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NOTICE OF INDEPENDENT REVIEW DECISION

DATE OF REVIEW:
Apr/12/2010
IRO CASE #:
DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:
MRI Lt. Shoulder w/o Contrast

DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION:
MD, Board Certified Orthopedic Surgeon

REVIEW OUTCOME:
Upon independent review, the reviewer finds that the previous adverse determination/adverse determinations should be:

[X] Upheld (Agree)
[ ] Overturned (Disagree)
[ ] Partially Overturned (Agree in part/Disagree in part)

INFORMATION PROVIDED TO THE IRO FOR REVIEW

PATIENT CLINICAL HISTORY SUMMARY
This patient was injured on x/x/xx. He sustained a back injury and reportedly has a lumbar fusion in 6/09. His MRI of 10/08 reportedly showed a partial tear of the supraspinatus and arthritis of the AC joint. Dr. apparently advised surgery and the patient declined (record not provided.) He has had therapy, but had a lower PDL than his job required. He has ongoing shoulder pain. Dr. wants to determine if the partial tear has healed and if this man can return to work.

ANALYSIS AND EXPLANATION OF THE DECISION INCLUDING CLINICAL BASIS, FINDINGS AND CONCLUSIONS USED TO SUPPORT THE DECISION
The claimant has a previously confirmed rotator cuff (partial) tear. MRI and arthroscopy can show tears and permit surgical repair of even partial tears. The MRI is requested to see if the partial tear has healed. Recent positions by the AAOS and others show that rotator cuff tears do not improve, but can worsen. This request for the MRI is to determine if the tear became smaller. Based on the guidelines, this MRI of the shoulder is not medically necessary – the provider states the procedure is requested solely to determine if the tear became smaller. The reviewer finds that medical necessity does not exist at this time for MRI Lt. Shoulder w/o Contrast.

Magnetic resonance imaging (MRI)

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

Indications for imaging -- Magnetic resonance imaging (MRI)

- Acute shoulder trauma, suspect rotator cuff tear/impingement; over age 40; normal plain radiograph

- Subacute shoulder pain, suspect instability/labral tear

Natural History

What will happen if a torn rotator cuff is not treated with surgery? Will I lose the use of my arm? Will the tear get larger over time? These are common concerns patients have, and the answers are not always clear. In one study, 40% of patients with a rotator cuff tear showed enlargement of the tear over a 5-year period; however, 20% of those patients had no symptoms. Therefore, less than half of patients with a rotator cuff tear will have tear enlargement, but 80% of patients whose tear enlarges will develop symptoms.7 Tempelhof S, Rupp S, Seil R: Age-related prevalence of rotator cuff tears in asymptomatic shoulders. J Shoulder Elbow Surg 1999;8:296-299. 10471998 These data, however, are based on a small group of patients; it is important to realize that once symptoms develop, progression may have already progressed and enlarged. www.aaos.org/topic/cmf?topic=A00406

Shoulder Elbow Surg. 2001 May-Jun;10(3):199-203

Natural history of asymptomatic rotator cuff tears: a longitudinal analysis of asymptomatic tears detected sonographically

Yamaguchi K, Tetro AM, Blam O, Evanoff BA, Teefey SA, Middleton WD

Shoulder and Elbow Service, Department of Orthopaedic Surgery, Barnes-Jewish Hospital, St Louis 63110, USA

The purpose of this study was to examine longitudinally the natural history of asymptomatic rotator cuff tears over a 5-year period and to assess the risk for development of symptoms and tear progression. Since 1985 through the present, bilateral sonograms were done on all patients. A review of consecutive sonograms done from 1989 to 1994 revealed 58 potential patients with unilateral symptoms who had contralateral asymptomatic rotator cuff tears. Of these 58 patients, 45 (22 men, 23 women) responded to a comprehensive questionnaire and 23 additionally returned for examination and repeat sonographic evaluation. The questionnaire was based on the American Shoulder and Elbow Surgeons score and included several outcome-based questions. A physical examination was performed in a standardized fashion along American Shoulder and Elbow Surgeons guidelines. Repeat high-resolution sonograms were performed by a single experienced radiologist. Primary and repeat sonograms were then reassessed for tear size and location by two independent experienced radiologists blinded to the clinical data results. Twenty-three (51%) of the previously asymptomatic patients became symptomatic over a mean of 2.8 years. The average
Activities of Daily Living score for those remaining asymptomatic was 28.5 of 30 and for those becoming newly symptomatic, 22.9 of 30 (P <.5). The mean visual analog pain score (1 = no pain) for those remaining asymptomatic was 1.1 and for the newly symptomatic patients, 4.0. Of the 23 patients who returned for ultrasound, 9 were asymptomatic and 14 symptomatic. Only 2 of the 9 patients remaining asymptomatic had progression of their tears. Overall, 9 of 23 patients had tear progression. No patient had a decrease in the size of the tear. Our results demonstrate that symptoms can develop in patients with previously asymptomatic rotator cuff tears when seen in the context of a contralateral symptomatic tear. Development of symptoms was associated with a significant increase in pain and decrease in the ability to perform activities of daily living (P <.05). There appears to be a risk for tear size progression over time.

A DESCRIPTION AND THE SOURCE OF THE SCREENING CRITERIA OR OTHER CLINICAL BASIS USED TO MAKE THE DECISION
[ ] ACOEM-AMERICA COLLEGE OF OCCUPATIONAL & ENVIRONMENTAL MEDICINE UM KNOWLEDGEBASE
[ ] AHCPR-AGENCY FOR HEALTHCARE RESEARCH & QUALITY GUIDELINES
[ ] DWC-DIVISION OF WORKERS COMPENSATION POLICIES OR GUIDELINES
[ ] EUROPEAN GUIDELINES FOR MANAGEMENT OF CHRONIC LOW BACK PAIN
[ ] INTERQUAL CRITERIA
[X] MEDICAL JUDGEMENT, CLINICAL EXPERIENCE AND EXPERTISE IN ACCORDANCE WITH ACCEPTED MEDICAL STANDARDS
[ ] MERCY CENTER CONSENSUS CONFERENCE GUIDELINES
[ ] MILLIMAN CARE GUIDELINES
[X] ODG-OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES
[ ] PRESSLEY REED, THE MEDICAL DISABILITY ADVISOR
[ ] TEXAS GUIDELINES FOR CHIROPRACTIC QUALITY ASSURANCE & PRACTICE PARAMETERS
[ ] TEXAS TACADA GUIDELINES
[ ] TMF SCREENING CRITERIA MANUAL
[X] PEER REVIEWED NATIONALLY ACCEPTED MEDICAL LITERATURE (PROVIDE A DESCRIPTION)
Shoulder Elbow Surg. 2001 May-Jun;10(3):199-203
Natural history of asymptomatic rotator cuff tears: a longitudinal analysis of asymptomatic tears detected sonographically
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[ ] OTHER EVIDENCE BASED, SCIENTIFICALLY VALID, OUTCOME FOCUSED GUIDELINES (PROVIDE A DESCRIPTION)