

# Icon Medical Solutions, Inc.

11815 CR 452  
Lindale, TX 75771  
P 903.749.4272  
F 888.663.6614

## Notice of Independent Review Decision

**DATE:** July 28, 2012

**IRO CASE #:**

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

Inpatient Lumbar Fusion at L3-L4, L4-L5 with 3 Days of Inpatient Stay and Purchase of External Bone Growth Stimulator and Lumbar Brace

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

This physician is Board Certified by the American Board of 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:**

04/19/11: Physician's Report of Employee Injury/Work Comp Progress Note by DO with Clinics LLP

01/10/12: Emergency Room Visit by PA and Dr. with Emergency Department

01/26/12: Consultation by MD with Medical Clinic

02/08/12: Consultation by MD with Neurosurgical Consultants, PA

03/07/12: MRI Lumbar Spine Without Contrast interpreted by MD with Hospital

03/07/12: Followup Visit by MD

03/23/12: Followup Visit by MD

03/27/12, 04/10/12, 04/11/12, 04/13/12, 04/17/12, 04/19/12, 04/20/12:

Progress/Daily Notes from Rehab

04/09/12: History and Physical by RN, ANP-C with Pain Medicine

04/20/12: Followup Visit by MD

04/25/12: Followup Visit by MD

05/17/12: Lumbar Myelogram interpreted by MD with Hospital

05/17/12: CT Lumbar Spine with Myelogram interpreted by MD

05/21/12: Followup Visit by MD

05/29/12: Notice of UR Findings for Outpatient Pre-Operative Psychological Assessment from Forte  
06/01/12: Followup Visit by MD  
06/15/12: Followup Visit by MD  
06/15/12: Rationale for Surgery by, MD  
06/25/12: UR performed by MD  
06/27/12: Letter of Request for Reconsideration by MD  
07/06/12: UR performed by MD

**PATIENT CLINICAL HISTORY [SUMMARY]:**

The claimant is a male who injured his back at work on xx/xx/xx. He is status post L3-L4 and L4-L5 laminectomy and discectomy performed in 2003

04/19/11: The claimant was evaluated by DO who noted that he had persistent pain in the left lumbar area, the right lumbar area, and the left buttocks and the posterior thigh to just above the knee since a work-related injury sustained the day prior to the visit. It was noted that he was status post lumbar laminectomy 10 years prior. On physical exam, he had a weakly positive SLR bilaterally at approximately 70 degrees. Lumbar ROM was markedly reduced. He had tenderness in the posterior portion of the left thigh and left buttocks. He was to start physical therapy. He was told to take Aleve 2 tablets t.i.d. He was to go to light duty with 20 pounds of lifting maximum and no twisting or bending. He was diagnosed with lumbar strain.

01/10/12: The claimant was evaluated by PA for Dr. with a chief complaint of low back pain present for one week. It was noted that he had been previously seen and treated with medication but that he was out of medication at this visit. Current medications included Tramadol, Nitroglycerin, Lisinopril, aspirin, and terazosin. On physical exam, he had right paraspinal spasm. SLR was within normal limits bilaterally. He had symmetrical strength in the upper and lower extremities bilaterally without obvious focal motor deficit. Sensation, reflexes, and coordination were normal. He was diagnosed with back pain. He was given a prescription for Ultram t.i.d. He was to followup with Dr. as scheduled for pain management.

01/26/12: The claimant was seen by MD for initial evaluation. He stated that on xx/xx/xx, he developed low back pain while moving metal racks during work. It was noted that he complained of constant left lumbar pain radiating down the left leg with numbness and tingling in the left leg. He complained of a sensation of weakness and/or "heaviness" in the left leg. It was noted that the claimant had a previous work-related low back injury in April of 2011, from which he was released from care in September of 2011. On physical exam, there was tenderness in the left lumbar area. SLR was to 70 on the right side and 60 on the left. DTRs and patellar were present and Achilles not present on the right. DTRs present on the left. Muscle spasm was present on the left. He was diagnosed with low back syndrome and left radicular pain. He was given a prescription for Lortab 10/500

mg #60 and Mobic 7.5 #60. Lumbar x-rays were reviewed with no abnormalities seen. He was referred to Dr. for evaluation.

02/08/12: The claimant was evaluated by MD who noted that he had constant low back pain rated 5/10, which was stabbing, pins, and needles. His low back pain was increased with walking, bending, prolonged sitting, standing, and lying down. The pain radiated down the left leg with constant numbness in the thigh. The claimant complained of weakness in the left leg. On neurological exam, his low back was nontender to palpation. Gait, heel and toe walking were normal. Lumbar ROM was 45 degrees in flexion producing low back pain, 10 degrees in extension, and 10 degrees in lateral bending. SLR on the left at 35 degrees produced left leg pain. SLR on the right at 40 degrees produced left leg pain. He had 5/5 strength in all lower extremity muscle groups. Sensory exam revealed hypesthesia to pin over the lateral aspect of the left foot. Reflexes were 1 and symmetric in the knees and ankles. Lumbar x-rays revealed L3-L4 disc space narrowing with some L3 and L4 retrolisthesis. There was mild-moderate L4-L5 disc space narrowing. AP views revealed removal of the spinous processes of L3 and L4 with bilateral laminectomies at L3-L4 and L4-L5. IMPRESSION: Probable S1 radiculopathy, probable L5-S1 disc herniation. An MRI scan of the lumbar spine was ordered.

03/07/12: MRI Lumbar Spine Without Contrast interpreted by MD with Hospital. CONCLUSION: Degenerative disc changes most pronounced at L4-L5 in the form of a broad-based bulge with broad-based central protrusion causing no significant stenosis but neural foraminal narrowing as described.

03/07/12: The claimant was re-evaluated by MD for low back pain. He rated his pain as 6/10. On physical exam, he had a well-healed midline lumbar scar. Low back was nontender to palpation. SLR on the left at 40 degrees produced low back pain and left leg pain. SLR on the right at 45 degrees produced low back pain and left leg pain. Motor exam revealed 5/5 strength. DTRs were 1 and symmetrical in the lower extremities. MRI scan of the lumbar spine dated 03/07/12 demonstrated L3-L4 disc space narrowing with a mild bulge and postop changes. At L4-L5, there was a 7 mm central protrusion with bilateral L4-L5 facet hypertrophy with postop changes noted. There was L1-L2 disc space narrowing with disc herniation. IMPRESSION: Low back and left leg pain, recurrent 7 mm L4-L5 central disc protrusion, status post L3-L4 and L4-L5 laminectomy in 2003 by Dr.. Dr. recommended a course of physical therapy and referred him to Dr. for lumbar epidural steroid injections. He noted that the claimant could work light duty; however, no light duty was available. If no light duty was available, he was unable to return to work.

03/23/12: The claimant was re-evaluated by MD for complaints of constant pain in the lumbar area radiating into the left hip associated with numbness. He stated that Lortab was making him nauseated and that it did not seem to be helping. On lumbar physical exam, he had tenderness bilaterally in the lumbar area. SLR was to 80 on the right side and 70 on the left. DTRs were present on the right and

present on the left. Muscle spasm was present bilaterally. IMPRESSION: Low back syndrome, left radicular pain. He was given a prescription for Flexeril 10 mg #60 and Ultram 50 mg #90. He was to return in 30 days for re-evaluation.

03/27/12, 04/10/12, 04/11/12, 04/13/12, 04/17/12, 04/19/12, 04/20/12:  
Progress/Daily Notes from Rehab. The claimant underwent physical therapy treatments at Rehab. On initial evaluation on 03/27/12, lumbar flexion ROM was 15+ degrees and extension ROM was 10 degrees. The treatment plan included joint/soft tissue mobilization manual therapy, strengthening exercises, and ROM exercises. On 04/20/12, discharge summary notes state that he had attended physical therapy for 6 treatment sessions and had made little to no progress with symptoms being "about the same" as well as his objective measures. Numbness continued to occur in the L1-L2 dermatomes of the left lower extremity. He rated his pain at 5-7/10 on date of discharge. It was noted that he had made no gains in ROM or function with physical therapy and that he performed everything that was asked and demonstrated consistency. His radicular symptoms appeared to be worsening with time and warranted other treatment options to be considered.

04/09/12: The claimant was evaluated by RN, ANP-C for low back, hip, and left leg pain. He rated his pain as 6/10. On physical exam, lumbar spine ROM in extension was 10 degrees with pain, lateral bending was 10 degrees, and flexion was 30 degrees with mild low back pain. Lumbar spine was nontender to palpation. SLR on the left leg while sitting at 40 degrees produced some low back and left leg pain. SLR on the right approximately 45 degrees produced low back and left buttock pain radiating down mostly into the left thigh. On neurological testing, motor strength was 5+/5+ in the lower extremities. DTRs were 1+ and symmetrical at the knees, trace in the ankles. Sensation was dull along the L3-L4 dermatomal distribution on the left leg. His gait was slightly antalgic. He was unable to heel-to-toe walk. ASSESSMENT: Lumbar disc protrusion at L4-L5, lumbar radiculitis, low back pain. Transforaminal lumbar epidural steroid injections at L4-L5 were recommended.

04/20/12: The claimant was re-evaluated by MD for complaints of constant lumbar pain getting worse with radicular left leg pain. On lumbar exam, there was tenderness bilaterally in the lumbar area, left greater than right. SLR was to 80 on the right side and 70 on the left. DTRs were present on the right and not present on the left. Muscle spasm was present. He was given no medications as they were not due. He was to return in 30 days.

04/25/12: The claimant was re-evaluated by PA for, MD for low back pain and left leg pain and numbness, tingling, and weakness. It was noted that he had "ESIs and physical therapy, which helped." He stated that he had started to drag the left foot and sometimes the left leg "gives out" on him. On physical exam, SLR was positive on the right at 30 degrees producing left lower back pain. There was cross Lasegue's sign. SLR was positive on the left at 30 degrees producing left lower back pain. DTRs were 1. Quadriceps strength was diminished rated at 4/5. ROM of the lumbar spine revealed forward flexion of 30 degrees and extension 5

degrees. There was a moderate amount of spasm in the lumbar area. There was hypesthesia in the left L5 distribution. IMPRESSION: Worsening of his left lumbar radiculopathy L4 and L5 by physical examination, recurrent 7 mm L4-L5 disc protrusion, status post L3-L4 and L4-L5 laminectomy in 2003 by Dr.. PLAN: As he is worsening and as he is developing rapid neurological deficits including quadriceps, extensor hallucis longus, and dorsiflexion weakness on the left, we will order lumbar myelogram with post-myelogram CT. Return appointment after his myelogram for a review. We are suggesting a trial of Neurontin in the interim for his neuropathic pain and radicular symptoms. He will give this recommendation to Dr.

05/17/12: Lumbar Myelogram interpreted by MD with Hospital. FINDINGS: Somewhat prominent ventral epidural defect identified at L4-L5. Mild degenerative disc disease with endplate formation noted at L4-L5. There is about 3 mm of retrolisthesis of L3 with respect to L4 with mild degenerative disc disease at L3-L4. IMPRESSION: Successful lumbar myelogram. Please refer to post-myelogram CT scan of the lumbar spine for additional diagnostic information.

05/17/12: CT Lumbar Spine with Myelogram interpreted by MD. FINDINGS: The alignment of the lumbar spine demonstrates trace retrolisthesis of L1 with respect to L2 and L3 with respect to L4. L4-L5 broad-based disc bulge with superimposed small broad-based central disc protrusion with mild contouring of the anterior thecal sac. Mild-moderate left neural foraminal stenosis and mild right neural foraminal stenosis. Mild-moderate bilateral facet arthropathy. IMPRESSION: Postoperative changes as discussed above. Neural foraminal narrowing at L4-L5. Please see individual levels profiled above.

05/21/12: The claimant was re-evaluated by MD. On examination, SLR on the right at 35 degrees produced low back and left leg pain (positive Cross Le Segues). SLR on the left at 35 degrees also produced low back and left buttock pain. Motor exam revealed 4/5 left foot dorsiflexion weakness and left quadriceps weakness with 3/5 left extensor hallucis longus weakness. Sensory exam revealed hypesthesia to pin over the dorsal aspect of the left foot. Reflexes were 1 and symmetric. Lumbar myelogram dated 05/17/12 was reviewed revealing slight diminished filling bilaterally at L4-L5. Lateral views revealed L3-L4 and L4-L5 disc space narrowing. There was L3 and L4 retrolisthesis. There was slight L4 on L5 retrolisthesis and small ventral defect. Post-myelogram CT scan revealed some arachnoiditis at L3-L4. There was some clumping of the nerve roots within the spinal sac. At L4-L5, there was a 7 mm central disc protrusion with bilateral L4-L5 facet hypertrophy narrowing the lateral recess. At L3-L4, postop changes were seen with a small L3-L4 disc bulge/protrusion on the right. RECOMMENDATIONS: His back has gotten worse and his neurological exam has deteriorated and he now has left L4 and L5 weakness. The patient is a candidate for a discectomy and interbody fusion L3-L4, L4-L5.

06/01/12: The claimant was re-evaluated by MD. On physical exam of the lumbar spine, there was tenderness bilaterally, left greater than right. SLR was to

70 on the right side and 70 on the left. DTRs were present on the right and present on the left. Muscle spasm was present bilaterally, left greater than right. Paresthesias down left leg. He was to return in 30 days. His work status remained unchanged, off work.

06/15/12: The claimant was reevaluated by FNP for MD. It was noted that he was working on light duty. He rated his pain as 7-9/10. On examination, SLR on the right at 35 degrees produced low back and left leg pain. SLR on the left at 35 degrees also produced low back and left buttock pain. Motor exam revealed 4/5 left dorsiflexion weakness and left quadriceps weakness with 3/5 left extensor hallucis longus weakness. Sensory exam revealed hypesthesia to pin over the dorsal aspect of the left foot. Reflexes were 1 and symmetric.

RECOMMENDATIONS: He wants to proceed with surgery. He is a candidate for an L3-L4 and L4-L5 TLIF. He meets all ODG patient selection criteria for lumbar spinal fusion as follows: He has been symptomatic for greater than six months, he has segmental instability as defined in the ODG as mechanical intervertebral collapse of the motion segment, advanced degenerative changes after surgical discectomy; he also has degenerative retrolisthesis at L3-L4 and L4-L5. He will require a complete facetectomy at L3-L4 and L4-L5 as well as radical discectomy in order to remove the disc herniation which is ventral to the thecal sac. He has already had decompression laminectomies and discectomies. Because of the amount of decompression required including full facetectomy and discectomy, the patient's spinal will be rendered unstable, hence the patient has what is described in ODG guidelines, "surgical induced segmental instability." The patient also has the ODG Guidelines Preoperative Surgical Indications Recommended for Lumbar Spinal Fusion as follows: All pain generators have been identified and treated; all physical medicine and manual therapy interventions have been completed; x-rays including CT myelogram and MRI scan revealed disc pathology at L3-L4 and L4-L5 with associated instability with retrolisthesis noted at L3-L4 and L4-L5; spine pathology is limited to two levels (L3-L4 and L4-L5); the patient has undergone a psychological screen evaluation by Dr. who noted in his report, "The patient states that he wants to proceed with spinal surgery and psychologically there are no contraindications."

06/25/12: UR performed by MD. The documentation reviewed indicates that the claimant was injured on xx/xx/xx when the claimant was lifting; there are no further details of the mechanism of injury. The claimant has previously undergone an L3-L4 and L4-L5 laminectomy that was unrelated to the work injury. There is not a comprehensive evaluation of the claimant's symptomatology. There is not a detailed physical or neurological examination attempting to identify the claimant's pain generators. Previous imaging studies are consistent with post-operative changes from the previous surgery, degenerative disc disease with osteophyte formations and small bulging at the L3-L4 level and small bulging at the L4-L5 level with no significant stenosis and reported as a broad-based bulge. There is only a trace of retrolisthesis at L1-L2, L2-L3, and L3-L4. There are no significant changes consistent with instability. There are no x-rays to confirm any instability. Therefore, I recommend non-authorization of the requested surgery. As the

surgery is not medically necessary, the associated bone growth stimulator and lumbar brace are denied.

07/06/12: UR performed by MD. The claimant is a male with an on-the-job injury sustained xx/xx/xx. Despite conservative treatment including an unsuccessful ESI, he still complains of back and left lower extremity pain with radiation into the dorsal foot/toes. Pertinent past history reveals the patient previously had an L3-L4 and L4-L5 decompression (?discectomy) in 2003. On examination, SLR is positive on the left with reproduction of low back pain, there is hypesthesia of the dorsal foot (L5 nerve) with weak quadriceps and dorsiflexors/EHL. Myelogram/CT scan done 05/17/12 shows retrolisthesis at L1-L2 and L3-L4 (the requesting physician mentions retrolisthesis also at L4-L5 but that is not noted in the official report). Also at L3-L4, there is noted to be arachnoiditis with mild foraminal stenosis and "moderate disc space loss." At the L4-L5 level, there is noted to be a disc bulge with mild-moderate foraminal (but not central) stenosis. There is no mention of disc space narrowing in the report at that level. The request is for an L3-L4 and L4-L5 decompression/fusion with instrumentation and a bone growth stimulator. ODG requirements for the requested procedure are noted above. There is no evidence of segmental instability in the records submitted. Approval for a fusion for disc degeneration is only if it is progressive or advanced. Neither is noted in the material submitted for me to review. The request is therefore denied. As the surgery is denied, the BGS would not be required.

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

The previous adverse decisions are upheld. The records were reviewed and reveal the claimant to be a male who sustained a back re-injury on xx/xx/xx while lifting. He had a prior back injury on 04/18/11 that resolved with therapy. His past history is notable for L3-L4 and L4-L5 laminectomy in 2003. He had a Lumbar MRI on 03/17/12 that showed a disc bulge at L4-L5. Dr. saw him on 02/8/12, noting + SLR on the left and crossed SLR on the right. The strength and gait were normal at that time. He had Physical Therapy with the notes showing no improvement after six visits. He had L4-L5 foraminal stenosis and central disc bulge with L1-L2 and L3-L4 retrolisthesis seen on Lumbar CT myelogram on 05/17/12. His leg strength has worsened on serial exams by Dr. 's report with 4/5 left quads/dorsiflexion and 3/5 extensor hallucis longus. A discectomy/TLIF at L3-L4 and L4-L5 was proposed for the claimant for presumed L3-L4 and L4-L5 disc herniations/segmental instability with pedicle screws not clearly discussed. A bone growth stimulator and back brace were also requested after the surgery.

The procedure requested is not felt to be indicated because the instability is not clarified enough to meet ODG criteria. The motion segment must have greater than 20 degrees of angular motion or movement of greater than 4.5 mm to meet ODG lumbar instability criteria. The lumbar x-rays do not reveal a clearly mobile instability at L3-L4 or L4-L5. Dr. raised a question of arachnoiditis at L3-L4 on the claimant's Lumbar CT myelogram which may explain the claimant's leg weakness. An EMG of the lower extremity may be helpful to assess for source of

radicular pain. The claimant's leg pain may be helped with a laminotomy/foraminotomy or a spinal cord stimulator if his EMG shows radiculopathy. The bone stimulator and lumbar brace also are not indicated given the lack of a need for fusion surgery. Therefore, the request for Inpatient Lumbar Fusion at L3-L4, L4-L5 with 3 Days of Inpatient Stay and Purchase of External Bone Growth Stimulator and Lumbar Brace is not medically necessary and is non-certified.

ODG:

Fusion (spinal)	<p><b>Patient Selection Criteria for Lumbar Spinal Fusion:</b>  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. (<a href="#">Andersson, 2000</a>) (<a href="#">Luers, 2007</a>) (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. (<a href="#">Andersson, 2000</a>) (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 <a href="#">ODG Indications for Surgery -- Discectomy.</a>)</p> <p><b>Pre-Operative Surgical Indications Recommended:</b> Pre-operative clinical surgical indications for spinal fusion should include all of the following: (1) All pain generators are identified and treated; &amp; (2) All physical medicine and manual therapy interventions are completed; &amp; (3) X-rays demonstrating spinal instability and/or myelogram, CT-myelogram, or discography (see <a href="#">discography criteria</a>) &amp; MRI demonstrating disc pathology correlated with symptoms and exam findings; &amp; (4) Spine pathology limited to two levels; &amp; (5) <a href="#">Psychosocial screen</a> 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. (<a href="#">Colorado, 2001</a>) (<a href="#">BlueCross BlueShield, 2002</a>)</p> <p>For average hospital LOS after criteria are met, see <a href="#">Hospital length of stay</a> (LOS).</p>
Hospital length of stay (LOS)	<p><b>ODG hospital length of stay (LOS) guidelines:</b>  <b>Lumbar Fusion, posterior</b> (<i>icd 81.08 - Lumbar and lumbosacral fusion, posterior technique</i>)  Actual data -- median 3 days; mean 3.9 days (±0.1); discharges 161,761; charges</p>

	<p>(mean) \$86,900  Best practice target (no complications) -- 3 days  <b>Lumbar Fusion, anterior</b> (<i>icd 81.06 - Lumbar and lumbosacral fusion, anterior technique</i>)  Actual data -- median 3 days; mean 4.2 days (<math>\pm 0.2</math>); discharges 33,521; charges (mean) \$110,156  Best practice target (no complications) -- 3 days  <b>Lumbar Fusion, lateral</b> (<i>icd 81.07 - Lumbar fusion, lateral transverse process technique</i>)  Actual data -- median 3 days; mean 3.8 days (<math>\pm 0.2</math>); discharges 15,125; charges (mean) \$89,088  Best practice target (no complications) -- 3 days</p>
--	---

Bone growth stimulators (BGS)	<p><b>Criteria for use for invasive or non-invasive electrical bone growth stimulators:</b>  Either invasive or noninvasive methods of electrical bone growth stimulation may be considered medically necessary as an adjunct to spinal fusion surgery for patients with any of the following risk factors for failed fusion: (1) One or more previous failed spinal fusion(s); (2) Grade III or worse spondylolisthesis; (3) Fusion to be performed at more than one level; (4) Current smoking habit (Note: Other tobacco use such as chewing tobacco is not considered a risk factor); (5) Diabetes, Renal disease, Alcoholism; or (6) Significant osteoporosis which has been demonstrated on radiographs. (<a href="#">Kucharzyk, 1999</a>) (<a href="#">Rogozinski, 1996</a>) (<a href="#">Hodges, 2003</a>)</p>
-------------------------------	--

Back brace, post operative (fusion)	<p>Under study, but given the lack of evidence supporting the use of these devices, a standard brace would be preferred over a custom post-op brace, if any, depending on the experience and expertise of the treating physician. There is conflicting evidence, so case by case recommendations are necessary (few studies though lack of harm and standard of care). There is no scientific information on the benefit of bracing for improving fusion rates or clinical outcomes following instrumented lumbar fusion for degenerative disease. Although there is a lack of data on outcomes, there may be a tradition in spine surgery of using a brace post-fusion, but this tradition may be based on logic that antedated internal fixation, which now makes the use of a brace questionable. For long bone fractures prolonged immobilization may result in debilitation and stiffness; if the same principles apply to uncomplicated spinal fusion with instrumentation, it may be that the immobilization is actually harmful. Mobilization after instrumented fusion is logically better for health of adjacent segments, and routine use of back braces is harmful to this principle. There may be special circumstances (multilevel cervical fusion, thoracolumbar unstable fusion, non-instrumented fusion, mid-lumbar fractures, etc.) in which some external immobilization might be desirable. (<a href="#">Resnick, 2005</a>)</p>
-------------------------------------	---

**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)**