



Notice of Independent Review Decision
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DATE OF REVIEW: 6/17/10

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE

Discogram at L3-4, L4-5, and L5-S1 with fluoroscopy and post CT scan

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

Certified by the American Board of Orthopaedic Surgery

REVIEW OUTCOME

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

- Upheld (Agree)
- Overturned (Disagree)
- Partially Overturned (Agree in part/Disagree in part)

Injury date	Claim #	Review Type	ICD-9 DSMV	HCPCS/ NDC	Upheld/ Overturned
		Prospective	722.10	62290 x3 72295 x3 77003	Upheld

INFORMATION PROVIDED TO THE IRO FOR REVIEW

Correspondence throughout appeal process, including first and second level decision letters, reviews, letters and requests for reconsideration, and request for review by an independent review organization.

Practitioners' letters/notes/evaluations dated 10/9/09, 2/5/10, 2/19/10, 3/16/10, 3/19/10, 5/12/10, 5/21/10

Procedure note dated 2/3/10

EMG/NCS report dated 10/9/09

X-ray report dated 9/10/09

Official Disability Guidelines cited but not provided

PATIENT CLINICAL HISTORY:

The patient is a male who is reported to have sustained an injury to his low back as a result of lifting on xx/xx/xx. MRI of the lumbar spine was performed on 09/10/09. This study shows no abnormalities from T12 to L2-3. There is desiccation in disc space at L5-S1 with moderate degenerative endplate changes. There are mild scattered degenerative endplate changes at remaining levels. At L3-4 there is mild disc bulge with superimposed small right central disc herniation. There is bilateral early facet osteoarthritis. There is mild spinal canal stenosis and mild bilateral foraminal narrowing. At L4-5 there is moderate broad based central disc herniation with bilateral facet osteoarthritis, moderate spinal canal stenosis. There is mild right foraminal narrowing and moderate left foraminal narrowing. At L5-S1 there is mild disc bulge with adjacent

endplate osteophytes. There is bilateral facet osteoarthritis. There is no spinal canal stenosis. There is moderate to severe bilateral foraminal narrowing, right worse than left.

Evaluation of 10/9/09 noted that after the injury the patient reported feeling paralyzed and remained in bed for 2 to 3 days. He complains of low back pain and lower extremity weakness. He is reported to have past surgical history of low back surgery performed in 1992. On physical examination there is no evidence of weakness or numbness, no atrophy, spasticity, or clonus. The ankle reflexes are absent bilaterally.

EMG/NCV study on 10/09/09 is reported to be consistent with mild to moderate sensory neuropathy of unclear etiology. There is no evidence of lumbar radiculopathy. On 02/03/10 the patient underwent a right L5 transforaminal epidural steroid injection. The patient was evaluated on 02/05/10. It is reported that the patient is status post epidural steroid injection that has not helped at all. He is reported to be status post 3 epidural steroid injections, therapy, and anti-inflammatories. He has very severe pain when he tries to forward flex. He was subsequently referred for neurosurgical evaluation.

The patient was seen on 03/16/10 and it is noted that he denies any loss of bowel or bladder. He reports pain management is of little help. He was on Lyrica previously but is no longer taking it. He reports never having surgery or blood transfusions. On physical examination sensation is intact to light touch. Motor strength on the left is full, on the right it is 4+. Dorsiflexion and plantar flexion are 4+. Gait is antalgic. Sensation is decreased to light touch. He has pain with straight leg raise on right. It was recommended that the patient undergo lumbar discography at L3-4, L4-5 and L5-S1.

The patient was evaluated on 05/12/10 and is reported to be unable to work due to significant pain levels. He is reported to have chronic pain syndrome. On examination of the lumbar spine there are no surgical scars. There is pain with flexion and extension. Kemp's test is negative. Gait is within normal limits. Straight leg raise is positive at L4 and L5 mostly to the right with diminished sensation and diminished strength graded as 4+/5. Deep tendon reflexes appear mildly diminished and mostly to the right. On the left there is diminished sensation and mildly diminished strength. The patient is again recommended to undergo lumbar discography.

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

In the Reviewer's opinion, the request for lumbar discogram at L3-4, L4-5 and L5-S1 with fluoroscopy and post CT scan is not supported by the submitted clinical information. The available clinical record indicates the patient sustained an injury to his low back as result of lifting. Records indicate the patient has been treated with oral medications and physical therapy as well as epidural steroid injections with no relief in his low back pain with radiation to bilateral lower extremities. The records do not indicate the patient has exhausted conservative treatment. The available medical records indicate the claimant has evidence of posterior element disease which has not been excluded as potential cause for the patient's low back pain. EMG/NCV does not provide any data to establish the presence of lumbar radiculopathy. There is evidence of sensory neuropathy, etiology unknown. Current evidence based guidelines do not support use of lumbar discography as isolated indication for performance of spinal fusion surgery. It would further be noted that the request as submitted for discography at L3-4, L4-5 and L5-S1 involves the performance of controversial diagnostic study at 3 degenerated levels. There is no request for negative control. It is further noted that current evidence based guidelines require that patients be referred for preoperative psychological evaluation to address any potentially confounding issues which may skew results of controversial study. In conclusion, given that the patient has not failed all conservative treatment to be considered a surgical candidate, and that the primary evidence based indication for discography is to exclude

levels of surgery, and that the patient has not undergone preoperative psychological evaluation, the request is not medically necessary or supported by current evidence based guidelines.

Reference:

The 2010 Official Disability Guidelines, 15th edition, The Work Loss Data Institute. Online edition.

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 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) (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. 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

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

- ACOEM- AMERICAN COLLEGE OF OCCUPATIONAL & ENVIRONMENTAL MEDICINE UM KNOWLEDGEBASE
- AHCPR- AGENCY FOR HEALTHCARE RESEARCH & QUALITY GUIDELINES
- DWC- DIVISION OF WORKERS COMPENSATION POLICIES OR GUIDELINES
- EUROPEAN GUIDELINES FOR MANAGEMENT OF CHRONIC LOW BACK PAIN
- INTERQUAL CRITERIA
- MEDICAL JUDGEMENT, CLINICAL EXPERIENCE AND EXPERTISE IN ACCORDANCE WITH ACCEPTED MEDICAL STANDARDS
- MERCY CENTER CONSENSUS CONFERENCE GUIDELINES
- MILLIMAN CARE GUIDELINES
- ODG- OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES
- PRESSLEY REED, THE MEDICAL DISABILITY ADVISOR
- TEXAS GUIDELINES FOR CHIROPRACTIC QUALITY ASSURANCE & PRACTICE PARAMETERS
- TEXAS TACADA GUIDELINES
- TMF SCREENING CRITERIA MANUAL
- PEER REVIEWED NATIONALLY ACCEPTED MEDICAL LITERATURE (PROVIDE A DESCRIPTION)
- OTHER EVIDENCE BASED, SCIENTIFICALLY VALID, OUTCOME FOCUSED GUIDELINES (PROVIDE A DESCRIPTION)