

# I-Decisions Inc.

An Independent Review Organization

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## **DATE OF REVIEW:**

JULY 31, 2007

## **IRO CASE #:**

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

Lumbar steroid injection at L4-5

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

M.D., Board Certified Orthopedic Surgeon, Spine Specialist

## **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.

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

X-ray report, 05/23/05

Lumbar spine MRI with and without contrast, 06/28/05

Lumbar discogram, 09/12/05

EMG/NCV, 03/22/06

Office note, Dr., 03/22/06

Post lumbar spine myelogram CT scan, 06/30/06

Lumbar myelogram, 06/30/06

Notification of determination, 05/25/07 and 06/05/07

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

The claimant is a male with a history of a three level lumbar fusion in xxxx. He suffered a lifting injury on xx/xx/xx resulting in low back pain and lower extremity radiculopathy. An MRI on xx/xx/xx showed disc herniations at L3-4, L4-5 and L5-S1. A discogram on 09/12/05 found concordant pain at all three levels with predominant concordance at L4-5. An EMG/NCV on 03/22/06 documented bilateral L5-S1 radiculopathy and a CT myelogram on 06/30/06 showed disc protrusions at L3-4 and L4-5 with broad impression upon the thecal sac with foraminal encroachment at L4-5 on the left. The claimant was treated with medications, physical therapy, activity modification and injections. He continued to complain of lumbar pain with radiation to the bilateral lower extremities, right greater than left. He was examined by Dr. on 05/11/07 with findings of

paresthesias along S1 bilaterally and decreased lumbar range of motion. A request was made for authorization of an L4-5 epidural steroid injection.

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

I was asked to determine if a lumbar steroid injection at L4-5 was medically necessary. The claimant underwent a multilevel lumbar fusion in 1981 and has had continued complaints of pain. He sustained a new injury of xx/xx/xx by lifting. The reports that I had for review mentioned back as well as leg pain which appears to be radicular in nature. Electrodiagnostic studies were positive for bilateral radiculopathy. A lumbar CT myelogram dated 06/30/06 demonstrated protrusions at L3-4 and L4-5 with foraminal encroachment at L4-5 on the left. In light of the neurodiagnostic evidence of neural impingement and subjective complaints of radiculopathy confirmed by electrodiagnostic studies, an epidural steroid injection would be appropriate for such. He appears to be having radicular leg pain.

Official Disability Guidelines Treatment in Workers' Comp 2007 Updates: Low Back – Epidural steroid injection

Recommended as a possible option for short-term treatment of radicular pain (defined as pain in dermatomal distribution with corroborative finding of radiculopathy). 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. 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. ([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](#)) 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](#))

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](#)) ([Boswell, 2007](#)) Also see [Epidural steroid injections, "series of three"](#) and [Epidural steroid injections, diagnostic](#).

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) 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 two injections should be performed. A second block is not recommended if there is inadequate response to the first block. 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. To be considered successful after this initial use of a block/blocks there should be documentation of at least 50-70% relief of pain from baseline and evidence of improved function for at least six to eight weeks after delivery.

(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) In the therapeutic phase (the phase after the initial block/blocks were given and found to produce pain relief), repeat blocks should only be offered if there is at least 50-70% pain relief for six to eight weeks, with a general recommendation of no more than 4 blocks per region per year. ([CMS, 2004](#)) ([Boswell, 2007](#))

(8) Repeat injections should be based on continued objective documented pain 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.

**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)