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**Notice of Independent Medical Review Decision  
Reviewer's Report**

**DATE OF REVIEW:** 4/12/16

**IRO CASE #:**

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

Re-Exploration/Revision Laminectomy, L5-S1 Posterior-Lateral Lumbar Fusion with Demineralized Bone Matrix Allograft, Spinal Instrumentation with Pedicle Screws and Microscope 1c-arm Neuro-Monitoring and 3-Day Hospital Length of Stay

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

M.D., Board Certified in Orthopedic Surgery.

**REVIEW OUTCOME**

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

Upheld (Agree)

**Overtured (Disagree)**

Partially Overtured (Agree in part/Disagree in part)

I have determined that the requested Re-Exploration/Revision Laminectomy, L5-S1 Posterior-Lateral Lumbar Fusion with Demineralized Bone Matrix Allograft, Spinal Instrumentation with Pedicle Screws and Microscope 1c-arm Neuro-Monitoring and 3-Day Hospital Length of Stay is medically necessary for the treatment of the patient's medical condition.

**PATIENT CLINICAL HISTORY [SUMMARY]:**

This injured worker is a female who sustained an industrial injury on XX/XX/XX relative to a fall. Past surgical history was positive for a remote L5/S1 fusion. She underwent an L4/5 fusion in XX/XXXX and revision L4/5 fusion for pseudoarthrosis in XX/XXXX with rod placement. In XXXX, she underwent surgery for rod removal. Conservative treatment had included epidural steroid injections, trigger point injections, radiofrequency ablation, home exercise program, medications, Transcutaneous Electrical Nerve Stimulation (TENS) unit, and activity modification without sustained improvement.

The XX/XX/XX lumbar spine Computed Tomography (CT) scan impression documented left convexity lumbar curvature. There was marked loss of disc space height at L2/3 with endplate

sclerotic changes and vacuum disc phenomenon. There were post-operative changes status post anterior lumbar interbody fusion at L4/5 and L5/S1. There was no obvious high-grade central or foraminal stenosis at the previously fused levels, and the fusions appeared solid. The XX/XX/XX treating physician report documented review of the CT scan with clearly robust fusion at L4/5, including posteriorly. The L5/S1 level was more suspect with no evidence posteriorly through the facet joints, but likely anteriorly. The XX/XX/XX lumbar spine MRI impression documented post-surgical changes at L4/5 and L5/S1 with susceptibility artifact noted at L4/5 and L5/S1 compatible with intervertebral disc implants. There were multilevel degenerative changes of the lumbar spine, most prominent at the L2/3 level where there was bilateral neuroforaminal stenosis, right greater than left. The XX/XX/XX Dual-energy X-ray absorptiometry (DEXA) scan impression documented mild osteopenia of the right proximal femur and normal bone mineral density in the left proximal femur.

The XX/XX/XX treating physician report cited persistent low back pain. Physical exam documented erect posture with balanced gait. Lumbar spine exam documented paravertebral muscle tenderness and spasms, painful and restricted range of motion, lower lumbar spinal process tenderness, and normal straight leg raises. Lower extremity neurologic exam documented normal strength, diminished and symmetrical reflexes, no ankle clonus, and intact sensation. The diagnosis included L5/S1 pseudoarthrosis with anterior interbody implants in place, prior attempted fusion L4-S1, and L2/3 severe spondylotic change. Counseling regarding smoking cessation was provided. Authorization was requested for re-exploration/revision laminectomy, L5/S1 posterolateral lumbar fusion with demineralized bone matrix allograft, spinal instrumentation with pedicle screws, microscope, C-arm, neuromonitoring, and a 3-day hospital length of stay.

The XX/XX/XX initial determination letter indicated that the requested lumbar revision surgery and associated surgical requests were not medically necessary as there was no clear clinical indication for surgical intervention as there was no documentation of pseudoarthrosis on the recent Magnetic Resonance Imaging (MRI) and a lack of specific information to suggest instability, fracture, or infection. The XX/XX/XX appeal determination letter indicated that the requested lumbar revision surgery and associated surgical requests were not medically necessary as there was no psychological clearance as recommended per guidelines to assess issues that might interfere with recovery.

The XX/XX/XX pre-surgical psychological evaluation indicated that the injured was cleared for the posterior fusion surgery with fair to good psychosocial prognosis for pain reduction and functional improvement.

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

The Official Disability Guidelines (ODG) recommend revision surgery for failed previous fusion at the same disc level if there are ongoing symptoms and functional limitations that have not responded to non-operative care; there is imaging confirmation of pseudoarthrosis and/or hardware breakage/malposition; and significant functional gains are reasonably expected. Revision surgery for purposes of pain relief must be approached with extreme caution due to the less than 50% success rate reported in medical literature. Pre-operative clinical surgical indications require completion of all physical therapy and manual therapy interventions, x-rays

demonstrating spinal instability and/or imaging demonstrating nerve root impingement correlated with symptoms and exam findings, spine fusion to be performed at 1 or 2 levels, psychosocial screening with confounding issues addressed, and smoking cessation for at least 6 weeks prior to surgery and during the period of fusion healing. The ODG recommend intraoperative neurophysiologic monitoring during spinal or intracranial surgeries when such procedures have a risk of significant complications that can be detected and prevented through use of neurophysiological monitoring, and should be used at the discretion of the surgeon to improve outcomes of spinal surgery. The ODG recommend the median length of stay (LOS) based on type of surgery, or best practice target LOS for cases with no complications. The recommended median and best practice target for posterior or lateral lumbar fusion is 3 days.

Guideline criteria have been met. This injured worker presents with persistent low back pain, status post remote L5/S1 fusion. Detailed evidence of long-term reasonable and/or comprehensive non-operative treatment with lack of sustained improvement has been submitted. The treating physician has documented imaging evidence of an incomplete fusion (pseudoarthrosis) at the L5/S1 level on the XX/XX/XX CT scan. Psychosocial evaluation is documented with no confounding issues reported. Counseling regarding smoking cessation has been done. Therefore, the requested re-exploration/revision laminectomy, L5/S1 posterolateral lumbar fusion with demineralized bone matrix allograft, spinal instrumentation with pedicle screws, microscope, C-arm, neuromonitoring, and a 3-day hospital length of stay are medically necessary.

Therefore, I have determined the requested Re-Exploration/Revision Laminectomy, L5-S1 Posterior-Lateral Lumbar Fusion with Demineralized Bone Matrix Allograft, Spinal Instrumentation with Pedicle Screws and Microscope 1c-arm Neuro-Monitoring and 3-Day Hospital Length of Stay is medically necessary for treatment of the patient's medical condition.

**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)**