

# AccuReview

An Independent Review Organization  
569 TM West Parkway  
West, TX 76691  
Phone (254) 640-1738  
Fax (888) 492-8305

## Notice of Independent Review Decision

**[Date notice sent to all parties]:** June 16, 2013 Amended June 18, 2013

### **IRO CASE #:**

### **DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:**

EMG/NCS bilateral upper extremity 99243, 95885, 95886, and 95910

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

This physician is Board Certified Orthopedic Surgeon with over 40 years of experience.

### **REVIEW OUTCOME:**

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

Upheld (Agree)

Provide a description of the review outcome that clearly states whether medical necessity exists for each of the health care services in dispute.

### **INFORMATION PROVIDED TO THE IRO FOR REVIEW:**

01-22-13: Follow up visit  
03-05-13: Follow up visit  
03-18-13: Follow up visit  
04-08-13: Referral Prescription  
04-12-13: UR performed  
04-15-13: MRI Cervical Spine W/O  
04-23-13: Request for Reconsideration  
05-01-13: Acknowledgement of Request for Reconsideration/Appeal  
05-17-13: UR performed

### **PATIENT CLINICAL HISTORY [SUMMARY]:**

The claimant is a male who reported an injury on xx/xx/xx injuring his neck when he fell on two occasions. He is status post C5-6 and C6-7 anterior cervical

discectomy and fusion with posterior instrumentation for pseudarthrosis on 11/19/2009 which is solid.

01-22-13: Follow up visit. The claimant presented with left greater than right trapezial pain and chronic neck pain. He complains of a lot of midline neck and trapezial pain and requires an occasional Medrol Dosepak for flare-up of pain. He has known spondylosis, facet disease, as well as protrusions at C3-4 and C4-5. He had a medial branch block at C3-4, which he states did not help. X-rays show no motion on flexion and extension. He is currently taking Hydrocodone that decreases the pain from 8 to 6 consistently and uses Biofreeze gel as well, Robaxin PRN for flare-ups. Examination: Claimant remains diffusely tender in the posterior cervical area from C3 to C7 and continues to have a moderate amount of spasm in the upper trapezial area and paraspinals, left greater than right. There is hypesthesia in the trapezial area and C3 and C4 distributions, left greater than right. ROM of the cervical spine reveals forward flexion of 30 degrees, extension 10 degrees, and rotation to the right 40 degrees and left 45 degrees producing posterior cervical pain. Deep tendon reflexes are absent in the left biceps and triceps, otherwise 1 and symmetric. Impression: 1. Cervical facet syndrome at C3-4 and C4-5 with disc protrusions and spondylosis. 2. Trapezial myofascial pain syndrome with trigger points. 3. Status post C5-6 and C6-7 SCDF with subsequent posterior fusion for pseudoarthrosis, which is now solid. Plan: Trial of Lyrica 100 mg BID and then gradually increase to TID as tolerated.

03-05-13: Follow up visit. The claimant presented with bilateral trapezial pain, right worse than left. Examination is unchanged. Impression: 1. Cervical facet syndrome at C3-4 and C4-5 with disc protrusions and spondylosis. 2. Trapezial myofascial pain syndrome with trigger points. 3. Status post C5-6 and C6-7 SCDF with subsequent posterior fusion for pseudoarthrosis, which is now solid. 4. Cervical radiculitis right greater than left. Plan: X-rays of cervical spine series with flexion and extension as the claimant has been feeling popping and cracking in the neck which is unusual. Trial of Ultracet one to two QID PRN pain. Follow up in one week. Claimant will likely require a myelogram with Post myelogram CT to accurately check the status of the fusion and to rule out nerve root compression as he states his radicular symptoms are worsening.

03-18-13: Follow up visit. Claimant continued to have complaints of trapezial pain. Examination: Tenderness to palpation of posterior cervical spine was noted with ROM to cervical spine to reveal flexion 40 degrees, extension 35 degrees, and rotation of 60 degrees to left and to the right. Reflexes are diffusely hypoactive in the upper and lower extremities likely related to his diabetes. Impression: 1. Neck and bilateral trapezial pain. 2. Cervical spondylosis C3-4, C4-5. 3. Status post C5-6 and C6-7 ACDF 9/11/08. 4. Status post C5-6 and C6-7 posterior cervical fusion 11/19/09. Recommendations: Recommend an EMG of the upper extremities to evaluate his upper extremity symptoms as well as MRI scan of the cervical spine to rule out cervical stenosis of the C3-4, C4-5 levels. Refilled Talacen, Meloxicam and Gabapentin.

04-12-13: UR performed. Reason for denial: The request is not supported at this time. The guidelines state that while cervical electrodiagnostic studies are not necessary to demonstrate cervical radiculopathy, but suggested to confirm brachial plexus abnormality or some problems other than cervical radiculopathy. The claimant has no significant physical examination findings of radiculopathy including muscular weakness, muscular atrophy, abnormal reflex, or decreased sensation in a dermatomal distribution and no recent documentation of conservative treatment failure for the subjective reports of numbness including physical examination findings noting deficit concerning radiculopathy, the request cannot be supported. The request for EMG/NCS of the bilateral upper extremities is not certified.

04-15-13: MRI Cervical Spine W/O. Impression: Mild broad-based disk bulge at C4-5 with mild bilateral axillary recess narrowing. Postoperative changes from anterior cervical discectomy and fusion as well as posterior spinal fusion extending from C5 through C7.

04-23-13: Request for Reconsideration. The claimant is being followed for left greater than right trapezial pain and chronic neck pain that has recently worsened. On his 1/22/13 visit there was hypesthesia in the C3 and C4 distributions on the left. Deep tendon reflexes were absent in the left biceps and triceps; otherwise 1 and symmetric on that exam. Electrophysiological studies of the cervical spine were ordered to rule out C3, C4 radiculopathy. Appeal is being made as the claimant's symptoms are worsening.

05-17-13: UR performed. Reason for denial: The request for appeal of EMG.NCS of the bilateral upper extremities (99243, 95885, 95886, and 95910) is non-certified. The request was previously denied due to lack of documentation indicating trial and failure of conservative treatment and documentation lacking significant physical examination findings noting deficits concerning radiculopathy. The claimant presents with MRI findings of a mild broad-based disc bulge at C4-5 with mild bilaterally auxiliary recess narrowing and recent examination findings of tenderness to palpation of the posterior cervical spine with 5/5 strength in all upper extremity muscle groups, hypoactive reflexes, intact sensory examination to pinprick sensation, and negative Tinel's sign in the bilateral wrists and bilateral ulnar groove. ODG recommend, in reference to electromyography, cervical electrodiagnostic studies are not recommended to demonstrate radiculopathy and have been suggested to confirm a brachial plexus abnormality or other problems related to cervical radiculopathy. Furthermore, ODG indicate, in reference to nerve conduction studies, that the studies are not recommended to demonstrate radiculopathy if radiculopathy has been already clearly identified by electromyography and obvious clinical signs; however, is recommended the electromyography is unclear to differentiate radiculopathy from other neuropathies or non-neuropathic processes if other diagnoses may be likely based on the clinical examination; there is minimal justification for performing nerve conduction studies when a patient is already presumed to have symptoms on the basis of radiculopathy. Although the claimant continues to complain of neck pain that may be related to cervical spondylosis that has gradually worsened over time, the

guidelines recommendations of electrodiagnostic studies as an unnecessary intervention to demonstrate cervical radiculopathy, especially if radiculopathy has already been clearly identified, precludes the authorization of nerve conduction study and electromyography at this time. After a conversation with Tammy Orr, NP, she stated that x-rays were no longer needed and EMG/NCS are being ordered to confirm diagnosis of radiculopathy, due to the claimant having some clinical signs and some findings on the MRI that point to this as a diagnosis. However, the claimant is noted to have clinically obvious findings of radiculopathy, electrodiagnostic studies are not supported.

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

The previous adverse determinations are agreed upon and upheld. Per ODG guidelines, an EMG is not necessary or needed to diagnose cervical radiculopathy, therefore the results of an EMG would not change recommended treatment or diagnosis based on history or neurological exam. There is minimal justification for performing nerve conduction studies when a patient is already presumed to have symptoms on the basis of radiculopathy. Therefore, after review of medical records and documentation provided, the request for EMG/NCS bilateral upper extremity 99243, 95885, 95886, and 95910 is not medically necessary and denied.

**Per ODG:**

<p>Electromyography (EMG)</p>	<p>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%). (<a href="#">AAEM, 1999</a>) 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.</p> <p><i>Positive diagnosis of radiculopathy:</i> 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.</p> <p><i>Timing:</i> 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</p> <p><i>Acute findings:</i> 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).</p> <p><i>Chronic findings:</i> 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.</p> <p><i>Anatomy:</i> The test primarily evaluates ventral (anterior) root function (motor) and</p>
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	<p>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.</p> <p><i>Paraspinal fibrillation potentials:</i> 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.</p> <p><i>Indications when particularly helpful:</i> 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.</p> <p><i>H-reflex:</i> 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.</p> <p>(<a href="#">Negrin, 1991</a>) (<a href="#">Alrawi, 2006</a>) (<a href="#">Ashkan, 2002</a>) (<a href="#">Nardin, 1999</a>) (<a href="#">Tsao, 2007</a>) See <a href="#">Discectomy-laminectomy-laminoplasty</a>. (Surface EMG and F-wave tests are not very specific and therefore are not recommended. For more information on surface EMG, see the <a href="#">Low Back Chapter</a>.)</p> <p>While cervical electrodiagnostic studies are not necessary to demonstrate a cervical radiculopathy, they have been suggested to confirm a brachial plexus abnormality or some problem other than a cervical radiculopathy, but these studies can result in unnecessary over treatment. (<a href="#">Plastaras, 2011</a>) (<a href="#">Lo, 2011</a>) (<a href="#">Fuglsang-Frederiksen, 2011</a>)</p>
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Nerve conduction studies (NCS)	<p>Not recommended to demonstrate radiculopathy if radiculopathy has already been clearly identified by EMG and obvious clinical signs, but recommended if the EMG is not clearly radiculopathy or clearly negative, or to differentiate radiculopathy from other neuropathies or non-neuropathic processes if other diagnoses may be likely based on the clinical exam. There is minimal justification for performing nerve conduction studies when a patient is already presumed to have symptoms on the basis of radiculopathy. (<a href="#">Utah, 2006</a>) (<a href="#">Lin, 2013</a>) While cervical electrodiagnostic studies are not necessary to demonstrate a cervical radiculopathy, they have been suggested to confirm a brachial plexus abnormality, diabetic neuropathy, or some problem other than a cervical radiculopathy, with caution that these studies can result in unnecessary over treatment. (<a href="#">Emad, 2010</a>) (<a href="#">Plastaras, 2011</a>) (<a href="#">Lo, 2011</a>) (<a href="#">Fuglsang-Frederiksen, 2011</a>) See also the <a href="#">Shoulder Chapter</a>, where nerve conduction studies are recommended for the diagnosis of TOS (thoracic outlet syndrome). Also see the <a href="#">Carpal Tunnel Syndrome Chapter</a> for more details on NCS. Studies have not shown portable nerve conduction devices to be effective.</p>
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**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)**