

True Decisions Inc.

An Independent Review Organization
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Notice of Independent Review Decision

DATE OF REVIEW: 07/24/08

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE

C4-C7 ACDF with a one-day length of stay

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

Board Certified Neurosurgeon

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

OD Guidelines
Denial Letters 6/16/08 and 6/26/08
Medical Records from Dr. : Letters 6/10/08, 6/17/08, 7/7/08
Motor Nerve Conduction Study 12/19/07
MRI 12/5/07

PATIENT CLINICAL HISTORY [SUMMARY]:

This patient is a xx year-old female with a date of injury xx/xx/xx when she lifted a spool of glass into her machine and was threading the glass through a guide eye and felt pain in her lower neck/upper back and felt tingling in her hands. She complains of left worse than right upper arm pain. She has been dropping things with her left hand. She has difficulty with fine motor function of the hand. Her neurological examination revealed absent brachioradialis reflexes bilaterally. She also has left triceps reflex absent, and a diminished right triceps reflex. She has a positive Lhermitte's phenomenon with neck extension. She has

numbness in her hands. She has weakness in the upper extremities left, greater than right. She has a positive Hoffman's sign. MRI of the cervical spine 12/05/2007 reveals cord flattening and central stenosis with cord compression at C5-C6. This is to a lesser extent at C4-C5. There is spinal cord atrophy at C4-C7. There is a focal disc protrusion to the left at C4-C5. EMG/NCS reveals mild subacute bilateral C6 and C8 radiculopathy. A reviewer denied the procedure, stating that the spinal cord should be decompressed posteriorly. According to the provider, the patient has primarily anterior disease with spinal cord flattening and atrophy.

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

The proposed surgery is medically necessary. The patient clearly needs to be decompressed at these levels. The decision as to whether or not to go anteriorly versus posteriorly has much to do with where the compressive forces are greatest. Ligamentous hypertrophy can cause more posterior compression whereas disc bulging can cause more anterior progression. Therefore, this choice is really up to the surgeon's assessment of the compressive forces. If going anteriorly, particularly with a three level discectomy, then a fusion is standard procedure in the medical community. The ACD would not be performed without the fusion (F). Therefore, this proposed surgery is medically necessary. The patient meets the ODG criteria, as listed below.

References/Guidelines

ODG "Neck and Upper Back"

Decompression/myelopathy: 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](#)) (For an additional discussion of non-randomized trials, see [Plate fixation, cervical spine surgery](#).)

[Instr Course Lect.](#) 2003; 52: 455-63.

Anterior cervical approaches for cervical radiculopathy and myelopathy.

Smith PN, Knaub MA, Kang JD.

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)**