

<b>Case Number:</b>	CM13-0054562		
<b>Date Assigned:</b>	06/09/2014	<b>Date of Injury:</b>	08/06/2007
<b>Decision Date:</b>	07/14/2014	<b>UR Denial Date:</b>	11/15/2013
<b>Priority:</b>	Standard	<b>Application Received:</b>	11/19/2013

### 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. The expert reviewer is Board Certified in Physical Medicine and Rehabilitation, has a subspecialty in Neuromuscular Medicine, and is licensed to practice in Maryland. 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/services. He/she is familiar with governing laws and regulations, including the strength of evidence hierarchy that applies to Independent Medical Review determinations.

### 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 patient is a 44 year old male who had an injury at work. The work injury occurred on August 6, 2007 which involved a severe right ankle fracture/crushinjury. He had multiple surgeries and complications including infection and pulmonary embolism eventually leading to a right below the knee amputation on October 7, 2010. The diagnoses include status post right BKA amputation, 2010; phantom pain; recurrent pulmonary emboli on chronic Coumadin; left knee internal derangement with meniscal tear; lumbar discogenic pain, posttraumatic stress disorder, history of major depression/posttraumatic stress disorder ;erectile dysfunction;chronic pain syndrome with disturbed sleep, depression, gastritis, and irritable bowel symptoms; sleep disorder ; bilateral L5 spondylolysis/spondylolisthesis. There is an October 8, 2013 request for authorization where the patient's physician states that the patient came for evaluation of complaints of intermittent left upper extremity severe numbness. He reports that certain activities immediately result in numbness in upper extremity. He has attributed this to the use of Canadian crutches as a result of his leg amputation. There is an November 26, 20133 document that states that the patient reports his left upper extremity numbness continues. He further states his numbness does seem to engulf his entire hand, it happens more frequently when playing his guitar. The document states that the requested EMG/NCV of upper extremities has been denied due to the nondermatomal pattern. On physical examination of the upper extremity the sensory examination is intact. There is no tinel at the cubital or carpal tunnel. Reflexes are symmetric.

### IMR ISSUES, DECISIONS AND RATIONALES

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

**ELECTROMYOGRAPHY (EMG) FOR THE BILATERAL UPPER EXTREMITIES:**  
Overturned

**Claims Administrator guideline:** Decision based on MTUS ACOEM Chapter 11 Forearm, Wrist, and Hand Complaints Page(s): 581.

**MAXIMUS guideline:** Decision based on MTUS ACOEM Chapter 8 Neck and Upper Back Complaints Page(s): 178. Decision based on Non-MTUS Citation textbook Electrodiagnostic Medicine, by Daniel Dumitru; Hanley & Belfus, Philadelphia, 2002.

**Decision rationale:** There is reference as well to Dr. Daniel Dumitru in the textbook "Electrodiagnostic Medicine". The ACOEM guidelines state that 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. The author Daniel Dumitru in his textbook "Electrodiagnostic Medicine" states that individuals having early carpal tunnel syndrome usually complain of intermittent symptoms of numbness, paresthesias and pain in the median nerve distribution. Dumitru writes that patients often though have difficulty localizing the sensory disturbances to the median innervated digits at first. Dumutru states that physical exam may at first reveal little in the way of sensory loss but with disease progression some alteration can be found. The documentation reveals that this patient has risk factors for carpal tunnel syndrome. He uses Canadian crutches which are crutches that shorter than the typical axillary crutches. The patient is resting his weight on a hand bar and therefore at risk for pressure on the carpal tunnel. Also there is documentation that at times he has used a wheelchair manually which is another risk factor for carpal tunnel. The request for an EMG/NCV is this patient is reasonable and medically necessary. He has already undergone a leg amputation and now there is increased reliance on his upper extremities for ambulation and activities of daily living. It is important to pick up subtle neurophysiologic deficits on electrodiagnostic testing in this patient before he becomes advanced and clinically loses strength and function in his arms/hands. The finding of carpal tunnel is bilaterally in 87% of patients clinically. The request for electromyography for the upper extremities is medically necessary. The request for an EMG of the bilateral upper extremities is medically necessary and appropriate.

**NERVE CONDUCTION VELOCITY (NCV) FOR THE BILATERAL UPPER EXTREMITIES:** Overturned

**Claims Administrator guideline:** Decision based on MTUS ACOEM Chapter 11 Forearm, Wrist, and Hand Complaints Page(s): 581.

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

**Decision rationale:** There is reference as well to Dr. Daniel Dumitru in the textbook "Electrodiagnostic Medicine". The ACOEM guidelines state that 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. The author Daniel Dumitru in his textbook "Electrodiagnostic Medicine" states that individuals having early carpal tunnel syndrome usually complain of intermittent symptoms of numbness, paresthesias and pain in the median nerve distribution. Dumitru writes that patients often though have difficulty localizing the sensory disturbances to the median innervated digits at first. Dumutru states that physical exam may at first reveal little in the way of sensory loss but with disease progression some alteration can be found. The documentation reveals that this patient has risk factors for carpal tunnel syndrome. He uses Canadian crutches which are crutches that shorter than the typical axillary crutches. The patient is resting his weight on a hand bar and therefore at risk for pressure on the carpal tunnel. Also there is documentation that at times he has used a wheelchair manually which is another risk factor for carpal tunnel. The request for an EMG/NCV is this patient is reasonable and medically necessary. He has already undergone a leg amputation and now there is increased reliance on his upper extremities for ambulation and activities of daily living. It is important to pick up subtle neurophysiologic deficits on electrodiagnostic testing in this patient before he becomes advanced and clinically loses strength and function in his arms/hands. The finding of carpal tunnel is bilaterally in 87% of patients clinically. The request for an NCV of the bilateral upper extremities is medically necessary and appropriate.