

<b>Case Number:</b>	CM13-0063099		
<b>Date Assigned:</b>	12/30/2013	<b>Date of Injury:</b>	04/17/2009
<b>Decision Date:</b>	05/22/2014	<b>UR Denial Date:</b>	11/07/2013
<b>Priority:</b>	Standard	<b>Application Received:</b>	12/09/2013

### HOW THE IMR FINAL DETERMINATION WAS MADE

MAXIMUS Federal Services sent the complete case file to an expert reviewer. He/she has no affiliation with the employer, employee, providers or the claims administrator. The expert reviewer is Board Certified in Orthopedic Surgery and is licensed to practice in California. He/she has been in active clinical practice for more than five years and is currently working at least 24 hours a week in active practice. The expert reviewer was selected based on his/her clinical experience, education, background, and expertise in the same or similar specialties that evaluate and/or treat the medical condition and disputed items/services. He/she is familiar with governing laws and regulations, including the strength of evidence hierarchy that applies to Independent Medical Review determinations.

### CLINICAL CASE SUMMARY

The expert reviewer developed the following clinical case summary based on a review of the case file, including all medical records:

The patient is a 32-year-old male who was injured on 04/17/2009 while getting off his forklift when a coworker accidentally pinned the patient against his forklift. He immediately felt back pain. Prior treatment history has included Percocet, Norco, and Soma. The patient underwent a multilevel lumbar spine fusion with L3-4, L4-L5 and L5-S1 posterior fusion dated 01/14/2011 and lumbar spine fusion/revision 02/04/2012. Comprehensive drug panel dated 08/16/2012 detected inconsistent results reporting positive results for an Analyte without prescribed medication. The diagnostic studies reviewed include CT (computed tomography) myelogram of the lumbar spine dated 12/04/2012 revealed: 1. Previous spinal fusion surgery at L3, L4 and L5; There was no evidence of fracture or loosening of the screws which were in satisfactory position. There were interbody disc apparatus and radiopaque metal markers at L3-4, L4-5 and L5-S1. 2. L3-L4: a 2 mm central posterior disc protrusion and/or scar tissue with extrinsic impression on the ventral aspect of the thecal sac; Facet joints were partially absent; The posterior neural arch elements were surgically absent; there were soft tissue scarring posteriorly. 3. L4-5: 3-4 mm residual posterior disc protrusion and/or scar tissue with encroachment on the thecal sac; facet joints appear fused/near fused. 4. L5-S1: Decrease in the height of the disc space; there was soft tissue identified which could represent 2-3 mm posterior disc bulge and/or scar tissue. There was encroachment on the epidural fat; appearance suggested compromise of the traversing nerve roots; facet joints appeared fused. Digital Scout x-ray of the lumbar spine dated 12/04/2012 revealed: 1. There was a posterior rod screw apparatus at L3, L4 and L5 2. There were radiopaque metal markers in the disc space at L3-L4, L4-L5, and L5-S1. 3. Radiopaque contrast was identified in the lumbar thecal sac and extended into the thoracic sac indicating that there was no thoracolumbar block. 4. There was levoscoliosis of the lumbar spine 5. A radiopaque screw was identified traversing the left hip 6. There was no osteonecrosis of the left or right hip

7. Hip joints appeared satisfactory 8. There was narrowing of the sacroiliac joints 9. There was no wedging of T10 and T11 An orthopedic spine surgery report dated 06/20/2013 documented a recommendation was given for hardware removal, exploration of fusion and revision fusion of L3 to S1 position. All of these were consistent with instability of the spine. There was however residual neuroforaminal stenosis at the lumbosacral junction or instrumentation has been previously reviewed. The patient was diagnosed with pseudoarthrosis of the lumbar spine. It was also recommended the patient undergo a posterior hardware removal, exploration fusion followed by anterior interbody fusion with removal of interbody device at L5-S1, and explore the L4-L5 and L3-L4 level followed by re-instrumentation posteriorly at L3 through S1. This would be a front back procedure in a staged fashion over two days. Progress report dated 10/10/2013 indicated the patient presented with complaints of an increased pain level and increased radicular complaints that currently involve both lower extremities. The patient noted pain was more pronounced during periods of sustained inactivity, and more tolerated with movements. He noted excessive movements would cause increased pain. He reported that he experienced a giving way sensation of the lower extremity while walking that at times cause him to trip and almost fall. Objective findings on exam revealed he was wearing no brace or any supports. There was no obvious foot drop on gait evaluation. He was observed to have difficulty rising from a seated posture, using as much arm strength as possible. While only capable of standing erect for a brief time, he stood with a forward stooped posture. He could not perform heel walking without support, which was painful. He had moderately restriction in all lumbar spine range of motion due to pain. The patient was diagnosed with status post multilevel lumbar spine fusion with L3-4, L4-L5, L5-S1 posterior; status post lumbar spine fusion/revision with instrumentation; right hip sprain/strain-rule out internal derangement; and status post decompression and discectomy with posterolateral fusion bone graft, pedicle screw fixation, L3-S1-Failed back surgery syndrome. Office note dated 10/08/2013 documented a recommendation for lumbar hardware removal followed by an anterior interbody fusion followed by a posterior stabilization and laminectomy. Office note dated 09/12/2013 documented a recommendation for a revision of lumbar fusion. Progress report dated 03/06/2013 indicated the patient was over one year post-operative. He had continued to have moderate to severe pain of his lumbosacral spine. The CT myelogram shows solid L3-4 and L4-5, but there was a question at L5-S1. The patient was advised that the problem may be simply related to the retrained metal, but he also could possibly have a pseudoarthrosis at L5-S1. It was interesting that he appeared solid at L5-S1 at the time of the previous surgery. Additionally, following the last surgery, he was nearly pain free for several months. It was possible that he had a tenuous fusion which then became worse due to increased stress at the L5-S1 level due to the solid fusion which then became worse due to increased stress at the L5-S1 level due to the solid fusion with metal above that level. I therefore recommend that a radionuclide bone scan be obtained. With the metal block results and the radionuclide bone scan, a decision will be made regarding potential additional surgery.

### **IMR ISSUES, DECISIONS AND RATIONALES**

The Final Determination was based on decisions for the disputed items/services set forth below:

#### **CONSIDERATION OF REVISION OF FUSION AND DECOMPRESSION PSEUDOARTHROSIS L3-S1: Upheld**

**Claims Administrator guideline:** Decision based on MTUS ACOEM Chapter 12 Low Back Complaints Page(s): 305-307. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG), Fusion (Spinal) and Discectomy/laminectomy.

**MAXIMUS guideline:** Decision based on MTUS ACOEM Chapter 12 Low Back Complaints Page(s): 306-307. Decision based on Non-MTUS Citation Other Medical Treatment Guideline or Medical Evidence: Elgafy, H., Vaccaro, A. R., Chapman, J. R., and Dvorak, M. F. (2012). Rational of Revision Lumbar Spine Surgery. Global Spine Journal. 2(1), 7-14. doi: 10.1055/s- 0032-1307254.

**Decision rationale:** As the CA MTUS guidelines have not addressed the revision of fusion and decompression of pseudoarthrosis of L3-S1, other medical guidelines were consulted.

According to the ACOEM guidelines, spinal fusion is recommended for cases of trauma-related spinal fracture or dislocation, fusion of the spine otherwise it is not usually considered. The Global Spine Journal recommend: careful assessment to determine the exact cause of symptoms and the effect on the patients' emotional and functional state is paramount in revision back surgery. Patients should undergo a detailed history and physical examination to rule out non-spinal causes for their current symptoms and to identify their pain generator. Such an approach can help with the preoperative planning, avoid any unexpected intra-operative findings, and improve the outcome after surgery. The medical records document the patient had complained of more elevated pain level and increased radicular complains that had involved both legs, the pain was exaggerated with movement, the patient experienced a giving way sensation of the leg while walking. The patient denied any bladder or bowel dysfunction. Objectively the patient had no foot drop in gait evaluation, the patient had difficulty to rise from the chair, there was a moderately restriction in all range of motion. In the absence of documented recent complete neurological examination, absence of plain x-ray of lumbar spine including the dynamic views, absence of recent CT (computed tomography) lumbar spine, and absence of recent MRI (magnetic resonance imaging), the request is not medically necessary according to the guidelines.

### **POSTERIOR HARDWARE REMOVAL FOLLOWED BY FUSION TO THE SACRUM L3-S1: Upheld**

**Claims Administrator guideline:** The Claims Administrator did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG), Low Back, Hardware implant removal (fixation).

**MAXIMUS guideline:** The Expert Reviewer did not base their decision on the MTUS. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG), Low Back, Hardware implant removal (fixation).

**Decision rationale:** The CA MTUS guidelines have not addressed the issue of dispute. According to the Official Disability Guidelines (ODG), spinal fusion is recommended not recommend the routine removal of hardware implanted for fixation, except in the case of broken hardware or persistent pain, after ruling out other causes of pain such as infection and nonunion. The medical records document the patient had complained of more elevated pain level and increased radicular complains that had involved both legs, the pain was exaggerated with movement, the patient experienced a giving way sensation of the leg while walking. The patient denied any bladder or bowel dysfunction. Objectively the patient had no foot drop in gait evaluation, the patient had difficulty to rise from the chair, there was a moderately restriction in all range of motion. In the absence of documented hardware or persistent pain due to infection or nonunion, the request is not medically necessary according to the guidelines.

## **RE EXPLORATION OF FUSION L3-S1:** Upheld

**Claims Administrator guideline:** Decision based on MTUS ACOEM Chapter 12 Low Back Complaints Page(s): 305-307. Decision based on Non-MTUS Citation Official Disability Guidelines (ODG), Fusion (Spinal).

**MAXIMUS guideline:** Decision based on MTUS ACOEM Chapter 12 Low Back Complaints Page(s): 306-307. Decision based on Non-MTUS Citation Other Medical Treatment Guideline or Medical Evidence: Elgafy, H., Vaccaro, A. R., Chapman, J. R., and Dvorak, M. F. (2012). Rational of Revision Lumbar Spine Surgery. Global Spine Journal. 2(1), 7-14. doi: 10.1055/s- 0032-1307254.

**Decision rationale:** As the CA MTUS guidelines have not addressed the revision of fusion and decompression of pseudoarthrosis of L3-S1, other medical guidelines were consulted. According to the ACOEM guidelines, spinal fusion is recommended for cases of trauma-related spinal fracture or dislocation, fusion of the spine otherwise it is not usually considered. The Global Spine Journal recommend: careful assessment to determine the exact cause of symptoms and the effect on the patients' emotional and functional state is paramount in revision back surgery. Patients should undergo a detailed history and physical examination to rule out non- spinal causes for their current symptoms and to identify their pain generator. Such an approach can help with the preoperative planning, avoid any unexpected intra-operative findings, and improve the outcome after surgery. The medical records document the patient had complained of more elevated pain level and increased radicular complains that had involved both legs, the pain was exaggerated with movement, the patient experienced a giving way sensation of the leg while walking. The patient denied any bladder or bowel dysfunction. Objectively the patient had no foot drop in gait evaluation, the patient had difficulty to rise from the chair, there was a moderately restriction in all range of motion. In the absence of documented recent complete neurological examination, absence of plain x-ray of lumbar spine including the dynamic views, absence of recent CT (computed tomography) of the lumbar spine, and absence of recent MRI (magnetic resonance imaging), the request is not medically necessary according to the guidelines.



