CLAIMS EVAL

Utilization Review and
Peer Review Services

Notice of Independent Review Decision-WC

DATE OF REVIEW: 1-12-11

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE

EMG/NCV Bilateral Upper and Lower Extremities

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

American Board of Physical Medicine and Rehabilitation

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)

Provide a description of the review outcome that clearly states whether or not medical necessity exists for each of the health care services in dispute.

INFORMATION PROVIDED TO THE IRO FOR REVIEW

- DC., office visits on 8-25-10, 11-10-10, 11-18-10, and 12-9-10.
- 9-23-10 X-rays of the cervical spine, lumbar spine, right and left shoulder and chest interpreted by DC.
- 10-2-10 MRI of the lumbar spine interpreted by MD.
- DC., chiropractic therapy on 10-12-10, 10-13-10.
- 10-27-10 MD., performed a Designated Doctor Evaluation.
- 11-23-10 DO., performed a Utilization Review.
- 12-6-10 DC., performed a Utilization Review.

PATIENT CLINICAL HISTORY [SUMMARY]:

DC., performed an initial evaluation. He noted the claimant was working on xx/xx/xx when a pipe exploded. The claimant reported asbestos flow everywhere and it was very hard to see. The claimant reported that a pipe was lying on the ground and the claimant tripped over the pipe and fell onto the ground. The claimant was sent to an onsite clinic for evaluation. The claimant reported no x-rays were taken and he was returned to work full duty status. He worked an additional two weeks with increasing pain complaint. The claimant reported paint to the cervical, thoracic, lumbar and bilateral shoulder regions. The evaluator recommended MRI of the cervical spine and lumbar spine, blood work, PFT, x-rays of the cervical, lumbar, bilateral shoulder and chest regions, referral for medical management and authorization for physical medicine and rehabilitation.

9-23-10 X-rays of the cervical spine was unremarkable. X-rays of the lumbar spine shows decrease in lumbar lordotic curvature. X-rays of the left shoulder and right shoulder was within normal limits. Chest x-rays shows fields are clear and intact and negative for infiltrate.

10-2-10 MRI of the lumbar spine interpreted by, MD., showed straightening of the lumbar lordotic curve consistent with muscle spasms. At L4-L5, there is a broad based posterior protrusion. Subligamentous disc herniation measuring 2-3.3 mm in AP diameter touching the thecal sac causing slight to moderate inferior neural foraminal stenosis bilaterally.

DC., chiropractic therapy on 10-12-10, 10-13-10.

10-27-10, MD., performed a Designated Doctor Evaluation. He certified the claimant had not reached MMI and estimated 1-27-11 as the date of MMI. He reported the claimant would benefit from referral to an orthopedist for evaluation of the lumbar injury as well as addressing his cervical and left shoulder complaints. He would also benefit from ENT evaluation of constant tinnitus. The claimant was returned to work with restrictions. His claim is being in dispute for orthopedic evaluation, ENT evaluator and PFT. The evaluator reported the claimant is pending evaluation with an orthopedist, pending ENT evaluator, pending results of the Designated Doctor Evaluation and BRC, pending blood work, pending PFT, referral for EMG of the upper and lower extremities.

11-10-10 DC., the claimant reports his condition is worse with increasing stiffness of the cervical, lumbar and most notably left shoulder regions. The evaluator reported the claimant is pending evaluation with an orthopedist, pending ENT evaluation, Designated Doctor Evaluation and BRC, pending blood work, pending PFT and EMG/NCS of the upper and lower extremities.

11-18-10 DC., provided a request for reconsideration. The evaluator reported that Dr. had denied the request for PFT. It appears he had diagnosed the claimant with exposure to a load noise. This is incorrect. The correct diagnosis is lumbar IVD, cervical strain/sprain versus IVD, shoulder sprain/strain versus internal derangement, asbestos exposure and myospasms. The claimant was involved in an explosion of a steam line that was heavily insulated with asbestos. As the pipe exploded, the claimant fell and breathed in excessive amounts of asbestos. The evaluator did not understood why the peer was sent to a chiropractor to review for a pulmonary condition.

11-23-10 DO., performed a Utilization Review. It was his opinion that an EMG/NCS in the bilateral upper and lower extremities is iron-certified. The patient complains of worsening stiffness in the neck, left shoulder, and lumbar region. Guidelines recommend electrodiagnostic testing to obtain unequivocal evidence of radiculopathy. After one month of conservative therapy. The documentation submitted for review does not indicate the patient's failed one month of conservative therapy to include physical therapy, medication management, activity modifications, muscle relaxants, and

NSAIDS. As such, the request for bilateral upper and lower extremity EMG/NCV is non-certified.

12-6-10 DC., performed a Utilization Review. It was his opinion that there is no clinical information pertaining to this request. Additionally, there was no logical relationship between the exposure to loud noise and the request for an EMG. He was unable to speak with the treating doctor regarding this request.

12-9-10 DC., the claimant reports having increasing difficulty utilizing his left shoulder. He reports radicular pain in the left arm and left leg is becoming worse. The claimant reports ongoing cervical and lumbar pain that travels down the left arm and left leg in addition to the left shoulder pain. The claimant was evaluated by a Designated Doctor on 11-5-10. A BRC hearing was held on 11-9-10 and they were unable to reach a decision on his case. A second BRC is scheduled for 1-4-11. On exam, the claimant has positive Minor's sign. He has severe trigger points in the left upper extremity. Neurological exam shows manual muscle testing +5/5, sensory exam shows paresthesia in the C6-C8 and L4-S1 dermatomes on the left. DTR are +2 in the bilateral upper extremities. The claimant has positive Kemps and SLR resting. The evaluator reported the claimant is pending evaluation with ortho for recommendations, evaluation with ENT, blood work, PFT, EMG/NCS of the upper and lower extremities.

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

Based upon the extensive medical documentation presently available for review, medical necessity for an electro diagnostic assessment of the bilateral upper extremities and bilateral lower extremities is not presently indicated. A lumbar MRI obtained on 10/2/10 revealed findings consistent with the presence of a disc protrusion at the L4-L5 disc level. The records available for review do not identify the presence of a definitive neurological deficit to be present on physical examination in the bilateral upper extremities and bilateral lower extremities. Cervical spine x-rays accomplished on 9/23/10 revealed findings consistent with the presence of osteophyte formation at the C5 vertebral level. The records available for review do not document the presence of any symptoms referable to the right upper extremity or the right lower extremity. Based upon the medical documentation presently available for review, Official Disability Guidelines would not support a medical necessity for a bilateral upper extremity and lower extremity electro diagnostic assessment as requested when there are no documented symptoms referable to the right upper extremity and the right lower extremity. Additionally, the above noted reference does not support a medical necessity for nerve conduction velocity testing when an electro diagnostic assessment is obtained to evaluate an individual with respect to the medical condition of a cervical radiculopathy or a lumbar radiculopathy. There are documented symptoms of cervical pain, and the records available for review document that the only diagnostic assessment accomplished with respect to the cervical spine are plain x-rays of the cervical spine. An electro diagnostic assessment is not considered a first line test in the assessment of

an individual with a diagnosis of a cervical radiculopathy or a lumbar radiculopathy. As a result, at the present time, per criteria set forth by the above noted reference, medical necessity for an EMG/NCV of the bilateral upper extremities and bilateral lower extremities is not medically indicated.

See also Nerve conduction studies (NCS) and EMGs (EMG). Electrodiagnostic studies should be performed by appropriately trained Physical Medicine and Rehabilitation or Neurology physicians. For more information and references, see the Carpal Tunnel Syndrome Chapter. Below are the Minimum Standards from that chapter.

ODG-TWC, last update 12-17-10 Occupational Disorders of the Low Back – electromyography: Recommended as an option (needle, not surface). EMGs (electromyography) may be useful to obtain unequivocal evidence of radiculopathy, after 1-month conservative therapy, but EMG's are not necessary if radiculopathy is already clinically obvious. (Bigos, 1999) (Ortiz-Corredor, 2003) (Haig, 2005) No correlation was found between intraoperative EMG findings and immediate postoperative pain, but intraoperative spinal cord monitoring is becoming more common and there may be benefit in surgery with major corrective anatomic intervention like fracture or scoliosis or fusion where there is significant stenosis. (Dimopoulos, 2004) EMG's may be required by the AMA Guides for an impairment rating of radiculopathy. (AMA, 2001) (Note: Needle EMG and H-reflex tests are recommended, but Surface EMG and F-wave tests are not very specific and therefore are not recommended.

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. EMGs (electromyography) are recommended as an option (needle, not surface) to obtain unequivocal evidence of radiculopathy, after 1-month conservative therapy, but EMG's are not necessary if radiculopathy is already clinically obvious.

ODG-TWC, last update 11-29-10 Occupational Disorders of the Neck and Upper Back – Electrodiagnostic testing: 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 reinervation is found at about 3-6 months
Acute findings: Identification of fibrillation potentials in dennervated 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.

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.

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:** The American Association of Neuromuscular & Electrodiagnostic Medicine (AANEM)