

supraspinatus tendon, suggesting tendinopathy or post-surgical change. However, no rotator cuff tear is identified. The remainder of the muscles and tendons of the rotator cuff are intact with normal signal intensity. The biceps tendon is intact. Subtle SLAP tear is demonstrated. The cartilage is unremarkable.

EMG study of June 25, 2008 was given impressions of borderline conduction velocity of the left median sensory is suggestive of entrapment neuropathy and decreased amplitude of the left ulnar below the elbow is related to trauma and compression neuropathy. NCV findings are significant for decreased amplitude of the ulnar nerve below the elbow and conduction velocity. Median sensory: Normal latency, amplitude and conduction velocity on the right and borderline conduction velocity on the left.

Left shoulder x-ray of May 8, 2008 shows a type II acromion and decreased space at the glenohumeral joint in the neutral position. Left shoulder MRI was performed on May 23, 2008 and given impression of 1. Type II acromion process with mild degree of inferior acromial downsloping and mild degenerative hypertrophy at the left acromioclavicular joint. The inferior spur formation and capsular hypertrophy at the AC joint space efface the subacromial fat, contacting the rotator cuff along the bursal surface at the musculotendinous junction. These findings result in clinical signs and symptoms of anterior shoulder impingement. 2. Mild distal supraspinatus tendinosis. 3. There is no rotator cuff tear or tendon thickening.

Per the medical report of June 19, 2008, left shoulder flexion was to 115 degrees versus 162 degrees on the right. Left shoulder abduction was 102 degrees versus 138 degrees on the right. Left grip strength was noted as weak.

The patient was examined orthopedically on December 1, 2008. He has had bilateral carpal tunnel surgery and left shoulder arthroscopy. He has not had PT for his shoulder. His shoulder became symptomatic again. He has been working in a hospital as a linen tech and in November he felt a heavy pull on his shoulder. He filed a new injury claim. He was seen in an occupational clinic. He was put on light duty. He was terminated for leaving to go the clinic. Left shoulder flexion is to 100 degrees, abduction to 100 degrees, internal rotation to L1 and external rotation to 30 degrees. The MRI is reviewed. Assessment is left shoulder impingement syndrome with complaint of different pain. Recommend MRI arthrogram.

Per a handwritten progress report of April 27, 2009 the patient appears to have persisting left shoulder pain despite two cortisone injections. He is using Lortab. He has a history of radiculopathy. Left shoulder flexion is to 90 degrees and abduction to 100 degrees. He could have some radiculopathy. Most of the notes are illegible. Recommendation is for bilateral upper extremity nerve studies.

Request for EMG with NCV of the bilateral upper extremities was not certified in review on May 1, 2009 with rationale that guidelines indicate cervical EMG findings do not correlate well with cervical radiculopathy and there does not appear to have been any recent change in the patient's neurological status. Additionally, it appears his symptoms are primarily referable to the left shoulder. Peer-to-peer attempts were not successful.

The provider requested reconsideration on May 7, 2009. The patient has complaints of ongoing symptoms and increasing left shoulder pain that is stronger than his previous symptoms. His changed symptoms warrant further study with EMG to assess cervical radiculopathy versus rotator cuff tenelopathy. The patient has associated cervical trapezial pain that has increased in duration and intensity, which warrants further investigation.

Request for reconsideration for EMG with NCV was not certified in review on May 15, 2009 with rationale that the patient appears to have symptoms related to abnormalities documented on previous studies. The medical records failed to clarify a rationale for EMG or why EDS of both upper extremities is needed. A peer-to-peer discussion was attempted but not realized.

Request has been made for an IRO

ANALYSIS AND EXPLANATION OF THE DECISION INCLUDE CLINICAL BASIS, FINDINGS AND CONCLUSIONS USED TO SUPPORT THE DECISION.

The patient has had bilateral carpal tunnel surgery and left shoulder arthroscopy. He was working light duties and became symptomatic in the left shoulder. He was evaluated for left shoulder pain and noted to have restricted range of motion. MR Arthrogram shows degenerative changes of the AC joint, mild thickening and increased signal within the supraspinatus tendon, suggesting tendinopathy or post-surgical change. However, no rotator cuff tear is identified. A subtle SLAP tear is demonstrated. MRI of May 2008 shows spurring and impingement. EMG of June 2008 suggests entrapment of the ulnar nerve. The examination of December 2008 documents shoulder pain and limitation of range of motion. The current examination of April 27, 2009 notes shoulder pain despite two injections and restricted motion. The handwritten report appears to indicate the patient has a history of radiculopathy but this is not clarified or further assessed in the physical examination.

The medical records reviewed fail to document physical examination findings suggestive of a cervical radiculopathy such as altered sensation, diminished motor strength, abnormal reflexes, a positive Spurling's test or complaints in a specific dermatomal pattern. The EMG of 2008 did not note any radiculopathy. X-rays of the cervical spine have not been clarified. Additionally the incident of injury involves a pulling feeling in the shoulder. Additionally, right-sided electrodiagnostic studies would not be indicated. The medical records fail to document a medical necessity for electrodiagnostic studies of the bilateral upper extremities. Therefore, my recommendation is to agree with the previous non-certification of the request for EMG with NCV of the bilateral upper extremities.

The IRO's decision is consistent with the following guidelines:

A DESCRIPTION AND THE SOURCE OF THE SCREENING CRITERIA OR OTHER CLINICAL BASIS USED TO MAKE THE DECISION:

- ACOEM- AMERICAN 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
- MEDICAL JUDGEMENT, CLINICAL EXPERIENCE AND EXPERTISE IN ACCORDANCE WITH ACCEPTED MEDICAL STANDARDS
- MERCY CENTER CONSENSUS CONFERENCE GUIDELINES
- MILLIMAN CARE GUIDELINES
- 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
- PEER REVIEWED NATIONALLY ACCEPTED MEDICAL LITERATURE (PROVIDE A DESCRIPTION)
- OTHER EVIDENCE BASED, SCIENTIFICALLY VALID, OUTCOME

The Official Disability Guidelines - Neck and Upper Back (6-3-2009) EMG:

Recommended (needle, not surface) as an option in selected cases. The American Association of Electrodiagnostic Medicine conducted a review on electrodiagnosis in relation to cervical radiculopathy and concluded that the test was moderately sensitive (50%-71%) and highly specific (65%-85%). (AAEM, 1999) EMG findings may not be predictive of surgical outcome in cervical surgery, and patients may still benefit from surgery even in the absence of EMG findings of nerve root impingement. This is in stark contrast to the lumbar spine where EMG findings have been shown to be highly correlative with symptoms. Positive diagnosis of radiculopathy: Requires the identification of neurogenic abnormalities in two or more muscles that share the same nerve root innervation but differ in their peripheral nerve supply.

Timing: Timing is important as nerve root compression will reflect as positive if active changes are occurring. Changes of denervation develop within the first to third week after compression (fibrillations and positive sharp waves develop first in the paraspinals at 7-10 days and in the limb muscles at 2-3 weeks), and reinnervation is found at about 3-6 months
Acute findings: Identification of fibrillation potentials in denervated muscles with normal motor unit action potentials (usually within 6 months of symptoms: may disappear within 6 weeks in the paraspinals and persist for up to 1-2 years in distal limbs).
Chronic findings: Findings of motor unit action potentials with increased duration and phases that represent reinnervation. With time these become broad, large and polyphasic and may persist for years.

Anatomy: The test primarily evaluates ventral (anterior) root function (motor) and may be negative if there is dorsal root compression (sensory) only. Only C4-8 and T1 in the neck region have limb representation that can be tested electrodiagnostically. The anatomic basis for this lies in the fact that the cervical nerve roots have a motor and a sensory component. It is possible to impinge the sensory component with a herniated disc or bone spur and not affect the motor component. As a result, the patient may report radicular pain that correlates to the MRI without having EMG evidence of motor

loss.

Paraspinal fibrillation potentials: May be seen in normal individuals and are nonspecific for etiology. The presence of these alone is insufficient to make a diagnosis of radiculopathy and they may be absent when there is a diagnosis of radiculopathy secondary to sampling error, timing, or because they were spared. They may support a diagnosis of radiculopathy when corresponding abnormalities are present in the limb muscles.

Indications when particularly helpful: EMG may be helpful for patients with double crush phenomenon, in particular, when there is evidence of possible metabolic pathology such as neuropathy secondary to diabetes or thyroid disease, or evidence of peripheral compression such as carpal tunnel syndrome.

H-reflex: Technically difficult to perform in the upper extremity but can be derived from the median nerve. The test is not specific for etiology and may be difficult to obtain in obese patients or those older than 60 years of age.

(Negrin, 1991) (Alrawi, 2006) (Ashkan, 2002) (Nardin, 1999) (Tsao, 2007) See Discectomy-laminectomy-laminoplasty. (Surface EMG and F-wave tests are not very specific and therefore are not recommended. For more information on surface EMG, see the Low Back Chapter.)

Nerve Conduction Studies:

Not recommended. There is minimal justification for performing nerve conduction studies when a patient is presumed to have symptoms on the basis of radiculopathy. (Utah, 2006) See also the Carpal Tunnel Syndrome Chapter for more details on NCS. Studies have not shown portable nerve conduction devices to be effective.