

Vanguard MedReview, Inc.

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Notice of Independent Review Decision

February 14, 2014

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:

Inpatient anterior lumbar interbody fusion at L4-L5 and L5-S1, posterior lumbar decompression with posterolateral fusion and pedicle screw Instrumentation at L4-5 and L5-S1 and two (2) day inpatient stay.

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

This physician is Board Certified in Neurological Surgery with over 16 years of 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.

INFORMATION PROVIDED TO THE IRO FOR REVIEW:

06/07/11: MRI of the Lumbar Spine without contrast
07/06/11: History and Physical
07/07/11: Progress Report
07/18/11: Operative Report
07/21/11: Progress Note
08/22/11: Physical Performance Evaluation
10/18/11: Work Hardening Progress Report
03/06/12: Chronic Pain Management Progress Report
10/24/12: Patient Discharge Summary
11/06/12: Progress Report
11/28/12: Progress Report
11/29/12: Patient Evaluation
12/06/12: Patient Discharge Summary

12/21/12: MRI of the Lumbar Spine without contrast
01/08/13: Patient Evaluation
01/30/13: Patient Evaluation
02/06/13: X-ray Lumbar, Lumbar Discogram, CT of the Lumbar Spine post
Discogram
02/12/13: Patient Evaluation
02/19/13: Patient Evaluation
02/27/13: Consultation
03/05/13: Patient Evaluation
03/20/13: Office Visit
03/26/13: Patient Evaluation
04/17/13: Patient Evaluation
04/18/13: Office Visit
05/07/13: Office Visit
05/14/13: Office Visit
05/21/13: Office Visit
08/30/13: Pg 2 & 3 of Office Visit
09/27/13: X-ray, Lumbar Spine Complete W Bending./72114
10/01/13: Patient Evaluation,
10/15/13: UR performed
10/22/13: Chart Review
11/04/13: UR performed

PATIENT CLINICAL HISTORY [SUMMARY]:

The claimant is a male who injured his back on xx/xx/xx. He heard a loud pop in his back and had a burning sensation. He found he was okay to finish but the next morning when he woke up he was in such severe pain that he was not able to get out of bed.

06/07/11: MRI of the Lumbar Spine without contrast. **Impression:** At L2-3, L3-4, and L4-5, There is a 2-mm broad-based disk bulge which touches and effaces the thecal sac below the level of the exiting nerve root sleeves. Minimal bulging of the disk and is complex into the inferior neuroforaminal epidural fat is demonstrated bilaterally.

At L5-S1 there is a 3-mm broad-based soft tissue disk protrusion with a focal left paracentral component which touches and effaces the thecal sac at the level of proximal S1 nerve root sleeves with minimal nerve root sleeve displacement. A high intensity zone signal by T2-weighted imaging within the posterior annulus is compatible with annular hyperemia.

07/06/11: History and Physical. The patient reports that he has not had any real improvement at all, that the pain is just constantly there and that bending over is particularly difficult for him. He says the pain is in the low back. It radiates across the low back area and into the top of the buttocks. He hears a popping in his back. The pain does interrupt his sleep. Medications, moving or changing positions makes the pain better. Coughing, sneezing, sitting, standing, lying down, walking

and bending over in the shower makes the pain worse. He was referred to us for a series of lumbar epidural steroid injections potentially at L5-S1.

07/18/11: Operative Report. **Postoperative Diagnoses:** 1. Lumbar syndrome. 2. Lumbar radicular syndrome. 3. Disk bulge at L2-3, L3-4, L4-5, and L5-S1.

Procedures Performed: 1. Lumbar epidural steroid injection at L5-S1. 2. Epidurogram. 3. Fluoroscopic guidance.

08/22/11: Physical Performance Evaluation. The patient has performed 12 sessions of physical therapy and one round of ESI's to date. A Lumbar spine MRI was performed on 5/5/12 that showed multi-level disc bulging in the lumbar spine, without stenosis of the spinal canal. Pain is said to decrease with medication. Pain is said to radiate after performing normal ADL's to the right buttock and right leg. Tingling is said to occur in the right foot. **Assessment:** The claimant shows moderate signs of decreased functional ability, as noted in the evaluation, due to injuries to the lumbar spine sustained secondary to a work related injury. He has reached a current PDL of Sedentary to Sedentary-Light.

11/29/12: Patient Evaluation. **Examination:** The patient has a normal lower extremity neurological examination. Reflexes are 2+ at his patellar reflex and 2+ at the Achilles tendon. Motor strength is good (5/5) in all motor groups in the lower extremities. Repetitive toe and heel raises and walking on toes and heels can be performed with no evident fatigue. There are no demonstrable defects with _____, walking is with normal balance. There is intact sensation to light touch in all dermatomes of the lower extremity. **Assessment:** 1. Patient will be reassessed after is lumbar MRI study. 2. Feedback from the patient's Physical Therapist is requested to be made with a phone call from therapist. **Plan:** Patient to be seen in 3 weeks after current studies are obtained.

12/21/12: MRI of the Lumbar Spine without contrast. **Impression:** Compared to the previous MRI of the lumbar spine performed, there is increasing disk protrusion at L3-4 and L4-5 where previously there was a 2-mm broad-based annular/disk bulge, currently there is a 3-mm broad-based soft tissue disk protrusion touching and effacing the thecal sac and moderately narrowing the foramen bilaterally, minimal sclerosis is noted about the articular facets at the L3-4 and L4-5 levels.

Increased disk protrusion/extrusion is now demonstrated at L5-S1 where previously there was a 3-mm broad-based soft tissue disk protrusion with minima eccentricity to the left of midline there is now a 3-mm broad-based soft tissue disk protrusion/extrusion with an additional two to 3-mm left paracentral component extending 2 mm above and below the e disk space and showing a focus of hyperintensity by T2 weighted imaging within the posterior annulus compatible with focal annular fissure, Moderate bilateral foraminal narrowing is noted. Minimal effacement of the thecal sac is demonstrated at the level of the proximal S1 nerve root sleeves.

A shallow 2-mm broad-based annular bulge is again demonstrated at L2-3 without significant canal or foraminal narrowing. The findings at this level have not changed since June 2011.

02/06/13: X-ray Lumbar, Lumbar Discogram, CT of the Lumbar Spine post Discogram. **Impression:** Negative plain films of the lumbar spine **Impression:** At L4-5 and L5-S1, there is a grade 4 radial tear to the posterior annulus associated with a 3 to 4-mm broad-based soft tissue disk protrusion narrowing the pre-thecal epidural space and narrowing of the right greater than left foramen. Minor facet sclerosis is noted bilaterally.

02/27/13: Consultation. **HPI:** Claimant presented with back pain, severity level is 8. The problem is worsening. It occurs persistently. Location of pain is lower back. Pain is radiated to the right thigh and right buttock. The patient describes the pain as burning, piercing, sharp, shooting, stabbing and throbbing. Symptoms are aggravated by lying/rest, rolling over in bed, sitting, standing, weather changes, social activities and stress and work. Symptoms are relieved by heat and ice. Patient states that nerve blocks, TENS, PT Chiropractic and counseling have not helped his pain. **Physical Examination:** Back pain, bone/joint symptoms, muscle weakness (right lower extremities), myalgia. **Plan:** Patient to start Butrans 20mcg q 7 days and continue Norco 10mg for breakthrough pain. He is titrate down the Norco 10mg by 1 tablet a day every week, so that in a month he will be taking 1 po qh pm breakthrough pain. Patient is aware that if the prescriptions are lost, stolen or misused, they will not be filled early. Patient to return to clinic in 1 month for follow up and medication refill.

04/18/13: Office Visit. **Assessment/Plan:** Patient to return to clinic at first available for bilateral diagnostic MBNB at L3-51. He will report back the results of his pain relief, if any. He was given refills for Butrans 20mcg and Norco 10mg 1q4-6h pm breakthrough pain. The patient was advised to resume activity as tolerated.

05/07/13: Office Visit. Patient is here for MBNB at L3-5 bilaterally. The patient tolerated the procedure well and will return to clinic in 1 week for follow up with a 6 hour diary of his pain relief.

05/14/13: Office Visit. **Assessment:** Pt is here for a f/u and medication refill. Pt is doing well on the current medication regime and wants to stay on them. Pt is here to discuss the MBNB and the first pain came down to a 5 while driving. The second and third hour he really saw a good improvement of about 70% and was able to get out in his garden and do some work, he states that he had a little pain but not bad at all. The fourth hour he started getting pain back but not as bad as usual. The fifth and sixth hour his pain was coming back slowly. After the sixth hour he was back in pain as bad as ever. Due to these findings we are going to move forward with the RF bilateral L3-5 under sedation as he got a little vasovagal on the MBNB and today we are refilling his Norco 10/325, and Butrans patch 20mcg. We are refilling pt meds for a 1 month supply as pt shows no signs of diversion or abuse. Patient is aware that if the prescriptions are lost, stolen or misused, they will not be filled early.

05/21/13: Office Visit. **Physical Examination:** The patient demonstrates a normal straight leg examination bilaterally to 90 degrees while sitting. The patient has a normal lower extremity neurological examination. Reflexes are 2+ at his patellar reflex and 2+ at the Achilles tendon. Motor strength is good (5+/5+) in all motor groups in the lower extremities. Lumbar range of motion is still restricted. Patient still has guarding posture unchanged from previous observations.

08/30/13: Pg 2 & 3 of Office Visit. **Assessment/Plan:** Lumbosacral spondylosis without myelopathy (721.3) Patient tolerated procedure well and will return to clinic in 1 month for follow up and medication refill. The patient's last multi class urinary drug screen report was reviewed to day and found to be consistent. He was given a refill for Norco 10mg q4-6 prn pain.

09/27/13: X-ray, Lumbar Spine Complete W Bending./72114. **Impression:** Levoscoliosis. Mild degenerative changes. Disk space narrowing from L2-3 through L5-S1.

10/01/13: Patient Evaluation. **DSM IV Diagnostic Impressions:** Axis 1 307.89 Chronic pain disorder associated with both psychological features and general medical condition. Axis II V71.09 No diagnosis. Axis III 724.4, 722.7, 846.0. Axis IV Occupational Problems, Economical Problems. Axis V GAF 62 (current) Highest Past Year (68) Prior to Injury (84). **Identified problems:** Chronic pain syndrome. **Knowledge of Procedure:** The patient is aware he will be sedated as he has had prior surgery procedures. He has knowledge as to the nature of the current procedure. The patient is aware he will have a lumbar fusion at least 2 levels maybe 3. The patient states "I've consulted with 4 surgeons and now I have got the best. They will take out the disc and put in rods". He has information and explanation from his surgeon. He has talked with others with similar procedure and positive outcomes. He expects 60-70% reduction of pain and he was told by his surgeon. He plans to return to activities, and perhaps work with a low PDL. He has his family to care for him after surgery. He highly trusts his surgeon and is willing to go forth with surgery. He hopes to have less pain and reduce his dependency and side effects of pain medications and have a more active lifestyle. He does not smoke. He has minimal depression and anxiety on the Beck Scales. He has no litigation. He has no evidence of psychosis and o evidence o hallucinations. The results of the MMPI-2-RF are valid and are within normal limits for a chronic pain patient. The patient appears to have an understanding of his surgical procedure. He has reasonable expectation of improvement. He understands the risk, and benefits of the procedure, and has supportive aftercare. He is motivated. Given consideration of the above issues, I see no physiological reason to contraindicate.

10/15/13: UR. Rational for Denial: It is the opinion of the reviewing physician that, "The claimant is a male who complained of back pain and has been treated with physical therapy, lumbar epidural steroid injections times three (3), chronic pain management program, facet joint injections, medial branch blocks at L2-5 and radiofrequency ablations. On 10/01/13 he described his pain as constant, stabbing and shooting down his leg like lightning. It is noted that he has seen 4 surgeons, the last of whom suggested surgery. X-Rays show degenerative

changes throughout the lumbar spine with a scoliosis. He saw on several occasions with no back tenderness and normal neurological exam. He was seen several times with musculoskeletal exam showing a limp. He saw on 09/16 with 7-9/10 pain, 4/5 strength in gastroc, biceps, extensor hallicus longus, tibialis anterior on the right, decreased L5 and S1 sensations, no reflex testing and positive straight leg raise on the right. There is no report of X-Rays on that visit but the diagnosis of L4-5 and L5-S1 discogenic pain syndrome. MRI on 12/12/12 notes 3mm disc bulges at L3-4 and L4-5 without laterality and at L5-S1a broad based 3mm disc bulge more to the left. There is moderate bilateral foraminal narrowing at L3-S1. These disc bulges are larger than at comparable MRI studies done 18 months previously. Per ODG guidelines, The injured worker does not have indication that all pain generators have been identified as there are multiple levels of degenerative changes and he has not responded to ESI or to facet injections. There is no indication of spinal instability and no flexion extension view. The request is for fusion only yet there is indication of radiculopathy that does not correspond to the disc levels of pathology. Pathology is not limited to two levels. Therefore the medical necessity of the requested procedure is not established.

10/22/13: Chart Review. He is status post physical therapy and epidural steroid therapy as well as radiofrequency ablation of L4-5 and L5-S1 bilaterally with no significant improvement in his symptomatology. He currently describes his pain level as a 7-9/10 with worsening symptomatology following prolonged sitting, standing, coughing, sneezing and valsalva maneuver. **Physical Examination:** Lumbar range of motion was decreased in forward flexion secondary to pain. The patient ambulates with the aid of a single tip cane. Motor exam reveals 4/5 strength of the gastrocnemius, biceps femoris, extensor hallucis longus and tibialis anterior muscles on the right, otherwise 5/5 throughout. Deep tendon reflexes were +1 of the ankle jerk on the right, otherwise +2 throughout and symmetrical. Plantar responses were flexor bilaterally. Gait was antalgic. The patient had difficulty with both heel and toe walk. Straight leg raise was positive on the right at 45 degrees and negative on the left. Sensory exam reveals a hypoesthetic region over the L5 and S1 distributions on the right to pin prick and light touch, otherwise intact. Impression: 1. Lumbar mechanical/discogenic pain syndrome at L4-5 and L5-S1. 2. Lumbar radiculopathy. 3. Herniated nucleus pulposus at L4-5 and L5-S1. 4. Lumbago. Recommendations: Due to failure of conservative medical therapy including physical therapy and epidural steroid therapy, concordant response to lumbar discography, current neurologic status with evidence of the significant radiographic findings as noted above, at this time I recommend anterior lumbar interbody fusion L4-5 and L5-S1 with posterior lumbar decompression, posteriolateral fusion and pedicle screw instrumentation at L4-5 and L5-S1.

11/04/13: UR. Rational for Denial: It is the opinion of the reviewing physician that, "The review of the documentation indicates that the claimant developed back and right leg pain. There is no detailed description of the injury. It is only noted that the claimant fell and developed back and right leg pain. There are no details of the initial evaluations, findings, or possible diagnoses. The claimant received multiple treatments including nerve blocks, epidural steroid injections, and physical

therapy. There was no documentation of the response(s) to these interventions. The claimant had a discogram done 02/06/13, MRIs done on 12/02/13 and 06/07/11, and electromyograms done on 12/19/11 and 07/08/11. On 10/15/13, the initial request for spinal surgery was denied. The examinations and evaluations from the treating physician are generic in nature and limited with no focus on the claimant's symptomatology. The clinical diagnosis seems to reinforce psychological issues but no organ factors generating the claimant's symptoms. Both the electromyogram and the discogram are confusing and don't seem to help in delineating a clinical diagnosis. The MRI description is fairly consistent with degenerative disc changes that occur due to use and age. There are only a few millimeters of bulging. The MRI also discloses sclerosis and narrowing but there does not appear to be true, dramatic pathology. There is no instability identified in the X-Rays done. A psychological evaluation indicates that the claimant has a chronic pain disorder with psychological features and a generic medical condition. Diagnoses include low back pain with dyesthesias, lumbar neuritis, and disc pathology at two levels. These don't indicate pain generators. As there is no indication of instability, a surgical fusion would not be indicated. The previous denial should be upheld. An evaluation to determine the possibility of symptom exaggeration syndrome may be indicated.

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

The previous adverse determinations are upheld. The Claimant has back and leg pain after a lifting injury at work on xx/xx/xx. He had one Lumbar ESI and 12 sessions of PT in 2011. He had persistent back pain and right leg pain in 2013 treated with nerve blocks and rhizotomies without relief. He had a Discogram in 2013 that shows abnormal disc appearance at L4/5 and L5/S1 but there is no mention of whether his back pain was reproduced at those levels. A control disc in which he did not have any reproduction of his back pain is also not mentioned. His lumbar xrays in 2013 show disc degeneration from L2/3 to L5/S1 and some scoliosis but no spondylolisthesis, spondylolysis, or clear instability. His 2012 Lumbar MRI appears consistent with his disc degeneration and suggests age related changes unrelated to trauma. He has no psychological limits to surgery but does not have a clear role for the surgery proposed for him. There is no clear indication that addressing L4/5 and L5/S1 with a fusion will improve his diffuse back pain without instability or concordant and discordant disc pathology on Discogram. Therefore, I agree the request for Inpatient anterior lumbar interbody fusion at L4-L5 and L5-S1, posterior lumbar decompression with posterolateral fusion and pedicle screw Instrumentation at L4-5 and L5-S1 and two (2) day inpatient stay is not medically necessary at this time.

Per ODG:

For chronic low back problems, fusion should not be considered within the first 6 months of symptoms, except for fracture, dislocation or progressive neurologic loss. Indications for spinal fusion may include: (1) Neural Arch Defect - Spondylolytic spondylolisthesis, congenital neural arch hypoplasia. (2) Segmental Instability (objectively demonstrable) - Excessive motion, as in degenerative spondylolisthesis, surgically induced segmental instability and mechanical intervertebral collapse of the motion segment and advanced

degenerative changes after surgical discectomy, with relative angular motion greater than 20 degrees. ([Andersson, 2000](#)) ([Luers, 2007](#))] (3) Primary Mechanical Back Pain (i.e., pain aggravated by physical activity)/Functional Spinal Unit Failure/Instability, including one or two level segmental failure with progressive degenerative changes, loss of height, disc loading capability. In cases of workers' compensation, patient outcomes related to fusion may have other confounding variables that may affect overall success of the procedure, which should be considered. There is a lack of support for fusion for mechanical low back pain for subjects with failure to participate effectively in active rehab pre-op, total disability over 6 months, active psych diagnosis, and narcotic dependence. Spinal instability criteria includes lumbar inter-segmental movement of more than 4.5 mm. ([Andersson, 2000](#)) (4) Revision Surgery for failed previous operation(s) if significant functional gains are anticipated. Revision surgery for purposes of pain relief must be approached with extreme caution due to the less than 50% success rate reported in medical literature. (5) Infection, Tumor, or Deformity of the lumbosacral spine that cause intractable pain, neurological deficit and/or functional disability. (6) After failure of two discectomies on the same disc, fusion may be an option at the time of the third discectomy, which should also meet the ODG criteria. (See [ODG Indications for Surgery -- Discectomy](#).)

Pre-Operative Surgical Indications Recommended: Pre-operative clinical surgical indications for spinal fusion should include all of the following: (1) All pain generators are identified and treated; & (2) All physical medicine and manual therapy interventions are completed; & (3) X-rays demonstrating spinal instability and/or myelogram, CT-myelogram, or discography (see [discography criteria](#)) & MRI demonstrating disc pathology correlated with symptoms and exam findings; & (4) Spine pathology limited to two levels; & (5) [Psychosocial screen](#) with confounding issues addressed. (6) For any potential fusion surgery, it is recommended that the injured worker refrain from smoking for at least six weeks prior to surgery and during the period of fusion healing. ([Colorado, 2001](#)) ([BlueCross BlueShield, 2002](#)) For average hospital LOS after criteria are met, see [Hospital length of stay](#) (LOS).

ODG hospital length of stay (LOS) guidelines:

Discectomy (*icd 80.51 - Excision of intervertebral disc*)

Actual data -- median 1 day; mean 2.1 days (± 0.0); discharges 109,057; charges (mean) \$26,219

Best practice target (no complications) -- *Outpatient*

Laminectomy (*icd 03.09 - Laminectomy/laminotomy for decompression of spinal nerve root*)

Actual data -- median 2 days; mean 3.5 days (± 0.1); discharges 100,600; charges (mean) \$34,978

Best practice target (no complications) -- *1 day*

Note: About 6% of discharges paid by workers' compensation.

Lumbar Fusion, posterior (*icd 81.08 - Lumbar and lumbosacral fusion, posterior technique*)

Actual data -- median 3 days; mean 3.9 days (± 0.1); discharges 161,761; charges (mean) \$86,900

Best practice target (no complications) -- *3 days*

Note: About 15% of discharges paid by workers' compensation.

Lumbar Fusion, anterior (*icd 81.06 - Lumbar and lumbosacral fusion, anterior technique*)

Actual data -- median 3 days; mean 4.2 days (± 0.2); discharges 33,521; charges (mean) \$110,156

Best practice target (no complications) -- *3 days*

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)**