

# Wren Systems

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## NOTICE OF INDEPENDENT REVIEW DECISION

**DATE OF REVIEW:** Oct/19/2010

**IRO CASE #:**

**DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:**  
REPEAT EMG/NCV RT UPPER EXTREMITY

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

**REVIEW OUTCOME:**

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

- Upheld (Agree)
- Overturned (Disagree)
- Partially Overturned (Agree in part/Disagree in part)

### INFORMATION PROVIDED TO THE IRO FOR REVIEW

EMG/NCV 02/21/07  
Dr. 08/19/10  
Request for EMG/NCV 08/20/10  
Dr. 08/23/10  
09/01/10, 09/10/10  
Official Disability Guidelines Neck and Upper back

### PATIENT CLINICAL HISTORY SUMMARY

The claimant is a male injured on xx/xx/xx. He reportedly injured his neck and right shoulder with subsequent right shoulder surgery, anterior cervical discectomy fusion (ACDF) C5-6 at an unknown date, and C5-6 hardware removal and ACDF C6-7 on 04/16/07. There was right shoulder surgery noted in the records; the date was not provided. An EMG/NCV was last performed on 02/21/07. The claimant was seen on 08/19/10 by Dr.. There was complaint of a tremor in the right upper extremity with the possibility of Parkinson's. On examination, the right hand grip was weak and there were right upper extremity tremors with slightly increased muscle tone. Sensory was normal and reflexes were 1 plus throughout. Dr. felt the claimant did not have Parkinson's, but a right shoulder muscle imbalance from the right shoulder surgery. He went on to note that the claimant had been referred for EMG/NCV to better delineate a level of cervical radiculopathy.

### ANALYSIS AND EXPLANATION OF THE DECISION INCLUDING CLINICAL BASIS, FINDINGS AND CONCLUSIONS USED TO SUPPORT THE DECISION

The request for a repeat EMG/NCV cannot be recommended based on the records provided for review. Although there are tremors noted in the right upper extremity, it is unclear how

they are related to the neck or the shoulder as there are no clinical notes prior to or after those surgeries. Therefore, it is unclear when the symptoms started or what treatment has been provided. There is no indication whether the symptoms are new or evolving. While the requesting physician has recommended the studies for cervical radiculopathy, there is no evidence of a specific nerve root deficit on the examination provided. In addition, Official Disability Guidelines Neck and Upper Back do not recommend an NCS as a study that is supported to determine the presence of radiculopathy. Information in this file is insufficient to support the medical necessity for EMG/NCV. The reviewer finds that medical necessity does not exist at this time for REPEAT EMG/NCV RT UPPER EXTREMITY.

Official Disability Guidelines 2010. 15th Edition, Neck and Upper Back Chapter –

#### Electromyography (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 month

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 year

#### Nerve conduction studies (NCS)

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.

**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

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)