

# US Decisions Inc.

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## NOTICE OF INDEPENDENT REVIEW DECISION

**DATE OF REVIEW:** Aug/25/2011

**IRO CASE #:**

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

Anterior cervical discectomy and fusion C5-6, C6-7 with length of stay for three days

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

M.D. Board Certified Orthopedic Surgeon

**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)

**INFORMATION PROVIDED TO THE IRO FOR REVIEW**

Official Disability Guidelines Treatment in Worker's Comp, 16th edition, 2011 Updates : Neck and Upper Back: Fusion

Peer Reviews 07/14/11, 08/06/11

Dr. 02/03/11, 03/31/11, 04/28/11, 05/18/11

Dr. 05/06/11, 06/23/11, 07/14/11

MRI cervical spine 02/03/10, 04/18/11

X-ray cervical spine 04/01/11

EMG/NCS, 10/10/20

Procedure 06/08/11

Post injection Evaluation Pain Diary 06/08/11

Referral form 06/28/11

Script for Orders 05/06/11

Behavioral Medicine Evaluation 07/07/11

**PATIENT CLINICAL HISTORY SUMMARY**

This is a female claimant with a reported injury date of xx/xx/xx when she fell and landed on her back and jarring her neck. The claimant has had persistent cervical pain and associated radicular symptoms since the injury. Diagnoses included neck sprain, cervical radiculitis, lumbar sprain, lumbar facet syndrome, sprain shoulder and upper arm and carpal tunnel syndrome.

An EMG/ NCS of 10/10/10 revealed findings suggestive of right mild carpal tunnel syndrome and left ulnar neuropathy across the elbow. Cervical spine flexion and extension x-rays dated 04/01/11 showed no evidence of instability. An MRI of the cervical spine performed on 04/18/11 showed severe right- sided neural foraminal stenosis C5-6 and C6-7 with moderate degrees of foraminal stenosis elsewhere within the cervical spine. There was also multilevel spondylosis without extrinsic compression of the cord or high-grade spinal canal stenosis at any level.

The claimant continued to report cervical pain radiating into the arms associated with paresthesias in the hands despite conservative measures which included medications, physical therapy, modified duty and epidural steroid injection which provided fifty percent relief in three days and twenty percent relief in seven days. An examination dated 06/23/11 noted decreased sensation C6 and C7 dermatomes along with some motor weakness in the bilateral biceps and triceps. An anterior cervical discectomy and fusion C5-6, C6-7 with length of stay for three days was recommended. A behavioral medical evaluation dated 07/07/11 noted the claimant cleared for surgery with a fair to good prognosis.

#### **ANALYSIS AND EXPLANATION OF THE DECISION INCLUDING CLINICAL BASIS, FINDINGS AND CONCLUSIONS USED TO SUPPORT THE DECISION**

The reviewer finds that Anterior cervical discectomy and fusion C5-6, C6-7 with length of stay for three days is not medically necessary based on the records provided in this case. The Official Disability Guidelines for cervical fusion and discectomy require evidence of radicular pain and sensory symptoms in a cervical distribution that correlates with the involved cervical level or the presence of a positive Spurling's test. In this case, there are reports of cervical pain radiating to the arms associated with paresthesias in the hands. However, it is not reported to be in any particular cervical distribution. Results of the Spurling test are not provided. There should be evidence of a motor deficit or reflex changes or positive EMG findings that correlate with the cervical level. In this case, motor weakness has been documented in the bilateral biceps and triceps. Though EMG performed on October 2010 revealed findings of mild right carpal tunnel syndrome and ulnar neuropathy, however no findings of cervical radiculopathy. Guidelines state that an abnormal imaging study must show positive findings that correlate with nerve root involvement that is found with the previous objective physical and/or diagnostic findings. In this case, MRI's demonstrate significant right sided neural foraminal stenosis of C5-6 and C6-7 levels with mild degrees of foraminal stenosis elsewhere within the cervical spine. One would expect a C5-6 radiculopathy to cause weakness in the C6 innervated muscles and be present by EMG. In this case, there is no documentation of weakness in the wrist extensors. No findings of C6 radiculopathy are present by EMG. One would expect a C6-7 radiculopathy to be associated with triceps weakness, which is present in this case and findings by EMG of radiculopathy which is not present in this case. Epidural steroid injection was performed, however there is no documentation that selective ESI was performed to differentiate between the C5-6 and C6-7 levels as a source of radiculopathy. Guidelines state that there must be evidence the patient has received and failed at least a six to eight week trial of conservative care. In this case, there is documentation of conservative measures including medications, physical therapy, modified duty and epidural steroid injection. Duration of conservative care was not provided. Lastly, Guidelines document that patients who smoke have compromised fusion outcomes. There is no documentation as to whether or not this patient is a smoker and if they are, were counseled regarding smoking cessation. As there is no clear correlation between findings of radiculopathy and the involved cervical levels and no documentation as to the claimant's smoking history, the requested Anterior cervical discectomy and fusion C5-6, C6-7 with length of stay for three days cannot be considered medically necessary based upon the Official Disability Guidelines.

Official Disability Guidelines Treatment in Worker's Comp, 16th edition, 2011 Updates : Neck and Upper Back: Fusion

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)

Predictors of outcome of ACDF: Predictors of good outcome include non-smoking, a pre-operative lower pain level, soft disc disease, disease in one level, greater segmental kyphosis pre-operatively, radicular pain without additional neck or lumbar pain, short duration of symptoms, younger age, no use of analgesics, and normal ratings on biopsychosocial tests such as the Distress and Risk Assessment Method (DRAM). Predictors of poor outcomes include non-specific neck pain, psychological distress, psychosomatic problems and poor general health. (Peolsson, 2006) (Peolsson, 2003) Patients who smoke have compromised fusion outcome.

ODG Indications for Surgery -- Discectomy/laminectomy (excluding fractures)

Washington State has published guidelines for cervical surgery for the entrapment of a single nerve root and/or multiple nerve roots. (Washington, 2004) Their recommendations require the presence of all of the following criteria prior to surgery for each nerve root that has been planned for intervention (but ODG does not agree with the EMG requirement):

A. There must be evidence of radicular pain and sensory symptoms in a cervical distribution that correlate with the involved cervical level or presence of a positive Spurling test

B. There should be evidence of motor deficit or reflex changes or positive EMG findings that correlate with the cervical level. Note: Despite what the Washington State guidelines say, ODG recommends that EMG is optional if there is other evidence of motor deficit or reflex changes. EMG is useful in cases where clinical findings are unclear, there is a discrepancy in imaging, or to identify other etiologies of symptoms such as metabolic (diabetes/thyroid) or peripheral pathology (such as carpal tunnel). For more information, see EMG

C. An abnormal imaging (CT/myelogram and/or MRI) study must show positive findings that correlate with nerve root involvement that is found with the previous objective physical and/or diagnostic findings. If there is no evidence of sensory, motor, reflex or EMG changes, confirmatory selective nerve root blocks may be substituted if these blocks correlate with the imaging study. The block should produce pain in the abnormal nerve root and provide at least 75% pain relief for the duration of the local anesthetic

D. Etiologies of pain such as metabolic sources (diabetes/thyroid disease) non-structural radiculopathies (inflammatory, malignant or motor neuron disease), and/or peripheral sources (carpal tunnel syndrome) should be addressed prior to cervical surgical procedures

E. There must be evidence that the patient has received and failed at least a 6-8 week trial of conservative care.

Hospital length of stay (LOS)

Cervical Fusion, Anterior : Best practice target (no complications) -- 1 days

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

ACOEM-AMERICA 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)