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**DATE OF REVIEW:** 03/19/2008

**IRO CASE #:**

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

MRI & 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 Texas licensed MD, specializing in Orthopedic Surgery. The physician advisor has the following additional qualifications, if applicable:

ABMS Orthopaedic Surgery  
 TX DWC ADL

**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
MRI & Cervical Epidural Steroid Injection		-	Upheld

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

No	Document Type	Provider or Sender	Page Count	Service Start Date	Service End Date
1	Peer Review		4	12/07/2007	02/08/2008
2	Office Visits	Anesthesia/Pain	10	02/22/2007	12/27/2007
3	Office Visits	Institute	3	04/12/2007	04/12/2007
4	Diagnostic Testing	Hospital	2	09/29/2006	09/29/2007

**PATIENT CLINICAL HISTORY (SUMMARY):**

The request is an IRO regarding an MRI and cervical epidural steroid injection.

History: The patient is a lady apparently injured when she caught a “missile” with her arms. She developed neck pain. A C5-6 fusion had been done in 1993. It is not known how she was doing after this operation. After the injury she developed chronic neck pain for which she received multiple ESIs and facet injections apparently with no lasting relief. Dr. a surgeon, type not known, stated she probably had discogenic pain from breakdown of C4-5, the level above the fusion. He recommended discography. Studies are a 10/06 cervical MRI revealed a C5-6 anterior fusion and degenerative C4-5 disc with protrusion. However, the report does not indicate nerve root impingement or stenosis. Past treatments include multiple injections, apparently of no lasting benefit. Present treatment consists of hydrocodone, Flexeril, Darvon for her neck pain and Imitrex for migraine headaches. She has a history of fibromyalgia.

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

The patient has developed a chronic neck pain syndrome of many years duration. The available medical records only document axial pain. There is no documentation of objective signs of nerve root compression or radiculopathy. An MRI done on 10/06 only demonstrated degenerative changes. Performing imaging studies in the absence of consistent documentation of nerve root compression usually leads to diagnostic confusion because bulges, protrusion, and annular tears which may be seen could very well be pre-existent changes having no temporal relationship to the patient’s current condition (ACOEM, chapter 8, 2004).

With reference to cervical ESIs, they are only indicated in the presence of documented radiculopathy (as defined by the AMA Guides 4<sup>th</sup> ed.). They are not recommended or indicated for only axial pain (neck pain) or as a stand alone mode of treatment (NASS, Contemporary Concepts in Spine Care, 2001). In the presence of radiculopathy, they are indicated in conjunction with a functional restoration program (ODG, 4<sup>th</sup> ed., Treatment, 2006).

Therefore, based upon the above rationale and peer reviewed guidelines, the request for a cervical MRI and ESI is not certified.

Imaging diagnostic studies are not medically necessary unless there is consistent documentation of objective signs of nerve root compression (ACOEM, Chapter 8, 2004). Furthermore, an MRI should be reserved for patients who have clear cut neurologic findings and/or who are suspected of having ligamentous instability. Regarding the cervical ESI, it is not medically necessary or reasonable unless there are objective signs of radiculopathy and in conjunction with a functional restoration program.

The ODG 13<sup>th</sup> edition states in reference to cervical ESIs:

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](#)) 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.
- 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 "series-of-three" injections in either the diagnostic or therapeutic phase. We recommend no more than 2 ESI injections.

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

ODG:

ODG online 13th edition