MAXIMUS Federal Services

Case Number:	CM15-0140604		
Date Assigned:	07/30/2015	Date of Injury:	04/29/2011
Decision Date:	08/28/2015	UR Denial Date:	07/02/2015
Priority:	Standard	Application Received:	07/21/2015

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 48 year old female who sustained an industrial/work injury on 4-29-11. She reported an initial complaint of right elbow pain. The injured worker was diagnosed as having lesion ulnar nerve, epicondylitis lateral, lesion radial nerve, syndrome cervicobrachial. Treatment to date includes medication, surgery (arthroscopy), physical therapy, and diagnostics. MRI results were reported on 6-16-15. EMG-NCV (electromyography and nerve conduction velocity test was negative. Currently, the injured worker complained of right elbow pain. Per the primary physician's report (PR-2) on 5/19/15, exam noted normal gait, normal muscle tone in all extremities, painful arc at about 90 degrees in the right shoulder, and forward flexion at about 80 degrees to abduction she has pain with internal and external rotation, positive apprehension sign on the right, positive empty can sign, and tenderness over the anterior shoulder capsule and positive impingement sign on the right shoulder. There is tenderness over the medial and lateral epicondyles greater on the lateral portion. The requested treatments include EMG/NCG (electromyography and nerve conduction velocity test) of right upper extremity.

IMR ISSUES, DECISIONS AND RATIONALES

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

EMG/NCV of Right Upper Extremity: Upheld

Claims Administrator guideline: Decision based on MTUS ACOEM Chapter 10 Elbow Disorders (Revised 2007).

MAXIMUS guideline: The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG) Forearm, wrist and hand chapter Electrodiagnostic studies (EDS).

Decision rationale: Electrodiagnostic studies are recommended as an option after closed fractures of distal radius & ulna if necessary to assess nerve injury. Also recommended for diagnosis and prognosis of traumatic nerve lesions or other nerve trauma. (Bienek, 2006) Electrodiagnostic testing includes testing for nerve conduction velocities (NCV), and possibly the addition of electromyography (EMG). For more information, see the Carpal Tunnel Syndrome chapter. Among patients seeking treatment for hand and wrist disorders generally, workers' compensation patients underwent more procedures and more doctor visits than patients using standard health insurance. WC patients underwent surgery at a higher rate, 44% compared to 35% and electrodiagnostic testing, 26% compared to 15%. (Day, 2010) Electrodiagnostic studies are recommended for neurotrauma (e.g., traumatic nerve lesion). Injury to the ulnar nerve can occur at the wrist and forearm in addition to median nerve injury at the wrist and ulnar nerve injury at the elbow. Studies may be done if the provider suspects ulnar nerve injury at the wrist and wants electrodiagnostic testing prior to deciding on surgical treatment. (Sahin, 2014) (AANEM, 2014) (Rettig, 1998) Definitions: Electrodiagnostic Medicine (EDX) is a medical subspecialty of neurology, clinical neurophysiology, and physical medicine and rehabilitation. Electrodiagnostic Studies (EDS) is the overall global term for nerve conduction studies (NCS), nerve conduction tests (NCT), and electromyography studies (EMG). NCT includes sensory and motor studies. NCS is an electrodiagnostic medicine technique used to evaluate the electrical activity of motor and sensory nerves based on electrical conduction. EMG is an electrodiagnostic medicine technique for evaluating the electrical activity produced by skeletal muscles. Electrodiagnostic studies are not perfect. There are still false positives and false negatives, which is why a physician is needed to correlate electrodiagnostic study results with the history, physical examination and or response to previous treatments. If the purpose of EDX is to confirm a diagnosis such as CTS, then only the NCT is usually required, because most patients, especially in workers' comp, present soon after the onset of their symptoms. Therefore, the nerve entrapment has not been present long enough to result in changes to the muscles, and the NCT will show early conduction delays, but the EMG will be normal. At this point, EMG has little value, adds significant costs, and most patients prefer not to be stuck with needles multiple times. However, if the patient has demonstrated muscle loss, has an injury with long term symptoms, or the clinical examination is unclear, then the EMG is appropriate. As far as what conditions are appropriate for EDX, they include any musculoskeletal condition or diagnosis that involves nerve or muscle dysfunction. A common list would include upper extremity (carpal tunnel syndrome, cubital tunnel syndrome, pronator teres syndrome, radial nerve wrist and elbow, & ulnar nerve wrist); polyneuropathies (diabetic polyneuropathy, acute demyelinating polyneuropathy (Guillain-Barre syndrome), chronic inflammatory demyelinating polyneuropathy, and toxic, metabolic, drug-induced polyneuropathy); spine (cervical radiculopathies, lumbosacral radiculopathies, and spinal stenosis); lower extremity (tarsal tunnel syndrome, tibial nerve, peroneal nerve, sural nerve); and generalized disorders (disorders of neuromuscular transmission, e.g., myasthenia gravis, myopathies, and motor neuron disease. i.e.,

ALS). (Melhorn, 2013) Bilateral studies: Bilateral EMG is generally not necessary, but NCS may be necessary for comparison, depending on the results found on the affected side. If the NCS results are clearly abnormal, comparison is not necessary. If they are clearly normal, comparison is not necessary. However, if the results are borderline, the use of the unaffected side to get the closest measure of normal is appropriate since the standard is to use population normal, and a particular patient may be an outlier and test interpretation can be affected by this. The decision to test or not test the unaffected side should be made during the examination, which requires a conscientious examiner who is actively interpreting results as they occur (e.g. not reviewing a technician's results after the fact). There are a variety of reasons for bilateral NCS. Bilateral NCS results may be important, first, for diagnosis (clinical symptoms and physical examination matched to conduction delay on symptomatic side vs the non-symptomatic side to provide insight into diagnosis, treatment and outcomes). Second is related to causation to evaluate if the job may be the cause, and bilateral NCT can help with this determination. Third is related to response to treatment and expectations for return to work. Fourth, bilateral can help with apportionment if an impairment rating is required. Finally, the cost for a bilateral NCT is much less that the cost for one sided NCT/EMG. EMG on the asymptomatic side is not required. (Melhorn, 2013) (Dumitru, 2001) In this case, the patient has already had an EMG test which was normal on 4/11/2012. Also, in this case, there is no documented muscle loss or atrophy and only pain suggestive of medial and lateral epicondylitis. The MRI did not show nerve entrapment, just inflammation of the ulnar nerve. Therefore, based on ODG guidelines and the evidence in this case, the request for EMG/NCV is not medically necessary.