



**MEDICAL EVALUATORS
OF TEXAS** ASO, L.L.C.

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800-845-8982 FAX: 713-583-5943

Notice of Independent Review Decision

DATE OF REVIEW: July 31, 2014

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE

Cervical Epidural Steroid Injection

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

This case was reviewed by a physician who holds a board certification in Orthopedic Surgery and is currently licensed and practicing in the State of Texas.

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)

EMPLOYEE CLINICAL HISTORY [SUMMARY]:

This is a male who sustained injury on xx/xx/xx as a result of a motor vehicle accident. Prior treatment history includes physical therapy, medications, and work restrictions. An MRI of the cervical spine was performed on 02/20/2013, which revealed multilevel disc protrusion (herniation) indenting cervical cord with moderate canal stenosis and moderate neural foraminal stenosis at C6-C7, moderate neural foraminal stenosis at C5-6 and mild foraminal stenosis at C4-5. He was seen on 01/16/2014 for follow up of the neck, back and right shoulder. The examinee patient reported complaints of 8/10 cervical pain with headaches and shoulder pain was 4/10 but he stated results of the surgery were great. On physical examination, there was cervical tenderness with painful decreased range of motion. There was positive Spurling's sign and increased pain with axial compression. Biceps, triceps, and brachioradialis reflexes were 2+ and symmetric. Sensation was diminished along the right C7 and C6 distribution. Motor strength was reported to be more or less 5+ and symmetric. Recommendation was cervical and lumbar epidural steroid injections. A follow up note dated 06/09/2014 indicates that the patient has a disk



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protrusion at C6-7 indenting the cervical cord and that the patient has a positive Spurling sign with diminished sensation along the right C6-7 distribution. The request is for a translaminar cervical epidural steroid injection. The request for cervical epidural steroid injection was denied as there were multiple protrusions noted on MRI, but no documentation of nerve root impingement. The physical exam findings did not corroborate with the MRI and there was no mention of failed conservative measures or radiculopathy.

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

This male has symptoms, objective findings and imaging consistent with radiculopathy. He has paresthesias in a C6 and C7 distribution, a positive Spurling sign and a positive axial load test. His MRI shows C4/5, C5/6 and C6/7 central disc herniations and bilateral foraminal stenosis with C4/5 being right greater than left. The foraminal stenosis is indirect evidence of nerve root compression.

The two criteria as laid out by the ODG for ESI injections are:

- (1.) Radiculopathy must be documented by physical examination and corroborated by imaging studies and/or electrodiagnostic testing.
- (2) Initially unresponsive to conservative treatment (exercises, physical methods, NSAIDs and muscle relaxants).

This patient meets both these criteria, and therefore the request for cervical ESI is considered medically necessary and appropriate.



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ODG – Neck and Upper Back (Acute & Chronic)

Recommended as an option for treatment of radicular pain (defined as pain in dermatomal distribution with corroborative findings of radiculopathy). See specific criteria for use below. In a recent Cochrane review, there was one study that reported improvement in pain and function at four weeks and also one year in individuals with chronic neck pain with radiation. (Peloso-Cochrane, 2006) (Peloso, 2005) Other reviews have reported moderate short-term and long-term evidence of success in managing cervical radiculopathy with interlaminar ESIs. (Stav, 1993) (Castagnera, 1994) Some have also reported moderate evidence of management of cervical nerve root pain using a transforaminal approach. (Bush, 1996) (Cyteval, 2004) A recent retrospective review of interlaminar cervical ESIs found that approximately two-thirds of patients with symptomatic cervical radiculopathy from disc herniation were able to avoid surgery for up to 1 year with treatment. Success rate was improved with earlier injection (< 100 days from diagnosis). (Lin, 2006) There have been recent case reports of cerebellar infarct and brainstem herniation as well as spinal cord infarction after cervical transforaminal injection. (Beckman, 2006) (Ludwig, 2005) Quadriplegia with a cervical ESI at C6-7 has also been noted (Bose, 2005) and the American Society of Anesthesiologists Closed Claims Project database revealed 9 deaths or cases of brain injury after cervical ESI (1970-1999). (Fitzgibbon, 2004) These reports were in contrast to a retrospective review of 1,036 injections that showed that there were no catastrophic complications with the procedure. (Ma, 2005) The American Academy of Neurology recently concluded that epidural steroid injections may lead to an improvement in radicular lumbosacral 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, and there is insufficient evidence to make any recommendation for the use of epidural steroid injections to treat radicular cervical pain. (Armon, 2007) There is evidence for short-term symptomatic improvement of radicular symptoms with epidural or selective root injections with corticosteroids, but these treatments did not appear to decrease the rate of open surgery. (Haldeman, 2008) (Benyamin, 2009) Epidural steroid injections should be reserved for those who may otherwise undergo open surgery for nerve root compromise. (Bigos, 1999) Intramuscular injection of lidocaine for chronic mechanical neck disorders (MND) and intravenous injection of methylprednisolone for acute whiplash were effective treatments. There was limited evidence of effectiveness of epidural injection of methylprednisolone and lidocaine for chronic MND with radicular findings. (Peloso-Cochrane, 2006) The FDA is warning that injection of corticosteroids into the epidural space of the spine may result in rare but serious adverse events, including loss of vision, stroke, paralysis, and death. (FDA, 2014) See the Low Back Chapter for more information and references.

Criteria for the use of Epidural steroid injections, therapeutic:

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.



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- (1) Radiculopathy must be documented by physical examination and corroborated by imaging studies and/or electrodiagnostic testing.
- (2) Initially unresponsive to conservative treatment (exercises, physical methods, NSAIDs and muscle relaxants).
- (3) Injections should be performed using fluoroscopy (live x-ray) for guidance
- (4) If used for diagnostic purposes, a maximum of two injections should be performed. A second block is not recommended if there is inadequate response to the first block. Diagnostic blocks should be at 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) In the therapeutic phase, repeat blocks should only be offered if there is at least 50% pain relief for six to eight weeks, with a general recommendation of no more than 4 blocks per region per year.
- (8) Repeat injections should be based on continued objective documented pain and function response.
- (9) Current research does not support a “series-of-three” injections in either the diagnostic or therapeutic phase. We recommend no more than 2 ESI injections.
- (10) It is currently not recommended to perform epidural blocks on the same day of treatment as facet blocks or stellate ganglion blocks or 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.

Criteria for the use of Epidural steroid injections, diagnostic:

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

- (1) To help to evaluate a pain generator when physical signs and symptoms differ from that found on imaging studies;
- (2) To help to determine pain generators when there is evidence of multi-level nerve root compression;
- (3) To help to determine pain generators when clinical findings are suggestive of radiculopathy (e.g. dermatomal distribution), and imaging studies have suggestive cause for symptoms but are inconclusive;
- (4) To help to identify the origin of pain in patients who have had previous spinal surgery.



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**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)