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

Amended Review 5/6/08

DATE OF REVIEW: May 5, 2008

IRO Case #:

Description of the Service or Services in Dispute:

Medical necessity of Discography L3/4, L4/5, L4, S1.

A Description of The Qualifications for Each Physician or Other Health Care Provider who Reviewed the Decision:

This case was reviewed by a PHYSICAL MED/REHAB. The reviewer has signed a certification statement stating that no known conflicts of interest exist between the reviewer and the injured employee, the injured employee's employer, the injured employee's insurance carrier, the utilization review agent (URA), any of the treating doctors or other health care providers who provided care to the injured employee, or the URA or insurance carrier health care providers who reviewed the case for a decision regarding medical necessity before referral to the IRO. In addition, the reviewer has certified that the review was performed without bias for or against any party to the dispute.

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 discography at L3/4, L4/5, and L5/S1 is not medically necessary or supported by current evidence based guidelines.

Information provided to the IRO for review:

1. Utilization Review Determination dated 03/03/2008 7 PAGES
2. Utilization Review Determination dated 04/10/2008 6 PAGES
3. Request for Discography 3/7/2008 1 page
4. MRI Cervical Spine dated 06/06/2007 1 page
5. MRI lumbar Spine dated 12/07/2007 2 pages
6. Radiographic reports dated 05/08/2007 1 page
7. MRI Lumbar Spine dated 12/19/2007 2 pages
8. Prescription refill request 2/27/2008 1 page
9. Clinical assessment 2/26/2008 5 pages
10. Radiological review 2/26/2008 4 pages
11. Denial letter 4/10/2008 6 pages
12. Request for discography 3/7/08 2 pages
13. MRI report 5/8/2007 1 page
13. MRI report 6/6/2007 3 pages
14. Utilization review determination letter 2/28/2008 3 pages
15. Physician notes 5/4/2007-4/14/08 94 pages
16. Clinical assessment 2/26/2008 4 pages
17. MRI 2/26/2008 2 pages
18.

Patient clinical history [summary]:

The patient is a male who is reported to have been involved in a work related MVA on xx/xx/xx. On the date of injury his delivery truck jackknifed and he sustained injuries to the neck radiating down into the arm into the back radiating down to the leg.

He was initially followed by a company physician who reported the patient had sustained injuries to his neck and low back as a result of a work place event occurring on xx/xx/xx. The submitted medical records include an MRI of the cervical spine dated 12/07/07. This study reports a congenitally small AP diameter of the cervical central canal. The patient is status post anterior cervical fusion at C5-6 with an unremarkable postoperative period. There is a shallow symmetrical disc bulge at C6-7 which results in effacement of the anterior subarachnoid space but does not result in definite cord or lateralizing nerve root impingement.

An MRI of the lumbar spine was performed on 12/19/07. At the L5-S1 level the disc appears normal without degenerative narrowing or disc protrusion. The central canal and neural foramina are adequate without osteophytic encroachment. Incidentally noted is partial sacralization of L5. The central canal and neural foramina are widely patent at this level. At L4-5 there is minimal disc

space narrowing and partial desiccation of the disc substance. There is not a substantial disc bulge or lateralizing focal disc herniation. The central canal appears adequate. There does appear to be some degree of left foraminal narrowing due to an intraforaminal disc bulge. The perineural fat plane surrounding the exiting L4 nerve root appears to be preserved. The remaining levels are unremarkable. The central canal and neural foramina are widely patent at these levels.

The patient was seen by Dr. a designated doctor on 01/29/08. He reports that the patient has been treated with physical therapy and medications. He has persistent back pain greater than leg pain as well as neck and arm pain. He is reported to have a nerve conduction study done that reports radiculopathy. The patient is status post an anterior cervical discectomy and fusion on 09/04/07. He has recently been seen by Dr. for continued back pain. Dr. has referred the patient for physical therapy. He continues to complain of neck pain although this is better than before and he has decreased range of motion and less symptoms in the right arm. On physical examination the patient has limited neck range of motion with a negative Spurling's. Motor reflexes are symmetrical. He has no tenderness of the cervical spine. Lumbar spine shows limited range of motion. He has a negative straight leg raise. Motor and reflexes are symmetrical. He does have some tenderness in the lumbosacral paraspinal muscles. Dr. opines that the patient is not at maximum medical improvement and he has recently started treatment for his low back. Dr. opines the patient will be at maximum medical improvement with conservative treatment.

A follow-up note dated 02/18/08 indicates that the patient has increased pain in the low back with radiation into the right leg. He continues to have limited range of motion and hasn't seen much improvement with physical therapy. On physical exam reflexes are normal. Straight leg raising causes no pain. He has decreased sensation in the right lower extremity below the knee in all dermatomes and in the lateral aspect of the right thigh. Internal and external rotation of the hips causes low back pain. Dr. reports that the patient continues to have right lower extremity numbness and his MRI does not show abnormalities in the right lumbar region. He recommends obtaining a CT scan of the abdomen and pelvis. He additionally recommends obtaining a lumbar discogram at L3-4, L4-5 and L5-S1.

On 02/28/2008 the case was reviewed by Dr. Dr. indicates that the patient is reported to have sustained injuries as a result of a motor vehicle accident on xx/xx/xx. The patient was recently evaluated by a designated doctor who reports no evidence of lumbar radiculopathy on his physical examination. He notes the patient is reported to have had electrodiagnostic studies. He indicates this report is not available for review and it is unknown as to whether this pertains to the upper or lower extremities. The patient's MRI imaging shows mild degenerative changes at L4-5 and L5-S1 without significant findings on this study that would account for the patient's continued low back pain and radiation into the right lower extremity. Dr. finds the requested CTs of the abdomen and pelvis to evaluate the patient are not indicated. He suggests that it may be reasonable to perform

CT myelography of the lumbar spine to ascertain if there is occult pathology affecting a nerve root. He reports that Lumbar discography is not currently supported by evidence based guidelines. Physician contact was not made.

A second request was reviewed by Dr. on 04/10/2008. Dr. reports "the request for discography and post discography do not appear medically necessary. It does not appear that this patient is being considered for surgery for the lumbar spine. Additionally, he has not met criteria to proceed with this discography. All the qualifying conditions must be met prior to proceeding to discography, as discography should be used as a non-diagnostic but confirmatory study for selecting operative levels for a proposed surgical procedure. This is not the case with this patient. Additionally, his MRI from December of 2007 does not support the presence of significant pathology in the lumbar spine. Therefore, the discography and post discography CT are not seen as medically indicated at this time".

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

Items in dispute: Lumbar Discography at L3/4, L4/5 and L5/S1.

The request for lumbar discography at L3/4, L4/5, and L5/S1 is not medically necessary or supported by current evidence based guidelines. The Official Disability Guidelines report "In the past, discography has been used as part of the pre-operative evaluation of patients for consideration of surgical intervention for lower back pain. However, the conclusions of recent, high quality studies on discography have significantly questioned the use of discography results as a preoperative indication for either IDET or spinal fusion. These studies have suggested that reproduction of the patient's specific back complaints on injection of one or more discs (concordance of symptoms) is of limited diagnostic value. (Pain production was found to be common in non-back pain patients, pain reproduction was found to be inaccurate in many patients with chronic back pain and abnormal psychosocial testing, and in this latter patient type, the test itself was sometimes found to produce significant symptoms in non-back pain controls more than a year after testing.) Also, the findings of discography have not been shown to consistently correlate well with the finding of a High Intensity Zone (HIZ) on MRI. Discography may be justified if the decision has already been made to do a spinal fusion, and a negative discogram could rule out the need for fusion (but a positive discogram in itself would not allow fusion). (Carragee-Spine, 2000) (Carragee2-Spine, 2000) (Carragee3-Spine, 2000) (Carragee4-Spine, 2000) (Bigos, 1999) (ACR, 2000) (Resnick, 2002) (Madan, 2002) (Carragee-Spine, 2004) (Carragee2, 2004) (Maghout-Juratli, 2006) (Pneumaticos, 2006) (Airaksinen, 2006) Discography may be supported if the decision has already been made to do a spinal fusion, and a negative discogram could rule out the need for fusion on that disc (but a positive discogram in itself would not justify fusion). Discography may

help distinguish asymptomatic discs among morphologically abnormal discs in patients without psychosocial issues. Precise prospective categorization of discographic diagnoses may predict outcomes from treatment, surgical or otherwise. (Derby, 2005) (Derby2, 2005) (Derby, 1999) Positive discography was not highly predictive in identifying outcomes from spinal fusion. A recent study found only a 27% success from spinal fusion in patients with low back pain and a positive single-level low-pressure provocative discogram, versus a 72% success in patients having a well-accepted single-level lumbar pathology of unstable spondylolisthesis. (Carragee, 2006) The prevalence of positive discogram may be increased in subjects with chronic low back pain who have had prior surgery at the level tested for lumbar disc herniation. (Heggeness, 1997) Discography involves the injection of a water-soluble imaging material directly into the nucleus pulposus of the disc. Information is then recorded about the pressure in the disc at the initiation and completion of injection, about the amount of dye accepted, about the configuration and distribution of the dye in the disc, about the quality and intensity of the patient's pain experience and about the pressure at which that pain experience is produced. Both routine x-ray imaging during the injection and post-injection CT examination of the injected discs are usually performed as part of the study. There are two diagnostic objectives: (1) to evaluate radiographically the extent of disc damage on discogram and (2) to characterize the pain response (if any) on disc injection to see if it compares with the typical pain symptoms the patient has been experiencing. Criteria exist to grade the degree of disc degeneration from none (normal disc) to severe. A symptomatic degenerative disc is considered one that disperses injected contrast in an abnormal, degenerative pattern, extending to the outer margins of the annulus and at the same time reproduces the patient's lower back complaints (concordance) at a low injection pressure. Discography is not a sensitive test for radiculopathy and has no role in its confirmation. It is, rather, a confirmatory test in the workup of axial back pain and its validity is intimately tied to its indications and performance. As stated, it is the end of a diagnostic workup in a patient who has failed all reasonable conservative care and remains highly symptomatic. Its validity is enhanced (and only achieves potential meaningfulness) in the context of an MRI showing both dark discs and bright, normal discs -- both of which need testing as an internal validity measure. And the discogram needs to be performed according to contemporary diagnostic criteria -- namely, a positive response should be low pressure, concordant at equal to or greater than a VAS of 7/10 and demonstrate degenerative changes (dark disc) on MRI and the discogram with negative findings of at least one normal disc on MRI and discogram. See also Functional anesthetic discography (FAD).

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

The Official Disability Guidelines