

<b>Case Number:</b>	CM14-0154443		
<b>Date Assigned:</b>	09/24/2014	<b>Date of Injury:</b>	10/29/2012
<b>Decision Date:</b>	10/24/2014	<b>UR Denial Date:</b>	08/19/2014
<b>Priority:</b>	Standard	<b>Application Received:</b>	09/22/2014

### 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 Occupational Medicine 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 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:

This is a 44 year old female with a 10/29/12 injury date. The mechanism of injury was not provided. In a 8/26/14 appeal letter, the provider discusses multiple reports in the literature confirming the utility of color Doppler ultrasound of the brachial plexus in the diagnosis of thoracic outlet syndrome. The patient is still complaining of neck and right upper extremity radiating symptoms. Objective findings included right-sided neck and scalene tenderness, moderate right trapezius trigger point, right brachial plexus Tinel sign, restricted right shoulder motion with impingement, positive right costoclavicular abduction, positive Adson's test, positive Roos test, right upper extremity weakness, and hypoesthesia in the right C8 and T1 dermatomes. The provider is also requesting a cervical MRI to rule out cervical radiculopathy. Diagnostic impression: right thoracic outlet syndrome--post-traumatic. Treatment to date: medications, physical therapy. A UR decision on 8/19/14 denied the request for Doppler ultrasound of right brachial plexus on the basis that arterial Doppler studies yield an unacceptable risk of false-positive results and is not supported as a clinically useful test for thoracic outlet syndrome.

### IMR ISSUES, DECISIONS AND RATIONALES

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

**Doppler ultrasound of right brachial plexus:** Overturned

**Claims Administrator guideline:** The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation ODG - TWC Shoulder Procedure Summary last updated 07/29/2014; Doppler StudyODG-TWC; regarding Arterial ultrasound TOS testing

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Other Medical Treatment Guideline or Medical Evidence: Longley DG et al. Thoracic outlet syndrome: evaluation of the subclavian vessels by color duplex sonography. Am J Roentgenol. 1992 Mar;158(3):623-30. Demondion et al. Imaging Assessment of Thoracic outlet syndrome. Radiographic. 2006;26:1735-50.

**Decision rationale:** CA MTUS and ODG do not address this issue. There are multiple reports in the medical literature dating back to the 1990s confirming the utility of color Doppler ultrasound of the brachial plexus in diagnosis of thoracic outlet syndrome. An article by Longley et al showed that Doppler ultrasound is highly sensitive and specific for the diagnosis of thoracic outlet syndrome, and is used in conjunction with clinical findings to support the diagnosis. In addition, the patient has positive exam findings consistent with the diagnosis of vascular-induced thoracic outlet syndrome such as Roos and Adson's tests. The medical necessity of the proposed test appears to be established in this case. Therefore, the request for Doppler ultrasound of the right brachial plexus is medically necessary.