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Notice of Independent Review Decision

DATE OF REVIEW: July 14, 2008

IRO CASE NO.:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:

Item in dispute: Posterior fusion with instrumentation and decompression at L3-L5

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

Board Certified Orthopedic Spine Surgeon
Practicing Neurosurgeon

REVIEW OUTCOME

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

Denial Upheld

Medical necessity for posterior fusion with instrumentation and decompression at L3-L5 has not been established.

INFORMATION PROVIDED TO THE IRO FOR REVIEW

1. Medical records Dr. dated 01/02/08 thru 06/06/08
2. Procedure report dated 01/02/08
3. Medical records Dr. dated 01/29/08 thru 04/09/08
4. CT myelogram of the lumbar spine dated 02/15/08
5. EMG/NCV study dated 02/19/08
6. Utilization review determination dated 03/14/08
7. Utilization review determination dated 04/17/08
8. Letter of appeal, Dr. dated 06/06/08
9. Utilization review determination dated 06/16/08
10. Utilization review determination dated 06/18/08

11. Utilization review determination dated 06/23/08
12. ***Official Disability Guidelines***

PATIENT CLINICAL HISTORY (SUMMARY):

The employee is a xx year old female with a history of low back pain with radiation into the lower extremities. First available medical record is dated 01/02/08. This record indicated that the employee has been diagnosed with lumbar sprain with radiculopathy and subsequently underwent lumbar epidural steroid injections performed by Dr. Post procedurally, the employee was reported to have obtained no benefit whatsoever with epidural steroid injections. She continued to experience pain radiating down her left leg. The employee was diagnosed with a lumbar sprain, lumbar radiculopathy and displacement of the L4-L5 disc.

The employee was subsequently referred to Dr. on 01/29/08 and was reported to have injured her back at work as a result of lifting a machine. She reported it initially started as back pain; however, it has now progressed to leg pain. She reports her back pain equal to her leg pain and reports a VAS score of 10/10. The employee received three weeks of physical therapy with no improvement.

The employee has subsequently undergone two lumbar injections with Dr.. The employee's social history was positive for tobacco use of one to two packs per day. On physical examination, the employee could walk to the door with mild pain. She could bend to mid tibia; however, this was with pain. She could extend approximately 15 degrees. She had tenderness to palpation over the right paraspinous muscles. She had a positive straight leg raise on the left and negative on the right. She had 5/5 strength in hip flexion, knee flexion, extension, ankle dorsiflexion, and plantar flexion bilaterally. The employee had 4+ EHL on the left and 5+ on the right. There was a diminished Achilles reflex on the left as opposed to the right which was 2+. Patellar reflexes bilaterally were 2+. An MRI was reported to show a disc herniation at L5-S1 and a small protrusion at L4-5. Dr. reported the MRI disc herniation was not that impressive. The employee's symptoms were severe. She had a very sensitive straight leg raise. Dr. recommended CT myelography as well as an EMG/NCV study.

On 02/15/08, the employee was referred for CT myelography. This study reported that the L4 nerve root sleeves filled normally. The right L5 nerve root sleeve was moderately underfilled. The left S1 nerve root sleeve was mildly effaced and moderately underfilled. There were multilevel disc protrusions from T12-L1 through L5-S1, the largest being a 3-4 mm broad-based anterior epidural impression at L4-L5. a post procedure CT indicated a 2 mm retrolisthesis of L3 upon L4. There was a 2 mm broad-based symmetric posterior protrusion which mildly indented the sac. There was no central canal stenosis, marked foraminal narrowing or nerve root displacement. The

L4 nerve root sleeves were underfilled bilaterally. At L4-L5, there was a 2 mm retrolisthesis of L4 upon L5. There was a 2.5 mm symmetric broad-based posterior protrusion which mildly indented the sac. There was mild bilateral foraminal narrowing, and no central canal stenosis or L4 nerve root displacement. The L5 nerve root sleeves were mildly underfilled bilaterally. At L5-S1, there was mild disc space narrowing. There was a 5-6 mm broad-based posterior disc protrusion with slight right posterolateral accentuation mildly effacing the sac and S1 nerve root sleeves. There was moderate bilateral foraminal narrowing present. There was no displacement of the emanating L5 nerve root sleeves. The right S1 nerve root sleeve filled normally. The left S1 nerve root sleeve was mildly underfilled.

EMG/NCV studies were performed on 02/19/08. The EMG studies were of the lower extremities and did not include the lumbar paraspinal musculature. This study revealed evidence of acute denervation and large motor units involving the right anterior tibialis. This report was not confirmatory for lumbosacral radiculopathy.

The employee was seen in follow up by Dr. on 02/26/08. At that time, Dr. reported that the myelogram did not reveal any significant disc herniation or stenosis. There was a retrolisthesis both at L3-L4 and L4-L5 with some subluxing of the facet joints. Dr. recommended that the employee undergo lumbar facet injections. These injections were not approved under utilization review, and the employee was subsequently recommended to undergo additional epidural steroid injections.

The employee was seen in follow up by Dr. on 04/09/08. He opined that the employee had a listhesis at L3-L4 and L4-L5 as well as disc herniation and stenosis. Dr. reported the employee had documented radiculopathy at those levels. He opined the employee was a surgical candidate from both diagnostic studies as well as symptomatology, and the fact that she had experienced over six months of pain without relief from medications, physical therapy, and injections. Dr. recommended the employee undergo L3-L5 decompression with fusion.

On 04/17/08, Dr. reviewed the request. Dr. non-certified the request. He reported that the employee had multilevel degenerative changes, and it seemed unlikely that the proposed intervention would eliminate her pain or even significantly improve it. He noted that the employee did have minimal retrolisthesis, but there was no definite documentation of instability at those levels. Dr. further reported there was no indication that EMG/NCV changes translated into concrete physical findings.

On 06/16/08, the case was reviewed by Dr.. Dr. non-certified the request and reported that evidence-based guidelines suggest that individuals are candidates for surgical fusion on the spine when they have radiographic signs of demonstrable instability, all pain generators have been identified, conservative measures have been exhausted, and any confounding psychosocial issues have been addressed. Dr. reported that while the employee had some degree of segmental change including retrolisthesis at L3-L4 and L4-L5, there did not appear to be a description of dynamic change on flexion and extension views that would qualify as signs of demonstrable instability. Furthermore, Dr. reported it appeared as though a variety of conservative measures had been discussed including facet blocks and epidurals; however, it was unclear as to whether or not they had been completed.

A letter of appeal was submitted by Dr. and the case was again reviewed on 06/23/08 by Dr.. Dr. non-certifies the request and indicated that the requesting physician had failed to prove instability of the spine. He had shown listhesis at two levels and had shown degenerative disc disease at essentially every level of the lumbar spine. However, there were no flexion/extension studies to support any instability of the spine.

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

I would concur with the previous reviewers in that posterior spinal fusion with instrumentation and decompression from L3-L5 is not supported by the submitted medical documentation.

The available medical records indicate that the employee sustained an injury to her low back and subsequently developed a left lower extremity radiculopathy. Records indicate that the employee has been unresponsive to epidural steroid injections and has undergone conservative care consisting of oral medications and physical therapy. The employee was recommended to undergo lumbar facet injections, which by ***Official Disability Guidelines*** would have been considered appropriate in ruling out the posterior elements as a cause of the employee's continued low back pain. Additionally, it was noted that the employee has multilevel degenerative disc disease throughout the lumbar spine. The employee has evidence of right L5 nerve root sleeve underfilling and left S1 nerve root sleeve underfilling with effacement of the nerve root.

The employee was referred for electrodiagnostic studies; however, in review of this study the lumbar paraspinal muscles were not tested, and therefore, a diagnosis of a lumbar radiculopathy cannot be made. The employee does have abnormalities which

indicate evidence of acute denervation in the right anterior tibialis. The imaging study also indicates that there is a 2 mm retrolisthesis of L3 on L4 and 2 mm retrolisthesis of L4 on L5. These findings are suggestive of instability but not conclusive for instability. The submitted records do not include any dynamic lumbar radiographs to establish instability at these levels and the degree of translation that occurs.

I would further note that current evidence-based guidelines require that employees undergoing lumbar fusion undergo a preoperative psychiatric evaluation to address any potential confounding issues that would interfere with the employee's recovery. It was noted that the records do not include any flexion or extension radiographs or a preoperative psychiatric clearance, and therefore, medical necessity has not been established through the ***Official Disability Guidelines***.

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. Deyo RA, Nachemson A, Mirza SK, Spinal-fusion surgery - the case for restraint, N Engl J Med. 2004 Feb 12;350(7):722-6
3. Gibson JN, Waddell G. Surgery for degenerative lumbar spondylosis: updated Cochrane Review. *Spine*. 2005 Oct 15;30(20):2312-20.
4. Atlas SJ, Delitto A. Spinal Stenosis: Surgical versus Nonsurgical Treatment. Clin Orthop Relat Res. 2006 Feb;443:198-207.
5. Resnick DK, Choudhri TF, Dailey AT, Groff MW, Khoo L, Matz PG, Mummaneni P, Watters WC 3rd, Wang J, Walters BC, Hadley MN; American Association of Neurological Surgeons/Congress of Neurological Surgeons. Guidelines for the performance of fusion procedures for degenerative disease of the lumbar spine. Part 7: intractable low-back pain without stenosis or spondylolisthesis. J Neurosurg Spine. 2005 Jun;2(6):670-2.