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DATE OF REVIEW: 12/22/2010

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:

Electromyography and Nerve Conduction

A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION:

This case was reviewed by a Texas licensed MD, specializing in Orthopedic Surgery. The physician advisor has the following additional qualifications, if applicable:

ABMS Orthopaedic Surgery

REVIEW OUTCOME:

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

Upheld

Health Care Service(s) in Dispute	CPT Codes	Date of Service(s)	Outcome of Independent Review
Electromyography and Nerve Conduction	95900, 95903, 95904, 95934, 95861	-	Upheld

INFORMATION PROVIDED TO THE IRO FOR REVIEW:

PATIENT CLINICAL HISTORY (SUMMARY):

The patient is suffered a straining injury to the lumbar spines and right shoulder attempting to on xx/xx/xx. Her initial evaluation and treatment was focused on the lumbar spine painful complaints. Ultimately, lumbar spine painful complaints were diminished by treatment including medication, activity modification and physical therapy. Right shoulder complaints of pain and stiffness persisted. MRI scan of the shoulder suggested degenerative disease of the AC joint with rotator cuff impingement syndrome. The patient underwent arthroscopic subacromial decompression, distal clavicle partial resection, and labral debridement on 10/01/10. There is mention of some complaint of post operative numbness and tingling in digits of the right hand; however, no neurological findings are documented as abnormal. The current request is for preauthorization of EMG/NCS of the right shoulder. This request has been considered and denied; reconsidered and denied. This is an IRO request for Electromyography and Nerve Conduction.

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

1. Is the performance of EMG/NCstudy of the right shoulder medically necessary and appropriate?

No. The performance of electrodiagnostic studies in this patient are neither medically necessary, nor appropriate. There are no physical findings suggestive of radiculopathy. The evaluation of cervical spine is inadequate to justify the conclusion that a cervical spine injury occurred at the time of this patient's injury

xx/xx/xxxx. There are no findings suggesting local neurological abnormalities as a result of the surgery of 10/01/10. Applicable passages from the ODG, 2010, shoulder chapter and neck and upper back chapter are cited above. There is no documented finding that would suggest that this patient is suffering a neurological compromise. The prior denials were appropriate and should be upheld. Medical necessity for electrodiagnostic studies has not been established.

Criteria for Electrodiagnostic Testing for Neurogenic Thoracic Outlet Syndrome:All 3 of the following criteria must be found in the affected limb:

1. Amplitude of median motor response is reduced, *And*
2. Amplitude of ulnar sensory response is reduced, *And*
3. Needle exam shows denervation in muscles innervated by lower trunk of brachial plexus.

Details Regarding the Above Noted Criteria:

Criterion #1: Using standard surface electrodes with active pick up over the abductor pollicis brevis, the amplitude of the median motor response on the affected side should be less than 50% of that obtained on the unaffected side.

Criterion #2: Using standard ring electrodes on the fifth digit, the ulnar sensory amplitude on the affected side should be less than 60% of the amplitude on the unaffected side.

Criterion #3: a) Muscles innervated by the lower trunk of the brachial plexus include the abductor pollicis brevis, pronator quadratus, flexor pollicis longus, first dorsal interosseous, abductor digiti minimi, flexor carpi ulnaris, extensor pollicis brevis, and extensor indicis; b) EMG abnormalities in TOS are most commonly seen in median and ulnar innervated intrinsic muscles of the hand -- especially the abductor pollicis brevis; c) Positive waves and fibrillations may be found, but chronic denervation changes are more common -- that is, increased motor unit amplitude, increased motor unit duration, and decreased recruitment with rapid firing of motor units are activated.

Notes: The electromyographer should rule out neuropathic conditions that might mimic TOS, specifically cervical radiculopathy, carpal tunnel syndrome, ulnar neuropathy and polyneuropathy. ([Washington, 2002](#))

Minimum Standards for electrodiagnostic studies: The American Association of Neuromuscular & Electrodiagnostic Medicine (AANEM) recommends the following minimum standards:

- (1) EDX testing should be medically indicated.
- (2) Testing should be performed using EDX equipment that provides assessment of all parameters of the recorded signals. Studies performed with devices designed only for "screening purposes" rather than diagnosis are not acceptable.
- (3) The number of tests performed should be the minimum needed to establish an accurate diagnosis.
- (4) NCSs (Nerve conduction studies) should be either (a) performed directly by a physician or (b) performed by a trained individual under the direct supervision of a physician. Direct supervision means that the physician is in close physical proximity to the EDX laboratory while testing is underway, is immediately available to provide the trained individual with assistance and direction, and is responsible for selecting the appropriate NCSs to be performed.
- (5) EMGs (Electromyography - needle not surface) must be performed by a physician specially trained in electrodiagnostic medicine, as these tests are simultaneously performed and interpreted.
- (6) It is appropriate for only 1 attending physician to perform or supervise all of the components of the electrodiagnostic testing (e.g., history taking, physical evaluation, supervision and/or performance of the electrodiagnostic test, and interpretation) for a given patient and for all the testing to occur on the same date of service. The reporting of NCS and EMG study results should be integrated into a unifying diagnostic impression.

(7) In contrast, dissociation of NCS and EMG results into separate reports is inappropriate unless specifically explained by the physician. Performance and/or interpretation of NCSs separately from that of the needle EMG component of the test should clearly be the exception (e.g. when testing an acute nerve injury) rather than an established practice pattern for a given practitioner. ([AANEM, 2009](#))

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 FOCUSED GUIDELINES (PROVIDE A DESCRIPTION)

TEXAS DEPARTMENT OF INSURANCE COMPLAINT PROCESS: The Texas Department of Insurance requires Independent Review Organizations to be licensed to perform Independent Review in Texas. To contact the Texas Department of Insurance regarding any complaint, you may call or write the Texas Department of Insurance. The telephone number is 1-800-578-4677 or in writing at: Texas Department of Insurance, PO Box 149104 Austin TX, 78714. In accordance with Rule 102.4(h), a copy of this Independent Review Organization (IRO) Decision was sent to the carrier, the requestor and claimant via facsimile or U.S. Postal Service from the office of the IRO on .