



505 N. Sam Houston Pkwy E., Suite 200  
Houston, TX 77060

Phone: 832-260-0439

Fax: 832-448-9314

Notice of Independent Review Decision

**DATE OF REVIEW:** MAY 16, 2011

**IRO CASE #:**

**DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE**

(24445) Discogram/CT L-Spine L3-4 L4-5

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

This physician is a Board Certified Orthopedic Surgeon.

**REVIEW OUTCOME**

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

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

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.

**INFORMATION PROVIDED TO THE IRO FOR REVIEW**

On February 19, 2007 there is an MRI of the lumbar spine w/wo contrast, the indication is lumbar radiculopathy read by MD. The findings state post operative changes are suggested at the L4-5 level where two well positioned cages are noted within the intervertebral disc space. Immediately above the operative site at L3-4 a broad based moderately compressive left paracentral disc herniation is observed, no other significant disc findings are observed; no evidence of canal or foraminal stenosis. The findings state uncomplicated post operative changes, L4-5, mildly compressive central/left paracentral disc herniation, L3-4.

On August 8, 2007 there is an office visit note by MD. Lower extremity neurologic states slightly decreased pinprick in the right L4 and L5 distribution, there is tenderness noted in the left lumbosacral region without masses or spasms. The assessment states low back pain, right lower extremity radiculopathy at L4 with some possible L5 involvement

On August 8, 2007 there is a procedure note for a lumbar epidural steroid injection by MD.

On August 21, 2007 there is an EMG report from regarding the claimant's EMG for the left upper extremity.

On August 21, 2007 there is a letter from MD to MD. Stating the electrodiagnostic study for the left upper extremity shows that the claimant has one of the following 2 diagnoses: one is mild subacute left C5 and C8 radiculopathy or mild subacute left lower trunk brachial plexopathy.

On August 22, 2007 there is a procedure note for a lumbar epidural steroid injection by MD.

The next form is an undated Work Comp Profile. There is a hand written notation at the bottom of the form with the date of 1/26/11.

On September 20, 2007 there is a procedure note for a lumbar epidural steroid injection by MD.

On January 11, 2008 there is a procedure note for a lumbar epidural steroid injection by MD.

On March 17, 2008 there is a follow up appointment note by MD. the examination states gait and station are stiff, pain on palpation of the mid and lower lumbosacral region, change of medication: hydrocodone, which can be used on prn basis and start on lyrica 50mg one at HS increasing as tolerated to 1 each a.m. and 2 at h.s.

On March 26, 2008 there is a phone call note which states the claimant called and stated the lyrica caused a rash on his chest, d.c. lyrica and authorized Lortab 7.5/500, one tab bid prn pain.

On April 17, 2008 there is a note that states claimant is having increased pain with activity and weather and is requiring more Lortab; changed Lortab to 1 every 6 to 8 hrs.

On June 27, 2008 there is a follow up appointment note by MD. The physical examination states: motor 4/5 right ankle dorsiflexion, sensory decreased pin prick in a right L4 and L5 distribution otherwise intact, there is lumbosacral tenderness. The assessment states right lower extremity radiculopathy.

On July 15, 2008 there is a procedure note for a lumbar epidural steroid injection by MD.

On August 8, 2008 there is a follow up appointment note by MD. The assessment states disc herniation, low back pain, right lower extremity radiculopathy. The plan states restart the MS Contin.

On August 22, 2008 there is a follow up appointment note by MD. The dose of MS Contin 15mg is increased to 2 tabs every 12 hours.

On September 12, 2008 there is a follow up appointment visit note by MD which states the claimant had an adverse reaction to the morphine. The assessment states herniated disc L3-4, plan is new MRI of the lumbar spine with contrast and weight bearing 7 view x-rays, start Neurontin 100mg an increase to 1 tab 3 x daily, consultation with Dr., who did the claimant's original surgery.

On October 9, 2008 the claimant was seen for a follow up appointment with MD stating the Neurontin gave him shortness of breath. The physical examination states straight leg raises and Patrick's testing are negative, start Ultram, one to two tabs every 6 hours prn pain.

On October 9, 2008 there is an MRI-lumbar spine with and without contrast read by MD. The conclusion states there is new right-sided disc protrusion/extrusion at L1-2, previous fusion at L4-5 and additional mild multi level degenerative changes.

On October 9, 2008 there is a lumbar spine, 7 views read by MD. The conclusion states seven view lumbar spine reveals fusion of L4-5 and mild diffuse spondylosis.

On January 20, 2009 there is a note by MD which state the claimant states the Ultram is not helping him, will give him Lortab 7.5/500mg one to two q6 hours prn pain.

On October 1, 2009 there is a note to the disability Determination Officer by MD, FICS. Straight leg raising supine was 60 degrees bilaterally, straight leg raising seated was 60 degrees bilaterally, back range of motion was flexion-32 degrees, extension was 6 degrees, lateral flexion right was 12 degrees and lateral flexion left was 12 degrees, Waddell's test was 0 out of 8 positive which is not significant for symptom magnification. The impairment rating given was 7 % whole person impairment.

On October 1, 2009 there is a Report of Medical Evaluation by MD which shows a 7% impairment rating.

On March 9, 2010 there is a follow up visit appointment note by MD. the lower extremity neurologic exam states reflexes 0-1+ knees, 0/4 ankles with going down toes, sensory normal pin prick, bilateral ankle dorsiflexion, straight leg raise testing and Patrick's testing were negative on the right, this was not done on the left side because he has a knee brace on and I do not want to cause him pain in his knee.

April 13, 2010 there is an MRI- lumbar spine without contrast read by T. MD. The conclusion states the previously noted disk protrusion at L1=L3 is no longer present, likely surgically removed. No significant interval change is otherwise noted. There is a re-demonstration of the left paracentral disk protrusion at L3-L4.

April 13, 2010 there is a lumbar spine, 7 views read by. The conclusion states no acute bony abnormality. No significant interval change.

On April 15, 2010 there is an electrodiagnostic study by MD. The impression states an abnormal electrodiagnostic study. There was electrodiagnostic evidence of a mild subacute bilateral L5 and S1 radiculopathy. There was no electrodiagnostic evidence of a sensory or motor neuropathy distally in segments tested.

On April 30, 2010 there is an operative report by MD for a lumbar epidural steroid injection.

On May 24, 2010 there is a follow up appointment note by. The physical examination states sitting straight leg raise testing and Patrick's testing are negative bilaterally. The assessment states low back pain with lower extremity radiculopathy, improved after ESI, Ultram is prescribed.

On July 7, 2010 there is a follow up appointment note by MD which states the claimant states the discomfort has returned and would like to do another ESI.

On July 19, 2010 there is an operative report by MD for a lumbar epidural steroid injection.

On August 8, 2010 there is a peer review from.

On August 11, 2010 there is a follow up appointment note by MD. the claimant states the ESI did not help as much as the previous ESI. The physical examination states the sitting straight leg raises and the Patrick's testing are negative bilaterally, mild tenderness in the lumbosacral region. The assessment states low back pain with right lower extremity radiculopathy, left paracentral disc protrusion at L3-4. Plan for another ESI, refill Lortab.

On December 14, 2010 there is a follow up note by MD. The lower extremity neurologic examination states decreased pin prick in an L5 distribution on the right, otherwise intact, reflexes 1+/4 knee, 0/4 ankles, sitting straight leg raise testing and Patrick's testing are negative bilaterally, tenderness is noted in themed to lower lumbar region.

On January 11, 2011 there is a records fax from the office of MD to at Back Institute.

On January 26, 2011 there is a consultation report by MD. The assessment states prior lumbar fusion at L4-L5, unknown if this level is completely fused, disk protrusion at L3-L4, recommend a CT myelogram of the lumbar spine which will help us to know whether L4-L5 is completely fused or not.

On January 28, 2011 there are Patient Profile forms.

On February 14, 2011 there is a radiology report for XR INJ Myelogram signed by MD. The findings state postoperative changes following interbody fusion at L4-L5 is identified. The contrast within the thecal sac has an unremarkable appearance without significant external compression to suggest high-grad spinal canal stenosis. No significant truncation of nerve roots is visualized to suggest high-grade neural foraminal narrowing.

On February 14, 2011 there is a CT lumbar myelogram read by MD. The findings states the mild diffuse loss of intervertebral disk height is noted, mild multilevel spondylosis is present throughout the lumbar spine, greatest at L3-L4 where a circumferential disk bulge with superimposed left paracentral disk protrusion result in mild narrowing of the left aspect the spinal canal with narrowing of the left subarticular recess and posterior displacement of the descending left L4 nerve root, there appears to be a mature osseous fusion at L4-L5.

On March 9, 2011 there is a follow up appointment note by MD. On the physical examination states the claimant has more axial pain, has right posterior thigh complaints, ROM is extremely limited and has only about 10 degrees of flexion and extension as tolerated but difficult also, reflexes are 1+. The plan states consider him for the discogram again to get better data on the source of his pain.

On March 9, 2011 there is a letter to stating there is a copy of office notes from the Institute/MD

On March 9, 2011 there is a "script for orders note" for an after study/discogram/CT L3-4-L4-5 to from MD.

On March 28, 2011 there is a Behavioral Medicine Evaluation by PhD, ABPP, the medical treatment recommendations and client management suggestions state: based on this pre-surgical psychological screening he is clear

for discography, without concern of psychological factors clouding results. If surgery is considered, he would be clear for surgery, with fair to good prognosis for pain reduction and functional improvement. If return to work is planned after surgery, he will need to go to a chronic pain management or work hardening program.

On March 28, 2011 there is a fax for a Preauth from RMA/AAS CWCS requesting a discogram/CT L spine L3-4 and L4-5

On March 29, 2011 there is a Utilization Review Worksheet by Review Med regarding the claimant.

On March 30, there is documentation from Dr. with the heading "" to which states the request is denied due to lack of a requested control injection in a normal disc. I spent 18 minutes on the phone with Dr. office and he has no record of requesting that study. I have therefore notified Dr. of the denial though he has no knowledge of the request.

On April 15, 2011 there is a utilization review worksheet by Review Med.

On April 21, 2011 there is a Utilization Review Determination from to Institute. The comments state ODG does not support discography. There is evidence discography could cause worsening or progression of a degenerative disc disease. Positive discogram would not indicate the need to proceed with spinal fusion. Negative discogram could rule out the need for fusion. It is not clear surgical intervention is indicated or planned. Records do not reflect recent flexion/extension studies. Previous studies done a few years ago indicated no instability. Determination: the request is not certified.

On April 25, 2011 there is a Utilization Review Determination from to Institute. The determination states: this is an adverse determination. Per the physician advisor the requested services have been denied as not medically necessary and appropriate. This request is denied due to lack of requested control injection-in a normal disc.

On April 25, 2011 there is a Utilization Review Determination from to Institute denying the requested service of discogram/CT L spine L3-4-L4-5. The comments state ODG does not support discography. There is evidence discography could cause worsening or progression of a degenerative disc disease. Positive discogram would not indicate the need to proceed with spinal fusion. Negative discogram could rule out the need for fusion. It is not clear surgical intervention is indicated or planned. Records do not reflect recent flexion/extension studies. Previous studies done a few years ago indicated no instability. Determination: the request is not certified.

#### **PATIENT CLINICAL HISTORY:**

Previous left knee problems, left elbow and ulnar numbness.

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

Discography at L3-4 and L4-5 is not indicated in this claimant.

The ODG does not recommend discography. The diagnostic accuracy of discography is uncertain and has a significant rate of false-positive tests. A positive discogram does not indicate the need for spinal fusion. A negative discogram does not rule out the need for spinal fusion. Furthermore, there is a low correlation between a positive single-level discogram and the success of spinal fusion at this level. Discography may also lead to disc degeneration. Furthermore, the L4-5 disc is not an acceptable control because it contains two interbody cages, as indicated in the MRI of February 2007. The issue of discography without a control disc was raised both by Dr. and the April 25 utilization review. The previous decisions are upheld.

**Per the ODG:**

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)