Health Decisions, Inc.

6601 CR 1022
Joshua, TX 76058
P 972-800-0641
F 888-349-9735

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IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE: L3/4, L4/5, L5/S1, Lumbar Discogram with contrast

A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION: American Board Certified Orthopedic Surgeon with over 13 years' experience.

REVIEW OUTCOME:

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

☒ Upheld (Agree)

Provide a description of the review outcome that clearly states whether medical necessity exists for each of the health care services in dispute.

PATIENT CLINICAL HISTORY [SUMMARY]:
This is a male with primary back but also left buttock and upper posterior thigh pain. Patient was injured on xx/xx/xx. He has a previous foraminotomy performed by in 2009. He did well and was still able to work but the pain returned and the patient has continued to fail conservative therapies and medications with multiple interventions by. He continues to have pain that is interfering with his daily actives and his job. This request is for L3/4, L4/5, L5/S1, and Lumbar Discogram with contrast.

10/31/08: Radiology report for CT Lumbar Spine W (72132): Impression, 1. Grade 4 annular tear if the L5/S1 intervertebral disc resulting in a diffuse disc bulge and right neural foraminal narrowing. 2. Degenerative changes of the right sacroiliac joint. Correlation with procedural note is suggested regarding symptomatology with injection, firmness at injection endpoint, volume of contrast injected, ect.

10/31/08: Radiology report for XR Post Discogram/TPA: Impression: C-arm
Images obtained during diskogram demonstrating an annular tear at L5-S1. Normal appearance of L4-5 disc. Correlation with procedural note is suggested regarding symptomatology with injection, firmness at injection endpoint, volume of contrast injected, ect.

10/31/08: Discogram Lumbar Spine Operative Report: Preoperative Diagnosis: Low Back Pain and Rule out Discogenic Pain. Postoperative Diagnosis: Low back pain, negative disc provocation at L4-5 and L5-S1 with intradiscal Pressures to 100 PSI. Result: Negative L5-S1 Disc Provocation to 100 PSI. Nucleogram: DSS Grade 3 (incomplete) concentric posterior annular fissure noted.

04/11/11: Follow up office note: This is a male who presents today for follow up visit regarding lumbosacral pain radiating to his right lower extremity. Evidently he had an exacerbation of pain approximately three weeks ago. He does use hydrocodone, Skelaxin and Flexeril for pain control. He does report Skelaxin has some adverse effects,

mostly GI and he would like to stop taking that. This is mostly a chronic pain problem that has been going on for over nine years. The date of the patient's injury is. This recent exacerbation again is lumbosacral, radiates to his left lower extremity. There are no new complaints associated with his injury. He rates his pain to be approximately anywhere from a 6- 8/10 both lumbosacral and left lower extremity. When he takes medication it is well controlled. On exam this is a well-nourished, well developed male. He is relatively non tender to deep palpation of both his lumbar spine and bilateral SI joints. He has somewhat decreased ROM with flexion and extension and lateral bending secondary to pain and stiffness, He can stand on his hells and do a shallow knee bend. He had no difficulty getting into the exam table. His EHLs, flexors and extensors of his knees and ankles were strong and equal bilaterally, Straight leg raising today was negative. Sensation was intact in his bilateral lower extremities. Deep tendon reflexes were normal. Gait and station were normal. Impression: Multilevel degenerative disk disease with left sacroilitis with referred pain to the posterior thigh status post L5-S1 left hemilaminectomy done in April of 2009 with persistent left lower extremity pain. Plan: Upon next discussion, it was decided that for this most recent exacerbation, a Medrol Dosepak, take as directed, one pack, no refill. He was also given a prescription for Norco 10/325 q 4-6 hrs. PRN. This patient will return in 6 months unless he has any more exacerbations of change in his physical or neurological status.

04/22/10: Radiology report for MRI Spine Lumb W/WO Con: Impression: No high grade central spinal stenosis in the lumbar spine. Mild degenerative spondylosis in the lumbar spine. Right foraminal narrowing at the later recess narrowing at L5-S1 nerve root impingement. No other significant foraminal narrowing or nerve root impingement in the lumbar spine. No definite areas of abnormal enhancement in the lumbar spine

04/25/12: Radiology report for CT Pelvis WO Con ready: Bilateral degenerative sacroiliac joint disease, slightly asymmetric along the left inferior sacroiliac joint compared to the right but otherwise fairly symmetric along the superior anterior margins of the sacroiliac joints with significant osteophyte formation. Mild degenerative facet and disk disease in the lower lumbar spine. No fractures or acute osseous abnormalities.

02/27/12: Office note: Pt reports that he had minimal relief from the Medrol Dosepak. He continues to use hydrocodone and Flexeril minimally. He is and tried to use narcotics obviously sparingly as possible. However his left-sided lumbosacral pain is worsening and it continues to radiate into his buttocks posterolaterally into his left lower extremity just past his knee. He has history of left SI joint disfunction. HE has had injection in the past which was helpful. These have been steroid injections. Again following protocol it would be reasonable to make arrangement for rhizotomy of SI joint. This should be done by. The patient evidently has undergone a posterior decompression at L5-S1 done in 2009. It is not unusual for patient s to develop SI dysfunction issues following lumbar spine surgeries this was discussed at length with the patient. He does not have a spinal cord stimulator. On exam He is somewhat slow going from sitting to standing position due to pain and stiffness. His ROM both with flexion and extension was somewhat limited as well due to pain over his right SI joint. also had a positive pelvic compression test generative pain over his left SI joint as well as a positive Gaonslen test on the left. The patients gait and station was normal. Impression Left SI joint dysfunction. Plans: We recommend that the patient proceed with the left SI steroid injection to be done by of the left SI joint should get significant relief with this. The patient will be given a Medrol dosepak just in case if the injection gets denied. This patient will hopefully be approved for this much needed injection.

03/31/12: Operative report: Procedure: Diagnostic and therapeutic injection for the SI joint as well SI joint arthrography, with fluoroscopic interpretation per, no radiologist in attendance. Preoperative diagnosis: Left sacroiliac joint dysfunction. Post laminectomy for foraminotomy. The patient had a previous rhizotomy 5 years ago using Stryker system. Postoperative diagnosis: Left sacroiliac joint dysfunction. Post laminectomy for foraminotomy. The patient had a previous rhizotomy 5 years ago using Stryker system. Within the last 5 minutes, increasing reproduction of his pain.

04/02/12: Office note: Pt presents status post Left SI joint injection. The patient did get relief. Unfortunately at this point now again, he is back to his pre-injection pain. His life has been adversely impacted by the SI joint dysfunction. Upon reviewing his pain regimen it was controlled with his medications. We have actually had to add narcotics to his regime. Previously it was controlled with nonsteroidal, now he needs to have hydrocodone and Voltaren and muscle relaxers added to his medication. He is unable to complete his activities of daily living without extreme pain and

dysfunction. His quality of life in terms of his career has been changed dramatically. He has settled. Even tasks such as bending forward at 35-45 degree angle for short periods of time causes him extreme pain. His pain is primarily left sided. His fatigue is worsening due to being interrupted at nighttime. Every time he turns in bed the pain will awake him. We would like to proceed with a CT scan of the pelvis to focus on the SI joints. We would also like to have him see physical therapy for quadratus lumborum exercises and crutch ambulating training. We need a CT scan of the pelvis.

04/30/12: Office note: On exam, the patient has the typical profile and presentation of sacroiliac dysfunction. If he sits on the right, there is pain on the left. If he moves, he stands with all of his weight on the right, not onto the left. In spite of this, this gentleman has been at work this.

06/26/12: SI bone fusion Operative Report: Preoperative Diagnosis: Left low back pain, Left buttock pain. Spondylosis otherwise not specified. 724.6 Dianosis achieved on injection therapy with the patient achieving on multiple times, at least 3 and I believe as many as 4, the requisite temporal and quantitative response to the injective. When the material wore off, the patient's pain came back. We did medial branch rhizotomies, also giving this patient some relative improvement only to fail. At this point it was decided to then subject the patient to an SI bone fusion from the I fuse company. This is a metallic device, titanium that is plasma coated with titanium. The 3 devices were introduced sequentially. The first being 7mm by 50; the next being 7mm by 40; and the third 7mm by 40. This was all done under fluoroscopic control. No changes in the Postoperative diagnosis. Procedure: SI bone fusion.

07/16/12: Office note: is a very pleasant male who is status post left SI joint fusion done on 6/26/12 By. There were no complications associated with the procedure. The patient initially had some rather significant post-surgical pain and discomfort primarily because he did not expect to have any pain associated with the surgery. He is now at a pain level of 4-5/10 with hydrocodone and Flexeril. He is continuing to be compliant with left lower extremity partial nonweightbearing with crutches. He is anxious to be able to go upstairs to his main room. We will have to wait until he is cleared by for that. has told him and the wife no stairs. I will have him back for the 6 week marker to discuss clearance for work.
The Radiology review reveals that the devices are in good placement. There are no abnormal lesions or other abnormalities noted. There are three devices in place across the SI Joint. This x-ray will also be reviewed by

08/27/12: Office note: Follow up for surgery done 6/26/12: His pain is greatly reduced after left SI joint fusion 12 weeks out. has been with back pain going on greater than a year. However he does need a CT scan to focus on the SI joint to be sure the fusion and devices are healing appropriately. The pt is reporting some anterior and posterior lateral left pelvic pain intermittently but again he is much improved. Paravertebal muscles are non-tender, with no evidence of spasms or trigger point. Lumbar ROM is normal in all directions and non-painful. Spinous processes are non-tender. Lower strength is symmetrically present in all lower extremity muscle groups. Fortin finger test is negative to the right and left. We will follow up after CT scan.

03/11/13: Office note: Patient presents with back pain and leg pain located on the left side that has been going on for 1-3 months. Status post left SI joint fusion approximately 9 months out. He does have difficulty acquiring a full, upright position when getting out of the chair. He has a well healed left sided flank incision. There are surgical scars at the L spine. His gait is slow and purposeful. His pelvis is level to the floor. His shoulders are level to the floor. Paravertebral muscles are non-tender, with no evidence of spasm or trigger point, Lumbar ROM is normal. The Fortin finger test, Gillet Test, Yeoman's test and Faber Test all positive on the left. This patient has had a new onset of pain primarily over the left SI joint with recurrent positive SI joint dysfunction findings. Worrisome of failure to fuse, we believe it is medically necessary to pursue the CT scan of his pelvis. If the CT scan is normal we will proceed to inject the SI joint as recommended.

03/25/13: Radiology report for CT pelvis w/o contrast: Impression: Interval Left sacroiliac joint fusion is discussed in detail above. No new osseous bridging is yet evident. Bridging bilateral sacroiliac joint osteophytosis.

04/01/13: Office note: This patient is a male status post SI joint fusion with a CT scan that reveals the fusion is

healing well, he does have a history of facet joint arthropathy at L4-5 and S1 and has had significant pain relief several years ago with injections. We believe it is medically necessary to help this patient reduce his pain by medial branch blocks left sided at L4/5 and S1. We will follow up with patient.

06/10/13: Office note: Pt presents to office with intractable lumbosacral pain radiates to his left lower extremity with a recent SI joint fusion which has helped with his SI joint pain but he continues to have generalized lumbar spine pain which radiates to his left lower extremity and due to his career in law enforcement he cannot utilize narcotic medication. Worsening spondylosis and facet degenerated noted on lumbar spine xray. This all may be contributing to his worsening intractable Low back pain. Our plan is to pursue a Medtronic spinal cord stimulator trial to be done by . Pt will return to clinic after trial is complete.

07/09/13: Psychological Evaluation: Patient is a. He has had previous Psych evaluations before. He is not showing evidence of any psychological difficulties at this time. He is currently working at the. He waits until the end of the day to take any pain medication either tramadol or Flexeril and unfortunately can never really get ahead of the pain. Impression: Patient is a good psychological candidate for spinal cord stimulator. His painful areas usually respond well to this device. To his credit, he is continuing to work full time and has remained fairly active at home with his usual chores and family. Patient is a type A personality and it is difficult for him to be inactive and he is also well motivated to improve.

09/06/13: Consult and Preoperative assessment: The patient is medically stable to undergo proposed surgery.

09/10/13: Operative report for Spinal Cord stimulator: Preoperative diagnosis: Chronic pain syndrome, mechanical low back pain, left buttock and left leg, SI bone fusion on the left. Status post decompression L5-S1, status post interbody fusion L5-S1. No change is Postoperative diagnosis. Procedure: Percutaneous placement of a Medtronic 8 contact array, 45 cm lead introduced right of midline T12-L1, advanced to T8,T9, crossing the midline. Epidurography and fluoroscopic interpretation by; no radiologist in attendance. Intraoperaive trial x1. Complex programming prior to discharge.

09/16/13: Post op office visit note: We plan to proceed to permanent implanted spinal cord stimulator to be done by. This patient has had greater than 70% pain relief both lumbosacral and bilateral lower extremity, left greater than right for maximum benefit pt will have 2 leads.

09/24/13: Radiology report for XR spine thoracic 1V: Epidural stimulator localization. Findings a single spot fluoroscopic radiography of the thoracic spine is submitted for interpretation with an epidural stimulator and hemostat overlying the central thoracic spine label of the film as T8. Impression: Spot fluoroscopic radiograph as described.

09/24/13: Operative note: Procedure: Percutaneous placement of the Medtronic 8 contact 60 cm compact array, MRI compatible lead, introduced at T12-L1 at the midline and placed up the left side to position left of midline from T8-T9 expanse covering two vertebral levels. Epidurography, with fluoroscopic interpretation per. Epidural anesthesia. Implantation of MRI compatible lead into patient's posterior axillary line. The reason we did not go to the buttock is that this is an. We put it in his right side since he is right hand dominant. Pre and postoperative diagnosis: This is a gentleman with a fusion of his left iliac SI joint. Patient with generalized DDD, not considered a reconstructive patient, with successful fusion of his left SI joint but still left with pain on his left leg and lower back. Status post implantation trial of the Medtronic 8 contact compact array lead, with the patient achieving almost total pain relief associated with the trial lead up until the point where it moved from lateral to medial moving off the center mark where he needed it for the remainder of the 5 day trial. He had 3 good days to basically assess the benefit of the system, which both he and his wife attested he made a dramatic difference in his ability to sit, stand, walk, sleep and function as well as the pain relief.
No complications with procedure.

10/07/13: Office note: Status post permanent implants spinal cord stimulator, healing well. Motor and sensation are intact bilateral lower extremities, Gait and station normal. Patient will continue to adhere to postop instructions of

avoiding excessive bendind twisting turning in order to avoid any disturbance of the newly implanted spinal cord stimulator lead wire. We will clear pt w/o restrictions to return to work Oct 14, 2013.

06/02/14: Office note: The patient is complaining of lumbosacral junctional pain. He has had first decompressive laminectomy for neurogenic pain. Foraminal stenosis did well and then not so well. This then led to the placement of a spinal cord stimulator. He uses this judiciously and then that led to a fusion on the left. He still has some pain there. Given the fact that he has had it, whatever residual pain, he is still glad he had it. Given the opportunity to take back time he would basically re-subject himself to the fusion given the pain level that he has now. I think that speaks to basically his satisfaction with the care so far and that has been generated. The real issue at this point now is the decision to make between facetogenic pains that are basically spondylogenic vs the sacrogenic. is under a lot of stress which caused a lot of muscular tension which causes a lot of loading that may or may not be done. I am going to schedule him for diagnostic facet injection and basically medial branch blocks at L4, L5 and S1.

07/28/14: Office note: Pt returns to discuss injections. Patient was denied a medial branch block at L3-L4 and L5. Continued back pain which has worsened significantly x3 months. He has failed conservative medication management at this point. He has failed physical therapy in the past and cannot tolerate home exercise and stretches at this point. He has had the spinal cord stimulator. He has been re programmed today in the office by. We would like to move ahead and again I have ordered the L3-L4 and L5 medial branch block on the left and have him follow up there after. He will continue the Flexeril and Tramadol on a when necessary basis.

11/10/14: Office note: Pt in office today to discuss that he has been denied a medial branch block at L3-L4 and L5. He has failed conservatice measure to include Aleve, Elavil, tramadol, hydrocodone, physical therapy with a worsening of pain and discontinuation of chiropractic treatment and massage per insurance. He has failed conservative medication management at this point. We would like to move ahead and again I have ordered the L3-L4 and L% medial branch block on the left and have him follow up thereafter. He will continue the Flexeril PRN. We changed Tramadol to Tylenol No.3. I would like to see if he has better pain relief and less insomnia.

04/15/15: Office note: Today patient is still having pain in his back and left leg. He has antalgic gait favoring the left side. TTP of spinous processes and B paraspinal musculature. TTP medial to the right SCS battery consistent with scar tissue formation. Lumbar flexion with fingertips to med thigh limited by LBP. Slow rise to an erect position from a flexed position as limited by lob back pain. Lumbar extension provokes low back pain. Left facet loading positive greater than right. Unable to toe walk well on the left as he heel drops. 5/5 strength bilateral lower extremities in a seated position. Tingling sensation of the left anterior thigh, degreased sensation over the left lateral thigh and a burning sensation to light touch of the left hamstring. Patella reflexes 2+ bilaterally. Achilles reflex absent bilaterally. Straight leg raise negative bilaterally. Patient has been denied a MBB at L3, L4, L5. Order an MRI of the lumbar spine as back pain has worsened; the patient has been dragging the left foot and is unable to support his body weight while ambulating on toes. Follow up after MRI

05/21/15: Radiology report for CT Spine Lumbar W Contrast: Impression: Status post laminotomies at the L5-S1 level. There is a degenerative appearance of the facet joints and conjoined appearance of the right L5 and S1 nerve root sleeves with little filling of the right SI nerve root sleeve. Moderate severe narrowing of the right neural foramen is identified. There is asymmetric filling of the L5 nerve root sleeves with the right side better filled than the left. A 2mm bulge is noted at this level. Degenerative facet joint changes noted at the L4-5 with mild to moderate bilateral neural foraminal narrowing. 1-2mm bulge at L3-4 without central canal stenosis. There is subtle asymmetric extension of disc into the far left lateral region measuring 3mm with possible contact of the left L3 nerve root beyond the foramen. Mild-moderate bilateral neuroforaminal narrowing is seen. 3 strut grafts identified extending across the left sacroiliac joint.

05/21/15: Radiology report for XR SP Myelogram Lumbosacral: Impression: Slight decreased filling of the left L5 and left S1 nerve root sleeves which could be seen on the prior study. Conjoined right L5 and right SI nerve root sleeves. Interval performance of left SI joint fusion and placement of a dorsal column stimulator.

06/01/15: Office note: Lumbar CT follow up visit. Chronic low back pain has worsened. Plan for today’s visit: ,

Implant September 2013. History of SI joint fusion. Chronic low back pain. Sacroiliac joint dysfunction. Facet arthropathy, lumbar. Multiple levels of foraminal narrowing, lumbar. has reviewed the CT and he would like to schedule facet injections bilaterally at L4-5 and L5-S1. The patient has been denied a MBB at L3, L4, L5. He has failed conservative treatment. Follow up after injections.

06/18/15: Operative Report for Bilat L4-L5 and L5-S1 Facet Joint Injections: Preoperative diagnosis 721.3: Lumbrosacral spondylosis and 722.52 Degeneration of Lumbar or Lumbosacral disc. Postoperative diagnosis same. Procedure: Bilat L4-L5 and L5-S1 Facet Joint Injection. Patient tolerated procedure well and will follow up with treating physician.

07/13/15: Office note for Injection follow up: Return visit. I have had an opportunity to visit with him. has done 4-5 and 5-1 facet rhizotomies and he benefited substantially to what he describes as a burning pain in his low back. Clearly this issue is midline if you look at his pain drawing. has indicated that he is actually considering retirement and that he is actually looking at the possibility of seeking a surgical consideration for spondylogenic pain. I think the important issue here is if we can identify the problem and then basically make recommendations, he may be a candidate for a spinal arthrodesis. The patient also indicates that when he starts to bear weight he has what he describes as a hip pointer pain right over the trochanteric bursa. He asked to show me the area, it is midline. It is really where all the x's are placed on his drawing of pain. On exam the right side is unremarkable. He has no pain or resisted elevating the leg either side. He has negative grind test, negative femoral thrust and basically on the right if I do a FABERE 4, he has midline back pain and slightly to the left of midline, but high. If I do a FABERE 4 on the left, similar situation. I queried the patient. He states that the fusion has stopped the severe jarring, shocking pain that he had with ambulation.

08/05/15: Psych Evaluation: Based on the clinical health psychology evaluation he is clear for the discogram, without concern that psychological factors will impact the results. If the discogram reveals he is a good candidate for spine surgery he would be clear for this surgery, with a good outcome prognosis from a psychosocial perspective. His wife has been included in all treatment planning.

08/19/15: UR: Discography is not recommended by the guidelines. Recent high quality studies have questioned the use of results as a preoperative indication for either intradiscal electrothermal therapy (IDET) or fusion. The findings of discography have not been shown to consistently correlate well with the findings of high intensity zones on MRI. The patient had a recent CT scan of the lumbar spine on May 21 2015. The request for an L3-S1 discogram with contrast (if abnormal do L2-L3) is not certified.

08/31/15: Appeal UR: Based on the clinical documentation provided as well as official Disability Guidelines ODG, the requested diagnostic procedure is denied. The previous discogram in 2008 provides additional documentation of the lack of correlation between imaging evidence of disc pathology and clinical symptoms. Multiple pain diagrams completed by patient would suggest the potential for a component of a left S1 radiculopathy contributing to his symptoms. There was some diminished filling of both the Left L5 and S1 nerve roots on the study done in May of this year. Pain management documentation was not provided as to the status of the patient's spinal cord stimulator and possible reprogramming. This diagnostic procedure is again denies.

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

The request for L3/4, L4/5, L5/S1, Lumbar Discogram with contrast is denied.
The Official Disability Guidelines (ODG) does not recommend lumbar discography. The diagnostic accuracy of discography is uncertain. The results of discography have not correlated well with findings of a High Intensity Zone (HIZ) on MRI. Discography does not improve patient outcome following a lumbar fusion.
This patient has recently completed a CT myelogram. He had a negative lumbar discogram in 2008, which did not correlate with his symptoms. A second discogram will not provide any additional information that will change his care. Lumbar discography is not medically necessary for this patient.

Per ODG:

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 on that disc (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 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 finding 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) More in vitro evidence that discography may cause disc degeneration. (Gruber, 2012) 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 screening tool to assist surgical decision making, 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)**