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Notice of Independent Review Decision

IRO REVIEWER REPORT TEMPLATE – WC

April 26, 2013

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:

Lumbar laminectomy with fusion and instrumentation at L4-L5, length of stay one night, purchase TLSO back brace.

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

Board Certified Orthopedic Surgeon

REVIEW OUTCOME:

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

Upheld (Agree)

Medical documentation **does not support** the medical necessity of the health care services in dispute.

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:

TDI

- Utilization reviews (02/13/13, 02/25/13)

- Diagnostics (06/18/09 – 01/15/13)
- Office visits (07/01/09 - 02/04/13)
- Procedure (05/04/12)
- Utilization reviews (02/13/13, 02/25/13)
- Reviews (05/24/12 - 02/21/13)

ODG criteria have been utilized for the denials.

PATIENT CLINICAL HISTORY [SUMMARY]:

The patient is a male who on xx/xx/xx, was climbing stairs. One of the stairs broke loose and the patient fell backwards striking the upper stair that he was on. He then rolled off of the stair and hit the ground some eight feet below. He landed initially against the stairs striking his right hip and then landing on the ground in the low back area.

2009: On June 18, 2009, magnetic resonance imaging (MRI) of the lumbar spine was performed for back pain and lumbar radiculopathy. The study showed the following findings: (1) There was a disc space at the S1-S2 level although the vertebral body labeled L1 did not bear ribs. (2) L4-L5: There was mild disc desiccation with no significant disc bulge. There was mild facet disease with no spinal stenosis or foraminal narrowing. (3) L5-S1: There were probable bilateral pars defects with edema in the marrow about the pars regions. There was increased T2-weighted signal in the interspinous ligaments of L4-L5 suggesting possible injury and/or prior intervention. There was a moderate broad-based disc bulge which produced bilateral foraminal narrowing with potential for nerve root impingement.

On July 1, 2009, evaluated the patient for low back pain and leg pain. The patient had failed to improve with conservative measures. discussed treatment options and recommended myelogram.

The patient underwent lumbar myelogram. The post-myelogram computerized tomography (CT) scan showed no contrast identified within the thecal sac. The thecal sac was compressed due to the mass effect from the injection. There was a minimal disc space narrowing at L1-L2. There was also disc space narrowing at L4-L5. There was limited evaluation of the spine with an epidural injection.

On November 23, 2009, noted that the patient had finished his psychological evaluation. stated that the patient was very cooperative and sincere in his counseling efforts and made all of his appointments and participated well and was dismissed from his practice successfully, meeting his counseling goals. The patient continued to have severe back pain and bilateral hip and leg pain, secondary to the posttraumatic L5-S1 disc pathology with spondylolisthesis and spondylolysis with root compression, stenosis, herniated disc and foraminal stenosis. stated that the patient was 10 months since his injury and he had all forms of conservative measures and had made no improvement. He was incapacitated by his problem. discussed treatment options with the patient. The patient wanted to proceed with a posterior L5-S1 decompression, fusion and instrumentation. recommended starting the approval process and refilled Hydrocodone, Zanaflex and Motrin.

2010: No records are available.

2011: On January 20, 2011, x-rays of the lumbosacral spine showed stable postoperative changes involving the lumbar spine since the last exam of September 23, 2010. There were no hardware complications and the remainder of the study was unchanged.

On December 22, 2011, stated that the patient had filed an appeal for hopeful approval of either a lumbar myelogram and CT scan for pre-surgical planning or L4-L5 decompression, fusion and instrumentation for treatment of his severe posttraumatic disease with chronic mechanical low back disorder and lumbar radiculopathies with neurologic deficit. The patient had all forms of conservative measures. He continued to require Hydrocodone, Zanaflex, Motrin and Lyrica. He was incapacitated by his problem. stated that the longer the patient had to wait for surgery, the more likely he was to have chronic pain, problem and permanent neurological deficit.

2012: On January 16, 2012, reported that the patient would be going back to school. The patient continued to have severe lumbosacral pain with bilateral radiating hip and leg pain with numbness, dysesthesias and weakness in the legs secondary to his severe post-traumatic lumbar disc pathology. had tried to get permission for a lumbar myelogram and CT scan for pre-surgical planning or permission to go ahead and proceed with a posterior L4-L5 decompression, fusion and instrumentation. The patient walked with a flexed posture at the low back. Range of motion (ROM) of the low back reproduced pain down the hips and legs. He had weakness of plantar flexion and dorsiflexion of both feet and he had a wide-based gait. The patient was utilizing Hydrocodone, Zanaflex, Motrin and Lyrica and was still going through the approval process through Worker's Compensation.

On March 12, 2012, noted that the patient was attending school but with difficulty because of his severe lumbosacral pain with bilateral radicular hip and leg pain, mainly on the right. also noted that the patient had gotten much worse over the past two months. A year ago, lumbar MR scan showed severe disease at L4-L5 which was adjacent to the L5-S1 level that was operated on over two years ago. MR scan at that time did show central and bilateral defects, mainly to the right. was unsuccessful in getting permission for a lumbar myelogram and CT scan which was for pre-surgical planning since the patient was basically incapacitated with severe mechanical lumbosacral pain with bilateral radicular hip and leg pain. He walked with a flexed posture at the low back and had a severe right antalgic gait. He continued to have neurological deficit. He had a psychological evaluation. The patient was utilizing large amounts of medication, including Hydrocodone, Zanaflex, Motrin and Lyrica. recommended a follow-up lumbar MR scan for further investigation in an effort to improve the patient's condition and allow him to get back to work and get off of his medications.

On March 30, 2012, MRI of the lumbar spine showed the following findings: (1) From L1-L2 to L3-L4: Mild facet disease without spinal stenosis or significant foraminal narrowing. There might be mild contact of the right exiting nerve root in

the far lateral foramen at L3-L4. (2) L4-L5: Degenerative disc disease (DDD) and moderately severe facet disease with mild retrolisthesis of L4 on L5. There was a triangular configuration of the thecal sac and bilateral foraminal narrowing. There might be contact of the exiting nerve roots in the lateral foramen right more than left. (3) L5-S1: Postoperative change of posterior lumbar interbody fusion (PLIF) with posterior rods and pedicle screws with interbody fusion and laminectomy. No significant distortion of the thecal sac with probable mild enhancing scar tissue in the spinal canal. The neural foramen appeared patent.

On April 12, 2012, noted that the patient continued to have very severe chronic mechanical lumbosacral pain with bilateral radiating hip and leg pain, worse on the right. The patient had developed weakness of bilateral foot and great toe dorsiflexion, particularly on the right side. He had diminished mobility of the low back. Straight leg raising (SLR) was positive bilaterally at less than 45 degrees. noted that the recent lumbar MR scan showed worsening problems at L4-L5 where the patient had severe facet disease with retrolisthesis of L4 and L5 with significant canal stenosis with root compression, somewhat more on the right. At L5-S1, where the patient had the previous surgery, there was no stenosis, herniated disc or root compression. The patient was utilizing Hydrocodone, Zanaflex, Motrin and Lyrica. He had had a favorable psychological evaluation. discussed treatment options and recommended a right L4-L5 epidural Depo-Medrol injection.

On May 4, 2012, performed a right L4-L5 epidural steroid injection (ESI).

On May 10, 2012, noted that the patient did not get any benefit from the ESI. The patient had very severe posttraumatic disc problems with L4-L5 retrolisthesis with stenosis, herniated disc and root compression with neurologic deficit with numbness, dysesthesias and weakness in the legs. He had weakness of plantar flexion and dorsiflexion of both feet. SLR test was positive at around 30 degrees bilaterally. The patient's treatment options included continuing medications (Hydrocodone, Zanaflex, Motrin and Lyrica), further steroid injections, physical therapy (PT) or surgery. The patient wanted to proceed with surgery which would be a posterior L4-L5 decompression, fusion and instrumentation. recommended starting the approval process.

On May 24, 2012, performed a medical evaluation. Following treatment history was noted: *The patient was initially seen and was working at the time. He had been under treatment continuously since January 2009 and he had initial treatment, but he moved to xx and has been under since that time and in fact, he had undergone PT. He had undergone pain management, an ESI and also had a fusion of his back done approximately one year after the injury on **January 5, 2000.** wishes to do a second fusion operation. The first fusion was at the L5 to S1 area.*

rendered the following opinions: (1) The patient was on chronic medications including Lortab, Lyrica, Zanaflex and ibuprofen and had shown no improvement and had continued to have the same pain that he had had before. This certainly

continued to be reasonable; however, a weaning off process should be considered if he was going to show any improvement. was suggesting a new back fusion on a level. The patient went every month for treatment of same to his back which was mainly just refilling of his medication. He was not on a conditioning program. He was not on a weight loss program. This frequency of monthly certainly could be done on a three month basis and filling of prescriptions for that length of time. A weaning off process was needed. (2) There was no evidence that the patient was responding to the current treatment. His pain levels was the same. The medication had been constant for the last two years. He had gained weight steadily since the time of injury, starting between 220 and 230 pounds and was up to 283. He had not shown any evidence of improvement at that time except he stated that he could walk a little bit further than he could preoperatively. (3) Any further diagnostic tests were not necessary and the patient's treatment would be one of continuing medications, weight loss and gradually reducing the pain medicine requirement. (4) The patient's future plan from his physician's point of view was to fuse the level above, which had shown some evidence of degenerative changes as he had with degenerative changes in his lumbar spine. Surgery in the form of fusion would not be indicated because this would just shift the area, of the need, for fusion to a higher level. The patient had no real signs of atrophy. He did have some complaints of pain. He did walk with a limp, but he needed to be on a conditioning program and a weight reduction program, which would help out significantly. He had gained weight and all these mitigated against a further surgical procedure until he was in a better condition. (5) The patient had continued to have symptomatology from his original injury and so that the reasoning for this was causally related. He had not improved much from the original injury. It was felt that the patient had not improved a significant amount enough at that point in time or showed enough signs that he would benefit from a spinal surgery and did not meet the ODG standards for additional back surgery. (6) The patient should be in a conditioning program and a weight loss program and if he lost the 50 or 60 pounds which he had gained, he should show a significant amount of improvement at that time. The patient was unable to control it at that time. He should be on a gradual weaning program of his main medications to try to reduce this down to a more reasonable level. (7) The patient had failed back syndrome. He had a spondylosis with some spondylolisthesis which was aggravated by his fall. He had a degenerative disc that predated the accident but was aggravated by the fall and injury to his low back. He had had multiple levels of degenerative changes in his low back at that time and that was present prior to the injury. (8) The spondylolysis/spondylolisthesis was not related to the patient's work. The aggravation of the spondylolysis/spondylolisthesis was related to the fall. His degenerative arthritis was not related to the work and the acute disc was related to the work. (9) A weight loss program and conditioning program was recommended. No further testing was necessary. If the weight loss and conditioning did not help out, pain management might be necessary. There should be a decrease in the amount of pain medication use. It was believed that decrease in the weight and with increased conditioning, the patient's need for surgery would decrease. He would never be completely pain-free due to the degenerative changes in his back. There was no need of any type of durable medical equipment (DME) or electrical stimulation supplies. The patient did not

require PT, injections, chiropractic therapy, surgery and work hardening. (10) If the patient did conditioning exercises, combined with a weight reduction and a weaning off process and over the next four to six months the patient should significantly be able to reduce the weight and significantly be able to reduce the need for medication. (11) The patient's chronic back pain was related to the surgery. He had a failed back syndrome. He did not meet the criteria for additional fusion since he had disease at multiple levels with multiple degenerative changes. This would just shift the area of the need for fusion to a higher level. He had no signs of atrophy and had no neurative irritative signs but the surgery he had had and his chronic back pain was aggravated due to his work-related problem.

On June 14, 2012, noted that for unknown reasons, the patient got a denial for his much-needed surgery even though, as was stated before, he had severe posttraumatic L4-5 disk problems with retrolisthesis, instability, stenosis, herniated disc and root compression with numbness, dysesthesias and weakness in the legs with a chronic mechanical low back disorder. He was maintained on Hydrocodone, Zanaflex, Motrin and Lyrica. noted that Worker's Comp was sending him to some type of back school in xx for two weeks. The patient was getting worse with increasingly severe lumbar pain and hip and leg pain with neurologic deficit. stated that the longer his much-needed surgery was delayed, the more likely he was to have increasing permanent neurologic deficit and chronic pain syndrome.

On August 9, 2012, noted that an IRO was filed to get permission for surgery at L4-L5. The patient walked with a flexed posture at the low back and had a positive SLR at less than 45 degrees. Ankle reflexes were absent. The patient had done everything conservatively including a back school in xx, for two weeks, which he stated did absolutely nothing for him. He had further psychological evaluations. He wanted to get back to work, but was unable to do so until he could recover from his lumbar problem and anticipated surgery.

On September 6, 2012, noted that the patient was being sent back to xx by Worker's Comp for further evaluation. He had already been there for quite some time with therapy and conditionings which simply made him worse. stated that the findings on the patient's neurological examination one month ago showed significant diminished sensation in the L5 and S1 dermatomes with weakness of plantar flexion and dorsiflexion of both feet. He had a wide-based gait. He had significant paralumbar muscular tightness and loss of lumbar lordosis. In addition to his severe radiculopathies with neurologic deficit, he also had a severe mechanical problem in the lumbar region, secondary to the posttraumatic L4-L5 pathology. refilled Hydrocodone, Zanaflex, Motrin and Lyrica. He opined that the patient would be unable to return to work until he could get some relief from his problem, which would require a posterior L4-L5 decompression, fusion and instrumentation.

On October 11, 2012, noted that the patient had again been to xx for back school and apparently had some injections. He was placed on different medications. He

wanted to discontinue the Lyrica and start Neurontin. The patient continued to get worse with increasingly severe mechanical lumbar pain exacerbated by walking, standing and activities with bilateral radiating hip and leg pain with numbness, dysesthesias and weakness in the legs. His neurological deficit continued to get worse. He had severe mechanical pain. He was basically incapacitated. He had severe posttraumatic stenosis and herniated disc at L4-L5 with instability, and needed surgery sooner than later to try to prevent any further neurological deficit and to try to get him back to work. recommended trying to get permission for a posterior L4-L5 decompression, fusion and instrumentation.

Per utilization reviewed dated October 31, 2012, the request for lumbar laminectomy with fusion and Instrumentation of L4-L5 with a one day LOS-One-day (CPT codes #99222, #22830, #22852, #63030-50, #6303 5-50, #22851 x 2, #2261 2, #22614 x 2, #22630, #20937, #22842, #37202-59, #11 981 -59, #20975) was denied as it was not considered medically necessary. The medical records submitted for the review did not demonstrate instability in the lumbar spine although this was discussed in the clinical records as a rationale for the surgical procedure. The records did not include a psychosocial evaluation or documentation of weight loss as recommended by a previous Independent Medical Evaluation (IME) and therefore, the request was not medically necessary.

On December 10, 2012, was awaiting the decision from Worker's Comp regarding his much-needed and much-delayed surgery at L4-L5 where the patient had instability, stenosis, herniated disc with root compression with neurologic deficit and a chronic mechanical low back disorder. The patient continued to have increasing numbness and weakness in the lower extremities. He was basically incapacitated by his pain. Nothing else had helped. He took Hydrocodone, Zanaflex, Motrin and Neurontin. He had to significantly limit his activities.

2013: On January 7, 2013, noted that the request was again denied. The patient continued to get worse with increasingly severe mechanical pain in the lower back, exacerbated by walking, standing and activities. He walked with a flexed posture at the low back and had loss of lumbar lordosis with paralumbar muscular tightness. SLR was positive bilaterally at around 30 degrees. He had weakness on bilateral foot and great toe dorsiflexion and decreased sensation in the bilateral L5 and S1 dermatomes. The patient was unable to work. He was utilizing Hydrocodone, Zanaflex, Motrin and Neurontin. recommended lumbar myelogram and CT scan for pre-surgical planning.

On January 15, 2013, the patient underwent a lumbar myelogram and CT scan which showed slight disc space narrowing at L1-L2 and L2-L3 with no significant disc bulge or spinal stenosis. There was mild facet disease from L1-L2 to L3-L4. There was mild foraminal encroachment at L2-L3 and L3-L4 primarily due to disc bulge. At L4-L5, there was mild DDD and moderate facet disease without spinal stenosis. There was mild-to-moderate bilateral foraminal narrowing with osseous encroachment by facet. There was slight retrolisthesis of L4 on L5. Postoperative change of PLIF at L5-S1 was seen with rods and pedicle screws with interbody fusion and laminectomy. There was no significant distortion of the thecal sac, the

neural foramen were patent. There were leads from a bone growth stimulator present, with probable surrounding bone graft present.

On February 4, 2013, noted that the patient continued to get worse. He reviewed the lumbar myelogram and CT scan which showed central defect at L4-L5 with narrowing of the posterior disc space and retrolisthesis at L4-L5, indicating instability. There was increasing thecal sac deformity at L4-L5 with extension of the lumbar spine. The patient did have foraminal constriction bilaterally at L4-L5. There were no abnormalities at the area of previous surgery at L5-S1, where he had surgery three years ago. His problem was the adjacent level. He was unable to do much of anything because of his severe mechanical lumbar pain in addition to the bilateral radiating hip and leg pain with SLR and decreased strength and sensation in the lower extremities. discussed treatment options and recommended starting the approval process for a posterior L4-L5 decompression, fusion and instrumentation. The patient was maintained on Hydrocodone, Zanaflex and Motrin. changed Neurontin to Cymbalta.

Per utilization review dated February 13, 2013, the request for lumbar laminectomy with fusion and instrumentation of L4-L5 with a one day LOS (99222, 63030-50, 63035-50, 22630, 22851x2, 22612, 22614x2, 20937,22842, 37202-59, 11981-59, 22830, 22852, 20975) was denied with the following rationale: *“The requested lumbar laminectomy with fusion and instrumentation at L4-L5 and one day LOS is not medically necessary. Clinical documentation provided for review notes the claimant complaining of ongoing low back pain despite previous surgical intervention. Official Disability Guidelines recommend a fusion of the lumbar spine provided that the claimant meets specific criteria, including x-rays or CT myelogram demonstrating spinal instability as well as completion of a psychosocial screening addressing any confounding issues and completion of all conservative measures. The most recent CT myelogram specifically stated that the claimant had a slight retrolisthesis of L4 on L5. Additionally, there is mention in the clinical notes regarding completion of psychological screening; however, the psychosocial notes were not submitted for review. Furthermore, it is unclear if the claimant completed a recent course of physical therapy addressing the low back complaints. Given the lack of significant clinical findings confirmed by CT myelogram and the lack of clinical information regarding psychosocial screening results and completion of all conservative measures, this request does not meet guideline recommendations. As such, the clinical documentation provided for review does not support this request at this time.”*

Per reconsideration review dated February 25, 2013, the request for lumbar laminectomy with fusion and instrumentation at L4-L5, one day LOS (99222, 63030-50, 63035-50, 22630, 22851 x2, 22612, 22614 x 2, 20937, 22842, 37202-59, 11981-59, 22830, 22852 and 20975) was denied with the following rationale: *“The request for lumbar laminectomy with fusion and instrumentation of L4-L5, one day LOS (99222, 63030-50, 63035-50, 22630, 22851 x2, 22612, 22614 x 2, 20937, 22842, 37202-59, 11981-59, 22830, 22852 and 20975) is not medically necessary. The claimant has had longstanding back pain refractory to conservative measures. He has adjacent level degeneration and is symptomatic*

from the L4-L5 level. A psych evaluation is not warranted as the claimant has already undergone a fusion, as this is an adjacent level degeneration. The CPT codes are appropriate and medically necessary for a lumbar fusion. CPT code 20975 is for a bone growth stimulator and it is unclear why the claimant is in need of a bone growth stimulator for a single-level fusion, when no risk factors for non-union are mentioned. Therefore, the surgery is appropriate and medically necessary, but because AP contact has not been made to modify this request, the entire request is denied.”

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

The requested L4-5 decompression and fusion cannot be recommended as medically necessary. There is limited information available for the review. Although the records indicate that the patient has degenerative disc disease at multiple levels with facet arthritis, the patient's complaints, exam findings, and prior treatment are unknown. The history is relatively unknown apart from the fact that the patient had a prior L5-S1 decompression and fusion. The MRI of 3/30/12 suggests that the patient has some degree of retrolisthesis at L4 on L5 with some evidence of stenosis. However, how this affects the patient's clinical symptoms and the extent of conservative care is unknown; and surgery cannot be recommended without further information.

IRO REVIEWER REPORT TEMPLATE – WC

A DESCRIPTION AND THE SOURCE OF THE SCREENING CRITERIA OR OTHER CLINICAL BASIS USED TO MAKE THE DECISION:

ODG- OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES

Official Disability Guidelines, Treatment in Worker's Comp 18th edition, 2013
Updates : Low Back

Official Disability Guidelines, Treatment in Worker's Comp 17th edition, 2012
Updates. Low Back

Lumbar fusion:

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 discectomy. [For excessive motion criteria, see AMA Guides, 5th Edition, page 384 (relative angular motion greater than 20 degrees).

(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).

(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.

Pre-Operative Surgical Indications Recommended: Pre-operative clinical surgical indications for spinal fusion 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-ray demonstrating spinal instability and/or MRI, Myelogram or CT discography 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.

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.

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](#))