



**CLAIMS EVAL**

*Utilization Review and  
Peer Review Services*

**DATE OF REVIEW: 12/05/08**

**IRO CASE #:**

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

Anterior cervical discectomy, C4-C5, fusion with autograft, and plate screws.

**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**

- 11-6-07 MRI of the right shoulder.
- 11-6-07 MRI of the lumbar spine.
- 11-6-07 MRI of the cervical spine.
- 3-18-08 MD., performed a Required Medical Evaluation.
- 7-16-08 MD., office visit.
- 9-15-08 MRI of the cervical spine.
- 10-13-08.,MD., office visit.
- 10-24-08 MD., Utilization Review denial.
- 11-5-08, DO., Utilization Review denial.

### **PATIENT CLINICAL HISTORY [SUMMARY]:**

Documentation submitted for my review reflects a xx-year-old claimant who was involved in a motor vehicle accident on xx/xx/xx. The claimant was struck from behind and thrown off onto the shoulder. She had immediate onset of neck pain, pain into the shoulder blade region of her neck and pain into the shoulder, down into the upper extremity on the radial aspect of her forearm and to the thumb region. She also developed low back pain.

An MRI of the right shoulder dated 11-6-07 revealed degenerative hypertrophic changes in the acromioclavicular joint. MRI of the lumbar spine revealed facet arthrosis, particularly in the lower lumbar spine. Transitional lumbosacral vertebra. No evidence of disc herniation or neural impingement.

MRI of the cervical spine dated 11-6-07 revealed large posterior disc herniation at C4-C5 with associated vertebral ridging producing significant spinal stenosis and cord deformity. Disc protrusion and associated spondylosis at C5-C6 with mild spinal stenosis. The foramina are somewhat compromised at C4-C5 and C5-C6, particularly on the right.

On 3-18-08, the claimant underwent a Required Medical Evaluation performed by Dr. The claimant reported she was not having major shoulder pain per se, but had some difficulty with movement of her shoulder due to pain about the shoulder blade area and right side of her neck. There has been a recommendation for surgical intervention and an EMG/NCS, but no approval had been obtained. The claimant's medications included 1 1/2 Hydrocodone on an every 3-4 hour basis and occasional use of Flexeril. On examination, the claimant was holding her neck somewhat to the right side. She had a positive Spurling's on the right, creating pain in the shoulder blade down into the upper arm. She has 1+ reflexes at the biceps, triceps and brachioradialis that are symmetrical. There is no atrophy. There is no gross motor sensory deficit other than the possibility of some mild biceps weakness on the right compared to the left. She has some generalized tenderness more on the shoulder blade itself, not specifically over the rotator cuff and has some restricted movement in the right shoulder due to pain. Examination of the lumbar spine is negative for tenderness or spasms. She has 2+ reflexes at the knees and ankles that are symmetrical and negative SLR in the seated position. There is no gross motor or sensory deficit in the lower extremity. Diagnosis provided included status post MVA, herniated cervical disc at C4-C5 with significant spinal stenosis, mild spinal stenosis and foraminal stenosis on the right side at C5-C6, status post right shoulder contusion/strain, status post lumbar strain. It was the evaluator's opinion that nothing indicated that the claimant had any symptomatic pre-existing condition. The mechanism of injury can aggravate an asymptomatic degenerative disc with some degree of spinal stenosis. The evaluator felt the claimant could do only sedentary type activity that did not require frequent movement of her neck or holding her neck in an awkward, rotated or extended position. The evaluator felt the claimant definitely needed a surgical decompression at the C4-C5 level possibly C5-C6 level, most likely with two level fusion. The claimant will require a 3-4 month period of time to recover from this condition. The evaluator did not feel that additional therapy would likely help the claimant. The claimant needed to be referred to a spinal surgeon. There was nothing to indicate she should require any surgical intervention relative to her shoulder or lumbar spine.

On 7-16-08, the claimant was evaluated by MD., due to complaints of neck pain radiating to the right shoulder and arm. On exam, the claimant had limited neck range of motion. There is a positive foraminal closure sign. She had normal muscle tone and bulk. There was 5/5 strength in all muscle groups. There was decreased sensation to pinprick and light touch over the right shoulder and into the right thumb. DTR in the upper extremities were brisk. There is no Kauffman sign. The claimant's MRI study was reviewed. The evaluator reported the claimant's symptoms were consistent with discogenic neck pain. She also has findings on examination that are consistent with myelopathy with hyperreflexia that she has on examination. It was recommended the claimant undergo an MRI scan of the cervical spine.

On 9-15-08, an MRI of the cervical spine revealed degenerative disc disease of the cervical spine. The most severe level of disease is C4-C5 where there is moderate spinal canal stenosis due to a broad posterior disc osteophyte complex.

On 10-13-08, a follow up visit with Dr. noted the review of the recently performed MRI scan. The evaluator noted the claimant had evidence of myeloradiculopathy. Therefore, it was recommended the claimant undergo an anterior cervical discectomy and fusion at the C4-C5 level.

10-24-08 MD., performed a Utilization Review. It was the evaluator's opinion that he claimant did not meet the medical necessity guidelines for the requested anterior cervical discectomy, C4-C5, fusion with autograft, plates, screws. The reviewer noted the claimant had not undergone conservative care as well as a more detailed physician exam establishing C4-C5 as the symptomatic level. Consideration should be given to Electrodiagnostic studies to confirm the symptomatic level. ODG Guidelines was listed as supportive documentation.

On 11-5-08, , DO., performed a Reconsideration Utilization Review. It was the reviewer's opinion that there was lack of objective clinic findings to justify the requested anterior cervical discectomy C4-C5 fusion with autograft, plates and screws. ODG listed as supportive documentation.

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

Medical records reflect a xx-year-old the claimant who sustained a cervical spine and right shoulder injury as a result of a motor vehicle accident on xx/xx/xx. The claimant has had ongoing complaints of neck pain with radicular symptoms to the right upper extremity. Physical examination on 3-18-08 revealed a positive Spurling's on the right, creating pain in the shoulder blade down into the upper arm. She had 1+ reflexes at the biceps, triceps and brachioradialis that are symmetrical. There was some mild biceps weakness on the right compared to the left. She has some generalized tenderness more on the shoulder blade itself. Physical examination on 7-16-08 reflected decreased sensation to pinprick and light touch over the right shoulder and into the right thumb, DTR in the upper extremities were brisk. These physical exam findings are compatible with the claimants diagnostic objective findings of degenerative disc disease of the cervical spine, the most severe level of disease is C4-C5 where there is moderate spinal canal stenosis due to a broad posterior disc osteophyte complex. The changes in her DTR from 1+ to brisk may be evidence of a slow progressing myelopathy. Based on the record provided, this claimant does have evidence of a C5 nerve root compression. Her pain and radicular complaints of symptoms to the right shoulder blade are consistent with a C5 nerve root pathology. It is unlikely that conservative treatment will likely provide any long-term or lasting improvement of her symptomatology, especially with objective evidence of cord deformity at the C4-C5 level, as evident by MRI finding. Therefore, the request for an anterior cervical discectomy and fusion, C4-C5 with autograft, plates and screws is evident.

**ODG-TWC Neck and Upper Back Procedure Summary last updated 11/22/08** states that decompression for myelopathy is recommended for patients with severe or

progressive myelopathy with concordant radiographic evidence of central spinal stenosis. Under study for patients with non-progressive disease, where there are no established guidelines regarding surgical treatment. Patient selection must be undertaken carefully, and especially in elderly patients and those with prohibitive comorbidities. Surgery should not be undertaken in patients with long-term fixed neurological deficit. (Epstein, 2003) See Myelopathy, cervical.

Variables to be considered when surgery is planned for myelopathy: (1) Level/levels of involvement: Most surgeons prefer an anterior approach for one to two-level involvement, and laminectomy has been recommended for four or greater levels; (Yonenobu, 1985) (2) The role of the location of the abnormality: a posterior approach is recommended when there is evidence of buckling of the ligamentum flavum; (Sodeyama, 1999) (3) The role of preoperative neck pain: A relative contraindication to laminoplasty is preoperative neck pain as disruption of the musculature can aggravate axial pain; (Ratliff, 2003) (Hosono, 1996) & (4) The previous surgical approach: It is suggested that revision anterior surgery be carried out through the previous approach when feasible. (Rao, 2006)

Operative options for myelopathy: (See Discectomy/laminectomy/laminoplasty.) (1) Anterior cervical discectomy and fusion: Involves removal of the disc material and posterior osteophytes at or immediately adjacent to the disc space; (2) Cervical corpectomy: allows for expansion of the narrow osseous canal and allows for simultaneous removal of large osteophytes from the vertebral end plates. Various modifications have been described, including combining a corpectomy with an adjacent discectomy; (See Corpectomy & stabilization.) (3) Resection of posterior osteophytes: This may be associated with increased risk of injury to the spinal cord; & (4) Removal of the posterior longitudinal ligament: potential side effects include risk of cord contusion. Fusion options: (1) Anterior cervical discectomy and fusion: The traditional choice has been an autograft from the iliac crest but there has been conflicting evidence of any advantage of autograft versus allograft. (Zdeblick, 1991) (Samartzis, 2004) (Rao, 2006) (Jacobs-Cochrane, 2004) A recent study compared the two methods for one-level surgery using plate fixation also found a non-significant difference in fusion rates; (Samartzis, 2005) See Fusion, anterior cervical. (2) Corpectomy: While autograft is the preferred choice, a fibular or iliac crest donor bone strut may be preferred in patients with longer defects or when the patient's iliac crest is mechanically insufficient. (Wittenberg, 1990) Various structural cages to replace one or more vertebral bodies are available for patients with a limited life expectancy after tumor resection but are not routinely utilized or recommended in cases of trauma or spinal stenosis from degenerative causes.

Plate Fixation: There is little randomized-controlled research to support the use of plate fixation (although this technique is commonly performed adjunctively with anterior fusion to promote post-surgical stability), and in a Cochrane review there was no evidence that the addition of a plate improved any outcome but arm pain in multi-level fusion. (Jacobs-Cochrane, 2004)

## **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)