



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

DATE OF REVIEW: March 24, 2008

IRO Case #:

Description of the services in dispute:

Denied for Medical necessity: Items in dispute: Lumbar fusion L5-S1

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

The physician who provided this review is board certified by the American Osteopathic Board of Surgery in Neurological Surgery. This reviewer is a member of the American Osteopathic Association, the American College of Osteopathic Surgeons, the Texas Osteopathic Medical Association and the Texas Medical Association. This reviewer has been in active practice since 1995.

Review Outcome

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

Upheld

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.

The request for lumbar fusion at L5-S1 is not considered medically necessary.

Information provided to the IRO for review

1. Utilization review determination dated 02/05/08
2. Utilization review determination dated 02/15/08
3. Lumbar discogram dated 06/25/06
4. EMG/NCV study dated 06/25/07
5. CT of the lumbar spine dated 10/25/07
6. Lumbar myelography dated 12/20/07
7. Clinical records Dr. dated 01/04/08, 01/18/08
8. Letter of medical necessity dated 02/28/08

Patient clinical history [summary]

The patient is a xx-year-old male with a history of low back pain. The first available medical record is dated xx/xx/xx. This is a lumbar discogram performed at L3-4, L4-5 and L5-S1. At L3-4 the disc accepted 2.5 cc of contrast material with a low opening and high closing pressure. The patient reports no pain during injection of the disc. Contrast material is seen contained within the nucleus pulposus. At L4-5 the disc accepted 3 cc of contrast material with low opening and closing pressures. The patient experienced no pain during injection of the disc. Contrast material spread diffusely throughout the disc extending posteriorly into the posterior edge of the annulus. At L5-S1 the disc accepted 1.5 cc of contrast material with low opening and low closing pressure. The patient described severe back pain during the injection graded as 10 on a pain scale of 1-10. The pain was felt in the back with no radiation to the lower extremities. Contrast material was seen diffusely spreading from the nucleus into the posterior edge with extravasation of contrast seen into the epidural space.

The patient underwent electrodiagnostic studies on 06/25/07. These were performed by , D.C. This study indicates findings consistent with a possible S1 radiculopathy on the right; however, the paraspinal muscles were not tested.

A CT of the lumbar spine was performed on 10/25/07. This study reports an L4-5 laminectomy and posterolateral fusion with internal fixation. Fusion elements appear solid. There is a diffuse disc protrusion at L3-4 and L4-5 mainly posterolateral and central. Herniation at L5 with moderate impression upon the thecal sac is noted. The patient was referred for CT myelogram on 12/20/07. This study reports osteophyte formation involving the inferior L3 and superior L4 endplates causing flattening of the thecal sac along the ventral surface. There is ligamentum flavum hypertrophy demonstrated. These factors contribute to an element of central stenosis. The thecal sac measures approximately 10 mm in AP diameter at the level of the L3-4 disc space. Vacuum phenomenon is noted within the left sided facet joint. The neural foramina appear patent. The nerve roots appear mildly clumped into clusters posteriorly at this level. At L4-5 there is minimal osteophyte formation involving the inferior L4 and superior L5 endplates. The thecal sac appears of normal caliber. Posterior decompression has taken place. At L5-S1 there is osteophyte formation involving the facet joints. The neural foramina appear patent. The thecal sac appears normal in caliber. The nerve roots appear better dispersed at this level when compared to L3-4. Bone graft traversing from the left iliac bone has taken place. The overall impression is bilateral pedicle screws at L4 and L5 levels. There is a posterior decompression at L4-5. Bone graft traversing from the left iliac bone is noted. There is mild central canal stenosis at L3-4. The nerve roots appear clumped into groups at this level but are better dispersed caudally.

The patient was seen by Dr. on 01/04/08. The patient reports low back pain with right greater than left leg pain, left occasional thigh discomfort but predominantly right leg weakness and right leg posterolateral radiating pain in radicular distribution down in the ankle. The patient is experiencing

some relief with medication and analgesics. He describes 70% of his pain in his back and 30% in the right leg. The patient has had a lumbar myelogram. Dr. reports there is a retro subluxation at L5-S1. There is lateral recess stenosis at L5-S1 bilaterally. There is subarticular stenosis particularly on the right at L4-5 and L3-4 with retro subluxation at L5-S1 with a 1-2 mm bulge into the neural foramen. The patient is reported to walk favoring his right side. He has 4/5 weakness of the EHL. He has decreased pinprick on the right in the L4, L5 and S1 distributions. He continues to have a right lumbar radiculopathy. He is status post instrumented fusion which was posterolateral fusion with decompression at the L4-5 level.

The patient was seen in follow up on 01/18/08. He continues to complain of back and right leg pain. The patient reports he has had 34 physical therapy sessions post surgery. He has had multiple conservative therapies and failed all of these. Dr. reports the myelogram on today's visit shows evidence of attenuation of the nerve root at L5-S1. He is status post an L4-5 instrumented fusion with interbody and pedicle screws that looks good. He has a disc herniation at L5-S1 with neural foraminal narrowing and lateral recess stenosis with the right S1 being particularly decompressed. An EMG shows bilateral S1 radiculopathy. On physical examination he favors the right leg. He has positive straight leg raising on the right at 45 degrees. He has mild spasms. His incisions are well healed. He has weakness of the EHL and plantar flexion. His knee jerks are 1+ at both knees and suppressed at the right ankle. Left ankle is 1+. His toes go down. He has decreased pinprick in the lateral aspect of the calf, lateral malleolus and right heel. Dr. notes that in reviewing the patient's record that a CT discogram was done on the patient which revealed that L4-5 level injection produced no pain whatsoever even though there was a disruption of the dye and the disc. However, the patient had concordant 10/10 pain at the L5-S1 disc space. Dr. opines that the pain generator is most likely at the L5-S1 level. He recommends the patient have an interbody fusion at L5-S1 to tie into the fusion at L4-5. He recommends performing a minimally invasive TLIF approach on the patient's right.

The record includes a letter dated 02/28/08. Dr. reports that the patient underwent an instrumented fusion at L4-5. Since the fusion procedure he has not had any relief of his pain and in fact he is worsening. Myelogram was obtained post surgically, which showed evidence of attenuation of the nerve root at L5-S1 with disc herniation at the L5-S1 level. He has bilateral neural foraminal narrowing and lateral recess stenosis at L5-S1 on the right side being more compressed than the left. EMG shows a bilateral S1 radiculopathy. This has also been post surgically. Clinically the patient is in extreme discomfort. Objectively he has findings of a new disc herniation at L5-S1 with neural foraminal narrowing and obliteration of the nerve roots. The patient has failed physical therapy. He has had over 34 sessions of PT without improvement. The patient has also been noted to have L3-4 moderate stenosis with nerve clumping which contributes to the symptoms of claudication. However, Dr. opines the most significant is the L5-S1 and more probably symptomatic. He recommends that the patient have interbody fusion into L5-S1 with possible decompression at L3-4.

On 02/05/08 Dr. performed utilization review. Dr. opines that within the medical records available

for review there is no documentation of at least one imaging study finding nerve root compression, lateral disc rupture or lateral recess stenosis and a diagnosis or condition for which fusion is indicated such as instability. He finds that the request for right lumbar fusion at L5–S1 and left lumbar fusion at L5–S1 are not certified.

On 02/15/08 Dr. reviewed the case on appeal. Dr. reports in an effort to provide the missing information peer-to-peer contact was performed in a phone conversation with Dr.. The patient is reported to be undergoing a posterolateral approach with facetectomy, interbody fusion and pedicle screw placement. He feels that decompression will cause surgically induced instability for which the fusion is indicated. Based on the submitted information, Dr. does not certify the requested fusion at L5–S1.

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

There is agreement with the two previous reviewers that the request for lumbar fusion at L5–S1 is not considered medically necessary. The available medical record indicates that this patient has previously undergone an L4–5 decompression and fusion. The patient has undergone lumbar discography which indicates a symptomatic disc at L5–S1 with reported concordant pain and abnormal disc morphology. Postoperatively the patient has undergone electrodiagnostic studies which are reported to indicate a bilateral radiculopathy. Recent CT myelogram indicates evidence of disc degeneration at L5/S1 with osteophyte formation involving the facet joints. The neural foramina are patent and the nerve roots are better dispersed. This report does not identify a lateralizing disc herniation with encroachment into the neural foramen. The records do not report instability or collapse of the disc space at L5/S1. Current evidenced based guidelines require that a preoperative psychiatric evaluation be performed when considering lumbar fusion.

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

1. The Official Disability Guidelines, 11th edition, The Work Loss Data Institute.
2. The American College of Occupational and Environmental Medicine Guidelines; Chapter 12.

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