

PATIENT CLINICAL HISTORY (SUMMARY):

The patient is a male whose date of injury is xx/xx/xx. Records indicate that the patient was injured when a forklift dropped a pallet of plywood on to his back and legs. The patient is reported to have 70% constant stabbing neck pain and 30% bilateral arm pain. An MRI of the cervical spine performed on 05/05/10 reported a herniated nucleus pulposus at C5-6 with central and left neural foraminal encroachment. The patient was treated conservatively with physical therapy and medications (Atenolol, Norvasc, Soma, Darvocet). The patient also underwent left C5 and C6 epidural steroid injections. Records reflect that the patient underwent right shoulder arthroscopy with debridement of torn labrum, long head biceps tenodesis, and open anterior acromioplasty on 12/03/10. The patient was seen in follow up in regards to his cervical spine on 01/07/11. The patient was noted to have undergone a cervical epidural on 10/12/10. The patient continues to report approximately 60% neck pain and 40% arm pain, worse on the left than right. The patient reported 50% improvement for about three to four weeks of his neck and arm pain following the injection, but then the pain returned back to baseline level. Examination reported the patient to be 5'9" tall and 190 pounds. Gait analysis reported normal heel strike, toe off gait pattern. The patient can heel and toe walk without difficulty. Cervical spine examination noted the patient was able to forward flex to around 50 degrees, extend to 20 degrees, rotate to 50 degrees bilaterally, and side bend 5 degrees bilaterally with more severe pain with extension and side bending to the left. The patient continues to have positive Spurling's maneuver bilaterally, worse on the left than the right. Hoffman's sign was negative bilaterally. There is a positive Tinel's at the left wrist. Deep tendon reflexes are +1 biceps, triceps and brachial radialis bilaterally. Sensation was decreased predominantly along the C6 distribution. The patient has persistent 4/5 biceps and wrist extension weakness on the left compared to 5/5 strength on the right. Strength was otherwise 5/5 throughout.

A utilization review request for inpatient LOS 2 days cervical ACDF C5-6 and DME was reviewed on 01/19/11 by a Dr. who determined the request to be non-certified. The Dr. noted that the patient complains of neck pain radiating along the lateral forearm to the thumb and index finger bilaterally. On physical examination, the patient was able to forward flex to around 50%, extend to 20%, and rotate to 50% bilaterally with more severe pain with extension and side bending to left. The patient continues to have positive Spurling's maneuver bilaterally. Tinel's was positive at left wrist. The patient has persistent 4/5 biceps and wrist extension weakness on left compared to 5/5 strength on right. The Dr. noted no clear documentation of conservative treatment, with on physical therapy progress notes to show the patient's clinical and functional response. It was noted that exhaustive pharmacotherapeutic utilization in conjunction with rehabilitative support was not evident in the report. As such, the request was not substantiated at this time.

An appeal request for inpatient LOS 2 days cervical ACDF C5-6 and DME was reviewed on 02/04/11 by a Dr. who determined the request to be non-certified. The Dr. noted current physical examination revealed limited range of motion with positive Spurling's test bilaterally, worse on left than right. There was a positive Tinel's on left wrist with +1 deep tendon reflexes on bilateral upper extremities. Decreased sensation along C6 distribution was noted. The Dr. noted no documentation provided with regard to failure of patient responding to conservative measures such as evidence based exercise program and medications prior to proposed surgical procedure including objective response of previous epidural steroid injection. Therapy progress reports were provided that objectively document clinical and functional response of the patient from previous rendered session. As such, necessity of request cannot be established at this time. This is an IRO request for Inpatient LOS 2 days, cervical ACDF C5-6 and DME.

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

Based on the clinical information provided, the request for cervical ACDF C5-6, DME Miami J collar, and inpatient stay times two days is recommended as medically necessary. The patient is noted to have sustained an injury on xx/xx/xx. The patient reports neck greater than bilateral arm pain, with left sided pain greater than right. Cervical MRI revealed a C5-6 disc herniation with loss of disc height and contacting the thecal sac. This is noted to cause central and left sided encroachment of the canal and also the left neural foramen. The patient has been treated with physical therapy and medications. The patient also underwent cervical epidural steroid injection with temporary relief. Although the previous reviewers noted that no physical therapy progress notes were submitted for review, there are reports from several doctors indicating that the patient has been treated with physical therapy. Medications were documented in several reports,

and there was an assessment of the response to cervical epidural steroid injection (50% improvement of his neck and arm pain for 3-4 weeks following injection, then pain returned to baseline). The patient has findings on clinical examination consistent with imaging studies to include a positive Spurling's maneuver left worse than right, decreased sensation predominantly along the C6 distribution, and persistent 4/5 biceps and wrist extension weakness on the left compared to 5/5 strength on the right. The standard of care is for cervical collar following ACDF, even for a one-level procedure, to provide support and stability during the post-operative rehabilitation phase. Given the current clinical data, the request for cervical ACDF C5-6, DME, and inpatient stay times two days is recommended as medically necessary

Fusion, anterior cervical: Recommended as an option in combination with anterior cervical discectomy for approved indications, although current evidence is conflicting about the benefit of fusion in general. (See [Discectomy/laminectomy/laminoplasty](#).) Evidence is also conflicting as to whether autograft or allograft is preferable and/or what specific benefits are provided with fixation devices. Many patients have been found to have excellent outcomes while undergoing simple discectomy alone (for one- to two-level procedures), and have also been found to go on to develop spontaneous fusion after an anterior discectomy. ([Bertalanffy, 1988](#)) ([Savolainen, 1998](#)) ([Donaldson, 2002](#)) ([Rosenorn, 1983](#)) Cervical fusion for degenerative disease resulting in axial neck pain and no radiculopathy remains controversial and conservative therapy remains the choice if there is no evidence of instability. ([Bambakidis, 2005](#)) Conservative anterior cervical fusion techniques appear to be equally effective compared to techniques using allografts, plates or cages. ([Savolainen, 1998](#)) ([Dowd, 1999](#)) ([Colorado, 2001](#)) ([Fouyas-Cochrane, 2002](#)) ([Goffin, 2003](#)) Cervical fusion may demonstrate good results in appropriately chosen patients with cervical spondylosis and axial neck pain. ([Wieser, 2007](#)) This evidence was substantiated in a recent Cochrane review that stated that hard evidence for the need for a fusion procedure after discectomy was lacking, as outlined below:

- (1) Anterior cervical discectomy compared to anterior cervical discectomy with interbody fusion with a bone graft or substitute: Three of the six randomized controlled studies discussed in the 2004 Cochrane review found no difference between the two techniques and/or that fusion was not necessary. The Cochrane review felt there was conflicting evidence of the relative effectiveness of either procedure. Overall it was noted that patients with discectomy only had shorter hospital stays, and shorter length of operation. There was moderate evidence that pain relief after five to six weeks was higher for the patients who had discectomy with fusion. Return to work was higher early on (five weeks) in the patients with discectomy with fusion, but there was no significant difference at ten weeks. ([Jacobs-Cochrane, 2004](#)) ([Abd-Alrahman, 1999](#)) ([Dowd, 1999](#)) ([Martins, 1976](#)) ([van den Bent, 1996](#)) ([Savolainen, 1998](#)) One disadvantage of fusion appears to be abnormal kinematic strain on adjacent spinal levels. ([Ragab, 2006](#)) ([Eck, 2002](#)) ([Matsunaga, 1999](#)) ([Katsuura, 2001](#)) The advantage of fusion appears to be a decreased rate of kyphosis in the operated segments. ([Yamamoto, 1991](#)) ([Abd-Alrahman, 1999](#))

Cervical collar, post operative (fusion)

Not recommended after single-level anterior cervical fusion with plate. The use of a cervical brace does not improve the fusion rate or the clinical outcomes of patients undergoing single-level anterior cervical fusion with plating. Plates limit motion between the graft and the vertebra in anterior cervical fusion. Still, the use of cervical collars after instrumented anterior cervical fusion is widely practiced. This RCT found there was also no statistically significant difference in any of the clinical measures between the Braced and Nonbraced group. The SF-36 Physical Component Summary, NDI, neck, and arm pain scores were similar in both groups at all time intervals and showed statistically significant improvement when compared with preoperative scores. There was no difference in the proportion of patients working at any time point. Independent radiologists reported higher rates of fusion in the Nonbraced group over all time intervals, but those were not statistically significant. ([Campbell, 2009](#)) See also [Back brace, post operative](#) (fusion).

Hospital Length Of Stay: 1.7 days (icd 80.51 - Discectomy: 2.2 days, icd 03.09 - Laminectomy: 3.6 days, icd 81.02 - Cervical Fusion: 2.2 days)

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 KNOWLEDGBASE

- 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)