



CLAIMS EVAL

*Utilization Review and
Peer Review Services*

Notice of Independent Review Decision-WC

DATE OF REVIEW: 11-4-09

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE

Lumbar laminectomy and discectomy L5-S1 posterior lateral fusion and instrumentation

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

American Board of Orthopaedic Surgery-Board Certified

REVIEW OUTCOME

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

- Upheld (Agree)
- Overturned (Disagree)
- Partially Overturned (Agree in part/Disagree in part)

Provide a description of the review outcome that clearly states whether or not medical necessity exists for each of the health care services in dispute.

INFORMATION PROVIDED TO THE IRO FOR REVIEW

- 6-26-08 EMG/NCS performed by MD.
- 2-10-09 MRI of the lumbar spine.
- 5-26-09 Surgery performed by Dr. MD., office visits from 6-11-09 through 8-17-09.
- 6-25-09 MRI of the lumbar spine.
- 6-26-09 MD., office visit.
- 8-27-09 MD., performed a Utilization Review.
- 9-4-09 MD., provided a letter of appeal.
- 9-16-09 MD., performed a Utilization Review.

PATIENT CLINICAL HISTORY [SUMMARY]:

EMG/NCS performed by MD., on 6-26-08 showed right L4, left L5 and left S1 radiculopathy.

MRI of the lumbar spine dated 2-10-09 shows L5-S1 right paracentral disc herniation. At L4-L5, there was a disc bulge.

5-26-09 Surgery performed by Dr. - Lumbar laminectomy L5-S1 bilaterally, lumbar foraminotomy L5-S1 bilaterally, discectomy L5-S1.

Followup with Dr. on 6-11-09 notes the claimant still has pain to his back rated at 8/10. The claimant continues with pain to his left that is radiating down to the lower leg. He reports no numbness to his leg.

Follow up with Dr. on 6-17-09 notes the claimant had surgery about 3 weeks ago. He had a micro lumbar laminectomy. The claimant has a lumbar disc herniation all of his symptoms were on the right side. Therefore, the evaluator did the operation on the right side. He states that all of his pain has gone away completely on the right side. He is complaining of the same pain 8+/10 but now he states that he has it to the left side and the pain is radiating to from his lower back, which the evaluator felt it is coming from the distribution of S1 to his foot and he does have some tingling to his small toe. The evaluator recommended a new MRI of the lumbar spine with and without contrast to see where his pain is coming from. The evaluator also recommended a transforaminal epidural steroid injection. On exam, the claimant has some weakness in the dorsal flexion of the left foot. Sensory exam showed hypoesthesia in distribution of S1. His reflexes were weak on the left side.

MRI of the lumbar spine dated 6-25-09 showed multilevel spondylosis of the spine. These findings are most predominant at L5-S1 where there is a left paracentral disc protrusion resulting in obliteration of the lateral recess.

6-26-09 MD., the claimant was seen for a diagnosis of recurrent disc herniation, left sciatic and left back pain, severe. On exam, the claimant has weakness on the plantar flexion of the left foot. There is mild atrophy of the intrinsic muscles of the left side. The claimant has restriction of movement in the left leg from pain and the pain seems to run down the sciatic distribution from the low back and the left paralumbar region through the left gluteus and down the lateral aspect of the left thigh and into the sole of the left foot where he is numb. Sensory exam shows dysesthetic quality of touch on the left plantar aspect and the third, fourth and second toes appear to be numb. The claimant has severe low back pain and sciatica on attempted SLR at about 30 degrees. On the right side, there is some low back pain at about 60 degrees. The left plantar reflex is absent and so is the right one. The ankle jerk is lessened and so is the right one. The evaluator explained to the claimant that a second operation is more dangerous, more difficult, and less likely to resolve his symptoms completely but certainly, it will be worth a try.

7-21-09 MD., amended report. The claimant comes in today complaining of back pain radiating down to his legs more to the right side. The claimant has been treated with conservative treatment and physical therapy and it has failed. The claimant continues to have severe low back pain. The MRI shows that he has a central disc herniation. The evaluator reported that the claimant's condition is getting worse his pain is more to the right side although the herniation was in the central herniation and a little to the left. The claimant underwent a micro-lumbar laminectomy at the level of L5-S1 and it was a success. The surgery was done on the left side because of the MRI findings. The claimant had excellent relief after his surgery for about two week's time. The claimant started experiencing pain to the right soon after the surgery. The evaluator had previously prescribed Lorcet 10/750 mg, Soma 350 mg along with bed rest and physical therapy and he continues to have no type of relief or improvement. The claimant was taken to emergency at Medical Center and the evaluator repeated the MRI and it showed a recurrent disc herniation with fragments on the left side. The claimant

mentioned that his pain level from a scale of 1-10 is around a 9. The claimant also states that his pain does not go away completely with the pain medication he has numbness in his left leg and he limps when he walks. The evaluator is also recommending doing a transforaminal epidural injection to help relieve the pain and inflammation. The evaluator would also like to refer him to the back institute for a second opinion. On exam, the claimant was found to have some weakness in the dorsal flexion of the left foot and some minimal hyperesthesia in the level of L5-S1 on the left. Reflexes were weakened on the left.

8-6-09 MD., notes the claimant is provided with a left transforaminal epidural steroid injection at L5-S1.

8-10-09 MD., the claimant had a block done on last Thursday the claimant states that the injection did not help him. The claimant states the he continues to have pain in the back radiating down to his left leg he also states that he has some numbness to the left middle toe. The claimant states that he does not have any pain or numbness to the right leg. The claimant states that the pain is very severe and on a pain scale from 1-10 the claimant states that the pain is about a 10. The MRI did show a recurrent disc herniation and pressure in the nerve root on the left side at the level of L5-S1. The evaluator discussed treatment options to include conservative treatment versus surgery. The claimant will think about surgery.

8-17-09 MD., the claimant continues to have severe pain and the pain radiates down to his left leg. The claimant returns today to discuss further options on the possibility of having surgery the surgery that we have decided on is a lumbar laminectomy and discectomy at L5-S1 posterior lateral fusion at L5-S1 and instrumentation at L5-S1.

On 8-27-09, MD., performed a Utilization Review. It was his opinion that the request for lumbar laminectomy and discectomy L5/S1 with posterolateral fusion and instrumentation is not medically necessary. The claimant is reported to have sustained an injury to the low back, which ultimately resulted in a left L5-S1 microdiscectomy. The claimant has 2 weeks relief and is now reported to have a recurrent disc herniation. The claimant neither is nor improved with additional conservative management. Imaging indicates a recurrent lateralizing disc at this level. Repeat discectomy appears to be indicated; however, there is no indication for the performance of a fusion procedure. There is no evidence of instability and recurrent herniation is not a herniation for fusion.

9-4-09 MD., provided a letter of appeal. This letter is a request for an appeal on the recent denial for surgery on the claimant. There was a communication issue and this is the reason that it was denied. The evaluator reported he personally called the peer review doctor to discuss this case and apparently, the physician was not able to speak with the provider because he was in the middle of clinic. The evaluator was aware that this was the final day to do the peer to peer before it expired. The evaluator noted he did wait to see if he would return his call, but eventually the evaluator had to leave to do hospital rounds. This was one of the days that the evaluator was not normally scheduled to be in the office. However, the evaluator did come in to call the peer review

doctor but he was not available. There was a problem with communication and the evaluator did not think that the claimant should be punished for this communication issue. The claimant is having severe back pain and the pain radiates down to his left leg. He is having neurological deficit his pain level has increase to a 10 he is notable to tolerate his pain any longer even with the pain medication that he is taking. The claimant is taking the Lorcet to help him tolerate his severe pain. He had a positive MRI and he has a recurrent disc herniation and the evaluator's recommendation is to do surgery. The surgery that he is recommending is a lumbar laminectomy and discectomy at level of L5-S1 posterior lateral fusion and instrumentation at Medical Center.

On 9-16-09, MD., performed a Utilization Review. It was his opinion that the request for lumbar laminectomy, discectomy L5-S1 posterior lateral fusion and instrumentation is not recommended as medically necessary. This is an appeal of a prior denial in which the previous reviewer opined that there was no evidence of instability or recurrent herniation as an indication for fusion. This reviewer agrees with the prior denial, as insufficient clinical documentation was provided for review supporting the request for surgery. No imaging studies were submitted for review demonstrating pathology in the lumbar spine requiring any surgical intervention. No electrodiagnostic studies were submitted for review confirming evidence of radiculopathy requiring decompression. The claimant is stated to have failed conservative care to include physical therapy and epidural blocks, however no physical therapy summary notes were submitted for review and it is unclear what levels underwent prior blocks, as no procedural notes were submitted for review. There are no radiograph studies of the lumbar spine demonstrating significant instability requiring fusion, and no psychological evaluation was submitted for review, demonstrating that the claimant is an appropriate candidate for surgery. As the clinical documentation does not support the request, medical necessity is not established at this time.

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

The medical records document a claimant with a recurrent HNP at L5/S1. The medical documentation and the evidence based medical literature do not support the indication for a lumbar fusion. ODG notes that fusions are 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. Documentation provided does not indicate the claimant meets these criteria. Lumbar fusion is not likely to improve the outcome based on the medical literature. Therefore, the medical necessity of this request is not established as necessary.

ODG-TWC, last update 10-30-09 Occupational Disorders of the Low Back – Lumbar 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) (Wetzel, 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) This study showed that fusion for chronic lower back pain was the least successful common orthopaedic surgery. The study compared the gains in quality of life achieved by total hip replacement, total knee replacement, surgery for spinal stenosis, disc excision for lumbar disc herniation, and arthrodesis for chronic low back pain. For chronic lower back pain, improvements were statistically significant but clinically negligible. Although pain was reduced and function improved slightly, outcomes remained in the moderately affected range, quality of life was not improved and rendered worse, on average. While surgery for spinal stenosis and for disc herniation compare well with archetypical orthopaedic operations, the outcomes of surgery for chronic lower back pain do not even approach those of other orthopaedic procedures, and the data show that patients with back pain are rendered worse off by surgery. (Hansson, 2008) Recent studies document a 220% increase in lumbar spinal fusion surgery rates, without demonstrated improvements in patient outcomes or disability rates. (Deyo, 2009) In a study of 2,378 Washington State

workers' compensation claimants who underwent fusion to assess the frequency, timing, and causes of death, the 3-year cumulative mortality rate post-fusion was 1.93% and analgesic-related deaths were responsible for 21% of all deaths and 31.4% of all potential life lost. (Juratli, 2009) A study to compare the surgical experience, clinical outcomes, and effect on body weight between obese and morbidly obese patients undergoing lumbar spine fusion surgery concluded that clinical outcomes were independent of the BMI of the patient, but the incidence of postoperative complications was significant in 45% of morbidly obese and 44% of obese patients. The authors proposed that morbidly obese patients should undergo bariatric surgery before spine surgery in nonemergent situations. (Vaidya, 2009) For nonradicular low back pain with common degenerative changes, there is fair evidence that fusion is no better than intensive rehabilitation with a cognitive-behavioral emphasis for improvement in pain or function, and less than half of patients experience optimal outcomes (defined as no more than sporadic pain, slight restriction of function, and occasional analgesics) following fusion. (Chou, 2009) Posterolateral bone-grafting fusion is not necessary when a Denis type-B thoracolumbar burst fracture associated with a load-sharing score of ≤ 6 is treated with short-segment pedicle screw fixation. (Dai, 2009) 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) (Devo, 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 discectomy. [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 discectomies on the same disc, fusion may be an option at the time of the third discectomy, which should also meet the ODG criteria. (See ODG Indications for Surgery -- Discectomy.)

Pre-Operative Surgical Indications Recommended: Pre-operative clinical surgical indications for spinal fusion should include all of the following: (1) All pain generators are identified and treated; & (2) All physical medicine and manual therapy interventions are completed; & (3) X-rays demonstrating spinal instability and/or myelogram, CT-myelogram, or discography (see discography criteria) & MRI demonstrating disc pathology; & (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)

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)**