

## Notice of Independent Review Decision

**DATE OF REVIEW:**

05/16/2008

**IRO CASE #:****DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE**

Anterior cervical and fusion at C5-6 and placement of anterior cervical plate.

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

Board Certified Orthopaedic Surgeon

**REVIEW OUTCOME**

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

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.

**The request for anterior cervical and fusion at C5-6 and placement of anterior cervical plate is not medically necessary.**

**INFORMATION PROVIDED TO THE IRO FOR REVIEW**

- 05/06/08 Case Report, MCMC
- 05/06/08 MCMC Referral
- 05/09/08 letter
- 05/06/08 Notice To MCMC, LLC Of Case Assignment, , DWC
- 05/06/08 Notice To Utilization Review Agent of Assignment, , DWC
- 05/05/08 letter
- 05/05/08 Confirmation Of Receipt Of A Request For A Review, DWC
- 05/02/08 LHL009 – Request For A Review By An Independent Review Organization
- 04/29/08 Reconsideration/Appeal of Adverse Determination letter,
- 04/11/08 Utilization Review Determination letter,
- 04/02/08 Memo, LPC, Behavioral Health Group
- 03/27/08 EMG/NCV Report, D.O.
- 03/25/08 Lat/Flex Ext reports (two)
- 03/25/08 Radiographic Biomechanical Report, D.C., Health Rehabilitation
- 03/21/08 letter from M.D., Wellspine
- 03/06/08 handwritten Progress Notes
- 02/15/08, 02/08/08 Patient Revisit notes, M.D.
- 02/08/08 Procedure Report, M.D.

- 01/25/08 New Patient Intake, M.D.
- 01/18/08 MRI cervical spine, Central Imaging
- 01/10/08 report from D.O., Orthopedic and Spine Center
- Undated pictures of various angles (four)
- Undated Lat Neut report
- NOTE: Carrier did not supply ODG guidelines.

**PATIENT CLINICAL HISTORY [SUMMARY]:**

The injured individual is a xx-year-old male who was reported to have sustained a work-related injury on xx/xx/xx. The described mechanism of injury was that the injured individual was the restrained driver or passenger who was struck by a SUV on the passenger side. Details regarding the accident are missing from the medical record. One place the record noted he was a passenger another place he was the driver. There is no initial information regarding the immediate treatment and physical findings following the injury. There is mention of a Dr., but the record does not reveal the type of physician or treatment rendered. It is also unclear since the first record reviewed is an impairment rating performed by D.O. on 01/10/08. This evaluation was for another work-related injury of xx/xx/xx in which the injured individual had a slip and fall. Dr. commented that he required admission to JPS Hospital in for six days for a head and neck injury. She placed Mr. at maximum medical improvement (MMI) as of that date with a 5 % Whole Person (WP) impairment rating based upon his cervical spine. MRI performed on 01/18/08 revealed a 3mm paracentral and to the right disc protrusion or bulge at C5-C6. It would appear that this finding had been present on a previous study since Dr. noted it in her evaluation of 01/10/08. The injured individual was then seen and treated by M.D., a pain management physician, on 01/25/08 who recommended cervical epidural steroid injection. Dr. saw the injured individual several times and performed trigger point injections. D.C. performed a chiropractic motion analysis on 03/25/08. D.O. completed electrodiagnostic testing on 03/27/08, which did not reveal any evidence of radiculopathy. Mr. was evaluated by M.D., neurosurgeon on 03/31/08. Dr. positive findings included 4/5 strength of the right biceps, +1 right biceps reflex, and some hypoesthesia in the right C6 dermatome. He recommended the requested procedure based upon his exam and the MRI. Multiple other examiners reported an essentially normal physical and neurological examination as documented in the medical record. A minimal behavioral medical evaluation was done on 04/02/08 by LPC. She felt the injured individual was psychologically cleared for the surgery.

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

The injured individual is a xx-year-old male who developed neck and right shoulder pain following a motor vehicle accident (MVA) on xx/xx/xx. A confounding variable is the fact that the injured individual had another work-related injury in a slip and fall in xx/xx. He was placed at MMI with a 5 % WP impairment rating on 01/10/08 by Dr. mainly for his cervical spine findings. There is no medical documentation regarding his initial care following the 12/20/07 injury until almost one month later. Though various consultants have mentioned that he has undergone conservative care the response to treatment was not documented in the record. There is no objective medical documentation of his response to treatment and exactly what has been provided. There is no information regarding Dr. care, but it would appear that he was the treating provider. EMG does not substantiate any radicular

component to his symptoms and his examination is relatively benign. A MRI showed a possible small protrusion at C5-C6. His biggest complaint has been pain.

### The Official Disability Guidelines:

Discectomy-laminectomy-laminoplasty	<p>Recommended as an option if there is a radiographically demonstrated abnormality to support clinical findings consistent with one of the following: (1) Progression of myelopathy or focal motor deficit; (2) Intractable radicular pain in the presence of documented clinical and radiographic findings; or (3) Presence of spinal instability when performed in conjunction with stabilization. (See <a href="#">Fusion, anterior cervical.</a>) <b>Surgery is not recommended for disc herniation in a patient with non-specific symptoms and no physical signs.</b> The American Academy of Orthopaedic Surgeons has recommended that an anterior approach is appropriate when there is evidence of radiculopathy, and/or when there is evidence of central location and there is any degree of segmental kyphosis. A posterior approach has been suggested by the same group when there is evidence of lateral soft disc herniations with predominate arm pain and for caudal lesions in large, short-necked individuals. (<a href="#">Albert, 1999</a>) The overall goals of cervical surgery should be decompression, restoration of alignment, and stability. (<a href="#">Jacobs-Cochrane, 2004</a>) (<a href="#">Dowd, 1999</a>) (<a href="#">Colorado, 2001</a>) In terms of posterior procedures, there does not appear to be sufficient evidence to support the use of laminoplasty versus laminectomy based on outcomes or post-operative morbidity. Research has indicated that as many as 60% of patients who received laminoplasty had posterior neck and shoulder girdle pain post-operatively (versus 25% in the laminectomy group). (<a href="#">Hosono, 1996</a>) (<a href="#">Heller, 2001</a>) Some authors continue to prefer laminoplasty to anterior spinal decompression and fusion (for myelopathy due to disc herniation) as they feel the risk of chronic neck pain is less troublesome than the risk of bone graft complications and/or adjacent spondylosis that can be found with the fusion procedure. (<a href="#">Sakaura, 2005</a>) It is not clear from the evidence that long-term outcomes are improved with the surgical treatment of cervical radiculopathy compared with nonoperative measures. However, relatively rapid and substantial relief of pain and impairment in the short term (6-12 weeks after surgery) after surgical treatment appears to have been reliably achieved. (<a href="#">Haldeman, 2008</a>)</p>
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### **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 that the patient has received and failed at least a 6-8 week trial of conservative care.
- B. 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.
- C. There must be evidence of sensory symptoms in a cervical distribution that correlate with the involved cervical level or presence of a positive Spurling test.
- D. 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](#).
- E. 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.

Fusion, anterior cervical	<p>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 <a href="#">Discectomy/laminectomy/laminoplasty</a>.) 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. (<a href="#">Bertalanffy, 1988</a>) (<a href="#">Savolainen, 1998</a>) (<a href="#">Donaldson, 2002</a>) (<a href="#">Rosenorn, 1983</a>) <b>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.</b> (<a href="#">Bambakidis, 2005</a>) Conservative anterior cervical fusion techniques appear to be equally effective compared to techniques using allografts, plates or cages. (<a href="#">Savolainen, 1998</a>) (<a href="#">Dowd, 1999</a>) (<a href="#">Colorado, 2001</a>) (<a href="#">Fouyas-Cochrane, 2002</a>) (<a href="#">Goffin, 2003</a>) Cervical fusion may demonstrate good results in appropriately chosen patients with cervical spondylosis and axial neck pain. (<a href="#">Wieser, 2007</a>) 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,</p>
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Plate fixation,	Under study in single-level and multi-level procedures, with most studies (although generally non-randomized) encouraging use in the latter.
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cervical spine surgery	<p><u>Indications:</u> There is no consensus as to when plates should be used for anterior cervical fusion in spite of widespread use. Common use is found in the treatment of degenerative disc disease, tumors, trauma and deformity. (<a href="#">Rhee, 2005</a>) It remains unclear as to whether anterior plating provides benefit for many common spondylotic conditions of the cervical spine. In single-level surgery there has been a failure to demonstrate an improvement in fusion rates with plating. (<a href="#">Wang, 1999</a>) (<a href="#">Samartzis, 2004</a>) (<a href="#">Grob 2001</a>) (<a href="#">Connolly, 1996</a>). Plating does appear to improve fusion rates in multilevel procedures. (<a href="#">Wang 2000</a>) (<a href="#">Wang 2001</a>)</p> <p><u>Potential benefits</u> as an adjunct to anterior cervical discectomy and fusion include that the plate may: (1) provide rigid fixation; (2) resist graft setting with less development of kyphosis; (3) provide higher fusion rates; (4) allow for less cumbersome instrumentation; (5) reduce the rate of graft extrusion; &amp; (6) reduce the need for prolonged external immobilization of the neck. <u>Potential downsides:</u> (1) increased surgical time and cost; (2) increased potential of morbidity and mortality during revision as the plate must be removed; &amp; (3) numerous implant related complications including esophageal erosion, injury to adjacent structures due to hardware, and adjacent level ossification. (<a href="#">Rao, 2006</a>) <u>Collapse of the grafted bone and loss of cervical lordosis:</u> Collapse of grafted bone has been found to be less likely in plated groups for patients with multiple-level fusion. Plating has been found to maintain cervical lordosis in both multi-level and one-level procedures. (<a href="#">Trojanovich, 2002</a>) (<a href="#">Herrmann, 2004</a>) (<a href="#">Katsuura, 1996</a>) The significance on outcome of kyphosis or loss of cervical lordosis in terms of prediction of clinical outcome remains under investigation. (<a href="#">Peolsson, 2004</a>) (<a href="#">Haden, 2005</a>) (<a href="#">Peolsson, 2007</a>) (<a href="#">Hwang, 2007</a>)</p>
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*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](#)) See [Plate fixation, cervical spine surgery](#). See also [Adjacent segment disease/degeneration](#) (fusion) & [Iliac crest donor-site pain treatment](#).

The injured individual has not failed a documented adequate trial of conservative treatment. His subjective complaints do not appear to be consistent with objective physical and neurological findings. There is no evidence of a radicular component and multiple other physician examiners have not substantiated the reported findings of Dr.. The requested surgical procedure does not meet the criteria as outlined by the Official Disability Guidelines. The injured individual has not returned to work in any capacity, which is a poor prognostic sign.



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

- **ODG- OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES**