

# Applied Resolutions LLC

*An Independent Review Organization*  
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## Notice of Independent Review Decision

**DATE OF REVIEW:** June 18, 2008

**IRO CASE #:**

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

Transforaminal ESI C6-7 (64479)

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

M.D., Board Certified in Physical Medicine and Rehabilitation  
Subspecialty Board Certified in Pain Management  
Subspecialty Board Certified in Electrodiagnostic Medicine  
Residency Training PMR and Orthopaedic Surgery

### **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)

Upon independent review the reviewer finds that the requested Transforaminal ESI C6-7 (64479) is not medically necessary.

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

Adverse Determination Letter 4/25/08, 5/20/08  
ODG Guidelines and Treatment Guidelines  
MRI Cervical Spine 1/19/04  
Operative Reports 5/10/06, 6/22/06, 4/13/07, 10/26/07  
MD Progress Notes 5/25/06, 6/29/06, 7/27/06, 4/24/07, 5/24/07, 11/1/07, 11/29/07, 3/28/08

Behavioral Medicine Service Reports 5/25/06, 6/29/06, 4/24/07  
MD Office Visits 4/12/06, 11/14/05, 8/22/05  
Medication History  
Pre-Auth Request Form  
ODG Guidelines submitted by URA Low Back- Lumbar and Thoracic  
Therapy Chart Notes 1/7/04 to 5/27/08  
Letters of Medical Necessity 4/7/06, 3/22/06, 2/22/05, 10/17/05  
Designated Doctor Evaluation- MD 11/29/05 and Letter of Clarification 7/6/05  
MRI Lumbar Spine 11/28/05, 2/2/04  
NCS/EMG 7/28/04, 8/11/04, 8/5/04  
Extent of Injury 5/19/04  
PT Referral 2/20/04  
Electrodiagnostic Studies of Upper and Lower Extremities 7/28/04  
Emergency Dept. Medical records  
MD Appeal Letter 1/4/06  
Impairment and Disability Report 6/7/05

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

This gentleman was injured at work on xx/xx/xx. He was struck in the head by a garage door and sustained closed head injuries, neck pain and low back pain. He subsequently was found to have a foot drop and lumbar radiculopathy. He had lumbar surgery and improved. The issues relate to treatment for ongoing chronic cervical pain. Most of the notes provided by Dr. relate to the neck pain without any radiculopathy.

He had several MRIs and one set of electrodiagnostic studies.

The electrodiagnostic studies performed on 7/28/04 showed "No evidence of cervical radiculopathy." No paraspinal studies were done. There was electrodiagnostic criteria for bilateral carpal tunnel syndrome, although the ulnar sensory prolongation could also suggest a neuropathy.

The MRI on 1/19/04 showed a broad disc protrusion at C6-7 contacting the right C7 root. There were posterior bulges at C3-4 and C4-5 that reached the thecal sac, but there were no cord or nerve root compressions.

An MRI of 11/30/06 was cited by Dr. as showing a small subligamentous disc herniation at C3-4, and one at C4-5 (more to the left) with a mild annular bulge at C6-7. No reports on nerve root compression was provided.

He underwent a right sided transforaminal epidural injection at C6-7 on 5/10/06. Dr. reported only minimal improvement when seen two weeks later on 5/25/06. It was repeated on 6/22/06. Only a 20% improvement that lasted for two days was reported on the 6/29 note.

He had bilateral transforaminal cervical epidural steroid injections at C3-4 and C4-5 on 4/13/07 for neck pain. These were at the sites of the bulge. He was seen on follow up on 4/24/07 and reported that the pain remained 6-8, and reached a 10/10 without medications. The pain continued when seen on 5/24/07.

He underwent a combination of a right L4/5 and bilateral C3-4, and C4-5 transforaminal steroid injections on 10/26/07. He was seen on 11/1/07. Dr. wrote the "Patient states it afforded him only minimal relief of his pain." The pain was 9 with medications.

Dr. requested to perform bilateral C6-7 epidural injections. He noted that there was more left than right upper extremity pain. He stated a new MRI performed on 3/27/08 showed loss of disc height with a herniation. This was greater than those with prior studies. Dr. reportedly suggested selective C6/7 nerve root blocks. The MRI report and Dr.'s reports for the date were not available.

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

There are risks associated with epidural injections. The transforaminal injection also poses a risk of injury to the roots and associated vascular bundle.

This man had minimal benefits from two prior transforaminal injections. A theoretic advantage of these over translaminar injections is that the steroids can reach the anterior cord space and the posterior disc. This man had no lasting benefits from the prior two injections at this level or at the higher levels. The ODG requires 6 weeks of benefit before repeat injections are considered. Next, is the issue that the ODG, and most clinicians, feel that the best results are for radicular pain and not discogenic pain. There has not been much reported of upper extremity symptoms until the last note. Prior EMGs were normal. The 2004 MRI report described right C7 nerve root contact. This was not seen or described in or derived from the other reports. The relief is transient.

The ODG is quite clear. It is for radiculopathy. None has been documented. I can not justify the blocks in the absence of any new medical documentation. Upon review of the provided medical records and ODG Guidelines, this reviewer finds that the requested transforaminal ESI C6-7 (64479) is not medically necessary.

Epidural steroid injection (ESI) (Emphasis is mine.)

**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](#)) See the [Low Back Chapter](#) for more information and references.

**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 by physical examination and corroborated by imaging studies and/or electrodiagnostic testing. **(Not met)**

(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. **(DONE, but not lasting)**

(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. **(Not accomplished).**

(8) Repeat injections should be based on continued objective documented pain and function response. **(None obtained)**

(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 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. **(Done in 10/26/07)**

**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
- AHCPH- 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)**