



IMED, INC.

11625 Custer Road • Suite 110-343 • Frisco, Texas 75035
Office 972-381-9282 • Toll Free 1-877-333-7374 • Fax 972-250-4584
e-mail: imeddallas@msn.com

Notice of Independent Review Decision

DATE OF REVIEW: 04/19/11

IRO CASE NO.:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:

Item in dispute: Deny outpatient lumbar discogram/CT L3-S1 at medical facility for Diagnostic Surgery as requested by Dr.

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

Texas Board Certified Orthopedic Spine Surgeon

REVIEW OUTCOME

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

Denial Upheld

INFORMATION PROVIDED TO THE IRO FOR REVIEW

1. 04/28/09 - MRI Lumbar Spine
2. 08/23/10 - Clinical Note - MD
3. 08/23/10 - Radiographs Lumbar Spine
4. 09/27/10 - Clinical Note - MD
5. 10/18/10 - Clinical Note - MD
6. 10/27/10 - MRI Lumbar Spine
7. 10/28/10 - Clinical Note - MD
8. 11/18/10 - Clinical Note - MD
9. 11/18/10 - Radiographs Lumbar Spine
10. 01/07/11 - Clinical Note - MD
11. 01/20/11 - Utilization Review
12. 02/23/11 - Utilization Review
13. 03/18/11 - Denial Letter
14. 03/31/11 - Prospective Review Response
15. **Official Disability Guidelines**

PATIENT CLINICAL HISTORY (SUMMARY):

The patient is a male who was injured in a motor vehicle accident on XX/XX/XX.

An MRI of the lumbar spine performed 04/28/09 demonstrates a 4-5 mm broad-based posterior disc protrusion at L2-L3, causing impression on the anterior thecal sac slightly greater to the right of midline. There are degenerative facet joint changes seen. There

was no central canal or neural foraminal stenosis identified. At L3-L4, there was a 4 mm broad-based posterior disc protrusion containing an annular fissure minimally exceeding small posterolateral osteophytes causing mass-effect on the anterior aspect of the thecal sac. There was minimal bilateral neural foraminal narrowing seen. At L4-L5, there was a 7 mm posterior disc extrusion extending slightly behind the inferior margin of L4 causing impression on the anterior aspect of the thecal sac. At L5-S1, there was a 5-6 mm posterior disc protrusion lateralizing slightly to the right of midline without central canal stenosis.

The claimant saw Dr. on 08/23/10. The claimant complained of low back pain with radiation into the left lateral thigh. The claimant denied bowel or bladder dysfunction. Current medications included Flexeril and ibuprofen. Physical examination revealed tenderness at L5-S1 and over the superior pole of the sacroiliac joint bilaterally. Lumbar range of motion was limited. There was positive facet loading on the left. There was some tenderness over the left iliac crest. Sensation was intact throughout. Straight leg raise was negative. Radiographs of the lumbar spine performed 08/23/10 demonstrated some narrowing at L5-S1 and possibly at L4-L5. There was little retrolisthesis of L5 on S1. The claimant was assessed with low back pain with possible discogenic pain and possible facet syndrome. The claimant was recommended for physical therapy. The claimant was prescribed Lodine.

The claimant saw Dr. on 10/18/10. Physical examination revealed negative sitting root test. There was tenderness at L5-S1. There was positive facet loading on the left. The claimant was recommended for MRI of the lumbar spine.

An MRI of the lumbar spine performed 10/27/10 demonstrates a 4 mm broad-based posterior disc protrusion at L2-L3 with impression on the anterior aspect of the thecal sac. Degenerative facet joint changes were identified. There was no central canal stenosis or foraminal stenosis. At L3-L4, there was a 4-5 mm broad-based posterior disc protrusion containing an annular fissure. This exceeded small posterior laterally projecting osteophyte with impression on the anterior aspect of the thecal sac. Minimal bilateral neural foraminal narrowing was identified. At L4-L5, there was a 5-6 mm broad-based posterior disc protrusion causing impression on the anterior thecal sac. There was no central canal stenosis. At L5-S1, there was a 5-6 mm broad-based posterior disc protrusion causing impression on the anterior aspect of the thecal sac minimally greater to the right of midline without signs of central canal stenosis. Mild degenerative facet joint changes were seen. There was no neural foraminal stenosis identified.

The claimant saw Dr. on 11/18/10. The claimant described axial back pain. Prior treatment includes physical therapy, injections, and rhizotomy without relief. Physical examination reveals slightly limited lumbar range of motion with pain on extension. There was no evidence of motor, sensory, or reflex abnormalities. There was no evidence of nerve root tension or myelopathy. Radiographs of the lumbar spine demonstrated good alignment of the spine with no obvious focal degenerative changes. The claimant was assessed with mechanical low back pain secondary to multilevel disc desiccation. The claimant was recommended for lumbar discography.

The claimant saw Dr. on 01/07/11 with continued low back pain. Physical examination was not performed. The claimant was recommended for lumbar discography.

The request for lumbar discography was denied by utilization review on 01/20/11 as not being consistent with evidence based medicine per Official Disability Guidelines.

The request for lumbar discography was denied by utilization review on 02/23/11 as recent, high quality studies have significantly questioned the use of discography results as a preoperative indication for either intradiscal electrothermal therapy or fusion.

The request for lumbar discography was denied by utilization review on 03/31/11 as there was no evidence to support if the claimant was a legitimate surgical candidate. The proposed lumbar discogram will not provide any additional data for further treatment.

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

The request for Deny outpatient lumbar discogram/CT L3-S1 at medical facility for Diagnostic Surgery as requested by Dr. is not recommended as medically necessary. Discography is not recommended within current evidence based guidelines as there are several high quality studies which significantly question the efficacy of the procedure in determining the appropriateness of lumbar surgical intervention for discogenic pain. There is no clinical documentation provided for review to support that the patient should exceed guideline recommendations for discography. There is no indication that the patient has exhausted all reasonable methods of determining pain generators, to include medial branch blocks and selective nerve root blocks. There is no psychological evaluation provided for review. Additionally, guidelines indicate that if discography is to be performed, that is be limited to two levels with one level being the control level. The current request appears to be for four levels. As the request is not recommended within current evidence-based guidelines and the clinical documentation does not support that the patient should exceed guidelines recommendations.

A DESCRIPTION AND THE SOURCE OF THE SCREENING CRITERIA OR OTHER CLINICAL BASIS USED TO MAKE THE DECISION

1. Official Disability Guidelines, Online Version, Low Back Chapter

Not recommended. 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](#)) (Pneumatics, 2006) (Airaksinen, 2006) ([Manchikanti, 2009](#)) 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) Invasive diagnostics such as provocative discography have not been proven to be accurate for diagnosing various spinal conditions, and their ability to effectively guide therapeutic choices and improve ultimate patient outcomes is uncertain. (Chou, 2008) Although discography, especially combined with CT scanning, may be more accurate than other radiologic studies in detecting degenerative disc disease, its ability to improve surgical outcomes has yet to be proven. It is routinely used before IDET, yet only occasionally used before spinal fusion. ([Cohen, 2005](#)) Provocative discography is not recommended because its diagnostic accuracy remains uncertain, false-positives can occur in persons without low back pain, and its use has not been shown to improve clinical outcomes. (Chou2, 2009) This recent RCT concluded that, compared with discography, injection of a small amount of bupivacaine into the painful disc was a better tool for the diagnosis of discogenic LBP. (Ohtori, 2009) Discography may cause disc degeneration. Even modern discography techniques using small gauge needle and limited pressurization resulted in accelerated disc degeneration (35% in the discography group compared to 14% in the control group), disc herniation, loss of disc height and signal and the development of reactive endplate changes compared to match-controls. These findings are of concern for several reasons. Discography as a diagnostic test is controversial and in view of these findings the utility of this test should be reviewed. Furthermore, discography in current practice will often include injecting discs with a low probability of being symptomatic in an effort to validate other disc injections, a so-called control disc. Although this strategy has never been confirmed to increase test validity or utility, injecting normal discs even with small gauge needles appears to increase the rate of degeneration in these discs over time. The phenomenon of accelerated adjacent segment degeneration adjacent to fusion levels may be, in part, explained by previous disc puncture if discography was used in segments adjacent to the fusion. Similarly, intradiscal therapeutic strategies (injecting steroids, sclerosing agents, growth factors, etc.) have been proposed as a method to treat, arrest or prevent symptomatic disc disease. This study suggests that the injection procedure itself is not completely innocuous and a recalculation of these demonstrated risks versus hypothetical benefits should be considered. (Carragee, 2009) 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.