

<b>Case Number:</b>	CM15-0081951		
<b>Date Assigned:</b>	05/04/2015	<b>Date of Injury:</b>	10/31/2014
<b>Decision Date:</b>	07/07/2015	<b>UR Denial Date:</b>	03/27/2015
<b>Priority:</b>	Standard	<b>Application Received:</b>	04/29/2015

### 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: New Jersey, Alabama, California  
 Certification(s)/Specialty: Neurology, 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 39 year old male who sustained an industrial injury on 10/31/2014. His diagnoses, and/or impressions, are noted to include: lumbosacral sprain/strain/pain; and stress. Recent magnetic imaging studies were stated to have been done on 11/7/2014. His treatments have included chiropractic treatments; trans-cutaneous electrical nerve stimulation unit therapy; home exercise program; and Naproxen. The progress notes of 3/17/2015 noted complaints that included worsening moderate-severe, radiating lumbosacral pain/numbness/tingling/weakness into the bilateral lower extremities, which is aggravated with activity and helped with chiropractic treatments. Noted was the need to rule-out "radic." versus neuropathy. The physician's requests for treatments included electromyogram and nerve conduction velocity studies of the lumbar spine and bilateral lower extremities, and voltage-actuated sensory nerve conduction threshold of the lumbar spine.

### IMR ISSUES, DECISIONS AND RATIONALES

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

**EMG (Electromyography) of the lumbar spine:** Upheld

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

**MAXIMUS guideline:** Decision based on MTUS ACOEM Chapter 12 Low Back Complaints Page(s): 303.

**Decision rationale:** According to MTUS guidelines (MTUS page 303 from ACOEM guidelines), "Electromyography (EMG), including H-reflex tests, may be useful to identify subtle, focal neurologic dysfunction in patients with low back symptoms lasting more than three or four weeks." EMG has excellent ability to identify abnormalities related to disc protrusion (MTUS page 304 from ACOEM guidelines). According to MTUS guidelines, needle EMG study helps identify subtle neurological focal dysfunction in patients with neck and arm symptoms. "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" (page 178). EMG is indicated to clarify nerve dysfunction in case of suspected disc herniation (page 182). EMG is useful to identify physiological insult and anatomical defect in case of neck pain (page 179). Although the patient developed low back pain, there is no clear evidence that the patient developed peripheral nerve dysfunction or nerve root dysfunction.

MTUS guidelines does not recommend EMG/NCV without signs of radiculopathy or nerve dysfunction. Therefore, the request for EMG (Electromyography) of the lumbar spine is not medically necessary.

**NCV (Nerve Conduction Velocity) of the lumbar spine:** Upheld

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

**MAXIMUS guideline:** Decision based on MTUS ACOEM Chapter 12 Low Back Complaints Page(s): 303.

**Decision rationale:** According to MTUS guidelines (MTUS page 303 from ACOEM guidelines), "Electromyography (EMG), including H-reflex tests, may be useful to identify subtle, focal neurologic dysfunction in patients with low back symptoms lasting more than three or four weeks." EMG has excellent ability to identify abnormalities related to disc protrusion (MTUS page 304 from ACOEM guidelines). According to MTUS guidelines, needle EMG study helps identify subtle neurological focal dysfunction in patients with neck and arm symptoms. "When the neurologic examination is less clear, however, further physiologic evidence of nerve dysfunction can be obtained before ordering an imaging study  
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**Voltage-Actuated Sensory Nerve Conduction Threshold, Lumbar Spine:** Upheld

**Claims Administrator guideline:** Decision based on MTUS ACOEM Chapter 12 Low Back Complaints. Decision based on Non-MTUS Citation Headline: Sending to PA: Voltage-Actuated Sensory Nerve Conduction Threshold, Lurn.

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Voltage actuated sensory nerve conduction (testing) <http://www.odg-twc.com/index.html>.

**Decision rationale:** According to ODG guidelines, Voltage actuated sensory nerve conduction (testing) "Not recommended. There are no clinical studies demonstrating that quantitative tests of sensation improve the management and clinical outcomes of patients over standard qualitative methods of sensory testing. The American Academy of Neurology (AAN) and the American Association of Electrodiagnostic Medicine (AAEM) have both concluded that quantitative sensory threshold (QST) testing standards need to be developed and that there is as yet insufficient evidence to validate the usage of current perception threshold (CPT) testing. The Centers for Medicare and Medicaid Services (CMS) conducted an independent review of 342+ published studies and reconfirmed their 2002 findings that there still exist conflicting data reports, lack of standards, and insufficient trials to validate the efficacy of any type of s-NCT device. (CMS, 2004) (Cigna, 2005) (Aetna, 2006) These tests provide a psychophysical assessment of both central and peripheral nerve functions by measuring the detection threshold of accurately calibrated sensory stimuli, and they are intended to evaluate and quantify function in both large and small caliber fibers for the purpose of detecting neurologic disease. This is different and distinct from assessment of nerve conduction velocity, amplitude and latency. It is also different from short-latency somatosensory evoked potentials. CMS concludes that the use of any type of sNCT device, including "current output" type device used to perform current perception threshold (CPT), pain perception threshold (PPT), or pain tolerance threshold (PTT) testing or "voltage input" type device used for voltage-nerve conduction threshold (v-NCT) testing, to diagnose sensory neuropathies or radiculopathies is not reasonable and necessary." Based on the above, there is no strong evidence supporting the usefulness of Voltage actuated sensory nerve conduction (testing) for the diagnosis of back pain. Therefore, the request for Voltage-Actuated Sensory Nerve Conduction Threshold, Lumbar Spine is not medically necessary.

**EMG (Electromyography)/NCV (Nerve Conduction Velocity) of the bilateral lower extremity:** Upheld

**Claims Administrator guideline:** Decision based on MTUS ACOEM Chapter 12 Low Back Complaints. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG), Low Back Chapter, EMG, NCS.

**MAXIMUS guideline:** Decision based on MTUS ACOEM Chapter 12 Low Back Complaints Page(s): 303.

**Decision rationale:** According to MTUS guidelines (MTUS page 303 from ACOEM guidelines), "Electromyography (EMG), including H-reflex tests, may be useful to identify subtle, focal neurologic dysfunction in patients with low back symptoms lasting more than three or four weeks." EMG has excellent ability to identify abnormalities related to disc protrusion (MTUS page 304 from ACOEM guidelines). According to MTUS guidelines, needle EMG study helps identify subtle neurological focal dysfunction in patients with neck and arm symptoms. "When the neurologic examination is less clear, however, further physiologic

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MTUS guidelines does not recommend EMG/NCV without signs of radiculopathy or nerve dysfunction. Therefore, the request for EMG (Electromyography)/NCV (Nerve Conduction Velocity) of the bilateral lower extremity is not medically necessary.