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| <b>Case Number:</b>   | CM14-0069214 |                              |            |
| <b>Date Assigned:</b> | 07/14/2014   | <b>Date of Injury:</b>       | 07/15/2009 |
| <b>Decision Date:</b> | 11/24/2014   | <b>UR Denial Date:</b>       | 04/14/2014 |
| <b>Priority:</b>      | Standard     | <b>Application Received:</b> | 05/14/2014 |

### 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 Physical Medicine and Rehabilitation, has a subspecialty in Pain 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:

The injured worker is a 30 years old female with an original date of injury on 7/15/2009. The mechanisms of injury was a 45-pound box fell and strike the patient on the head, making a trail down her neck, left shoulder, and arm. The patient's industrially related diagnoses include cervical disc syndrome, left shoulder impingement syndrome, left shoulder rotator cuff rupture, right shoulder rotator cuff syndrome, carpal tunnel syndrome, and lumbar disc syndrome. The patient has had physical therapy three times a week for three months. She also has received one cortisone injection into her left shoulder which made her pain worse. A diagnostic MRI of the left shoulder on 7/18/2012 showed impingement upon the supraspinatus tendon with tendinosis changes present. There was a partial infraspinatus tear seen in the area of insertion measuring 0.8cm, but no full-thickness tear, medial retraction, or atrophy. The patient was approved for left shoulder arthroscopy by the WCAB judge. The disputed issue is a request for repeat MRI of the left shoulder. A utilization review determination on 4/14/2014 had noncertified this request. The stated rationale for the denial was ACOEM guidelines recommend shoulder MRI for patients when surgery is considered for a specific anatomical defect, and when there is a significant change in patient's conditions. The patient is awaiting left shoulder procedure to address the findings of the previous MRI. The documents submitted for review did not indicate the patient had a significant change in her condition following the first MRI. Therefore, the request for a repeat MRI of the left shoulder was denied.

### IMR ISSUES, DECISIONS AND RATIONALES

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

## **MRI LEFT SHOULDER WITH CONTRAST:** Upheld

**Claims Administrator guideline:** Decision based on MTUS ACOEM Chapter 9 Shoulder Complaints Page(s): 207-209.

**MAXIMUS guideline:** Decision based on MTUS ACOEM Chapter 9 Shoulder Complaints Page(s): 207-209.

**Decision rationale:** ACOEM Practice Guidelines 2nd Ed., Shoulder Complaints Chapter, pages 207-209 (as referenced by the California MTUS on page 4 of the Code of Regulations) state: "Routine testing (laboratory tests, plain-film radiographs of the shoulder) and more specialized imaging studies are not recommended during the first month to six weeks of activity limitation due to shoulder symptoms, except when a red flag noted on history or examination raises suspicion of a serious shoulder condition or referred pain. Cases of impingement syndrome are managed the same regardless of whether radiographs show calcium in the rotator cuff or degenerative changes are seen in or around the glenohumeral joint or AC joint. Suspected acute tears of the rotator cuff in young workers may be surgically repaired acutely to restore function; in older workers, these tears are typically treated conservatively at first. Partial-thickness tears should be treated the same as impingement syndrome regardless of magnetic resonance imaging (MRI) findings. Shoulder instability can be treated with stabilization exercises; stress radiographs simply confirm the clinical diagnosis. For patients with limitations of activity after four weeks and unexplained physical findings, such as effusion or localized pain (especially following exercise), imaging may be indicated to clarify the diagnosis and assist reconditioning. Imaging findings can be correlated with physical findings. Primary criteria for ordering imaging studies are: - Emergence of a red flag (e.g., indications of intra-abdominal or cardiac problems presenting as shoulder problems) - Physiologic evidence of tissue insult or neurovascular dysfunction (e.g., cervical root problems presenting as shoulder pain, weakness from a massive rotator cuff tear, or the presence of edema, cyanosis or Raynaud's phenomenon) - Failure to progress in a strengthening program intended to avoid surgery. - Clarification of the anatomy prior to an invasive procedure (e.g., a full thickness rotator cuff tear not responding to conservative treatment)"OFFICIAL DISABILITY GUIDELINES: SHOULDER CHAPTER Recommended as indicated below. Magnetic resonance imaging (MRI) and arthrography have fairly similar diagnostic and therapeutic impact and comparable accuracy, although MRI is more sensitive and less specific. Magnetic resonance imaging may be the preferred investigation because of its better demonstration of soft tissue anatomy. (Banchard, 1999) Subtle tears that are full thickness are best imaged by MR arthrography, whereas larger tears and partial-thickness tears are best defined by MRI, or possibly arthrography, performed with admixed gadolinium, which if negative, is followed by MRI. (Oh, 1999) The results of a recent review suggest that clinical examination by specialists can rule out the presence of a rotator cuff tear, and that either MRI or ultrasound could equally be used for detection of full-thickness rotator cuff tears. (Dinnes, 2003) Shoulder arthrography is still the imaging "gold standard" as it applies to full-thickness rotator cuff tears, with over 99% accuracy, but this technique is difficult to learn, so it is not always recommended. Magnetic resonance of the shoulder and specifically of the rotator cuff is most commonly used, where many manifestations of a normal and an abnormal cuff can be demonstrated. The question we need to ask is: Do we need all this information? If only full-thickness cuff tears require an operative procedure and all other abnormalities of the soft tissues require arthroscopy, then would shoulder arthrography suffice? (Newberg, 2000)

Ultrasonography and magnetic resonance imaging have comparable high accuracy for identifying biceps pathologies and rotator cuff tears, and clinical tests have modest accuracy in both disorders. The choice of which imaging test to perform should be based on the patient's clinical information, cost, and imaging experience of the radiology department. (Ardic, 2006) MRI is the most useful technique for evaluation of shoulder pain due to subacromial impingement and rotator cuff disease and can be used to diagnose bursal inflammatory change, structural causes of impingement and secondary tendinopathy, and partial- and full-thickness rotator cuff tears. However, The overall prevalence of tears of the rotator cuff on MRI is 34% among symptom-free patients of all age groups, being 15% for full-thickness tears and 20% for partial-thickness tears. The results of this study support the use of MRI of the shoulder before injection both to confirm the diagnosis and to triage affected patients to those likely to benefit (those without a cuff tear) and those not likely to benefit (those with a cuff tear). (Hambly, 2007) The preferred imaging modality for patients with suspected rotator cuff disorders is MRI. However, ultrasonography may emerge as a cost-effective alternative to MRI. (Burbank, 2008) Primary care physicians are making a significant amount of inappropriate referrals for CT and MRI, according to new research published in the Journal of the American College of Radiology. There were high rates of inappropriate examinations for shoulder MRIs (37%), shoulder MRI in patients with no histories of trauma and documented osteoarthritis on plain-film radiography. (Lehnert, 2010) See also MR arthrogram. Shoulder Indications for imaging -- Magnetic resonance imaging (MRI): - Acute shoulder trauma, suspect rotator cuff tear/impingement; over age 40; normal plain radiographs - Subacute shoulder pain, suspect instability/labral tear - Repeat MRI is not routinely recommended, and should be reserved for a significant change in symptoms and/or findings suggestive of significant pathology. (Mays, 2008) The submitted documents contain progress note from October 2013 to April 2014. Even though physical exam findings show decreased strength in decreased range of motion of the left shoulder, along with positive impingement test, empty can supraspinatus test, Neer's test, and O'Brien test, there is no documentation comparing exam findings before the first MRI was completed. According to the guidelines, a repeat MRI is not routinely recommended; it should be reserved for a significant change in symptoms or findings suggestive of significant pathology. In the case of this injured worker, because of lack of evidence for a significant change in her condition, a repeat MRI of the left shoulder is not medically necessary.