

June 5, 2006

TX DEPT OF INS DIV OF WC  
AUSTIN, TX 78744-1609

CLAIMANT: \_\_\_

EMPLOYEE: \_\_\_

POLICY: M2-06-1153-01

CLIENT TRACKING NUMBER: M2-06-1153-01 /5278

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Medical Review Institute of America (MRIOA) has been certified by the Texas Department of Insurance as an Independent Review Organization (IRO). The Texas Department of Insurance Division of Workers Compensation has assigned the above mentioned case to MRIOA for independent review in accordance with DWC Rule 133 which provides for medical dispute resolution by an IRO.

MRIOA has performed an independent review of the proposed care to determine if the adverse determination was appropriate. In performing this review all relevant medical records and documentation utilized to make the adverse determination, along with any documentation and written information submitted, was reviewed. Itemization of this information will follow.

The independent review was performed by a peer of the treating provider for this patient. The reviewer in this case is on the DWC approved doctor list (ADL). The reviewing provider has no known conflicts of interest existing between that provider and the injured employee, the injured employee's employer, the injured employee's insurance carrier, the utilization review agent, or any of the treating doctors or insurance carrier health care providers who reviewed the case for decision before referral to the IRO.

**Records Received:**

Records Received from the State:

- Notification of IRO Assignment, 5/3/06 - 2 pages
- Medical Dispute Resolution Request/Response, 5/3/06 - 2 pages
- Table of Disputed Services, undated - 1 page
- Letter from Texas Mutual, 2/17/06 - 2 pages
- Letter from Concentra, 3/6/06 - 4 pages

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Records Received from Texas Mutual:

- Office Notes, 5/30/04 - 2 pages
- Emergency Department Records, 6/29/04 - 6 pages
- Lumbar Spine MRI, 7/30/04 - 2 pages
- Office notes, 5/30/04 - 2 pages
- Nerve Conduction Study, 10/12/04 - 1 page
- DWC 69, 4/10/06 - 1 page
- Letter from Churchill Evaluation Centers, 10/10/05 - 2 pages
- Physical Examination, 10/10/05 - 4 pages
- Office notes, 11/17/05 - 1 page
- Operative Report, 12/14/05 - 3 pages
- CT of the Lumbar Spine, 12/14/05 - 2 pages
- Office Notes, 2/17/06 - 2 pages
- Letter from Concentra, 3/6/06 - 4 pages

Records Received from the Requestor:

- History and Physical Exam, 2/10/05 - 3 pages
- Letter from HealthSouth Evaluation Centers, 2/12/05 - 3 pages
- DWC 69, 5/15/05 - 1 page
- Patient Intake Interview, undated - 2 pages
- Letter from Churchill Evaluation Centers, 10/10/05 - 2 pages
- DWC 69, 4/10/06 - 1 page
- Lumbar Spine MRI, 7/30/04 - 2 pages
- Nerve Conduction Study, 10/12/04 - 1 page
- Physical Examination, 10/10/05 - 4 pages
- CT of the Lumbar Spine, 12/14/05 - 2 pages
- Office Notes, 2/2/06 - 2 pages
- Copies of X-Rays, 2/2/06 - 2 pages
- Office Notes, 2/21/06 - 1 page

**Summary of Treatment/Case History:**

The patient is a 43-year-old male who was pinned between a trailer and vehicle on \_\_\_\_\_. The patient was initially treated at Memorial Herrman Northwest Hospital where he was diagnosed with a lumbar strain and contusion.

The patient was referred for MRI of the lumbar spine on 07/30004. This study reports a broad-based posterior and foraminal disc protrusion at L4-5. This protrusion causes moderate to severe effacement of the neural foramina bilaterally, right greater than left. At L5-S1, a shallow diffuse posterior bulge/minimal protrusion which is most prominent in the right foraminal region is shown.

The patient was referred for electrodiagnostic studies on 10/12/04 which reported evidence of a bilateral L5-S1 radiculitis and evidence of an axonal type peripheral neuropathy.

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The patient was evaluated by Designated Doctor (DD) Roy Reid on 10/10/05. Dr. Reid notes the patient has previously had two epidural steroid injections without relief. The patient has been evaluated by Dr. Richard Francis who opines the patient would benefit from a discectomy with fusion. On examination the patient is reported to have an antalgic gait, a negative sitting straight leg raise, right quadriceps weakness rated 4/5, deep tendon reflexes are symmetric, sensory testing is equivocal. The patient was found not to be at maximum medical improvement and the DD recommends performance of a lumbar discogram.

This study was performed on 12/14/05. The procedure report indicates concordant pain at L3-4, L4-5, and L5-S1. The note does not indicate a control disc. The post discogram CT indicates a normal disc appearance at L3-4 and annular tears at L4-5 and L5-S1.

The patient apparently came under the care of Dr. Vivek Kushwaha who has requested a L4 to S1 decompression with fusion. This case was referred to a Physician Advisor and determined not to be medically necessary.

**Questions for Review:**

Preauth denied for L4-S1 decompression and fusion.

**Explanation of Findings:**

Preauth denied for L4-S1 decompression and fusion.

The medical record as submitted indicates that the patient has both axial back with a radicular component. The lumbar discogram performed on 12/14/05 is invalid and does not have a control level. The procedure report indicates that Dr. Masroor Ahmed opines the patient has concordant pain at all three levels. The record does not include flexion or extension radiographs to determine if a lumbar instability exists. The patient has not had a psychosocial assessment. At present, the medical necessity for a spinal fusion procedure has not been established.

In cases of progressive neurologic deterioration or in the presence of mild to moderate myelopathy and concordant radiographic abnormality, the neural elements should be decompressed. Decompression may be accompanied by appropriate fusion, instrumentation, or both when instability or spondylolisthesis is documented radiographically. In the absence of neurologic deficits but in the presence of a concordant radiographic cause of symptoms, decompression should be considered if conservative management fails. The indications for surgical intervention become less clear in patients with mechanical pain without a significant radiographic abnormality. In such cases, discography may be considered for localization of the painful motion segment, although its use remains controversial. Conservative therapy is the treatment of choice in these patients. However, surgical fusion may be considered in select individuals after careful consideration of additional psychosocial factors that could contribute to their pain. Such patients must understand that the likelihood of achieving a pain-free outcome is low.

Spinal fusion is not recommended in the absence of fracture, dislocation, or instability. There is no

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scientific evidence about the long-term effectiveness of fusion for degenerative disc disease compared with natural history, placebo, or conservative treatment. There is no good evidence from controlled trials that spinal fusion is effective for treatment of any type of low back problem, in the absence of spinal fracture or dislocation, or spondylolisthesis if there is instability and motion in the segment operated on. Patients with increased instability of the spine after surgical decompression at the level of degenerative spondylolisthesis may be candidates for fusion. It is important to note that, although it is being done, lumbar fusion for general back pain very seldom cures the patient. A recent study has shown that only 29% assessed themselves as "much better" in the fusion group versus a 17% complication rate (including 9% life threatening or re-operation). Another clinical trial found that the success rate of lumbar fusion was less than or equal to noninvasive therapy -- exercises for three weeks and a lecture. A recent clinical trial concluded that patients with chronic low back pain who followed cognitive intervention and exercise programs improved significantly in muscle strength compared with patients who underwent lumbar fusion.

There is no evidence that spinal fusion surgery is any more beneficial than intensive rehabilitation. Lumbar spinal fusion surgeries use bone grafts, and are sometimes combined with metal devices, to produce a rigid connection between two or more adjacent vertebrae. The therapeutic objective of spinal fusion surgery for patients with low back problems is to prevent any movement in the intervertebral spaces between the fused vertebrae, thereby reducing pain and any neurologic deficits. Various theoretical rationales are given for the use of fusion in patients with low back problems. One theory postulates that in cases of significant spinal instability (abnormally increased motion at an intervertebral level); fusion prevents painful compression of the neural structures. Another controversial theory holds that, in some cases, back symptoms arise from the disc itself and fusion relieves symptoms by greatly reducing forces compressing the disc. Disc degeneration at the mobile segment next to a lumbar spinal fusion is now considered a potential long-term complication of spinal fusion that can necessitate further surgical intervention and adversely affect outcomes. The profit motive and market medicine have had a significant impact on clinical practice and research in the field of spine surgery. Industry funded studies demonstrated a statistically greater likelihood to report positive results than studies with other funding sources. Data on geographic variations in medical procedure rates suggest that back surgery rates are more variable than many other types of surgery and that spine fusion rates are more variable than spine surgery rates in general. This finding is usually interpreted to suggest a poor professional consensus on the appropriate indications for performing spinal fusion. Workers' compensation has been associated with especially poor outcome after surgery. Presurgical predictors of poor outcomes from fusion are number of prior low back operations, low household income at time of injury, older age, lawyer involvement, and the presence of depression. In acute spinal cord injury (SCI), if the spine is unstable following injury, surgical fusion and bracing may be necessary.

While not recommended, patient selection criteria if fusion is to be performed anyway is as follows: For chronic low back problems, fusion should not be considered within the first 3 months of symptoms, except for fracture or dislocation. Indications for spinal fusion may include:

1. Neural arch defect Spondylolytic spondylolisthesis, congenital unilateral neural arch hypoplasia.
2. Segmental Instability – Excessive motion, as in degenerative spondylolisthesis, surgically induced segmental instability.

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3. Primary Mechanical Back Pain/ Functional Spinal Unit Failure – Multiple pain generators objectively involving two or more of the following:
  - a. Internal disc disruption (poor success rate if more than one disc involved),
  - b. Painful motion segment, as in annular tears,
  - c. Disc resorption,
  - d. Facet syndrome, and or
  - e. Ligamentous tear
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.

Pre-Operative Surgical Indications Required: Pre-operative clinical surgical indications for spinal fusion include all of the following:

1. All pain generators are identified and treated; and
2. All physical medicine and manual therapy interventions are completed; and
3. X-ray, MRI, or CT/Discography demonstrating disc pathology or spinal instability; and
4. Spine pathology limited to two levels; and
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.

**Conclusion/Decision to Not Certify:**

The requested procedures are not medically necessary.

**References Used in Support of Decision:**

1. S. Terry Canale, MD, Campbell's Operative Orthopedics, 10th edition University of Tennessee–Campbell Clinic, Memphis TN, Le Bonheur Children's Medical Center, Memphis, TN ISBN 0323012485
2. Mark S. Greenberg, Nicolas, M.D. Arredondo (Contributor), Edward A. M., M.D. Duckworth (Contributor); Handbook of Neurosurgery; Thieme Medical Publishers; 6th edition (October 1, 2005)
3. The Official Disability Guidelines, 11th edition, The Work Loss Data Institute. Accessed: 06/05/2006
4. Bagnall AM, Jones L, Duffy S, Riemsma RP. Spinal fixation surgery for acute traumatic spinal cord injury (Protocol for a Cochrane Review). In: The Cochrane Library, Issue 3, 2004. Chichester, UK: John Wiley & Sons, Ltd
5. DeBerard MS, Masters KS, Colledge AL, Schleusener RL, Schlegel JD, Outcomes of posterolateral lumbar fusion in Utah patients receiving workers' compensation: a retrospective cohort study, Spine. 2001 Apr 1; 26(7): 738–46; discussion 747

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6. Harris I, Mulford J, Solomon M, van Gelder JM, Young J. Association between compensation status and outcome after surgery: a meta-analysis. *JAMA*. 2005 Apr 6; 293(13): 1644-52
7. Deyo RA, Gray DT, Kreuter W, Mirza S, Martin BI. United States trends in lumbar fusion surgery for degenerative conditions. *Spine*. 2005 Jun 15; 30(12): 1441-5; discussion 1446-7
8. Shah RV, Albert TJ, Bruegel-Sanchez V, Vaccaro AR, Hilibrand AS, Grauer JN. Industry support and correlation to study outcome for papers published in *Spine*. *Spine*. 2005 May 1; 30(9): 1099-104; discussion 1105
9. Steiner BK, Levi BH. The Profit Motive and Spine Surgery. *Spine*. 2004 Nov 15; 29(22): 2588-2591
10. Park P, Garton HJ, Gala VC, Hoff JT, McGillicuddy JE. Adjacent segment disease after lumbar or lumbosacral fusion: review of the literature. *Spine*. 2004 Sep 1; 29(17): 1938-44
11. Fairbank J, Frost H, Wilson-MacDonald J, Yu LM, Barker K, Collins R; Spine Stabilization Trial Group. Randomised controlled trial to compare surgical stabilization of the lumbar spine with an intensive rehabilitation program for patients with chronic low back pain: the MRC spine stabilization trial. *BMJ*. 2005 May 28; 330(7502): 1233
12. Wickizer TM, Franklin G, Gluck, JV, Fulton-Kehoe D, Improving Quality Through Identifying Inappropriate Care: The Use of Guideline-Based Utilization Review Protocols in the Washington State Workers' Compensation System, *J Occup Environ Med* - 2004 Mar; 46(3); 198
13. Keller A, Brox JI, Gunderson R, Holm I, Friis A, Reikeras O, Trunk Muscle Strength, Cross-sectional Area, and Density in Patients With Chronic Low Back Pain Randomized to Lumbar Fusion or Cognitive Intervention and Exercises, *Spine*. 2004 Jan 1; 29(1): 3-8
14. Gibson JN, Waddell G. Surgery for degenerative lumbar spondylosis: updated Cochrane Review. *Spine*. 2005 Oct 15; 30(20): 2312-20
15. Nicholas C. Bambakidis, MD, Iman Feiz-Erfan, MD, Jeffrey D. Klopfenstein, MD, and Volker K. H. Sonntag, MD. Indications for Surgical Fusion of the Cervical and Lumbar Motion Segment. *Spine* 2005; 30:S2-S6

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The physician who provided this review is a fellow of the American Board of Orthopaedic Surgery. This reviewer is a fellow of the North American Spine Society and the American Academy of Orthopaedic Surgeons. This reviewer has been in active practice since 1990.

#### Your Right To Appeal

If you are unhappy with all or part of this decision, you have the right to appeal the decision. The decision of the Independent Review Organization is binding during the appeal process.

If you are disputing the decision (other than a spinal surgery prospective decision), the appeal must be made directly to a district court in Travis County (see Texas Labor Code §413.031). An appeal to District Court must be filed not later than 30 days after the date on which the decision that is the subject of the appeal is final and appealable. If you are disputing a spinal surgery prospective decision, a request for a hearing must be in writing and it must be received by the Division of Workers' Compensation, Chief Clerk of Proceedings, within ten (10) days of your receipt of this decision.

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Chief Clerk of Proceedings / Appeals Clerk  
P. O. Box 17787  
Austin, TX 78744

A copy of this decision should be attached to the request. The party appealing the decision shall deliver a copy of its written request for a hearing to all other parties involved in the dispute. MRloA is forwarding this decision by mail, and in the case of time sensitive matters by facsimile, a copy of this finding to the DWC.

It is the policy of Medical Review Institute of America to keep the names of its reviewing physicians confidential. Accordingly, the identity of the reviewing physician will only be released as required by state or federal regulations. If release of the review to a third party, including an insured and/or provider, is necessary, all applicable state and federal regulations must be followed.

Medical Review Institute of America retains qualified independent physician reviewers and clinical advisors who perform peer case reviews as requested by MRloA clients. These physician reviewers and clinical advisors are independent contractors who are credentialed in accordance with their particular specialties, the standards of the American Accreditation Health Care Commission (URAC), and/or other state and federal regulatory requirements.

The written opinions provided by MRloA represent the opinions of the physician reviewers and clinical advisors who reviewed the case. These case review opinions are provided in good faith, based on the medical records and information submitted to MRloA for review, the published scientific medical literature, and other relevant information such as that available through federal agencies, institutes and professional associations. Medical Review Institute of America assumes no liability for the opinions of its contracted physicians and/or clinician advisors. The health plan, organization or other party authorizing this case review agrees to hold MRloA harmless for any and all claims which may arise as a result of this case review. The health plan, organization or other third party requesting or authorizing this review is responsible for policy interpretation and for the final determination made regarding coverage and/or eligibility for this case.

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Case Analyst: Jamie C ext 583

CC: Requestor and Respondent