

Case Number:	CM13-0061986		
Date Assigned:	12/30/2013	Date of Injury:	03/01/2007
Decision Date:	03/26/2014	UR Denial Date:	11/21/2013
Priority:	Standard	Application Received:	12/05/2013

HOW THE IMR FINAL DETERMINATION WAS MADE

MAXIMUS Federal Services sent the complete case file to a physician reviewer. He/she has no affiliation with the employer, employee, providers or the claims administrator. The physician reviewer is Board Certified in Orthopedic Surgery and is licensed to practice in California. 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 physician 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:

55 year old male with industrial injury 3/1/07. Chief complaint of neck and left shoulder pain. Previous treatments include right submuscular ulnar nerve transposition with good results, cortisone injection with some improvement, and ice and heat application. 5/27/10 electromyogram was positive for ulnar neuritis. Exam notes from 10/3/13 demonstrate left elbow pain radiating to the forearm and fourth and fifth digits with paresthesias. Range of motion of elbows and wrists were normal in all planes with some grimacing on full elbow flexion on the left only. Tenderness to palpations at both medial and lateral epicondyle on the left with positive Tinel's at left wrist and elbow. Guyon's canal compression on the left was positive. Diagnosis of cubital tunnel syndrome. Requesting reconsideration for the left submuscular ulnar nerve transposition.

IMR ISSUES, DECISIONS AND RATIONALES

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

Decision for left submuscular ulnar nerve transposition: Upheld

Claims Administrator guideline: The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation American College of Occupational Medicine Practice Guidelines, 2nd Edition (2008), Elbow Disorders, pages 603-606; Official Disability Guidelines (ODG), Elbow; Surgery for cubital tunnel syndrome, ODG: Indications for Surgery: Surgery for cubital tunnel syndrome: Initial conservative treatment.

MAXIMUS guideline: The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation American College of Occupational and Environmental Medicine, 2nd Edition, (2007) Elbow revision, pages 45-47; Official Disability Guidelines: Surgery for cubital tunnel syndrome; Official Disability Guidelines: Indications for Surgery - Surgery for cubital tunnel syndrome: Initial conservative treatment.

Decision rationale: ACOEM guidelines (2007 Elbow revision, pages 45- 47) indicate the following regarding surgery for ulnar nerve entrapment: Five studies were reviewed for ulnar nerve decompression surgery all of intermediate quality. All the studies compared surgical techniques. None incorporated a group receiving physical therapy or non-intervention as a control. Also, none of the studies distinguished between the different types of ulnar neuropathies at the elbow. Two studies compared a simple decompression procedure with anterior subcutaneous transposition of the ulnar nerve (one did not indicate duration of patients' symptoms and the other included patients with symptoms for greater than 3 months); two studies (one did not indicate duration of patients' symptoms and the other had a mean duration of symptoms of 27 months in one group and 24.9 months in the second group) compared a simple decompression with submuscular transposition; and one study compared medial epicondylectomy with anterior transposition with 52 patients who had symptoms of at least 3 months. Unfortunately, the more risky and less effective transposition procedures remain the most common. Evidence is lacking that any of these surgeries has advantages over conservative treatment. The simple ulnar nerve release does have some evidence of benefits over more complicated surgical procedures such as transposition. Surgery for ulnar nerve entrapment requires establishing a firm diagnosis on the basis of clear clinical evidence and positive electrical studies that correlate with clinical findings. A decision to operate requires significant loss of function, as reflected in significant activity limitations due to the nerve entrapment and that the patient has failed conservative care, including full compliance in therapy, use of elbow pads, removing opportunities to rest the elbow on the ulnar groove, workstation changes (if applicable), and avoiding nerve irritation at night by preventing prolonged elbow flexion while sleeping. Before proceeding with surgery, patients must be apprised of all possible complications, including wound infections, anesthetic complications, nerve damage, and the high possibility that surgery will not relieve symptoms. Absent findings of severe neuropathy such as muscle wasting, at least 3-6 months of conservative care should precede a decision to operate.

Simple Decompression: Quality studies of patients with chronic ulnar neuropathy at the elbow are available on surgical treatment for ulnar nerve entrapment at the elbow. Surgical options for this problem are high cost, invasive, and have side effects. Yet, in well defined but infrequent cases as outlined above that include positive electrodiagnostic studies with objective evidence of loss of function, lack of improvement may necessitate surgery and surgery for this condition is recommended. Compared with more complex procedures, there is evidence of benefits from simple decompression and this procedure is recommended.

Submuscular Transposition: Quality studies are available on submuscular transposition. Submuscular transposition has not been shown to be beneficial. This surgical option for this problem is high cost, invasive, and has side effects. Thus, submuscular transposition is not recommended. According to the ODG regarding surgery for cubital tunnel syndrome, Recommended as indicated below (simple decompression in most cases). Surgical transposition of the ulnar nerve is not recommended unless the ulnar nerve subluxes on ROM of the elbow. Surgery for ulnar neuropathy at the elbow is effective at least two-thirds of the time. The outcomes of simple decompression (SD) and anterior subcutaneous transposition (AST) are equivalent, except for the complication rate, which is 31% in AST. Because the intervention is simpler and associated with fewer complications, SD is generally advised. (Bartels, 2005) (Asamoto, 2005) (Lund, 2006) (Nabhan, 2007) Although clinically equally effective, simple decompression was associated with lower cost than anterior subcutaneous transposition for the treatment of ulnar neuropathy at the elbow. The main

difference was in the costs related to sick leave, which is significantly shorter for simple decompression. (Bartels², 2005) (Nabhan, 2005) Simple decompression may offer excellent intermediate and long-term relief of symptoms. Less complete relief of symptoms following ulnar nerve decompression may be related to unrecognized carpal tunnel syndrome or weight gain. (Nathan, 2005) Medial epicondylectomy for persons with cubital tunnel syndrome was superior to anterior transposition in relieving pain and in improving global outcome scores. Patients whose cubital tunnel syndrome is caused by an acute trauma have better outcomes after surgical treatment than patients with cubital tunnel syndrome from other causes. (AHRQ, 2002) Partial medial epicondylectomy seems to be safe and reliable for treatment of cubital compression neuropathy at the elbow. (Efsthathopoulos, 2006) One study reviewed the results of two surgical methods for treating cubital tunnel syndrome. From 1994 to 2001, minimal medial epicondylectomy was performed on 22 elbows, and anterior subcutaneous transposition of the ulnar nerve was done on 34 elbows. In the group treated by medial epicondylectomy, 9 of the results (41%) were excellent, 10 (45%) were good, 2 (9%) were fair, and 1 result (5%) was poor. In the group treated by anterior subcutaneous transposition of ulnar nerve, 14 of the results (41%) were excellent, 13 (38%) were good, 6 (18%) were fair, and 1 result (3%) was poor. No significant difference was found between the 2 groups ($P < .05$). (Baek, 2005) (Greenwald, 2006) Age at surgery, duration of cubital tunnel syndrome, preoperative severity, and clinical symptom score and motor nerve conduction velocity in the early postoperative stage (one month after surgery) were found to be important prognostic factors of the syndrome. (Yamamoto, 2006) Simple decompression vs anterior transposition: Transposition may only be required if the ulnar nerve subluxes on ROM of the elbow. Otherwise simple decompression is recommended. (Heithoff, 1999) (Posner, 1998) (Bartels, 2005) (Elhassan, 2007) Irrespective of the surgical method, roughly 90% of patients are satisfied with surgical treatment of the ulnar nerve entrapment. However, one specific group of patients (people with habitual ulnar luxation or subluxation of the ulnar nerve) experienced a distinctly better result when treated by anterior transposition than by simple decompression, so simple decompression of the ulnar nerve can be recommended in all patients without cubital (sub)luxation of the nerve, whereas people with a tendency of cubital (sub)luxation of the ulnar nerve should be treated by submuscular anterior transposition. (Bimmler, 1996) In this study, both simple decompression and anterior transposition resulted in improvement in over 80% of cases, but a higher percentage of full recovery was seen in the cases treated by simple decompression. (Chan, 1980) The results of simple decompression of the ulnar nerve are similar to transposition, so the former simpler method is recommended as the standard procedure. (Lugnegård, 1982) The advantages of simple decompression make it the procedure of choice for most cases of ulnar neuropathy. (Nathan, 1992) The simpler procedure of neurolysis in situ is the treatment of choice, but submuscular transposition remains appropriate in certain circumstances. (Biggs, 2006) ODG Indications for Surgery -- Surgery for cubital tunnel syndrome: Initial conservative treatment, requiring ALL of the following: - Exercise: Strengthening the elbow flexors/extensors isometrically and isotonicly within 0-45 degrees - Activity modification: Recommend decreasing activities of repetition that may exacerbate the patient's symptoms. Protect the ulnar nerve from prolonged elbow flexion during sleep, and protect the nerve during the day by avoiding direct pressure or trauma. - Medications: Nonsteroidal anti-inflammatory drugs (NSAIDs) in an attempt to decrease inflammation around the nerve. - Pad/splint: Use an elbow pad and/or night splinting for a 3-month trial period. Consider daytime immobilization for 3 weeks if symptoms do not improve with splinting. If the symptoms do improve, continue conservative treatment for at least 6 weeks beyond the resolution of symptoms to prevent recurrence. In this case there is insufficient evidence of significant cubital tunnel to support surgical intervention as there is no formal electrodiagnostic testing report. In addition, there is no evidence of failure of non-surgical management. Therefore, the determination is for non-certification.