

<b>Case Number:</b>	CM14-0110394		
<b>Date Assigned:</b>	08/01/2014	<b>Date of Injury:</b>	07/09/2012
<b>Decision Date:</b>	09/03/2014	<b>UR Denial Date:</b>	07/07/2014
<b>Priority:</b>	Standard	<b>Application Received:</b>	07/15/2014

### 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 Orthopaedic 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 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 49-year-old female registered nurse sustained an industrial injury on 7/9/12. Injury occurred when she fell on her left hip and braced with her arm. The 5/14/14 initial thoracic outlet syndrome (TOS) consultation cited head, neck and right shoulder, arm, hand and finger pain with numbness and tingling in digits 1-5, was 4-5. There were color changes and cold sensation in the arm, hand, and fingers. She went to the emergency room on 5/9/14 because her right hand became painful and numb and the color changed to blue. Physical therapy and massage had been tried with little benefit. The pain was triggered by driving, typing, drying her hair, hanging up clothes and lifting laundry. The physical exam documented no swelling, positive Tinel's at the scalene muscle, positive abduction external rotation maneuver, and positive Roos elevated arm stress test. The 5/15/14 TOS MRI impression documented moderate compression of the right subclavian artery segment lateral to the scalene triangle and proximal to the axilla with the right arm elevated. The 5/27/14 right anterior scalene muscle block was positive with significant relief of symptoms. Symptoms subsequently returned as the block wore off. The 6/12/14 electrodiagnostic study indicated bilateral TOS without denervation, significantly worse on the right. The 6/27/14 treating physician report reviewed the diagnostic evidence confirming the diagnosis of TOS and indicative of good improvement with surgical decompression. The MRI study indicated evidence of arterial and venous compression on the right side. The disabilities of the arm, shoulder and hand score remained unchanged at 79.5 indicating a high level of disability. The treatment plan requested right first rib resection with 2 day inpatient stay, and a venogram. The 7/7/14 utilization review denied the right first rib resection and associated as there was no documentation of conservative treatment and effect and actual degree of disability.

### IMR ISSUES, DECISIONS AND RATIONALES

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

**Right First Rib Resection:** Overturned

**Claims Administrator guideline:** The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines, Surgery for thoracic outlet syndrome (TOS).

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG) Shoulder, Surgery for thoracic outlet syndrome (TOS).

**Decision rationale:** The California MTUS does not provide recommendations for thoracic outlet syndrome (TOS) surgery. The Official Disability Guidelines recommend surgery for TOS when indications are met. A confirmatory response to EMG guided scalene block and/or confirmatory electrophysiological testing is advisable before surgery. Vascular TOS is less common than neurologic TOS and requires more urgent care. Guidelines for vascular TOS typically require objective clinical findings of swelling, pallor or coolness, gangrene of the digits in advanced cases, or venous engorgement. Abnormal venogram is generally required. The guideline criteria have been met. The patient presents with subjective clinical findings consistent with guidelines. The objective findings documented positive TOS provocative testing. There is positive MRI, electrodiagnostic and diagnostic block findings for TOS. Significant functional difficulty was noted precluding work ability and limiting activities of daily living. Therefore, this request for right first rib resection is medically necessary.

**2 Days Inpatient Stay:** Overturned

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

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Samarasam I, Sadhu D, Agarwal S, Nayak S. Surgical management of thoracic outlet syndrome: a 10-year experience. ANZ J Surg. 2004 Jun;74(6):450-4.

**Decision rationale:** The California MTUS does not provide recommendations for hospital length of stay. The Official Disability Guidelines generally recommend using the median length of stay based on type of surgery but do not provide guidance regarding this procedure. Peer-reviewed literature suggest a mean duration post-operative hospital length of stay of 3.6 days for surgical decompression in thoracic outlet syndrome. Therefore, this request for 2 day inpatient stay is medically necessary.

**Venogram IVUS (Intravascular Ultrasound):** Overturned

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

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG) Shoulder, Surgery for thoracic outlet syndrome (TOS) and on the Non-MTUS Chengelis DL, Glover JL, Bendick P, Ellwood R, Kirsch M, Fornatoro D. The use of intravascular ultrasound in the management of thoracic outlet syndrome. Am Surg. 1994 Aug;60(8):592-6.

**Decision rationale:** The California MTUS does not provide recommendations for venogram IVUS. The Official Disability Guidelines generally recommend a venogram as a surgical indication for thoracic outlet syndrome. Peer-reviewed evidence found that IVUS is a safe technique and is as accurate as venography in identifying the sites and degree of narrowing. IVUS provides additional data as well regarding the etiology of the underlying process. The intraoperative use of IVUS has proved helpful in decision-making to minimize the dissection necessary to release extrinsic venous compression. Therefore, this request for venogram IVUS (intravascular ultrasound) is medically necessary.