



Medical Review Institute of America, Inc.
America's External Review Network

DATE OF REVIEW: March 19, 2009

IRO Case #:

Description of the services in dispute:

Medical necessity of 360-degree fusion L4-S1 with 3 day inpatient stay and spinal cord monitoring.

A description of the qualifications for each physician or other health care provider who reviewed the decision

The physician who provided this review is a fellow of the American Board of Orthopedic Surgery. This reviewer is a fellow of the North American Spine Society and the American Academy of Orthopedic Surgeons. This reviewer has been in active practice since 1990.

Review Outcome

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

Overtured

The 360 Fusion L4-S1, a 3-day stay, and spinal cord monitoring is medically necessary for this patient.

Information provided to the IRO for review

1. MRI of the lumbar spine dated 04/22/08.
2. EMC-NCV study dated 05/14/08.
3. Procedure report lumbar epidural steroid injection L5-S1 dated 06/06/08.
4. Clinical records Dr.
5. Designated doctor evaluation, Dr. dated 07/30/08.
6. Clinical records FNP.
7. Psychological evaluation dated 09/05/08.
8. Clinical records Dr.
9. Clinical records Dr.
10. Independent medical examination, Dr. dated 11/24/08.
11. Report of lumbar discography dated 01/21/09.

12. CT of the lumbar spine dated 01/21/09.
13. Utilization review determination dated 02/06/09.
14. Utilization review determination dated 02/06/09.

Patient clinical history [summary]

The patient is a male who is reported to have sustained an injury to his low back on xx/xx/xx. The first submitted clinical record is an MRI of the lumbar spine dated 04/22/08. This study shows a circumferential disc bulge and mild facet and ligamentum flavum hypertrophy resulting in mild spinal canal stenosis at L2–3. There is mild bilateral neural foraminal stenosis at this level. At L3–4 there is a mild circumferential disc bulge and mild facet ligamentum flavum hypertrophy producing mild spinal stenosis with mild bilateral neural foraminal stenosis. At L4–5 there is a concentric disc bulge and mild to moderate facet hypertrophy producing mild central canal stenosis. There is a focus of T2 hyper intensity in a posterior disc consistent with an annular fissure. There is mild bilateral neural foraminal stenosis. At L5–S1 there is a circumferential disc bulge which causes mild central spinal canal stenosis. There is a suggestion of minimal broad based central disc protrusion which extends slightly inferiorly and abuts the descending S1 nerve roots bilaterally. There is mild facet hypertrophy and moderate bilateral neural foraminal stenosis.

Records further indicate that the patient underwent electrodiagnostic studies on 05/14/08. This study reports evidence of a mildly predominant chronic reinnervation process involving the distal L5 myotome bilaterally. The findings are considered most consistent with the bilateral L5 radiculopathy. The patient subsequently underwent lumbar translaminar epidural steroid injection at L5–S1 on 06/26/08.

The patient was referred to Dr. on 07/07/08. The patient is reported to have been assembling tools for measurements when he developed a gradual onset of low back pain. Throughout the day he developed low back pain radiating into the right leg and subsequently the left leg. He was evaluated at Medical Center and started on oral medications. He underwent 8–9 sessions of physical therapy and did not receive any relief from therapy or medications.

He subsequently transferred his care to Dr. where he received additional conservative treatment and underwent two injections. He is reported to be status post one epidural steroid injection which did not relieve his symptoms. He is unable to walk more than two blocks without significant pain. On physical examination he socially is reported to be a smoker. He quit approximately 12 years ago and does not use smokeless tobacco. On examination he is 5'11" tall and weighs 210 pounds. He has 5/5 strength in the upper extremities. His deep tendon reflexes are 2+ throughout. Sensation is intact in the dermatomal distribution. Bilateral lower extremities have 5/5 strength. Heel/toe and tandem gait are intact. He has positive straight leg raise bilaterally, right greater than left. He

has pain with forward flexion. Deep tendon reflexes are 2+ and sensation is intact. MRI is discussed. The patient is reported to have a spondylolisthesis at L5-S1 with spondylosis at L4-5 and to a lesser extent at L3-4. Dr. opines that the patient is a surgical candidate at the L5-S1 level secondary to spondylolisthesis. There is a question as to whether or not the L4-5 level is producing pain. He subsequently recommends lumbar discography from L3-S1. Records indicate that lumbar flexion-extension radiographs were performed at this level. He is reported to have pars fracture noted at the L5-S1 level with grade I spondylolisthesis. The patient underwent an additional translaminar epidural steroid injection at L5-S1 on 07/28/08.

On 07/30/08 the patient was evaluated by Dr. who was functioning as a designated doctor. Dr. that the patient is not at MMI and may require additional ESI discography and/or surgical intervention. Dr. further reports that the patient was administered depression and anxiety tests. He scored 15 on the Beck Depression Inventory and 19 on the Beck Anxiety Inventory.

The patient was referred for pre operative psychiatric clearance on 09/05/08. At this time he is reported to have a Beck Depression Inventory score of 20, indicating a moderate level of depressive symptoms and a BAI score of 25 indicating a moderate level of anxiety. Patient was further provided an MMPI. This report finds the patient to be psychologically stable and able to proceed with the recommended diagnostic procedure lumbar discography with no other contraindications.

The patient was subsequently referred to Dr. on 10/24/08. It is noted that the patient has undergone bilateral L4-5 and L5-S1 facet injections on 10/16/08 reporting 10 percent relief for two days. The patient continued to receive treatment from Dr.

An evaluation was performed by Dr. on 11/24/08. Dr. opines that the patient's treatment has been reasonable and necessary. He further recommends that the patient undergo lumbar discography noting that fusion has already been contemplated by Dr.

The patient eventually underwent lumbar discography on 01/21/09. This study notes a negative control disc at L3-4 with concordant pain at L4-5 and L5-S1 with reduced pressures and pain levels graded as 10/10. Post discogram CT indicates moderate disc space narrowing and disc degeneration with a broad based 6 mm posterior central disc protrusion at L4-5 with grade V annular tear. At L5-S1 there is disc space narrowing with disc degeneration and a broad based 5 mm central left paracentral disc protrusion at L5-S1 with a grade V tear. At L3-4 there is a 5 mm posterior disc protrusion more prominent paracentrally on the left with a grade V annular tear and mild bilateral foraminal stenosis. Dr. recommends a two level minimally invasive fusion at L4-5 and L5-S1.

On 02/06/09 a request was submitted for surgery and reviewed by Dr. Dr. does not recommend

L4-S1 360 fusion with spinal cord monitoring and three day in patient stay. Dr. opines that there is no information from the provider to justify the procedure.

The case was subsequently appealed on 02/06/09 and reviewed by Dr. on 02/26/09. Dr. notes that there is no evidence of spinal instability on imaging studies. The patient is not described as being in an active home exercise program. The patient has not been involved in intensive spinal rehabilitation program in an attempt to resolve the problem. He opines that the surgical procedure appears to be recommended purely on the basis of the results of discography.

The record contains a follow up note dated 02/02/09. Dr. reiterates that the patient has positive discography at two levels with grade I spondylolisthesis with annular tears at L4-5 and L5-S1 with concordance. He again recommends a two level minimally invasive fusion at L4-5 and L5-S1.

Analysis and explanation of the decision include clinical basis, findings and conclusions used to support the decision.

The submitted clinical records indicate that the patient sustained an injury to his low back as a result of work related activity on xx/xx/xx. The records clearly indicate that the patient has undergone extensive conservative care which by the submitted record included oral medications, physical therapy, activity modification, active and passive modalities. The patient has undergone two lumbar epidural steroid injections with no significant improvement. Further records indicate that the patient has undergone lumbar facet injections which have excluded the posterior elements as a potential cause of the patient's low back pain. The patient subsequently was referred for lumbar discography and is found to have concordant pain at both L4-5 and L5-S1 with a negative control disc at L3-4. The patient has undergone pre operative psychiatric evaluation and has found no contraindications the performance of discography which clearly be extended through the performance of a fusion procedure. The patient has been evaluated by a designated doctor who recommended additional diagnostic studies and indicated that he would support operative intervention if requested. The patient was later evaluated by Dr. supports recommendation for lumbar discography and notes that the patient is a candidate for operative intervention at L5-S1. Further records indicate that the patient has evidence of instability and is reported to have a grade I spondylolisthesis at L5-S1. The initial review of the request for surgery does not provide a succinct clinical opinion and merely quotes the Official Disability Guidelines and does not appear to provide a conclusion. This was subsequently reviewed by Dr. who concurs with the previous reviewer and notes that the patient hasn't had a home exercise program.

Based upon the review of the records, the previous denials are to be overturned. The submitted records clearly indicate that the patient has failed all conservative care and a good faith effort has been performed by the treating providers to meet the requirements under the Official Disability

Guidelines. The record as submitted clearly indicates that the patient has failed all conservative care. All potential pain generators have been identified. Lumbar discography indicates that the patient has degenerative disc disease at L4–5 and L5–S1 with concordant pain at both of these levels. The requested 360–degree fusion from L4 through S1 is considered medically necessary. The 3–day inpatient stay is supported by current evidence based guidelines and spinal cord monitoring is appropriate.

A description and the source of the screening criteria or other clinical basis used to make the decision:

ODG Guidelines