

<b>Case Number:</b>	CM15-0094006		
<b>Date Assigned:</b>	05/20/2015	<b>Date of Injury:</b>	05/07/2010
<b>Decision Date:</b>	07/16/2015	<b>UR Denial Date:</b>	05/05/2015
<b>Priority:</b>	Standard	<b>Application Received:</b>	05/15/2015

### HOW THE IMR FINAL DETERMINATION WAS MADE

MAXIMUS Federal Services sent the complete case file to an expert reviewer. He/she has no affiliation with the employer, employee, providers or the claims administrator. He/she has been in active clinical practice for more than five years and is currently working at least 24 hours a week in active practice. The expert reviewer was selected based on his/her clinical experience, education, background, and expertise in the same or similar specialties that evaluate and/or treat the medical condition and disputed items/Service. He/she is familiar with governing laws and regulations, including the strength of evidence hierarchy that applies to Independent Medical Review determinations.

The Expert Reviewer has the following credentials:

State(s) of Licensure: California

Certification(s)/Specialty: Internal Medicine

### CLINICAL CASE SUMMARY

The expert reviewer developed the following clinical case summary based on a review of the case file, including all medical records:

The injured worker is a 57 year old male who sustained an industrial injury on 5/7/10. The mechanism of injury is unclear. He currently complains of increasing neck and left upper extremity pain. The injured worker reports constant, sharp cervical pain with radiation of pain in to the upper extremities, left greater than right with numbness and tingling; headaches. Pain level is 8/10. In addition there is intermittent pain in the bilateral wrists and hands with pain level of 5/10; intermittent low back pain with radiation to lower extremities with a pain level of 6/10. On physical exam of the cervical spine there was tenderness on palpation of paravertebral muscles with spasms, positive axial loading compression test, positive Spurling's maneuver with limited, painful range of motion; there was limited range of motion of hands/wrist; the lumbar spine exhibits paravertebral muscle tenderness with spasm, seated nerve root test is positive and pain with range of motion. Diagnoses include cervical discopathy/ radiculitis; bilateral carpal tunnel releases; thoracolumbar discopathy. Prior diagnostics were not available for review. In the progress note dated 3/26/15 the treating provider's plan of care includes requests for MRI of the cervical spine; electromyography/nerve conduction velocity study of bilateral upper extremities; pain management specialist for consideration of cervical epidural block.

### IMR ISSUES, DECISIONS AND RATIONALES

The Final Determination was based on decisions for the disputed items/services set forth below:

## **Pain Management with cervical epidural injection: Upheld**

**Claims Administrator guideline:** The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation American College of Occupational and Environmental Medicine, Chapter 7, page 127.

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG) Neck: Epidural Steroid Injection.

**Decision rationale:** ESIs are not recommended based on recent evidence, given the serious risks of this procedure in the cervical region, and the lack of quality evidence for sustained benefit. These had been recommended as an option for treatment of radicular pain (defined as pain in dermatomal distribution with corroborative findings of radiculopathy), with specific criteria for use below. In a previous Cochrane review, there was only one study that reported improvement in pain and function at four weeks and also one year in individuals with radiating chronic neck pain. Some have also reported moderate evidence of management of cervical nerve root pain using a transforaminal approach. A previous 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). There have been case reports of cerebellar infarct and brainstem herniation as well as spinal cord infarct after cervical transforaminal injection. Quadriplegia with a cervical ESI at C6-7 has also been noted and the American Society of Anesthesiologists Closed Claims Project database revealed 9 deaths or cases of brain injury after cervical ESI complications with the procedure. The American Academy of Neurology 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 for 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 injection to treat radicular cervical pain. In other studies, there was evidence of short-term symptomatic improvement of radicular symptoms with epidural or selective nerve root injections with corticosteroids, but these treatments did not appear to decrease the rate of open surgery. Some have said epidural steroid injections should be reserved for those who may otherwise undergo open surgery for nerve root compromise. 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. ESIs should not be recommended in the cervical region, the FDA's Anesthetic and Analgesic Drug Products Advisor Committee concluded. Injecting a particulate steroid in the cervical region, especially using the transforaminal approach, increases the risk for sometimes serious and irreversible neurological adverse events, including stroke, paraplegia, spinal cord infarction, and even death. While not recommended, cervical ESIs may be supported based on the following criteria for therapeutic injections: (1) Radiculopathy must be documented by physical examination and corroborated by imaging studies and/or electrodiagnostic testing. (2) Initially under responsive 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 block 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; (12) Additional criteria based on evidence of risk: (a) ESIs are not recommended higher than C6-7 level; (b) Cervical interlaminar ESI is not recommended; & (c) Particulate steroids should not be used. As far as chronic pain programs, early intervention via multidisciplinary approach is recommended if: (a) The patient's response to treatment falls outside of the established norms for their specific diagnosis without a physical explanation to explain symptom severity. (b) The patient exhibits excessive pain behavior and/or complaints compared to that expected from the diagnosis. (c) Risk factors are identified with available screening tools or there is a previous medical history of delayed recovery. (d) The patient is not a candidate where surgery or other treatments would clearly be warranted. (e) Inadequate employer support or evidence of work organizational factors limiting return to work without interventions. (f) Evidence of psychosocial barriers that make return to work unlikely. (g) Loss of employment or evidence of partial disability involving ability to perform only "part-time" work or work with "light-duty" restrictions for greater than 4 months. In this case, there is no documentation that the patient has gone through exercises, and physical therapy without improvement. It is essential to fail conservative therapy before consideration of pain referral for pain management as well as having an ESI done. The request is not medically necessary.

**MRI of the cervical spine:** Upheld

**Claims Administrator guideline:** Decision based on MTUS ACOEM Chapter 8 Neck and Upper Back Complaints Page(s): 177-178.

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG) Neck: MRI.

**Decision rationale:** Based on ODG guidelines, MRI is not recommended except for indications listed below. Patients who are alert, have never lost consciousness, are not under the influence of alcohol and/or drugs, have no distracting injuries, have no cervical tenderness, and have no neurologic findings, do not need imaging. Patients who do not fall into this category should have a three-view cervical radiographic series followed by CT. In determining whether or not the patient has ligamentous instability, MRI is the procedure of choice, but MRI should be reserved for patients who have clear-cut neurologic findings and those suspected of ligamentous instability. Repeat MRI is not routinely recommended, and should be reserved for a significant change in symptoms and/or findings suggestive of significant pathology. MRI imaging studies are valuable when physiologic evidence indicates tissue insult or nerve impairment or potentially

serious conditions are suspected like tumor, infection, and fracture, or for clarification of anatomy prior to surgery. MRI is the test of choice for patients who have had prior back surgery. For the evaluation of the patient with chronic neck pain, plain radiographs should be the initial study performed. Patients with normal radiographs and neurologic signs or symptoms should undergo MRI. If there is a contraindication to the MR examination such as cardiac pacemaker or severe claustrophobia, CT myelography, preferably using spiral technology and multiplanar reconstruction is recommended. Indications for MRI: Chronic neck pain (after 3 months of conservative treatment), radiographs normal, neurologic signs or symptoms present. Neck pain with radiculopathy if severe or progressive neurologic deficit. Chronic neck pain, radiographs show spondylosis, neurologic signs and symptoms present. Chronic neck pain, radiographs show old trauma, neurologic signs and symptoms present. Chronic neck pain, radiographs show bone or disc margin destruction. Suspected cervical spine trauma, neck pain, clinical findings suggest ligamentous injury (sprain), radiographs and/or CT "normal." Known cervical spine trauma: equivocal or positive plain films with neurologic deficit. Upper back/thoracic spine trauma with neurological deficit. In this case, the patient has had neck pain for more than 3 months, but there is not well documented progression or worsening neurological symptoms to warrant an MRI. An MRI was completed in 7/2011. Based on the evidence in this case, and review of the ODG guidelines, the request for an MRI of the cervical spine is not medically necessary.

**Electromyography/Nerve Conduction Velocity of bilateral upper extremities:** Upheld

**Claims Administrator guideline:** Decision based on MTUS ACOEM Chapter 8 Neck and Upper Back Complaints.

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG) Neck: Nerve conduction studies.

**Decision rationale:** Based on ODG guidelines, nerve conduction studies are not recommended to demonstrate radiculopathy if radiculopathy has already been clearly identified by EMG and obvious clinical signs, but recommended if the EMG is not clearly radiculopathy or clearly negative, or to differentiate radiculopathy from other neuropathies or non-neuropathic processes if other diagnoses may be likely based on the clinical exam. There is minimal justification for performing nerve conduction studies when a patient is already presumed to have symptoms on the basis of radiculopathy. While cervical electrodiagnostic studies are not necessary to demonstrate a cervical radiculopathy, they have been suggested to confirm a brachial plexus abnormality, diabetic neuropathy, or some problem other than cervical radiculopathy, with caution that these studies can result in unnecessary over treatment. Studies have not shown portable nerve conduction devices to be effective. In this case, the patient has clearly demonstrable radiculopathy on physical examination and noted in his history. There is little evidence to support other diagnoses at this time. Therefore, based on ODG guidelines and the evidence in this case, the request for Electromyography/Nerve Conduction Velocity of bilateral upper extremities is not medically necessary.