

P&S Network, Inc.

8484 Wilshire Blvd, Suite 620, Beverly Hills, CA 90211

Ph: (323)556-0555 Fx: (323)556-0556

Notice of Independent Review Decision

DATE OF REVIEW: November 13, 2008

IRO CASE #:

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

This case was reviewed by an Orthopedic Surgeon, Licensed in Texas and Board Certified. The reviewer has signed a certification statement stating that no known conflicts of interest exist between the reviewer and the injured employee, the injured employee's employer, the injured employee's insurance carrier, the utilization review agent (URA), any of the treating doctors or other health care providers who provided care to the injured employee, or the URA or insurance carrier health care providers who reviewed the case for a decision regarding medical necessity before referral to the IRO. In addition, the reviewer has certified that the review was performed without bias for or against any party to the dispute.

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE

Autograft, spine surgery, morselized
Lumbar spine fusion with bone graft L4-S1
Lumbar spine fusion, posterolateral L4-S1
Insert spine segment fixation, Post, 3-6 segments
Insert spine fixation device, Anterior 2-3 segments
Apply spinal prosthetic device
Remove lumbar spine lamina, one segment
Remove added spine lamina, one segment
Remove vertebral body, low back
Remove added vertebral segment, low back
Inpatient hospital care times two days
Purchase: Post op LSO brace
Postop bone stimulator, lumbar
Postop cryotherapy unit purchase
Pad for cryotherapy unit

REVIEW OUTCOME

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

Overtuned (Disagree)

INFORMATION PROVIDED TO THE IRO FOR REVIEW

- o Submitted medical records were reviewed in their entirety.
- o Treatment guidelines were provided to the IRO.
- o September 12, 2008 utilization review report
- o September 24, 2008 utilization review report
- o October 22, 2008 psychiatric report from M.D.
- o June 10, 2008 through August 26, 2008 medical records from Spine Associates
- o August 20, 2008 lumbar discogram report from M.D.
- o August 20, 2008 CT post discogram report from M.D.
- o February 18, 2008 lumbar MRI report from M.D.

PATIENT CLINICAL HISTORY [SUMMARY]:

According to the medical records, the patient sustained an industrial injury on xx/xx/xx involving the lumbar spine. According to an October 22, 2008 psychiatric report, the patient is a male who twisted his left leg and placed torsion on his low back while working with a 300 pound skid. He was initially treated with physical therapy and referred to an orthopedist. The psychiatrist determined that the patient is sufficiently stable from a psychiatric standpoint to undergo spinal surgery.

The records include a lumbar spine MRI report dated February 18, 2008. The impression is listed as follows: "1 mm diffuse disc protrusion at L1-2. 3 mm diffuse herniation at L4-5 with some neural foraminal encroachment especially on the left. 5 mm central herniation at L5-S1 noted.

A June 10, 2008 orthopedic report states that the patient was sent for a second opinion consultation. The patient stated that his back pain has been consistent with bilateral lower extremity pain, more so on the left. When he gets leg pain, it travels down the left leg all the way down to the foot and calf. The right-sided leg pain is less intense. He was on a combination of tramadol and Skelaxin.. He has had two epidural steroid injections without help and has had physical therapy without any improvement of symptoms. Examination findings included normal gait, ability to heel walk/toe walk without difficulty, straight leg raise test negative on both sides, ability to flex and extend to 35° and 50° respectively, full power in all lower extremity myotomes, intact sensation, and deep tendon reflexes within normal limits.

Radiographs were performed with AP and lateral views as well as flexion and extension studies. The study shows five non-rib bearing lumbar vertebrae. There is narrowing of the disc space between L4 and L5 with mild retrolisthesis of L4 on L5. Between flexion and extension, no abnormal translation or rotation is seen. Anterior and posterior syndesmophytes are seen on either side of the disc space.

The physician read the MRI study and agreed with the radiologist's report. In addition to what was reported, the physician stated that there was evidence of Modic type II endplate changes on either side of the L4-5 disc, but this was not seen at the L5-S1 level. This indicates the presence of associated degenerative changes at L4-5. The disc herniation at L4-5 is indeed quite prominent according to the physician, extending onto the left side contacting both the exiting nerve root and ganglion. A discogram was recommended prior to further consideration for surgery.

A lumbar discogram was performed on August 20, 2008. Findings at L3-4 included no tear and no pain noted. At L4-5, a posterior tear was noted and the patient noted concordant back pain and left hip pain graded 10/10. At L5-S1, a posterior tear was noted and the patient had concordant back and left hip pain graded 9/10. The post discogram CT scan was performed and revealed the following findings: "L3-4: There is central accumulation of contrast. A 3 mm left posterolateral protrusion mildly narrows the left foramen and abuts the emanating left L3 nerve root sleeve/dorsal root ganglion. No annular tear is identified. There is no central canal stenosis and no nerve root displacement. L4-5: A diffuse high grade annular tear is present. There is epidural extravasation of contrast. Three or 4 mm broad-based posterior protrusion with slight right posterolateral accentuation moderately effaces the thecal sac, greater on the left. There is marked bilateral foraminal narrowing with effacement of the emanating L4 nerve root sleeves bilaterally. Mild bilateral facet arthrosis is present. L5-S1: A high-grade broad-based posterocentral annular tear is present. Four millimeter posterocentral left paracentral protrusion mildly effaces the left sac and left S1 nerve root sleeve. There is epidural extravasation of contrast. Marked left and moderate right foraminal narrowing is present with effacement of the emanating right L5 nerve root sleeve/dorsal root ganglion.

The patient was seen again on August 26, 2008 with the results of the discogram and post discogram CT study. The report states that a control was established at L3-4, which did not reproduce pain and this helped to validate the discogram. The physician stated that the studies indicate the site of the pain generators as being the L4-5 and L5-S1 intervertebral discs. Surgical intervention was recommended to address the pain at each of the L4-5 and L5-S1 motion segment.

The above captioned request was reviewed on September 12, 2008 and a non-certification was rendered. The reviewing physician stated that the request does not meet the current criteria by the ODG Treatment Index for Lumbar Fusion.

The case was again reviewed on September 24, 2008 and another non-certification was provided for the the request. The reviewing doctor stated that there is no basis to overturn the prior adverse determination. He agreed that the requested surgical procedure is not consistent with the ODG guidelines. The report states that the surgical intervention appears to be requested based on the discogram with no objective findings. Per the ODG, discograms are not supported nor does it support surgical intervention based on discograms according to the peer review report.

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

According to the Official Disability Guidelines, indications for spinal fusion may include: "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." The patient has positive imaging findings at the L4-5 and L5-S1 levels with a 3 mm diffuse herniation at L4-5 with some neural foraminal encroachment especially on the left and a 5 mm central herniation at L5-S1. The orthopedist has also stated that there are Modic changes on either side of the L4-5 disc. These levels have been confirmed to be pain generators per the discogram.

The guidelines also lists the following as preoperative surgical indications: (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; & (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.

The pain generators have been identified with discogram. The patient has undergone physical therapy and has failed two lumbar epidural steroid injections. The discogram and MRI have demonstrated disc pathology in accordance with the third criterion. The patient has successfully passed a psychosocial screen as well. An inpatient hospital stay up two days falls within the average range specified by the Official Disability Guidelines. A postoperative x-ray is under study according to the guidelines, but the guidelines note that this is a tradition following lumbar fusion and it is a reasonable request. In addition, the patient can benefit from a bone stimulator which the guidelines recommend on a case by case basis. Cryotherapy is recommended for acute pain which will be present in the immediate postoperative period.

Therefore, my recommendation is to overturn the decision to non-certify the request for Autograft, spine surgery, morselized; Lumbar spine fusion with bone graft L4-S1; Lumbar spine fusion, posterolateral L4-S1; Insert spine segment fixation, Post, 3-6 segments; Insert spine fixation device, Anterior 2-3 segments; Apply spinal prosthetic device; Remove lumbar spine lamina, one segment; Remove added spine lamina, one segment; Remove vertebral body, low back; and Remove added vertebral segment, low back; Inpatient hospital care times two days; Purchase: Post op LSO brace; Postop bone stimulator, lumbar; Postop cryotherapy unit purchase; Pad for cryotherapy unit.

The IRO's decision is consistent with the following guidelines:

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

X ___ 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

Official Disability Guidelines (2008)/Low Back Chapter:

Fusion:

Not recommended for patients who have less than six months of failed recommended conservative care unless there is objectively demonstrated severe structural instability and/or acute or progressive neurologic dysfunction, but recommended as an option for spinal fracture, dislocation, spondylolisthesis or frank neurogenic compromise, subject to the selection criteria outlined in the section below entitled, "Patient Selection Criteria for Lumbar Spinal Fusion," after 6 months of conservative care. For workers' comp populations, see also the heading, "Lumbar fusion in workers' comp patients." After screening for psychosocial variables, outcomes are improved and fusion may be recommended for degenerative disc disease with spinal segment collapse with or without neurologic compromise after 6 months of compliance with recommended conservative therapy. [For spinal instability criteria, see AMA Guides (Andersson, 2000)] For complete references, see separate document with all studies focusing on Fusion (spinal). There is limited scientific evidence about the long-term effectiveness of fusion for degenerative disc disease compared with natural history, placebo, or conservative treatment. Studies conducted in order to compare different surgical techniques have shown success for fusion in carefully selected patients. (Gibson-Cochrane, 2000) (Savolainen, 1998) (W etzel, 2001) (Molinari, 2001) (Bigos, 1999) (Washington, 1995) (DeBarard-Spine, 2001) (Fritzell-Spine, 2001) (Fritzell-Spine, 2002) (Deyo-NEJM, 2004) (Gibson-Cochrane/Spine, 2005) (Soegaard, 2005) (Glassman, 2006) (Atlas, 2006) According to the recently released AANS/NASS Guidelines, lumbar fusion is recommended as a treatment for carefully selected patients with disabling low back pain due to one- or two-level degenerative disc disease after failure of an appropriate period of conservative care. This recommendation was based on one study that contained numerous flaws, including a lack of standardization of conservative care in the control group. At the time of the 2-year follow up it appeared that pain had significantly increased in the surgical group from year 1 to 2. Follow-up post study is still pending publication. In addition, there remains no direction regarding how to define the "carefully selected patient." (Resnick, 2005) (Fritzell, 2004) A recently published well respected international guideline, the "European Guidelines," concluded that fusion surgery for nonspecific chronic LBP cannot be recommended unless 2 years of all other recommended conservative treatments - including multidisciplinary approaches with combined programs of cognitive intervention and exercises - have failed, or such combined programs are not available, and only then in carefully selected patients with maximum 2-level degenerative disc disease. (Airaksinen, 2006) For chronic LBP, exercise and cognitive intervention may be equivalent to lumbar fusion without the potentially high surgical complication rates. (Ivar Brox-Spine, 2003) (Keller-Spine, 2004) (Fairbank-BMJ, 2005) (Brox, 2006) In acute spinal cord injury (SCI), if the spine is unstable following injury, surgical fusion and bracing may be necessary. (Bagnall-Cochrane, 2004) (Siebenga, 2006) A study on improving quality through identifying inappropriate care found that use of guideline-based Utilization Review (UR) protocols resulted in a denial rate for lumbar fusion 59 times as high as denial rates using non-guideline based UR. (Wickizer, 2004) The profit motive and market medicine have had a significant impact on clinical practice and research in the field of spine surgery. (Weiner-Spine, 2004) (Shah-Spine, 2005) (Abelson, 2006) Data on geographic variations in medical procedure rates suggest that there is significant variability in spine fusion rates, which may be interpreted to suggest a poor professional consensus on the appropriate indications for performing spinal fusion. (Deyo-Spine, 2005) (Weinstein, 2006) Outcomes from complicated surgical fusion techniques (with internal fixation) may be no better than the traditional posterolateral fusion. (van Tulder, 2006) (Maghout-Juratli, 2006) Despite the new technologies, reoperation rates after lumbar fusion have become higher. (Martin, 2007) According to the recent Medicare Coverage Advisory Committee Technology Assessment, the evidence for lumbar spinal fusion does not conclusively demonstrate short-term or long-term benefits compared with nonsurgical treatment for elderly patients. (CMS, 2006) When lumbar fusion surgery is performed, either with lateral fusion alone or with interbody fusion, unlike cervical fusion, there is no absolute contraindication to patients returning even to contact sports after complete recovery from surgery. Like patients with a thoracic injury, those with a lumbar injury should be pain free, have no disabling neurological deficit, and exhibit evidence of bone fusion on x-ray films before returning. (Burnett, 2006) A recent randomized controlled trial comparing decompression with decompression and instrumented fusion in patients with foraminal stenosis and single-level degenerative disease found that patients universally improved with surgery, and this improvement was maintained at 5 years. However, no obvious additional benefit was noted by combining decompression with an instrumented fusion. (Hallett, 2007) Discography may be supported if the decision has already been made to do a spinal fusion, and a negative discogram could rule out the need for fusion on that disc (but a positive discogram in itself would not justify fusion). Discography may help distinguish asymptomatic discs among morphologically abnormal discs in patients without psychosocial issues. Precise prospective categorization of discographic diagnoses may predict outcomes from treatment, surgical or otherwise. (Derby, 2005) (Derby2, 2005) (Derby, 1999) New research shows that healthcare expenditures for back and neck problems have increased substantially over time, but with little improvement in healthcare outcomes such as functional disability and work limitations. Rates of imaging, injections, opiate use, and spinal surgery have increased substantially over the past decade, but it is unclear what impact, if any, this has had on health outcomes. (Martin, 2008) The efficacy of surgery for nonspecific back pain is uncertain. There may be some patients for whom surgery, fusion specifically, might be helpful, but it is important for doctors to discuss the fact that surgery doesn't tend to lead to huge improvements on average, about a 10- to 20-point improvement in function on a 100-point scale, and a significant proportion of patients still need to take pain medication and don't return to full function. (Chou, 2008) 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 neurological deficits. See also Adjacent segment disease/degeneration (fusion) & Iliac crest donor-site pain treatment.

Lumbar fusion in workers' comp patients: 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. Until further research is conducted there remains insufficient evidence to recommend fusion for chronic low back pain in the absence of stenosis and

spondylolisthesis, and this treatment for this condition remains "under study." It appears that workers' compensation populations require particular scrutiny when being considered for fusion for chronic low back pain, as there is evidence of poorer outcomes in subgroups of patients who were receiving compensation or involved in litigation. (Fritzell-Spine, 2001) (Harris-JAMA, 2005) (Maghout-Juratli, 2006) (Atlas, 2006) Despite poorer outcomes in workers' compensation patients, utilization is much higher in this population than in group health. (Texas, 2001) (NCCI, 2006) Presurgical biopsychosocial variables predict patient outcomes from lumbar fusion, which may help improve patient selection. Workers' compensation status, smoking, depression, and litigation were the most consistent presurgical predictors of poorer patient outcomes. Other predictors of poor results were number of prior low back operations, low household income, and older age. (DeBerard-Spine, 2001) (DeBerard, 2003) (Deyo, 2005) (LaCaille, 2005) (Trief-Spine, 2006) Obesity and litigation in workers' compensation cases predict high costs associated with interbody cage lumbar fusion. (LaCaille, 2007) A recent study of 725 workers' comp patients in Ohio who had lumbar fusion found only 6% were able to go back to work a year later, 27% needed another operation, and over 90% were in enough pain that they were still taking narcotics at follow-up. (Nguyen, 2007)

Lumbar fusion for spondylolisthesis: Recommended as an option for spondylolisthesis. Patients with increased instability of the spine after surgical decompression at the level of degenerative spondylolisthesis are candidates for fusion. (Eckman, 2005) This 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) Unilateral instrumentation used for the treatment of degenerative lumbar spondylolisthesis is as effective as bilateral instrumentation. (Fernandez-Fairen, 2007) Patients with degenerative spondylolisthesis and spinal stenosis who undergo standard decompressive laminectomy (with or without fusion) showed substantially greater improvement in pain and function during a period of 2 years than patients treated nonsurgically, according to the recent results from the Spine Patient Outcomes Research Trial (SPORT). (Weinstein-spondylolisthesis, 2007) (Deyo-NEJM, 2007) For degenerative lumbar spondylolisthesis, spinal fusion may lead to a better clinical outcome than decompression alone. No conclusion about the clinical benefit of instrumenting a spinal fusion can be made, but there is moderate evidence that the use of instrumentation improves the chance of achieving solid fusion. (Martin, 2007) A recent systematic review of randomized trials comparing lumbar fusion surgery to nonsurgical treatment of chronic back pain associated with lumbar disc degeneration, concluded that surgery may be more efficacious than unstructured nonsurgical care but may not be more efficacious than structured cognitive-behavior therapy. Methodological limitations of the randomized trials prevented firm conclusions. (Mirza, 2007)

Lumbar fusion for Scheuermann's kyphosis: Recommended as an option for adult patients with severe deformities (e.g. more than 70 degrees for thoracic kyphosis), neurological symptoms exist, and pain cannot be adequately resolved non-operatively (e.g. physical therapy, back exercises). Good outcomes have been found in a relatively large series of patients undergoing either combined anterior-posterior or posterior only fusion for Scheuermann's kyphosis. (Lonner, 2007)

Patient Selection Criteria for Lumbar Spinal Fusion:

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 disectomy. [For excessive motion criteria, see AMA Guides, 5th Edition, page 384 (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. [For spinal instability criteria, see AMA Guides, 5th Edition, page 379 (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 disectomies on the same disc, fusion may be an option at the time of the third disectomy, which should also meet the ODG criteria. (See ODG Indications for Surgery -- Disectomy.)

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; & (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)

Cold/Heat Packs:

Recommended as an option for acute pain. At-home local applications of cold packs in first few days of acute complaint; thereafter, applications of heat packs or cold packs. (Bigos, 1999) (Airaksinen, 2003) (Bleakley, 2004) (Hubbard, 2004) Continuous low-level heat wrap therapy is superior to both acetaminophen and ibuprofen for treating low back pain. (Nadler 2003) The evidence for the application of cold treatment to low-back pain is more limited than heat therapy, with only three poor quality studies located that support its use, but studies confirm that it may be a low risk low cost option. (French-Cochrane, 2006) There

is minimal evidence supporting the use of cold therapy, but heat therapy has been found to be helpful for pain reduction and return to normal function. (Kinkade, 2007) See also Heat therapy.

Back brace, post operative (fusion):

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. (Resnick, 2005)

Hospitalization:

Not recommended for low back pain in the absence of major trauma (i.e., acute spinal fracture, spinal cord injury, or nerve root injury), acute or progressive neurologic deficit, or the patient's inability to manage basic ADLs at home and alternative placement in a Skilled Nursing Facility is not available or appropriate. These recommendations are based on medical practice and are consistent with other evidence-based guidelines. (Washington, 2002) (ICSI, 2004)

Criteria for Hospital Admissions:

I. Acute Major Back Trauma is Suspected: Back injury occurred within the past 7 days; & Major trauma was sustained (e.g., fall from a height or back crushed by heavy object); & Examining physician documents or suspects acute spinal fracture, spinal cord injury, or nerve root injury. Hospital Admission Criteria: May be individualized.

II. Acute Major Back Trauma Not Suspected; Patient Has Neurologic Findings Suspected to be Acute or Progressive: No history of recent major injury; & Patient complains of symptoms suggesting acute or progressive neurologic deficit [typically these include: (1) progressive weakness or numbness in one leg (and occasionally both legs), or (2) loss of control of bowel or bladder function, or (3) progressive numbness in the perineal region]; & The examining physician indicates that the patient has (or probably has) an acute or progressive neurologic deficit. Hospital Admission Criteria: If a patient has a new or progressive neurologic deficit, he/she may be hospitalized in order to facilitate surgical decision-making, to provide close observation of further progression, or to help the patient compensate for neurological deficits (e.g., to determine whether the patient needs to learn intermittent catheterization). If a patient does NOT have a new or progressive neurologic deficit, the only valid reason for hospitalization is that he/she cannot manage basic ADLs at home. Duration of hospitalization should be brief. The great majority of these patients who are admitted to a hospital can be discharged in 1 to 3 days (if spine surgery is not performed). Prolonged bed rest usually does more harm than good in a patient with low back pain. Admission for the purpose of bed rest is not acceptable.

III. Acute Major Back Trauma Not Suspected; Patient Has Back Pain without Evidence of Acute or Progressive Neurologic Findings: No history of recent major trauma; & Patient complains of back pain with or without symptoms in the legs (occasionally patients will complain mainly of symptoms in the legs but the evaluating physician concludes that symptoms are not caused by lumbar radiculopathy); & No evidence of acute or progressive neurologic deficit. Hospital Admission Criteria: The primary valid reason for hospitalizing these patients is that they cannot manage basic ADLs at home. Example, the patient lives alone and is unable to get to the bathroom. If a patient is admitted through the emergency department, the decision to admit should be made with the concurrence of the attending physician, unless the attending physician cannot be reached. Duration of hospitalization should be brief. The great majority of these patients who are admitted to a hospital can be discharged in less than 24 hours. Admission for the purpose of bed rest or traction alone is not acceptable. The need for parenteral narcotics is a valid admission criteria. A patient should not be admitted to a hospital that does not have the capacity to assess ADLs, develop a treatment plan, and provide physical therapy within the first 24 hours. For average hospital LOS after admission criteria are met, see ODG RTW guidelines, i.e., ICD9 722.1, lumbar disc disorders: "Hospital Length Of Stay: 4.7 days (icd 80.51 - Discectomy: 2.2 days, icd 03.09 - Laminectomy: 3.6 days, icd 81.08 - Lumbar Fusion: 4.6 days)"

Bone Growth Stimulators:

Under study. There is conflicting evidence, so case by case recommendations are necessary (some RCTs with efficacy for high risk cases). Some limited evidence exists for improving the fusion rate of spinal fusion surgery in high risk cases (e.g., revision pseudoarthrosis, instability, smoker). (Mooney, 1990) (Marks, 2000) (Akai, 2002) (Simmons, 2004) There is no consistent medical evidence to support or refute use of these devices for improving patient outcomes; there may be a beneficial effect on fusion rates in patients at "high risk", but this has not been convincingly demonstrated. (Resnick, 2005) Also see Fusion for limited number of indications for spinal fusion surgery.