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NOTICE OF INDEPENDENT REVIEW DECISION

DATE OF REVIEW: Feb/14/2011

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:
ACF revision C4-5 ADR C3-4 hardware removal of ant plate

DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION:
MD, Board Certified Neurosurgeon with additional training in pediatric neurosurgery

REVIEW OUTCOME:
Upon independent review, the reviewer finds that the previous adverse determination/adverse determinations should be:
[X] Upheld (Agree)
[ ] Overturned (Disagree)
[ ] Partially Overturned (Agree in part/Disagree in part)

INFORMATION PROVIDED TO THE IRO FOR REVIEW

PATIENT CLINICAL HISTORY SUMMARY
This is a xx year-old male injured when he fell through a ceiling while working in an attic. He is status post C5-C7 ACDF. In 09/2008 he underwent an ACDF at C4-C5 with removal of the prior C5-C7 hardware. He has persistent neck pain, refractory to narcotics and injections. A CT myelogram in 2010 showed lucency at C4-C5 consistent with an incomplete osseous fusion. There is focal moderate central stenosis at C3-C4 secondary to reversal of the cervical curvature and a mild-to-moderate broad-based osteophyte complex. A psychological evaluation in 2010 found the patient to be cleared for surgery with a fairly good prognosis. The provider is recommending an ACF revision at C4-C5 with artificial disc replacement at C3-C4 with removal of anterior cervical plate. A second opinion in 09/2010 agreed with the surgical plan.

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

While it is apparent that there is a pseudoarthrosis at C4-C5 that could benefit from a revision surgery, an artificial disc placement at C3-C4 is not medically necessary. The pseudoarthrosis can cause debilitating, refractory neck pain, and would warrant a revision fusion surgery. While it is not unreasonable to address the C3-C4 levels, as well, as there are degenerative changes at this level, now, an artificial disc placement in this setting would be considered experimental/investigational. The proposed construct consists of an artificial disc adjacent to an already fused segment. The study by Phillips, et al (2009), found similarities in clinical outcomes when comparing patients with and without prior adjacent fusions who underwent placement of an artificial cervical disc.

Outcomes were similar, but the authors acknowledge that this involved few numbers of patients with short follow-up, and that further study was needed. Although there is some relatively recent literature regarding an artificial disc adjacent to a fused level, the data has not conclusively demonstrated the feasibility and efficacy of this type of construct. For this reason, primarily, the procedure would be considered investigational. In addition, the theoretical benefit of cervical arthroplasty in decreasing the incidence of adjacent-level degeneration remains unproven thus far. A recent review by Botelho et al (2010) concluded, "Adjacent-level degeneration has not been adequately studied in a review of the available randomized controlled trials on this topic, and there is no clinical evidence of reduction in adjacent-level degeneration with the use of cervical arthroplasty."

Therefore, the procedure, as a whole, is not medically necessary, for reasons discussed above. The reviewer finds no medical necessity for ACF revision C4-5 ADR C3-4 hardware removal of ant plate.

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

[X] MEDICAL JUDGEMENT, CLINICAL EXPERIENCE AND EXPERTISE IN ACCORDANCE WITH ACCEPTED MEDICAL STANDARDS

[ ] MERCY CENTER CONSENSUS CONFERENCE GUIDELINES

[ ] MILLIMAN CARE GUIDELINES

[X] 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

[X] PEER REVIEWED NATIONALLY ACCEPTED MEDICAL LITERATURE (PROVIDE A DESCRIPTION

Spine (Phila Pa 1976). 2007 May 20;32(12):1337-44.
Superiority of multilevel cervical arthroplasty outcomes versus single-level outcomes: 229

consecutive PCM prostheses.
Pimenta L, McAfee PC, Cappuccino A, Cunningham BW, Diaz R, Coutinho E.

Int Orthop. 2008 May 22.
Clinical and radiographic reports following cervical arthroplasty: a 24-month follow-up.
Yang YC, Nie L, Cheng L, Hou Y

Neurosurg Focus. 2010 Jun;28(6):E5.
A systematic review of randomized trials on the effect of cervical disc arthroplasty on reducing adjacent-level degeneration.
Botelho RV, Moraes OJ, Fernandes GA, Buscariolli Ydos S, Bernardo WM.

Spine (Phila Pa 1976). 2009 Mar 15;34(6):556-65.
Cervical disc replacement in patients with and without previous adjacent level fusion surgery: a prospective study.
Phillips FM, Allen TR, Regan JJ, Albert TJ, Cappuccino A, Devine JG, Ahrens JE, Hipp JA, McAfee PC.

[ ] OTHER EVIDENCE BASED, SCIENTIFICALLY VALID, OUTCOME FOCUSED GUIDELINES (PROVIDE A DESCRIPTION)