, because at six weeks there was no significant difference found between the ESI group and a placebo controlled group in terms of any measured parameter. (Price, 2005) A repeat injection has been suggested if there is question of accurate dermatomal diagnosis, if pain may be secondary to a different generator, or in the case of multilevel pathology. (McLain, 2005) There is a lack of support for 2nd epidural steroid injection if the 1st is not effective. (Cuckler, 1985) With fluoroscopic guidance, there is little support to do a second epidural if there is no response to the first injection. There is little to no guidance in current literature to suggest the basis for the recommendation of a third ESI, and the routine use of this practice is not recommended.

According to the Official Disability Guidelines (2008): Low Back Chapter

Epidural steroid injections, diagnostic:

Recommended as indicated below. Diagnostic epidural steroid transforaminal injections are also referred to as selective nerve root blocks, and they were originally developed as a diagnostic technique to determine the level of radicular pain. In studies evaluating the predictive value of selective nerve root blocks, only 5% of appropriate patients did not receive relief of pain with injections. No more than 2 levels of blocks should be performed on one day. The response to the local anesthetic is considered an important finding in determining nerve root pathology. (CMS, 2004) (Benzon, 2005) When used as a diagnostic technique a small volume of local is used (<1.0 ml) as greater volumes of injectate may spread to adjacent levels.

When used for diagnostic purposes the following indications have been recommended:

1) To determine the level of radicular pain, in cases where diagnostic imaging is ambiguous, including the examples below:

2) To help to evaluate a pain generator when physical signs and symptoms differ from that found on imaging studies;

3) To help to determine pain generators when there is evidence of multi-level nerve root compression;

4) To help to determine pain generators when clinical findings are consistent with radiculopathy in a dermatomal distribution but imaging studies are minimal;

5) To help to identify the origin of pain in patients who have had previous spinal surgery.