Case Number:	CM15-0133176		
Date Assigned:	07/21/2015	**Date of Injury:**	01/13/2012
Decision Date:	08/26/2015	**UR Denial Date:**	06/09/2015
Priority:	Standard	**Application Received:**	07/09/2015

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, District of Columbia, Maryland
Certification(s)/Specialty: Anesthesiology, Pain Management

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 27 year old male who sustained a work related injury January 13, 2012. Past history included GERD (gastroesophageal reflux disease). According to a primary treating physician's orthopedic report, dated May 19, 2015, the injured worker presented with low back pain, 5.5 out of 10, described as stiff ,constant, and sharp, with pain numbness, tingling, and weakness, that radiates either down the right leg or left leg depending on what he had done during the day. Previous treatment included acupuncture and aqua therapy with minimal benefit and chiropractic care causing increased pain. On examination, he has an upright posture and a non-antalgic gait. The range of motion continues to be limited with flexion 35, 90 degrees, extension 10, 25 degrees and right and left lateral flexion are 15, 25 degrees. There is negative toe walk and positive heel walk. Diagnoses are multi-level disc herniation of the lumbar spine one 9 mm and the other 8 mm herniation per MRI June 27, 2012; facet arthropathy of the lumbar spine per MRI June 27, 2012; degenerative disc disease of the lumbar spine; lumbar spine radiculopathy. Work status is documented as returned to work with restrictions. At issue, is the request for authorization for (EMG) electromyography for the left and right lower extremity and (NCV) nerve conduction velocity of the right and left lower extremity.

IMR ISSUES, DECISIONS AND RATIONALES

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

Electromyography (EMG) left lower extremity: Upheld

Claims Administrator guideline: Decision based on MTUS ACOEM Chapter 12 Low Back Complaints, Chapter 13 Knee Complaints.

MAXIMUS guideline: Decision based on MTUS ACOEM Chapter 8 Neck and Upper Back Complaints Page(s): 177.

Decision rationale: ACOEM guidelines support ordering of imaging studies for emergence of red flags, physiologic evidence of tissue insult or neurologic dysfunction, failure to progress in a strengthening program intended to avoid surgery, and clarification of the anatomy prior to an invasive procedure. Physiologic evidence may be in the form of definitive neurologic findings on physical examination, electrodiagnostic studies, laboratory tests, or bone scans. Unequivocal findings that identify specific nerve compromise on the neurologic examination are sufficient evidence to warrant imaging studies if symptoms persist. When the neurologic examination is less clear, however, further physiologic evidence of nerve dysfunction can be obtained before ordering an imaging study. Electromyography (EMG), and nerve conduction velocities (NCV), including H-reflex tests, may help identify subtle focal neurologic dysfunction in patients with neck or arm symptoms, or both, lasting more than three or four weeks. Per MTUS ACOEM p182, with regard to the detection of neurologic abnormalities, EMG for diagnosis of nerve root involvement if findings of history, physical exam, and imaging study are consistent is not recommended. Per lumbar MRI dated 6/27/12, disc changes at L3-L4, L4-L5, and L5-S1 with 9mm herniation L4-L5 causing moderate narrowing of the central canal and foramina bilaterally were noted. Electrodiagnostic testing dated 2/13/12 indicated abnormal EMG and NCV of the bilateral lower extremities. Studies showed evidence of a moderately severe right L5 and S1 radiculopathy (mainly at L5), and to a lesser extent S1, with severe active denervation potential in 1 muscle of the right L5 myotome and trace active denervation in 1 muscle of the right S1 dermatome. There was no evidence of peripheral neuropathy or entrapment neuropathy. The injured worker has previously undergone electrodiagnostic testing. Repeat testing is not indicated absent interval neurologic changes. The request is not medically necessary.

Nerve conduction velocity (NCV) right lower extremity: Upheld

Claims Administrator guideline: Decision based on MTUS ACOEM Chapter 13 Knee Complaints.

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

Decision rationale: Per the ODG guidelines with regard to NCS: Not recommended. There is minimal justification for performing nerve conduction studies when a patient is presumed to have symptoms on the basis of radiculopathy. (Utah, 2006) This systematic review and meta-analysis demonstrate that neurological testing procedures have limited overall diagnostic accuracy in detecting disc herniation with suspected radiculopathy. (Al Nezari, 2013) In the management of spine trauma with radicular symptoms, EMG/nerve conduction studies (NCS)

often have low combined sensitivity and specificity in confirming root injury, and there is limited evidence to support the use of often uncomfortable and costly EMG/NCS. (Charles, 2013) See also the Carpal Tunnel Syndrome Chapter for more details on NCS. Studies have not shown portable nerve conduction devices to be effective. EMGs (electromyography) are recommended as an option (needle, not surface) to obtain unequivocal evidence of radiculopathy, after 1-month conservative therapy, but EMG's are not necessary if radiculopathy is already clinically obvious. As the requested treatment is not recommended, the request is not medically necessary.

NCV left lower extremity: Upheld

Claims Administrator guideline: Decision based on MTUS ACOEM Chapter 13 Knee Complaints.

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

Decision rationale: Per the ODG guidelines with regard to NCS: Not recommended. There is minimal justification for performing nerve conduction studies when a patient is presumed to have symptoms on the basis of radiculopathy. (Utah, 2006) This systematic review and meta-analysis demonstrate that neurological testing procedures have limited overall diagnostic accuracy in detecting disc herniation with suspected radiculopathy. (Al Nezari, 2013) In the management of spine trauma with radicular symptoms, EMG/nerve conduction studies (NCS) often have low combined sensitivity and specificity in confirming root injury, and there is limited evidence to support the use of often uncomfortable and costly EMG/NCS. (Charles, 2013) See also the Carpal Tunnel Syndrome Chapter for more details on NCS. Studies have not shown portable nerve conduction devices to be effective. EMGs (electromyography) are recommended as an option (needle, not surface) to obtain unequivocal evidence of radiculopathy, after 1-month conservative therapy, but EMG's are not necessary if radiculopathy is already clinically obvious. As the requested treatment is not recommended, the request is not medically necessary.

EMG right lower extremity: Upheld

Claims Administrator guideline: Decision based on MTUS ACOEM Chapter 12 Low Back Complaints, Chapter 13 Knee Complaints.

MAXIMUS guideline: Decision based on MTUS ACOEM Chapter 8 Neck and Upper Back Complaints Page(s): 177.

Decision rationale: Neck and upper back complaints 177ACOEM guidelines support ordering of imaging studies for emergence of red flags, physiologic evidence of tissue insult or neurologic dysfunction, failure to progress in a strengthening program intended to avoid surgery, and clarification of the anatomy prior to an invasive procedure. Physiologic evidence may be in the form of definitive neurologic findings on physical examination, electrodiagnostic studies,

laboratory tests, or bone scans. Unequivocal findings that identify specific nerve compromise on the neurologic examination are sufficient evidence to warrant imaging studies if symptoms persist. When the neurologic examination is less clear, however, further physiologic evidence of nerve dysfunction can be obtained before ordering an imaging study. Electromyography (EMG), and nerve conduction velocities (NCV), including H-reflex tests, may help identify subtle focal neurologic dysfunction in patients with neck or arm symptoms, or both, lasting more than three or four weeks. Per MTUS ACOEM p182, with regard to the detection of neurologic abnormalities, EMG for diagnosis of nerve root involvement if findings of history, physical exam, and imaging study are consistent, is not recommended. Per lumbar MRI dated 6/27/12, disc changes at L3-L4, L4-L5, and L5-S1 with 9mm herniation L4-L5 causing moderate narrowing of the central canal and foramina bilaterally were noted. Electrodiagnostic testing dated 2/13/12 indicated abnormal EMG and NCV of the bilateral lower extremities. Studies showed evidence of a moderately severe right L5 and S1 radiculopathy (mainly at L5), and to a lesser extent S1, with severe active denervation potential in 1 muscle of the right L5 myotome and trace active denervation in 1 muscle of the right S1 dermatome. There was no evidence of peripheral neuropathy or entrapment neuropathy. The injured worker has previously undergone electrodiagnostic testing. Repeat testing is not indicated absent interval neurologic changes. The request is not medically necessary.