

Case Number:	CM15-0067091		
Date Assigned:	04/14/2015	Date of Injury:	12/05/2012
Decision Date:	05/13/2015	UR Denial Date:	04/03/2015
Priority:	Standard	Application Received:	04/08/2015

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: Maryland

Certification(s)/Specialty: Physical Medicine & Rehabilitation, Neuromuscular 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 46 year old male who sustained an industrial injury on 12/05/2012. Current diagnoses include cervicalgia, right shoulder post-traumatic osteoarthritis/rotator cuff partial tear/superseding frozen shoulder and adhesive capsulitis, right neurogenic thoracic outlet syndrome, and opioid dependence. Previous treatments included medication management, physical therapy, and right shoulder surgery. Previous diagnostic studies included MRI, EMG/NCV study, and x-rays. Prior EMG dated 2/28/13 revealed severe right carpal tunnel syndrome affecting sensory and motor components. Initial complaints included injuries to the his head, neck, right shoulder, right arm, right elbow, right wrist, and right hand and fingers after slipping and falling. Report dated 02/02/2015 noted that the injured worker presented with complaints that included head, neck, upper back, right shoulder, right wrist, and right hand pain with radiation to the right arm associated with numbness and tingling. Pain level was rated as 7 out of 10 on the visual analog scale (VAS). Physical examination was positive for abnormal findings. The treatment plan included requests for EMG/NCV study, MRI of the cervical spine, diagnostic right suprascapular nerve injection, MR neurography scans, discontinue Vicodin, medication requests, physical therapy, and follow-up in 4 weeks. The physician noted that the request for the MR neurography scan was due to a strong clinical suspicion for neurogenic thoracic outlet syndrome supported by the mechanism of injury, lack of pain relief after surgery, physical therapy, and other treatment modalities. Disputed treatments include MR neurography scan of the right thoracic outlet/brachial plexus.

IMR ISSUES, DECISIONS AND RATIONALES

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

MR Neurography scan of the right thoracic outlet/brachial plexus: Upheld

Claims Administrator guideline: The Claims Administrator did not cite any medical evidence for its decision.

MAXIMUS guideline: Decision based on MTUS ACOEM Chapter 8 Neck and Upper Back Complaints Page(s): 177-178. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG) Shoulder-Electrodiagnostic testing for TOS (thoracic outlet syndrome) and Neck and upper back- Magnetic resonance imaging (MRI) and Other Medical Treatment Guidelines <http://www.ncbi.nlm.nih.gov/pubmed/18435210#> Electromyogr Clin Neurophysiol. 2008 Mar;48(2):67-74 and Electrodiagnostic Medicine, 2nd Edition by Daniel Dumitru MD PhD, Anthony A. Amato MD and Machiel Zwarts MD PhD 2002-Pages 817-820.

Decision rationale: MR Neurography scan of the right thoracic outlet/brachial plexus is not medically necessary per MTUS guidelines, the textbook Electrodiagnostic Medicine (2nd Edition by Daniel Dumitru MD PhD, Anthony A. Amato MD and Machiel Zwarts MD PhD 2002), The Journal of Electromyogr. And Clinical Neurophysiology in 2008, and the ODG. The MTUS does not specifically address brachial plexus imaging. Per the Journal of Electromyogr and Clinical Neurophysiology, "Current provocative maneuvers used to diagnose TOS result in a high false-positive rate in normal subjects and an even higher false-positive rate in CTS patient." Additionally, Daniel Dumitru in the textbook "Electrodiagnostic Medicine" Second Edition states - "Unfortunately, the literature regarding this topic is extremely confusing, particularly with respect to the neurogenic form of TOS. One must keep in mind that possible myofascial pain and other musculoskeletal syndromes arising from the scalene muscles may mimic neurologic compromise of the neural structures potentially involved in TOS. Patients complaining of vague symptoms of limb fatigue, weakness, subjective sensory complaints, heaviness and other type complaints, and no accepted electrophysiologic evidence of a neural lesion are not considered to have true neurogenic TOS nor any other form of TOS, but should be thoroughly evaluated for some other disorder. Once a structural lesion has been ruled out , these patients are considered to be suffering from some other type of disorder (myofascial pain, connective tissue disorder, or other types of pain syndromes) best treated in an interdisciplinary pain clinic setting. Surgical intervention, such as first rib resection, is not warranted for an ill-defined form of "TOS. The symptoms (of TOS) are typically unilateral. Objective physical findings are consistent with a lesion affecting the C8/T1 nerve roots or lower trunk of the brachial plexus. There is usually prominent wasting of the thenar muscles with accompanying atrophy of the ulnar intrinsic muscles, but to a lesser degree, with occasional wasting of the forearm muscles, such as the long finger flexors and thumb. Decreased sensation usually along the medial aspect of the arm with variable involvement of the medial aspect of the hand is noted in these patients. Characteristically cervical radiographs reveal a prominent C7 transverse process or true cervical rib. This type of presentation is extremely rare and has been estimated to have the incidence of one in a million. Electrophysiologic data but may be considered of little value to some but this is most likely because it does not verify that an abnormality is present in the majority of cases with questionable findings and hence no objective data for surgical

intervention. The electrophysiologic findings are both necessary to appropriately diagnose TOS as distinguished from other disorders, and unique to a lesion in the region reportedly compromised in TOS. Proper diagnosis of both true neurogenic and non neurogenic/nonvascular TOS, the so-called "disputed TOS, is vitally important with respect to appropriate treatment. First rib resection is not a simple or benign procedure. It is major thoracic surgery with the potential to induce symptoms worse than those the patient initially presented with, such as reflex sympathetic dystrophy, and nerve root or other neural transections. When patients present with neurologic symptoms consistent with those described above for TOS, one must consider other diagnosis. Perhaps the first disorder one should electrophysiologically evaluate for is carpal tunnel syndrome." The ODG states that 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. Per the ODG electrodiagnostic testing is reliable for the diagnosis of TOS. Additionally, the ACOEM states that scalene-stretching and trapezius-strengthening exercises have been found effective in relieving thoracic outlet compression symptoms. The MTUS ACOEM guidelines also state that physiologic evidence of tissue insult or neurologic dysfunction are possible indications for ordering neck or upper back MRIs. Prior NCS/EMG found bilateral carpal tunnel syndrome only and none of the nerve conduction studies performed showed evidence consistent with TOS. The documentation submitted do not reveal electrodiagnostic or clinical findings consistent with true thoracic outlet syndrome such as weak intrinsic muscles or objective/physical exam findings of a lesion affecting the C8/T1 nerve roots. The findings in the documentation are not suggestive of neurogenic thoracic outlet syndrome and therefore the request for MR neurography scan of the right thoracic outlet/brachial plexus is not medically necessary.