

# Vanguard MedReview, Inc.

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**IRO CASE #: XXXX**

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

C3-4, C4-5 anterior cervical discectomy and fusion

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

This case was reviewed by a Board Certified Doctor of Orthopedic Surgery with over 18 years of experience.

**REVIEW OUTCOME:**

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

Upheld (Agree)

Provide a description of the review outcome that clearly states whether medical necessity exists for each of the health care services in dispute.

**PATIENT CLINICAL HISTORY [SUMMARY]:**

XXXX: CT Cervical Spine; comparison MRI interpreted by XXXX. **Impression:** C5-C6: ACDF with wide patency to the canal and foramina. C4-C5: 3mm central protrusion impinging on the cord with mild canal stenosis. C3-C4: 2mm protrusion impinging on the cord with adequate capacity in the canal. The findings are similar to the previous MRI.

XXXX: Progress Note by XXXX. **HPI:** This is a XXXX complaining of a needle like burning neck pain since XXXX. At the time XXXX was at work when XXXX injuring both XXXX arm and XXXX neck. XXXX was evaluated and diagnosed with a herniated disc and had a C5-6 ACDF by XXXX in XXXX which did not help XXXX neck pain and triggered headaches and occasional difficulty swallowing. XXXX also had a right carpal tunnel release, right de Quervain's release and a right lateral epicondylar release by XXXX which decreased XXXX arm pain. A right rotator cuff repair did not help the shoulder pain. At this point the constant neck pain remains variable with a baseline to changes from 3-8/10. Today the pain is 7/10. Aggravating conditions foods lifting, prolonged walking, using a computer, using large pillows or left lateral decubitus. Alleviating conditions includes NSAID's ice or heat. XXXX reports having had occiput headaches since after having had XXXX ACDF but this headaches are not reactive to light or sound. XXXX also reports right trapezial and right mid scapular pain. XXXX reports bilateral arms shooting pain, numbness, tingling and fatigue. The right arm which is more symptomatic began in XXXX and left arm began in XXXX. The symptoms radiate along the ulnar forearm, palm of the hand and ulnar 3 fingers. The baseline pain changes from 0-9/10. Today the pain is 5. Aggravating conditions include sleeping, typing or manual activities. Alleviating conditions include sleeping with a pillow support, stretching, using cold packs or gripping an exercise ball. XXXX reports XXXX has completed PT and it did not help with the neck pain as much. XXXX has had several Epidural injections but none provided help. XXXX also had one shoulder injection that was very helpful to XXXX shoulder

pain for 3-5 months with improved ROM. We received denial for the previously requested cervical facet blocks. Now that the patient has failed multiple forms of conservative treatment, XXXX wishes to have spinal surgery. **Past Medical History:** Rheumatoid arthritis, depression, diabetes. ACDF, rotator cuff repair (rt) Dequervian release (rt) lateral epicondyle release (rt) carpal tunnel surgery (rt) cholecystectomy, c-section. Meds: Metformin, Lexapro, invokana, Enbrel. **Exam:** Shoulders both normal ROM without pain. Neck: the patient holds XXXX head erect and perpendicular to the floor. The head moves in smooth coordination with the body. Palpation: there is bilateral paravertebral muscular tenderness. ROM: painful cervical ROM throughout the arc of motion, at the extremes of motion with flexion, with extension, with right lateral bending, with left lateral bending, with right rotation and with left rotation.

XXXX: UR performed by XXXX. **Rationale for Denial:** Regarding cervical C3-4, C4-5 anterior cervical discectomy and fusion; the patient is s/p C5-C6 ACDF in XXXX. There is persistent neck pain. XXXX reported occiput headaches since ADCF at C5-6. The patient has multiple issues, including headaches, and possible peripheral nerve entrapment. ODG supports ACDF for cervical nerve root compression verified by diagnostic imaging (i.e., MRI or CT myelogram and resulting in severe pain or profound weakness of the extremities that have failed conservative treatment. Tobacco cessation: Because of the high risk of pseudoarthrosis, a smoker anticipating a spinal fusion should adhere to a tobacco-cessation program that results in abstinence from tobacco for at least six weeks prior to surgery. Predictors of poor outcomes include non-specific neck pain, psychological distress, psychosomatic problems and poor general health, litigation and workers' compensation. Several epidural injections were noted, however, levels were not documented. CT scan showed at C3-4; osteophytic ridging and disc bulging with an overlying central 2mm protrusion with adequate residual capacity in the canal and foramina. C4-C5: 3 mm central disc protrusion impinging on the cord with mild canal stenosis and adequate capacity in the foramina. C5: Typical appearance of vertebral body screws. Clinically, Spurlings was negative. However, this is a second surgery for this patient with several pain generators. There is lack of a psychological clearance prior to surgery. Recommend non-certification for cervical C3-4, C4-5 anterior cervical discectomy and fusion. Because an adverse determination for surgery has been rendered, an adverse determination for any associated pre-operative clearance is also rendered.

XXXX: Progress Note by XXXX. **HPI:** We received a denial for the previously requested surgical procedure. **Assessment:** Cervicalgia. Cervical herniated disc. **Plan:** I stressed the need for proper body mechanics including no heavy lifting, keeping heavier objects close to the body as they are lifted and no bending at the waist. XXXX should apply ice and heat to the affected area. We discussed a C3-4 and C4-5 ACDF.

XXXX: UR performed by XXXX. **Rationale for Denial:** The appeal request for cervical C3-4, C4-5 anterior cervical discectomy, and fusion is not supported as medically necessary. The patient is a XXXX who is status post anterior cervical discectomy and fusion at C5/6. XXXX has undergone conservative care without benefit. A prior review notes clinically, Spurling's was negative. However, this is the second surgery for this patient with several pain generators. There is a lack of a psychological clearance prior to surgery.

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

The request for C3-4, C4-5 anterior cervical discectomy and fusion (ACDF) is denied.

The Official Disability Guidelines (ODG) supports ACDF in patients with cervical nerve root compression confirmed by diagnostic imaging resulting in severe pain or profound weakness of the

extremities. ACDF can also be considered in patients with spondylotic radiculopathy or myelopathy. The physical examination should correlate with advanced imaging studies.

This patient underwent C5-6 ACDF in XXXX. XXXX continues to have pain in both arms associated with numbness, tingling, and fatigue. XXXX completed a course of physical therapy. XXXX has had temporary improvement in XXXX condition following a cortisone injection to the shoulder. XXXX has failed cervical epidural steroid injections (ESI) in the past.

In XXXX, XXXX demonstrated bilateral hyporeflexia (1/4) in the deep tendon reflex of the biceps. XXXX had no weakness and no sensory deficits in the upper extremities. XXXX had positive Tinel's sign in the right wrist and elbow. XXXX had a positive Phalen's test at the right wrist. XXXX had no evidence of cervical myelopathy.

XXXX recent diagnostic studies have included:

1. Plain films of the cervical spine (XXXX): Decreased disc space C3-4, C6-7.
2. Flexion-extension views of the cervical spine (XXXX): No evidence of instability.
3. MRI cervical spine (XXXX): Disc dessication was noted at C6-7. Disc herniations identified at C3-4 and C4-5.
4. EMG/NC study (XXXX): mild carpal tunnel syndrome was reported.
5. CT scan cervical spine (XXXX): No evidence of nerve compression at C5-6. Small disc protrusions were noted at C4-5 and C3-4. Mild canal stenosis was noted at C4-5.

This patient has no definite evidence of radiculopathy associated with either C3-4 or C4-5. The patient's peripheral neuropathy may be XXXX primary source of pain. C6-7 may also be a source of pain. The levels of cervical ESI were not documented.

Based on the records reviewed, it is unclear whether this patient will benefit from ACDF C3-4 and C4-5. The proposed surgery is not medically necessary.

Per ODG:

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](#). For hospital LOS after admission criteria are met, see [Hospital length of stay \(LOS\)](#).

#### **Patient Selection Criteria for Lumbar Spinal Fusion:**

(A) *Recommended* as an option for the following conditions with ongoing symptoms, corroborating physical findings and imaging, and after failure of non-operative treatment (unless contraindicated, e.g., acute traumatic unstable fracture, dislocation, spinal cord injury) subject to criteria below:

- (1) Spondylolisthesis (isthmic or degenerative) with at least one of these:
  - (a) instability, and/or
  - (b) symptomatic radiculopathy, and/or
  - (c) symptomatic spinal stenosis;
- (2) Disc herniation with symptomatic radiculopathy undergoing a third decompression at the same level;
- (3) Revision of pseudoarthrosis (single revision attempt);
- (4) Unstable fracture;

- (5) Dislocation;
- (6) Acute spinal cord injury (SCI) with post-traumatic instability;
- (7) Spinal infections with resultant instability;
- (8) Scoliosis with progressive pain, cardiopulmonary or neurologic symptoms, and structural deformity;
- (9) Scheuermann's kyphosis;
- (10) Tumors.

(B) *Not recommended* in workers' compensation patients for the following conditions:

- (1) Degenerative disc disease (DDD);
- (2) Disc herniation;
- (3) Spinal stenosis without degenerative spondylolisthesis or instability;
- (4) Nonspecific low back pain.

(C) *Instability criteria*: Segmental Instability (objectively demonstrable) - Excessive motion, as in isthmic or degenerative spondylolisthesis, surgically induced segmental instability and mechanical intervertebral collapse of the motion segment and advanced degenerative changes after surgical discectomy, with relative angular motion greater than 15 degrees L1-2 through L3-4, 20 degrees L4-5, 25 degrees L5-S1. Spinal instability criteria include lumbar inter-segmental translational movement of more than 4.5 mm. ([Andersson, 2000](#)) ([Luers, 2007](#)) ([Rondinelli, 2008](#))

(D) After failure of two discectomies on the same disc [(A)(2) above], 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](#).)

(E) Revision Surgery for failed previous fusion at the same disc level [(A)(3) above] if there are ongoing symptoms and functional limitations that have not responded to non-operative care; there is imaging confirmation of pseudoarthrosis and/or hardware breakage/malposition; and significant functional gains are reasonably expected. 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. Workers compensation and opioid use may be associated with failure to achieve minimum clinically important difference after revision for pseudoarthrosis ([Djurasovic, 2011](#)) There is low probability of significant clinical improvement from a second revision at the same fusion level(s), and therefore multiple revision surgeries at the same level(s) are not supported.

(F) *Pre-operative clinical surgical indications* for spinal fusion should include all of the following:

- (1) All physical medicine and manual therapy interventions are completed with documentation of reasonable patient participation with rehabilitation efforts including skilled therapy visits, and performance of home exercise program during and after formal therapy. Physical medicine and manual therapy interventions should include cognitive behavioral advice (e.g., ordinary activities are not harmful to the back, patients should remain active, etc.);
- (2) X-rays demonstrating spinal instability and/or myelogram, CT-myelogram, or MRI demonstrating nerve root impingement correlated with symptoms and exam findings;
- (3) Spine fusion to be performed at one or two levels;
- (4) [Psychosocial screen](#) with confounding issues addressed; the evaluating mental health professional should document the presence and/or absence of identified psychological barriers that are known to preclude post-operative recovery;
- (5) 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](#))

(6) There should be documentation that the surgeon has discussed potential alternatives, benefits and risks of fusion with the patient;

(7) For average hospital LOS after criteria are met, see [Hospital length of stay](#) (LOS).

**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)**