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DATE OF REVIEW: 11/23/2009

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:

IRO - Lumber Epidural Steroid Injection at L4-L5

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

This case was reviewed by a Texas licensed MD, specializing in Orthopedic Trauma, Orthopedic Surgery. The physician advisor has the following additional qualifications, if applicable:

ABMS Orthopaedic Surgery

REVIEW OUTCOME:

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

Upheld

Health Care Service(s) in Dispute	CPT Codes	Date of Service(s)	Outcome of Independent Review
IRO - Lumber Epidural Steroid Injection at L4-L5 UPHELD		-	Upheld

INFORMATION PROVIDED TO THE IRO FOR REVIEW:

No	Document Type	Provider or Sender	Page Count	Service Start Date	Service End Date
1	IRO Requestor Records	UniMed Direct	4	11/03/2009	11/04/2009
2	Appeal Denial Letter		4	08/18/2008	10/29/2009
3	Designated Doctor Report	MD PA	13	07/27/2009	07/27/2009
4	Designated Doctor Report	MD	27	07/02/2007	02/24/2009
5	Diagnostic Test	Orthopedics	13	02/03/2009	02/03/2009
6	Diagnostic Test	MD	4	06/29/2007	06/29/2007
7	Diagnostic Test	MD	2	03/31/2009	03/31/2009
8	Diagnostic Test	MRI & Diagnostic	2	02/13/2007	02/14/2007

9	Fax Confirmation	Health	1	06/07/2007	06/07/2007
10	Office Visit Report	Orthopedics	14	10/23/2007	10/19/2009
11	Fax Confirmation	Examination Services, Inc	1	08/04/2009	08/04/2009
12	FCE Report	Diagnostics, LLC	12	04/16/2007	10/13/2009
13	Op Report	MRI & Diagnostic	4	10/01/2008	10/19/2009
14	Op Report	Surgery Specialty Hospitals	18	12/18/2007	08/06/2008
15	Office Visit Report	Orthopedics MD	47	02/01/2007	10/13/2009
16	Peer Review Report	MD	5	05/15/2009	05/15/2009
17	Peer Review Report	MD	8	12/05/2008	12/05/2008
18	Initial Request	Orthopedics	10	12/12/2008	02/18/2009
19	Psych Evaluation	Ed LPC	3	03/26/2009	03/26/2009
20	Initial Approval Letter		8	10/25/2007	12/18/2008
21	Initial Approval Letter		32	03/21/2008	10/23/2009
22	IRO Record Receipt		5	11/02/2009	11/02/2009
23	IRO Request	Orthopedics	3	04/14/2008	04/14/2008
24	IRO Requestor Records	Texas Dept of Insurance	3	04/24/2008	04/24/2008
25	EOB	Orthopedics	1	06/09/2008	06/09/2008
26	IRO Request		4	11/02/2009	11/02/2009
27	Initial Request	Orthopedics	1	06/07/2007	06/07/2007
28	Archive	RN, CCM	1	03/14/2007	03/14/2007

PATIENT CLINICAL HISTORY [SUMMARY]:

The patient is a male that was a passenger in a bus struck by a train on xx/xx/xx. He reports that he was thrust about inside the bus, became lodged by seat supports and had other passengers on top of him. He complained initially of pain in cervical spine, lumbar spine, left elbow, bilateral legs, and chest. His initial evaluation was performed 02/01/09. Initial diagnoses included HNP C5-C6 and C6-C7 with radiculopathy, probable HNP lumbar spine, left shoulder strain, left elbow contusion, right leg contusion, and possible inguinal hernia. Medications were prescribed but not specifically documented. MRI scans were ordered. Degenerative disc disease changes were diagnosed at L4-L5 and L5-S1. Disc herniations were diagnosed at C4-C5, C5-C6, and C6-C7. Paraspinal muscular spasm was diagnosed and degenerative changes were diagnosed at other levels. EMG/NC studies were performed in upper extremities 06/29/07 confirming C7 myotome denervation bilaterally and CTS left > right and ulnar neuropathy at the wrist levels bilaterally. Cervical epidural steroid injection was performed 12/18/07 and was effective. Lumbar epidural steroid injection was performed 02/08/08. The effectiveness of the lumbar epidural steroid injection was not well documented. Further cervical epidural steroid injections were performed 3/07/08 and 10/01/08. Additional lumbar steroid injections were recommended; however, pre authorization was not provided. Lumbar facet joint injections were performed 08/06/08 and were effective in providing some symptomatic relief. An EMG/NC study of the lower extremities was performed 03/31/09 revealing no electrodiagnostic changes of radiculopathy.

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

The applicable passage from the ODG, 2009, low back chapter is cited below. The results of the previous lumbar epidural steroid injection were inadequately documented. There was no documentation of the mild benefit duration. No documentation of changes in medication requirements or improved activity performance. Furthermore, EMG/NC study performed 03/31/09 failed to demonstrate and electrodiagnostic changes compatible with radiculopathy. It appears that the previous denials of this request were appropriate. Medical necessity has not been established. The prior denials should be upheld.

This patient has undergone a number of designated doctor evaluations. The last evaluation was performed 07/27/09. The conclusion included a diagnosis of "degenerative disc and joint disease multiple levels of the

lumbar spine, pre-existing without evidence of nerve root impingement." At this time, there does not appear to be a diagnostic or therapeutic indication for lumbar epidural steroid injection.

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

ODG: Low back chapter

<p>Epidural steroid injections (ESIs), therapeutic</p>	<p>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.</p> <p><i>Short-term symptoms:</i> 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) This recent RCT concluded that both ESIs and PT seem to be effective for lumbar spinal stenosis for up to 6 months. Both ESI and PT groups demonstrated significant improvement in pain and functional parameters compared to control and no significant difference was noted between the 2 treatment groups at 6 months, but the ESI group was significantly more improved at the 2nd week. (Koc, 2009)</p> <p><i>Use for chronic pain:</i> 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.</p> <p><i>Transforaminal approach:</i> 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)</p> <p><i>Fluoroscopic guidance:</i> 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)</p> <p><i>Factors that decrease success:</i> 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</p>
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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](#)) ([Delport, 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](#)) ([Buenaventura, 2009](#)) 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.

With discectomy: Epidural steroid administration during lumbar discectomy may reduce early neurologic impairment, pain, and convalescence and enhance recovery without increasing risks of complications. ([Rasmussen, 2008](#))

An updated Cochrane review of injection therapies (ESIs, facets, trigger points) for low back pain concluded that there is no strong evidence for or against the use of any type of injection therapy, but it cannot be ruled out that specific subgroups of patients may respond to a specific type of injection therapy. ([Staal-Cochrane, 2009](#)) Recent studies document a 629% increase in expenditures for ESIs, without demonstrated improvements in patient outcomes or disability rates. ([Deyo, 2009](#)) There is fair evidence that epidural steroid injection is moderately effective for short-term (but not long-term) symptom relief. ([Chou3, 2009](#))

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.)