CASEREVIEW

8017 Sitka Street
Fort Worth, TX 76137
Phone: 817-226-6328
Fax: 817-612-6558

Notice of Independent Review Decision

July 12, 2015

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:
C5-6, C6-7 Anterior Cervical Discectomy & Fusion with Cervical/Thoracic Collar with Two Day Inpatient Stay

A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION:
This physician is a Board Certified Orthopedic Surgeon with over 13 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.

PATIENT CLINICAL HISTORY [SUMMARY]:
This claimant is a xx year old who sustained injury on xx/xx/xx when she lost balance while walking down the stairs. She fell down 7 steps onto her back, hitting her head and back and hearing "bones cracking". She was initially seen with neck pain, back pain, and left elbow pain. She was prescribed Ibuprofen 800mg, Baclofen at night and PT 3x/wx2weeks. She then sought treatment at for a hip sprain, cervical strain, lumbar strain and elbow strain. She was prescribed Hydrocodone-Acetaminophen 10-325 mg and Ibuprofen 800mg and Physical therapy. Cyclobenzaprine HCL 10 mg and Naproxen 500 mg were also prescribed during her course of treatment. The initial course of PT (8/12 sessions) focused on her lumbar symptoms with little relief. She has a past medical history positive for back surgery in 1990, a L4-5, L5-S1 fusion.

On April 15, 2014, Lumbar MRI, Impression: 1. Posterior and rightward disc herniation measuring approximately 7 mm at L2-3 creating moderate central spinal canal and right lateral recess stenosis. 2. Posterior disc herniation measuring approximately 6mm at L3-4 with subtle left lateralization creating moderate central spinal canal stenosis. 3. Marked facet degeneration at L3-4.

On April 28, 2014, the claimant presented for continued lumbar pain and neck pain with numbness down both arms that started Saturday. She did not relate any new injuries but stated that she spontaneously developed the symptoms and assumed it was related to her injury. explained that although she has been having persistent pain that it would be very unlikely that numbness would show up at this late date related to her injury but that the symptoms were

concerning and she shoulder follow up with her personal physician. Cervical MRI was ordered but the claimant was warned the insurance may not authorize.

On May 8, 2014, Cervical MRI, Impression: 1. Disc extrusion/herniation C6-7 measures 6.1mm with herniations at C5-6 measuring 3.9 mm and C3-4 measuring 3 mm and C2-3 measuring 3 mm. 2. Ligamentum flavum hypertrophy with mild to moderate spinal stenosis at C6-7. 3. Uncovertebral and facet hypertrophy with neural foraminal narrowing on the right at C5-6. 4. Chiari I spectrum disorder. 5. Atlantoaxial thickening with impingement on the foramen magnum.

On May 9, 2014, the claimant presented in follow-up and indicated that the insurance had denied all treatment recommended. Further PT was denied and she was currently out of her pain meds and having a difficult time sleeping at night. On examination of her cervical spine there was no tenderness and ROM full. Upper extremity reflexes were symmetric bilaterally and sensation was intact to light touch. Plan: Start Cyclobenzaprin HCL 10 mg and referral to pain management.

On May 30, 2014, the claimant presented for pain, numbness, and tingling radiating down her arm. She had a positive Spurling sign. She indicated when she takes a deep breath or when she coughs, her pain is worse. Nothing in particular was reported to help with the pain. Plan: Epidural steroid injection and an EMG/NCV of the UE.

On June 13, 2014, EMG/NCV Study Impression: 1. No signs of acute or chronic Motor Radiculopathy of the bilateral upper extremities by electrodiagnostic testing in a C5 through T1 myotomal distribution. 2. No signs of neuropathy of the bilateral upper extremities by electrodiagnostic testing.

On August 19, 2014, performed a Cervical Epidural Steroid Injection on the right at C7-T1.

On September 5, 2014, the claimant presented for follow up. She reported no relief from the ESI. She still had complaints of neck pain, shoulder pain and migraine headaches that were getting worse. She had numbness and tingling running down her arms into her hands. She described it as a constant pain rated 9/10. At night she stated her arms felt like dead weights. Pain is increased with activities and decreased with Tramadol. ADLs have been limited. stated she had failed ESI and PT and wanted to refer her for a second opinion with regard to her extruded disk at C6-7 and her disk herniations at C3-4 and C5-6. Tramadol was stopped and she was started on Tylenol No 3, then after a week she can start Cymbalta 30 mg.

On October 30, 2014, the claimant presented for continued back and neck pain between the shoulder blades, lower back and tailbone. She reported muscle weakness and numbness in both arms with tingling in her legs into her ankles. She described the pain as tingling, aching, sharp, cramping, and stabbing in the upper and lower extremities. She has had PT for a couple of months without relief. She reported exercises twice a week and had been on medication without any relief. On physical examination her motor was intact at 4+ to 5/5 in all myotomes. Sensation was intact in all dermatomes. Significant hypertonicity in the paracervical, parascapular, and paraspinous muscles with multiple tender points. Hypertonicity in the cervical and lumbar spine. Decreased ROM secondary to pain in the cervical and lumbar spine. Somewhat positive Hoffman's sign, but this was subjective on the right extremity. No abnormal reflexes. No upper motor neuron type signs. Assessment: Cervical and lumbar strain, cervicalgia and lumbalgia, chronic pain, cervical and lumbar radiculopathy, cervical and lumbar stenosis, cervical and lumbar herniation, previous spinal fusion. Plan: Lumbar decompression at L2-3 and L3-4 since that is worse than the cervical region and the cervical spine can be dealt with after the lumbar spine.

On January 7, 2015, Operative Report. Procedures: 1. Extreme lateral interbody fusion, L2-3, L3-4. 2. Posterior spinal fusion percutaneous, L2-3, L3-4. 3. Neural monitoring by national neuromonitoring.

On April 28, 2015, the claimant presented reporting excellent results from the L3-L4 and L4-5 XLIF with percutaneous fixation. She still complained of upper extremity radiculopathy which had worsened. On examination she remained 5/5 in all myotomes. Sensation in all dermatomes was decreased in bilateral shoulders as well as bilateral C6 and C7 dermatomes. Negative Hoffman's, Spurling's, and Lhermitte's tests. Significant decrease in ROM of the cervical spine. Significant hypertonicity in the paracervical musculature. Plan: Repeat cervical MRI.

On May 11, 2015, MRI of the Cervical Spine, Impression: 1. Moderate central canal stenosis with moderate left lateral recess and bilateral neural foraminal narrowing at C6-7 as a result of mild degenerative changes and a mild diffuse disc bulge with a left paracentral prominent component, which impresses upon the ventral aspect of the spinal cord. Involvement of the bilateral C7 and transiting left C8 nerve roots is possible. 2. Mild central canal stenosis and bilateral neural foraminal narrowing at C5-6 as a result of mild degenerative changes and mild diffuse disc bulge. 3. Minimal degenerative changes and annular bulges at C3-4 and C4-5 without significant canal stenosis or neural foraminal narrowing.

On May 21, 2015, the claimant presented with continued pain, numbness, and tingling in bilateral upper extremities, right worse than left. On examination there was negative Hoffman's, Spurling's, and Lhermitte's tests. There was significant hypertonicity in the paracervical and parascapular musculature including the trapezius. Plan: Proceed with a two-level anterior cervical discectomy and fusion.

On June 1, 2015, UR. Rationale for Denial: In this case, the submitted medical records suggest that this patient has cervical pathology; however, there do not appear to be any positive results with provocative maneuvers. The reported distribution is inclusive of the upper extremities but does not correlate specifically to the requested levels. There are no documented motor deficits or reflex changes and no EMG indicating definitive involvement. The objective MRI findings show mild-to-moderate changes and a possible involvement of the nerve roots. There is an included clinical note that documents a nerve root injection; however, there was not a positive response, which calls into question the appropriate level. No documentation of physical therapy or medication management is provided. At this time, the patient does not meet ODG criteria for the requested procedure.

On June 11, 2015, UR. Rationale for Denial: According to Official Disability Guidelines, cervical fusion is indicated for the treatment of acute traumatic spinal injury, osteomyelitis, primary metastatic bone tumor, cervical nerve root compression verified by diagnostic imaging, spondylotic myelopathy, or spondylotic radiculopathy or nontraumatic instability. The provided medical records do not document any acute spinal injury, osteomyelitis, tumor, or signs or myelopathy. Cervical nerve root compression was not documented on MRI, and there was no profound weakness of the extremities on physical examination. Radicular type pain was noted; however, there is no documentation of failure of an adequate course of conservative treatment, including physical therapy or home exercise. The only oral medication mentioned was Tylenol with codeine, and there is no documentation of failed nonsteroidal anti-inflammatory drugs, muscle relaxants, or tricyclic antidepressants. There is no documentation of significant functional limitation, as recommended by the Guidelines. There is no documentation of nerve root compression on MRI or instability on flexion and extension radiographs.

On June 18, 2015, the claimant presented who reported both PT and surgery were denied secondary to not completing any conservative care and she had not had anti-inflammatories. He stated she had PT for both her cervical and lumbar spine over the past year. Plan: Do a short course of PT again and a six-week course of anti-inflammatories to include Motrin, then proceed with ACDF at C5-6 and C6-7.

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

This patient does not require a C5-6, C6-7 Anterior Cervical Discectomy & Fusion (ACDF) with Cervical/Thoracic Collar with Two Day Inpatient Stay.

The Official Disability Guidelines (ODG) supports anterior cervical discectomy for patients with cervical nerve root compression verified by diagnostic imaging and resulting in severe pain or profound weakness of the extremities.

The patient currently complains of pain, numbness, and tingling in both arms. The patient does not have profound weakness. The May 2015 MRI demonstrated mild diffuse disc bulges at C6-7 and C5-6. The radiologist indicated that it is "possible" that the C6-7 disc bulge affected both C7 nerve roots and the left C8 nerve root. The MRI does not

identify definite compression of the nerve roots to warrant surgical intervention.

In addition, the June 2014 EMG/NC study did not demonstrate any evidence of cervical radiculopathy. The August 2014 Cervical Epidural Steroid Injection at C7-T1 did not help the patient's symptoms. These factors do not support the request for two-level ACDF.

Therefore, the request for C5-6, C6-7 Anterior Cervical Discectomy & Fusion with Cervical/Thoracic Collar with Two Day Inpatient Stay is not found to be medically necessary at this time.

PER ODG:

ODG Indications for Surgery™ -- Discectomy/laminectomy (excluding fractures):
Washington State has published guidelines for cervical surgery for the entrapment of a single nerve root and/or multiple nerve roots. (Washington, 2004) Their recommendations require the presence of all of the following criteria prior to surgery for each nerve root that has been planned for intervention (but ODG does not agree with the EMG requirement):

A. There must be evidence of radicular pain and sensory symptoms in a cervical distribution that correlate with the involved cervical level or presence of a positive Spurling test.

B. There should be evidence of motor deficit or reflex changes or positive EMG findings that correlate with the cervical level. *Note:* Despite what the Washington State guidelines say, ODG recommends that EMG is optional if there is other evidence of motor deficit or reflex changes. EMG is useful in cases where clinical findings are unclear, there is a discrepancy in imaging, or to identify other etiologies of symptoms such as metabolic (diabetes/thyroid) or peripheral pathology (such as carpal tunnel). For more information, see EMG.
C. An abnormal imaging (CT/myelogram and/or MRI) study must show positive findings that correlate with nerve root involvement that is found with the previous objective physical and/or diagnostic findings. If there is no evidence of sensory, motor, reflex or EMG changes, confirmatory selective nerve root blocks may be substituted if these blocks correlate with the imaging study. The block should produce pain in the abnormal nerve root and provide at least 75% pain relief for the duration of the local anesthetic.
D. Etiologies of pain such as metabolic sources (diabetes/thyroid disease) non-structural radiculopathies (inflammatory, malignant or motor neuron disease), and/or peripheral sources (carpal tunnel syndrome) should be addressed prior to cervical surgical procedures.

E. There must be evidence that the patient has received and failed at least a 6-8 week trial of conservative care.

For hospital LOS after admission criteria are met, see Hospital length of stay (LOS).

Criteria for Cervical Fusion – Recommended Indications:
(1) Acute traumatic spinal injury (fracture or dislocation) resulting in cervical spinal instability.
(2) Osteomyelitis (bone infection) resulting in vertebral body destruction.
(3) Primary or metastatic bone tumor resulting in fracture instability or spinal cord compression.
(4) Cervical nerve root compression verified by diagnostic imaging (i.e., MRI or CT myelogram) and resulting in severe pain OR profound weakness of the extremities.
(5) Spondylotic myelopathy based on clinical signs and/or symptoms (Clumsiness of hands, urinary urgency, new-onset bowel or bladder incontinence, frequent falls, hyperreflexia, Hoffmann sign, increased tone or spasticity, loss of thenar or hypothenar eminence, gait abnormality or pathologic Babinski sign) and Diagnostic imaging (i.e., MRI or CT myelogram) demonstrating spinal cord compression.
(6) Spondylotic radiculopathy or nontraumatic instability with All of the following criteria:
(a) Significant symptoms that correlate with physical exam findings AND radiologist-interpreted imaging reports.
(b) Persistent or progressive radicular pain or weakness secondary to nerve root compression or moderate to severe neck pain, despite 8 weeks conservative therapy with at least 2 of the following:

- Active pain management with pharmacotherapy that addresses neuropathic pain and other pain sources (e.g., an NSAID, muscle relaxant or tricyclic antidepressant);
- Medical management with oral steroids or injections;
- Physical therapy, documented participation in a formal, active physical therapy program as directed by a physiatrist or physical therapist, may include a home exercise program and activity modification, as appropriate.

(c) Clinically significant function limitation, resulting in inability or significantly decreased ability to perform normal, daily activities of work or at-home duties.

(d) Diagnostic imaging (i.e., MRI or CT myelogram) demonstrates cervical nerve root compression, or Diagnostic imaging by x-ray demonstrates Instability by flexion and extension x-rays; Sagittal plane translation >3mm; OR Sagittal plane translation >20% of vertebral body width; OR Relative sagittal plane angulation >11 degrees.

(e) Not recommend repeat surgery at the same level.

(f) Tobacco cessation: Because of the high risk of pseudoarthrosis, a smoker anticipating a spinal fusion should adhere to a tobacco-cessation program that results in abstinence from tobacco for at least six weeks prior to surgery.

(g) Number of levels: When requesting authorization for cervical fusion of multiple levels, each level is subject to the criteria above. Fewer levels are preferred to limit strain on the unfused segments. If there is multi-level degeneration, prefer limiting to no more than three levels. With one level, there is approximately a 80% chance of benefit, for a two-level fusion it drops to around 60%, and for a three-level fusion to around 50%. But not fusing additional levels meeting the criteria, risks having to do future operations.

(h) The decision on technique (e.g., autograft versus allograft, instrumentation) should be left to the surgeon.

ODG hospital length of stay (LOS) guidelines:

Discectomy/ Corpectomy (*icd 80.51 - Excision of intervertebral disc*)
Actual data -- median 1 day; mean 2.1 days (± 0.0); discharges 109,057; charges (mean) $26,219
Best practice target (no complications) -- *1 day*

Laminectomy (*icd 03.09 - Laminectomy/laminotomy for decompression of spinal nerve root*)
Actual data -- median 2 days; mean 3.5 days (±0.1); discharges 100,600; charges (mean) $34,978
Best practice target (no complications) -- *1 day*

Cervical Fusion, Anterior (*81.02 -- Other cervical fusion, anterior technique*)
Actual data -- median 1 day; mean 2.2 days (±0.1); discharges 161,761; charges (mean) $50,653
Best practice target (no complications) -- *1 days*

Cervical Fusion, Posterior (*81.03 -- Other cervical fusion, posterior technique*)
Actual data -- median 4 days; mean 5.7 days (±0.2); discharges 16,852; charges (mean) $97,781
Best practice target (no complications) -- *4 days*

Craniocervical Atlas-Axis Fusion (*81.01 -- Atlas-axis spinal fusion*)
Actual data -- median 5 days; mean 7.8 days (±0.3); discharges 2,966; charges (mean) $117,838
Best practice target (no complications) -- *5 days*

Artificial Disc (*84.62 -- Insertion of total spinal disc prosthesis, cervical*)
Actual data -- median 1 days; mean 1.4 days (±0.1); discharges 2,146; charges (mean) $40,203
Best practice target (no complications) **–** *1 day*

Artificial Disc revision (*84.66 -- Replacement of artificial spinal disc prosthesis, cervical*)
Actual data -- median 2 days; mean 2.1 days (±0.3); discharges 148; charges (mean) $45,761
Best practice target (no complications) **–** *2 days*

Fracture of vertebral column (*03.53 - Repair of vertebral fracture*)
Actual data -- median 9 days; mean 13.4 days (±0.6); discharges 3,458; charges (mean) $156,940
Best practice target (no complications) -- *9 days*

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)**