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Notice of Independent Review Decision

DATE OF REVIEW: 12/26/08

IRO CASE NO.:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:

Item in dispute: Lumbar discography at L2-L3, L3-L4, L4-L5, and L5-S1

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

Board Certified Orthopedic 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. Report of medical evaluation and Designated Doctor Evaluation determination Dr. 05/06/08
2. MRI of lumbar spine 05/18/07.
3. Office notes from , M.D. June through September, 2008
4. Psychological evaluation and testing by , ., Psychologist, dated 07/07/08
5. Repeat MRI of the lumbar spine 10/02/08
6. Notification of determination from services x2 dated 11/05/08, 11/26/08
7. Demographic and workers' compensation data sheet from Spine Cure dated 12/09/08
9. **Official Disability Guidelines**

PATIENT CLINICAL HISTORY (SUMMARY):

Initial medical examination was performed by Dr. , M.D., MPH on 05/06/08. The history of the present illness indicated the employee was using a 10 pound sledgehammer while working on some steel rebar. He swung with the hammer and missed the rebar falling six feet below to the ground landing on his right side. The physical examination on that date showed him to be pleasant and cooperative. He had pain in his right lower

back rated as a 7/10. He was unable to stand erect; and there was tenderness with spasm in the right lower back. Range of motion of the lumbar spine was decreased. Strength of the lower extremities was 4/5 on the right and 5/5 on the left. The biceps, triceps, brachioradialis reflexes were 2+ and equal. There were no sensory deficits in the upper extremities. Straight leg raise was positive on the right. Patellar tendon reflexes were diminished on the right. There was decreased sensation to pinprick over the right lower leg. The diagnosis was displacement of lumbar intervertebral disc and adhesive capsulitis, right shoulder. The employee was not at Maximum Medical Improvement (MMI), and based on Dr. 's evaluation, the employee needed further medical care through evaluation by an orthopedic surgeon.

There was an MRI dated 05/18/07, which revealed L1-L2, L2-:3, and L3-L4 to be normal appearing discs. L4-L5 showed a broad 1 mm disc protrusion. L5-S1 showed a 1 mm disc protrusion with 2 mm of left paracentral component, and a zone of hyper intensity was also seen within the left paracentral region, suggesting the disc was acutely irritated and edematous.

The employee was seen by on 06/02/08 at Spine Care. He complained of primary pain in the low back that radiated to his right ankles circumferentially. He had difficulty standing or sitting for any long period of time. Physical examination revealed the employee unable again to stand erect. He leaned forward antalgically to approximately 15-20 degrees. Lateral bending revealed restricted motion in both directions and paraspinous spasms bilaterally. Extension and rotation was heavily guarded in both directions. He was tender over the lower lumbar levels on the right and moderate over the right SI and right trochanteric bursa. Deep tendon reflexes were hyporeactive in both knees and equally reactive at the ankles. Straight leg raise was positive bilaterally, right greater than left. Lasegue's was positive on the right with pain reproduction in the ipsilateral low back. Motor strength was 4/5 with breakaway of the right hip flexors. The impression was unremitting back and leg pain for one year with only a partial limited short-term response to epidural steroid injections. The recommendation was to proceed with lumbar discography at the three lower intervertebral disc spaces. This was to be done without sedation. Prior psychological evaluation was also recommended based on **Official Disability Guidelines**.

On 07/07/08, the employee underwent psychological evaluation and testing. The psychological evaluation did not show any issues with possible secondary gain. The employee seemed to understand his condition and the need for a discogram. The recommendation was to proceed with the discogram.

The employee saw Dr. on 09/15/08. It was noted that he had not undergone a discogram at that point and remained symptomatic on physical examination. The plan was to repeat the lumbar MRI and continue to seek approval for discogram.

On 10/02/08, the employee had a repeat MRI of the lumbar spine without contrast. The impression showed multilevel degenerative changes. There was a left paracentral disc protrusion with the annular tear involving the L5-S1 disc; however, there was no significant central canal or neural foraminal stenosis with no acute osseous abnormality identified.

The employee returned to Dr. on 10/06/08 post MRI. His physical examination was unchanged when compared with his previous physical examination. He was still very symptomatic. Current medications included Soma, Hydrocodone, Lyrica, and Celebrex. The recommendations at that time included continuing to pursue lumbar discography, with the rationale being injury post failure of interventional blocks; post failure of active and passive range of motion physical therapy; and demonstration of acquired deterioration of the L5-S1 disc post date of injury.

The records contain an adverse utilization review determination authored by Dr. performed on 11/05/08. Dr. noted that clinical records indicate a request for three level discography, however, the request was for four levels. The submitted medical records do not clarify this. Dr. engaged in a telephonic consultation with an authorized representative of Dr. . The ultimate determination was to non-certify the request.

On 11/26/06, the request was reviewed by Dr. who did not find the request to be medically necessary. Dr. reported that current evidenced-based guidelines did not support the performance of lumbar discography as a preoperative indication for IDET or spinal fusion.

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

I would concur with the previous reviewers that lumbar discography is not supported by the **Official Disability Guidelines**. The **Official Disability Guidelines** do not recommend the performance of lumbar discography as an indication for the performance of lumbar fusion. The records indicate that the employee has failed conservative care and is potentially a surgical candidate. The records do not document instability or indicate that the employee has undergone facet injections to rule out posterior element disease as an isolated cause of the employee's low back pain. Discography should be limited and only be performed after all other possible causes of low back pain have been eliminated. The decision to perform a fusion procedure should have been prior to this, and discography should be used to exclude levels rather than include levels of treatment.

ODG, Low Back Chapter

Discography	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
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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](#))

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](#)) 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).

Discography is Not Recommended in ODG.

Patient selection criteria for Discography if provider & payor agree to perform anyway:

- o Back pain of at least 3 months duration
- o Failure of recommended conservative treatment including active physical therapy
- o An MRI demonstrating one or more degenerated discs as well as one or more normal appearing discs to allow for an internal control injection (injection of a normal disc to validate the procedure by a lack of a pain response to that injection)
- o Satisfactory results from detailed psychosocial assessment (discography in subjects with emotional and chronic pain problems has been linked to reports of significant back pain for prolonged periods after injection, and therefore should be avoided)
- o Intended as a screen for surgery, i.e., the surgeon feels that lumbar spine fusion is appropriate but is looking for this to determine if it is not indicated (although discography is not highly predictive) ([Carragee, 2006](#)) NOTE: In a situation where the selection criteria and other surgical indications for fusion are conditionally met, discography can be considered in preparation for the surgical procedure. However, all of the qualifying conditions must be met prior to proceeding to discography as discography should be viewed as a non-diagnostic but confirmatory study for selecting operative levels for the proposed surgical procedure. Discography should not be ordered for a patient who does not meet surgical criteria.
- o Briefed on potential risks and benefits from discography and surgery
- o Single level testing (with control) ([Colorado, 2001](#))
- o Due to high rates of positive discogram after surgery for lumbar

	disc herniation, this should be potential reason for non-certification
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A DESCRIPTION AND THE SOURCE OF THE SCREENING CRITERIA OR OTHER CLINICAL BASIS USED TO MAKE THE DECISION

1. *Official Disability Guidelines*