



CLAIMS EVAL

*Utilization Review and
Peer Review Services*

Notice of Independent Review Decision-WC

DATE OF REVIEW: 11-15-11

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE

Inpt Cervical ACDF C5-6 22551, 22845, 22851, 20931, LOS x 1

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

American Board of Neurological Surgery

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)

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.

INFORMATION PROVIDED TO THE IRO FOR REVIEW

- 11-10-10 X-ray of the cervical spine performed by MD.
- 12-7-10 MD., office visit.
- 12-30-10 MRI of the left shoulder without contrast performed by MD.
- 1-10-11 MRI of the lumbar spine performed by MD.
- 1-25-11 Unknown Provider, office visit.
- 2-17-11 MD., office visit.
- 2-21-11 MD., office visit.
- 3-4-11 MRI of the cervical without contrast performed by MD.
- 3-15-11 Unknown Provider, office visit.
- 3-30-11 MD., office visit.
- 4-5-11 Unknown Provider, office visit.
- 4-13-11 MD., office visit.
- 4-20-11 MD., office visit.
- 4-21-11 MD., office visit.
- 4-26-11 MD., office visit.
- 5-4-11 MD., office visit.
- 5-5-11 MRI of the lumbar without contrast performed by MD.
- 5-6-11 Physical Therapy Re-Evaluation.

- 5-8-11 Unknown Provider, office visit.
- 5-23-11 EMG-NCV of the left upper extremity performed by MD.
- 6-1-11 MD., office visit.
- 6-2-11 MD., office visit.
- 6-3-11 Unknown Provider, office visit.
- 6-21-11 MD., office visit.
- 7-1-11 Unknown Provider, office visit.
- 7-13-11 MD., surgery.
- 7-18-11 MD., office visit.
- 7-18-11 MD., office visit.
- 7-21-11 Unknown Provider, office visit.
- 8-4-11 MD., office visit.
- 8-17-11 Physical Therapy Evaluation.
- 9-1-11 MD., office visit.
- 9-9-11 MD., Medical Review.
- 9-19-11 MD., office visit.
- 9-19-11 Physical Therapy Evaluation.
- Physical Therapy on 10-10-11, 10-12-11, 10-14-11, 10-19-11.
- 10-13-11 MD., office visit.
- 10-14-11 Unknown Provider, office visit.

PATIENT CLINICAL HISTORY [SUMMARY]:

11-10-10 X-ray of the cervical spine performed by MD., showed severe muscle spasm.

12-7-10 MD., the claimant presents for evaluation and consultation regarding a work-related injury which occurred to her left shoulder on xx/xx/xx. At that time, she slipped on a wet floor and caught the door handle and sustained an extension and external rotation type injury. She noted the immediate onset of significant shoulder pain. She at that time did not feel that she had dislocated her shoulder. Since then, she has noted some improvement, but she is still very concerned in that she is having difficulty raising her arm overhead and also with internal rotation and with sleep. This is not associated with any sustained numbness or tingling in the hand. She has been working modified work activity. She did undergo physical therapy which actually exacerbated her symptoms. She presents today for further evaluation. Radiographs revealed evidence of a previous acromioclavicular joint resection. Acromioplasty was also noted. The glenohumeral joint did not reveal degenerative changes. There was no evidence of fracture or dislocation. Assessment: Significant left shoulder extension and external rotation injury with possible subscapularis tendon tear with rotator cuff weakness, impingement syndrome, pain from previously respected acromioclavicular joint region. Plan: At this time, it has been approximately four weeks since her injury. She is still having significant discomfort along with weakness. She has attempted physical therapy without relief. The evaluator would recommend obtaining an MRI scan at this time for further evaluation. She was given literature on the possible diagnoses, her questions were answered. In the interim, she will continue with her modified work activity. The evaluator did also tell her to continue with gentle range of motion exercises at home. She will be seen in clinical follow up after she has had a chance to obtain the MRI scan.

12-30-10 MRI of the left shoulder without contrast performed by MD., showed a 1 x 1 cm area of confluent tendinopathy with evolving interstitial tear at far anterior supraspinatus tendon. Mild AC adthropathy. Mild tendinopathy of the subscapularis; no tear.

1-10-11 MRI of the lumbar spine performed by, MD., showed mild spondylosis or the lumbar spine. Otherwise, unremarkable study. Prior abdominal surgery.

1-25-11 Unknown Provider, the claimant returned for follow-up and still complains of neck pain. Assessment: Left shoulder pain, neck pain, low back pain. Plan: The claimant was prescribed Vicodin, Flexeril. Physical therapy pending approval.

2-17-11 MD., the claimant presents for follow up. Evidently her surgical intervention was denied on the basis of she did not have a cortisone injection. She has had increasing discomfort with her left shoulder. She presents today for further evaluation. Physical Examination: On physical examination, she continues to have a positive impingement sign and a positive cross arm adduction test. Today she elevated to 155 degrees, external rotation to 60 degrees. Weakness was noted with external rotation and also forward elevation. Tenderness over the previously resected acromioclavicular joint region and biceps tendon. Range of motion of the neck did reveal discomfort with

extension and lateral bending to the left. She was tender in the trapezia area. Assessment: Left shoulder significant rotator cuff tendinopathy with evolving supraspinatus tendon rotator cuff tear with significant subacromial crepitations, rotator cuff weakness, impingement syndrome, pain from previously resected AC joint region. Plan: The evaluator discussed the possibility of a cortisone injection. She has had these in the past and had local reactions with erythematous changes. Also, she does have a significant history of leukemia and she was concerned about the possible effect of the cortisone on her immune system as this had been mentioned to her by one of her previous doctors. She has been treated with physical therapy, both formal and home exercise program. She has taken anti-inflammatory and also activity avoidance. At this point, with the above information now available, the evaluator would not consider a cortisone injection an option. She will continue with modified work activity. The evaluator would suggest an independent medical evaluation to see whether or not intervention as previously outlined is reasonable and necessary. Her questions were answered. In the interim, the evaluator told her to continue with her range of motion exercises.

2-21-11 MD., the claimant presents regarding evaluation and treatment of her neck where she had an injury on xx/xx/xx. She slipped on a wet floor, caught the door handle and fell on the back. Since then, she has been complaining of some shoulder pain on the left side, neck pain, pain radiating between her scapulas and activity-related pain on her left shoulder that hurts with movement. She denies any numbness or tingling radiating into her hands, significant neck spasm and decreased range of motion of her complaints. Impression: Cervical whiplash. Plan: This is a claimant that looks in no apparent distress. However, when the evaluator gets her to move her neck, she has decreased mobility of her neck, and the evaluator cannot do any strength testing on her arm because she refuses to hold up her arm. She says it is too sore. However, she has relatively normal grip strength. Because of the inability to do motor testing and because of her chronic problem with this left shoulder, the evaluator would send her for an MRI of her neck and continue with her physical therapy as it seems to be getting better. The evaluator has placed her on some Celebrex too.

3-4-11 MRI of the cervical without contrast performed by MD., showed C5-6 right preforaminal focal small disc or small extrusion abutting the right peripheral ventral cord and possibly encroaching on right C6 exiting root and ventral C7 root. This is opposite the side of claimant's left shoulder pain. Straightened lordosis with localized reversal at C5-6. The remainder of the cervical levels show no compressive disease.

3-15-11 Unknown Provider, the claimant returned for follow-up visit. Assessment: Left shoulder pain, neck pain. Plan: The claimant was prescribed Vicodin, Flexeril.

3-30-11 MD., the claimant had a fall at work. She has resultant neck pain on the right side, decreased range of motion, and pain down her left arm into the deltoid area. On MRI, she has a herniated extruded disc at C5-6 putting some pressure on her right C6

nerve roots which would coincide with to the contralateral side. The evaluator would suggest that because of the neck and arm symptoms that she is having, the evaluator would send her for an epidural steroid injection to see if it would resolve some of the problems in her neck and shoulder. The evaluator will see her back after this has been completed.

4-5-11 Unknown Provider, the claimant returned for follow-up visit. Assessment: Left shoulder pain, neck pain, low back pain. Plan: The claimant was prescribed Vicodin. Ice and heat to areas.

4-13-11 MD., the claimant presented with neck pain. It is located on both sides. It is described as spasms and sharp. The symptom started 2 months ago. The frequency of episodes is daily. The symptom is alleviated by medication. The symptom is exacerbated by tilting, turning head to the left, driving a car and turning head to the right, initial therapy includes medication and physical therapy 12-20-10, 3-11, Humpal P.T, no relief. Mechanism of injury includes fall. It is radiating to both shoulders. The complaint is moderate and severe. Diagnosis: Sprain of neck, cervical disc displacement, cervicalgia, joint pain-shoulder. Plan: Cervical epidural steroid injection for neck pain with C5-6 disc herniation. The claimant had a fall at work with onset and persistence of neck pain and left shoulder pain. She seems to have co-existing discogenic pain as well as shoulder joint pain. The interlaminar epidural steroid injection was explained. The claimant was advised of risks and benefits of the procedure. The risks include, but are not limited to, bleeding, infection and nerve injury. The procedure requires fluoroscopy to ensure accurate medication placement and sedation or MAC to minimize movement and risk of injury.

4-20-11 MD., the claimant returns for follow up. She is scheduled for a neck ESI tomorrow. She comes in now because of her low back which has been placed on WC claim for the same injury. She describes low back pain with pain radiating down the left leg all the way to the foot. Lately it has started on the right side. On examination today she has a significant spasm to her back and it goes clear down the side of her foot. She has a positive straight leg raise and no motor deficits. Plain x-rays show no instability and no pars defect but there is definitive disc space collapse at L5-S1. The evaluator is going to send her for an MRI, physical therapy for both her neck and her back; prescription given for an anti-inflammatory medication which is first line treatment that worker's compensation has not given her because they say, apparently, the evaluator is not her treating physician. The evaluator suggests that her treating doctor supply her with some Celebrex prescriptions. The evaluator will see her back here when all that treatment has been done.

4-21-11 MD., the claimant returned for follow-up. Diagnosis: Sprain of neck, cervical disc displacement. Plan: The claimant was placed in a sitting position with a lateral fluoroscopic view obtained. The skin was prepped with hibiclens and local anesthesia achieved with it lidocaine. The evaluator advanced an 18 gauge 3.5 inch Tuohy needle

at the C6-7 and used loss of resistance to air to enter the epidural space. 2 ml of Omnipaque 240 showed epidural spread, there was no heme and no paresthesia. The evaluator then injected 0 ml of 0.25 Bupivacaine, 3 ml of preservative free normal saline and 50 mg of methylprednisolone. There was no further difficulties and the claimant was taken to recovery in stable condition. Follow up will be in 2-3 weeks as needed.

4-26-11 MD., the claimant with neck pain post cervical epidural steroid injection. The claimant notes no improvement with the injection. She presented with neck pain it is located on both sides. It is described as intense, spasms, tightness and sharp. The symptom is alleviated by medication. The symptom is exacerbated by movement. It is radiating to both shoulders. The complaint is moderate. Diagnosis: Sprain of neck, cervical disc displacement. Plan: Follow up with Dr. The claimant had no improvement with the initial cervical ESI, no indication to repeat the injection.

5-4-11 MD., the claimant returns for follow up. She had an epidural steroid injection of her neck and it has not helped her. She suffers from shoulder problems and arm problems. She has some slightly attenuated reflexes but no gross motor deficits. The evaluator is going to send her for some nerve conduction studies as her next options are either chronic physical therapy or surgery or live with it. The evaluator will see her back in follow up.

5-5-11 MRI of the lumbar without contrast performed by MD., showed dominant finding is degenerative disc disease at the L5-S1 level with a shallow concentric disc displacement and mild facet arthropathy which mildly narrows the proximal neural foramen right greater than left and gently abuts the exiting right L5 nerve root.

5-6-11 Physical Therapy Re-Evaluation.

5-8-11 Unknown Provider, the claimant returned for follow-up visit. Assessment: Left shoulder pain, neck pain, low back pain. Plan: The claimant was prescribed Celebrex, Flexeril, and Vicodin. Ice and heat to areas.

5-23-11 EMG-NCV of the left upper extremity performed by MD., showed these electromyogram and nerve conduction studies of the left upper limb were within normal limits.

6-1-11 MD., the claimant returns for follow up with her nerve conduction studies and they are within normal limits. Her MRI shows degenerative disc changes. She has had epidural steroid injections and physical therapy, and nothing has helped her. The only thing left for her is surgical intervention. The evaluator would suggest more physical therapy and a second opinion with one of the neurosurgeons, M.D., Dr. or Dr.. She had a worker's compensation injury that has been refractory to epidural steroid injections, physical therapy, and NSAIDS.

Follow-up visit with Dr. on 6-2-11 notes the evaluator discussed the further options. She does not appear to have at this time any active radiculopathy, but the evaluator does think she is still having some symptoms from the cervical spine. The evaluator would agree with Dr. however, that she also continues to have fairly significant pain from the left shoulder. It has been quite some time since her injury. She has completed extensive range of motion exercises. She has undergone cortisone injections in the past, these have not helped. The other option includes that of arthroscopic examination of the left shoulder with indicated procedures including debridement, subacromial decompression, distal clavectomy, arthroscopic.

6-3-11 Unknown Provider, the claimant returned for follow-up visit. Assessment: Left shoulder pain, neck pain, low back pain. Plan: The claimant was prescribed Flexeril, Vicodin. Ice and heat to areas.

6-21-11 MD., the claimant presents for consultation and evaluation of neck and back pain status post fall at work in 11-10. Diagnosis: The claimant severe left shoulder issues which will be dealt with surgically soon. She also has minor right C5-C6 disc herniation which may explain some of her neck and left shoulder and arm pain, but she needs to be reassessed after her left shoulder surgery. Plan: Follow-up after heals from her left shoulder surgery for her spinal issues.

7-1-11 Unknown Provider, the claimant returned for follow-up visit. Assessment: Left shoulder pain, neck pain, low back pain. Plan: The claimant was prescribed Vicodin.

7-13-11 MD., preoperative diagnosis: Left shoulder rotator cuff tear, left shoulder internal derangement, left shoulder impingement syndrome, pain from previously resected acromioclavicular joint region with hypertrophic changes creating outlet stenosis and postoperative diagnosis: Left shoulder intratendinous full-thickness rotator cuff tear, left shoulder extensive glenohumeral joint synovitis associated with anterior labral tear with partial-thickness intra-articular subscapularis tendon tear, impingement syndrome, left shoulder, hypertrophic changes of acromioclavicular joint resected region with internal derangement creating medial outlet stenosis. Procedure: Left shoulder arthroscopic rotator cuff repair. Left shoulder arthroscopy with debridement, extensive, including labral debridement, synovectomy, and debridement of intra-articular partial-thickness subscapularis tendon tear. Arthroscopic sub acromial decompression. Arthroscopic distal clavicular excision.

7-18-11 MD., the claimant comes in to the office today for her first post-op visit. Sutures were removed, Steri-strips were applied. No redness noted at the incision site. Assessment: Status post left shoulder arthroscopy with debridement of partial thickness subscapularis tendon tear, synovectomy, subacromial decompression, distal clavicle excision and an arthroscopic rotator cuff repair. Plan: The evaluator did ask her to continue with her abduction pillow for one more week. She will also continue with her Cadman exercises. She will begin the stretching after the exercises in one more week.

She was also told that she can discontinue her abduction pillow one week from today. She will return to the office in two weeks or sooner should she have any questions or problems. She is a workman's comp claimant, so the evaluator did give her a copy of the 73 form and she will remain off work at this time.

7-18-11 MD., the claimant returns for follow up. She has had a second opinion. She has had her shoulder surgery. She still has pain in her neck and going into her left arm and is still tingling in her hand. It is too early to tell if she has benefited. The evaluator will see her back in follow up in about two months from now. Her incisions look good today where she had her shoulder surgery and she is moving her hand well.

7-21-11 Unknown Provider, the claimant returned for follow-up visit. Assessment: Left shoulder pain, neck pain, low back pain. Plan: Continue medications.

8-4-11 MD., the claimant presents for follow up. Overall, her shoulder is gradually improving. She has begun early range of motion exercises.
Physical Examination: With assistance, she elevated to 145 degrees, external rotation to 55 degrees. No evidence of adhesive capsulitis. Assessment: Status post left shoulder arthroscopy with debridement of partial thickness subscapularis tendon tear, synovectomy, subacromial decompression, distal clavicle excision and an arthroscopic rotator cuff repair. Plan: At this time, she was given further instructions for passive followed by active assisted range of motion exercises. She was also given a prescription for physical therapy. Work activity on 8-8-11 would include that of no overhead lifting and no significant lifting with the left upper extremity. She is off work, however, secondary to injuries to her neck and back that are being treated by Dr. She will be seen in clinical follow up in four weeks. Once she has made significant progress with her shoulder, the evaluator will consider returning her to Dr. for further treatment.

8-17-11 Physical Therapy Evaluation.

9-1-11 MD., the claimant presents for follow up. Her left shoulder at this time is gradually improving. She has been completing range of motion exercises. She feels overall she is doing well. She has been attending physical therapy.
Physical Examination: On physical examination, the rotator cuff is functional. She elevated to 160 degrees, external rotation to 65 degrees. There is no evidence of adhesive capsulitis. Assessment: Status post left shoulder arthroscopy with debridement of partial thickness subscapularis tendon tear, synovectomy, subacromial decompression, distal clavicle excision and an arthroscopic rotator cuff repair.
Plan: She will continue with physical therapy. This will be considered a medical necessity. Work activity will be as previously described, modified, avoiding overhead lifting. She will be seen in clinical follow up in six weeks. Hopefully at that point we will be able to further progress with her activity. She is also being treated for back injuries by Dr. She has a follow up with him.

9-9-11 MD., performed a Medical Review. It was his opinion that the mechanism of injury was a slip and fall injury, reaching to grab a metal door, and falling on both knees. Based on the mechanism of injury, the compensable injury and diagnosis is bilateral knee contusion, soft tissue myofascial strain of the paravertebral musculature of the cervical spine, strain of the left shoulder, and strain of the left wrist. The claimant does have preexisting conditions not causal or related to the compensable event of injury. The claimant had prior left shoulder rotator cuff repair with evidence of distal clavicle resection and tendinopathy of the supraspinatus tendon. There was no objectified aggravation of pre-existing conditions directly compensable to the mechanism of injury. The claimant had no evidence of rotator cuff tear, fracture, dislocation, or ligamentous injury. Current symptoms of low back pain are not causal or related to the compensable event of injury. Ongoing issues of the neck and left shoulder are directly causal and related to the event of injury. In his medical opinion, the subsequent left shoulder injury is not directly causal or related to the compensable event of injury, but is a natural result. The claimant had pre-existing mild tendinopathy of the subscapularis with no tear and interstitial tear of the far anterior supraspinatus tendon with mild acromioclavicular arthropathy, as documented by MRI scan of 12-30. Therefore, the subsequent left shoulder injury was pre-existing and not a direct or natural result of the original injury. There is no medical evidence of enhancement, acceleration, or worsening of the underlying condition. The claimant's bilateral knees, left wrist, and neck symptoms have resolved. The claimant underwent recent surgery of the left shoulder for administratively accepted rotator cuff tear and is now participating postoperative physical therapy. The claimant had clear preexisting tendinopathy of the supraspinatus tendon with acromioclavicular arthropathy and tendinopathy of the subscapularis with no tear with prior rotator cuff repair surgery and distal clavicle resection.

9-19-11MD., the claimant was involved in an injury at Rehabilitation Center on xx/xx/xx. She is being seen for cervical radiculopathy and lumbar radiculopathy. She recently had a left shoulder surgery with Dr. with a rotator cuff repair in July. She is currently going through rehab and states that her left shoulder has significantly improved with her surgery. However, she has ongoing neck pain and upper extremity radiculopathy, specifically down the right extremity but also pain radiating down the left upper extremity. She also continues with lower back pain and radiculopathy down both legs. She gets numbness in both legs when she sits too long. MRI of the lumbar spine showed some subsidence and degenerative disc disease and spinal canal stenosis at L5-S1. She also has a focal disc herniation in her neck at C5-C6. She has had a previous cervical epidural steroid injection that did not help her neck. She comes in with continued ongoing spasms in her paraspinal region in her cervical spine with significant decrease in range of motion. She has a global 4-5 weakness of both upper extremities and lower extremities. She has relatively intact reflexes. She has negative Hoffman's and negative Babinski's. At this time, it is advisable that she has failed medical conservative management with reference to her neck, so he will apply for an anterior cervical discectomy and fusion at C5 and C6. She has not received any

treatment for her lower back, so then evaluator would recommend physical therapy and lumbar epidural steroid injections for her lower back. The evaluator will put her on some Lortab 7.5 and Flexeril, and the evaluator will see her back hopefully with approval for anterior cervical surgery since she has failed both medical and conservative management and continues to have signs of radiculopathy and cervical neck pain.

9-19-11 Physical Therapy Evaluation.

10-4-11 Performed a Utilization Review performed by MD., notes that as per medical report dated 9-19-11, the patient complains of ongoing neck pain. There are continued ongoing spasms in her paraspinous region in her cervical spine with significant decrease in her ROM. She has a global 4/5 weakness of both upper extremities. She has relatively intact reflexes. MRI showed at C5-6 right preforaminal focal small disc protrusion or small extrusion abutting the right peripheral ventral cord and possibly encroaching on right C6 exiting root and ventral C7 root. This is opposite the side of patient's left shoulder pain. Treatment has included medication, ESI, and physical therapy. However, there is no clear documentation of sensory symptoms in a cervical distribution that correlate with the involved cervical level or presence of a positive Spurling test and evidence of motor deficit or reflex changes or positive EMG findings that correlate with the cervical level. Therefore, the medical necessity of the request has not been substantiated.

Physical Therapy from 10-10-11 through 10-19-11 (4 visits)

10-13-11 MD., the claimant presents for follow up. Her left shoulder at this time has made significant progress. She is having minimal if any pain. She has been completing range of motion exercises. She does, however, continue to have significant issues with her neck. She has recently seen Dr. who has recommended surgical intervention. Evidently this was denied. Physical Examination: On physical examination, she has a decidedly positive Spurling sign with extension and lateral bending to the left. Dysesthesias were noted in the hand.

Examination of the shoulder revealed elevation to 170 degrees, external rotation to 65, and internal rotation to the T12 level. Rotator cuff strength testing revealed satisfactory strength, no crepitations. Negative impingement sign. Assessment: Status post left shoulder arthroscopy with debridement of partial thickness subscapularis tendon tear, synovectomy, subacromial decompression, distal clavicle excision and an arthroscopic rotator cuff repair, cervical radiculopathy. Plan: With respect to her shoulder, she is doing well at this time. The evaluator would not place any restrictions on her with respect to her shoulder. She continues, however, to have significant problems with her neck. The evaluator would agree that Dr. has first attempted all measures of conservative care. At this point, surgical intervention has been suggested and this remains her only option with respect to improving her function. She will follow up at this time with Dr. Hopefully the insurance carrier will consider further treatment for her cervical spine.

10-14-11 Unknown Provider, the claimant returned for follow-up visit. Assessment: Left shoulder pain, neck pain, low back pain. Plan: Continue medications.

10-21-11 UR performed by MD., notes As per report dated 9/19/11, the patient complains of neck pain with radiating to upper extremity, On examination, there were spasms at the paraspinous region in her cervical spine with decreased ROM. Motor strength was 4/5 of all extremities. Reflexes were intact. Hoffman's and Babinski's were negative. MRI done on 3/4/11 showed C5-6 preforaminal focal small disc protrusion or small extrusion abutting the right peripheral ventral cord and possibly encroaching on the right C6 exiting root and ventral C7 root, straightened lordosis with localized reversal at C5-6. This is a request for an appeal for inpatient Cervical ACDF C5-6 22551 22845 22851 20931 length of stay for one day. As per referenced guidelines, there should be evidence of motor deficit or reflex changes or positive EMG findings that correlate with the cervical level. EMG/NCV done in 5/23/11 revealed normal limits. Moreover, PT progress reports dated 9/21/11 stated that the patient is making steady progress towards goals but the medical reports dated 9/19/11 stated that she has failed conservative management. There was no objective documentation regarding failure of response to evidence-based conservative modalities such as PT and medication. There were no any recent x-rays provided for review. In addition, the procedural reports of the ESI were not available for review. Hence, the medical necessity of the requested service has not been established. Consequently, the medical necessity of the request for the hospital stay is likewise, not substantiated.

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

BASED ON THE RECORDS PROVIDED, THERE IS NOT MUCH IN THE WAY OF OBJECTIVE FINDINGS TO JUSTIFY PERFORMING ACDF AT C5-6. THE MRI SHOWED C5-6 RIGHT PREFORAMINAL FOCAL SMALL DISC OR SMALL EXTRUSION ABUTTING THE RIGHT PERIPHERAL VENTRAL CORD AND POSSIBLY ENCROACHING ON RIGHT C6 EXITING ROOT AND VENTRAL C7 ROOT. THIS IS OPPOSITE THE SIDE OF CLAIMANT'S LEFT SHOULDER PAIN. STRAIGHTENED LORDOSIS WITH LOCALIZED REVERSAL AT C5-6. THE REMAINDER OF THE CERVICAL LEVELS SHOW NO COMPRESSIVE DISEASE. HER EMG WAS NORMAL. ON EXAM, THERE ARE VAGUE FINDINGS OF WEAKNESS. THERE ARE NO PATHOLOGICAL REFLEXES. THEREFORE, THE REQUEST FOR INPT CERVICAL ACDF C5-6 22551, 22845, 22851, 20931, LOS X 1 IS NOT REASONABLE OR MEDICALLY NECESSARY.

ODG-TWC, last update 11-9-11 Occupational Disorders of the Neck and Upper Back – Cervical 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) 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, as outlined below:

(1) *Anterior cervical discectomy compared to anterior cervical discectomy with interbody fusion with a bone graft or substitute:* Three of the six randomized controlled studies discussed in the 2004 Cochrane review found no difference between the two techniques and/or that fusion was not necessary. The Cochrane review felt there was conflicting evidence of the relative effectiveness of either procedure. Overall it was noted that patients with discectomy only had shorter hospital stays, and shorter length of operation. There was moderate evidence that pain relief after five to six weeks was higher for the patients who had discectomy with fusion. Return to work was higher early on (five weeks) in the patients with discectomy with fusion, but there was no significant difference at ten weeks. (Jacobs-Cochrane, 2004) (Abd-Alrahman, 1999) (Dowd, 1999) (Martins, 1976) (van den Bent, 1996) (Savolainen, 1998) One disadvantage of fusion appears to be abnormal kinematic strain on adjacent spinal levels. (Ragab, 2006) (Eck, 2002) (Matsunaga, 1999) (Katsuura, 2001) The advantage of fusion appears to be a decreased rate of kyphosis in the operated segments. (Yamamoto, 1991) (Abd-Alrahman, 1999)

(2) *Fusion with autograft versus allograft:* The Cochrane review found limited evidence that the use of autograft provided better pain reduction than animal allograft. It also found that there was no difference between biocompatible osteoconductive polymer or autograft (limited evidence). (Jacobs-Cochrane, 2004) (McConnell, 2003) A problem with autograft is morbidity as related to the donor site including infection, prolonged drainage, hematomas, persistent pain and sensory loss. (Younger, 1989) (Sawin, 1998) (Sasso, 2005) Autograft is thought to increase fusion rates with less graft collapse. (Deutsch, 2007). See Decompression, myelopathy.

(3) *Fusion with autograft with plate fixation versus allograft with plate fixation, Single level:* A recent retrospective review of patients who received allograft with plate fixation versus autograft with plate fixation at a single level found fusion rates in 100% versus 90.3% respectively. This was not statistically significant. Satisfactory outcomes were noted in all non-union patients. (Samartzis, 2005)

(4) *Fusion with different types of autograft:* The Cochrane review did not find evidence that a vertebral body graft was superior to an iliac crest graft. (McGuire, 1994)

(5) Fusion with autograft versus fusion with autograft and additional instrumentation:

Plate Fixation: In single-level surgery there is limited evidence that there is any difference between the use of plates and fusion with autograft in terms of union rates. For two-level surgery, there was moderate evidence that there was more improvement in arm pain for patients treated with a plate than for those without a plate. Fusion rate is improved with plating in multi-level surgery. (Wright, 2007) See Plate fixation, cervical spine surgery.

Cage: Donor site pain may be decreased with the use of a cage rather than a plate, but donor site pain was not presented in a standardized manner. At two years pseudoarthrosis rate has been found to be lower in the fusion group (15%) versus the cage group (44%). A six-year follow-up of the same study group revealed no significant difference in outcome variables between the two treatment groups (both groups had pain relief). In the subgroup of patients with the cage who attained fusion, the overall outcome was better than with fusion alone. Patients treated with cage instrumentation have less segmental kyphosis and better-preserved disc height. This only appears to affect outcome in a positive way in cage patients that achieve fusion (versus cage patients with pseudoarthrosis). (Poelsson, 2007) (Varuch, 2002) (Hacker 2000) See also Adjacent segment disease/degeneration (fusion).

(6) Fusion with allograft alone versus with allograft and additional instrumentation:

Plate Fixation: Retrospective studies indicate high levels of pseudoarthrosis rates (as high as 20% for one-level and 50% for two-level procedures) using allograft alone. In a recent comparative retrospective study examining fusion rate with plating, successful fusion was achieved in 96% of single-level cases and 91% of two-level procedures. This could be compared to a previous retrospective study by the same authors of non-plated cases that achieved successful fusion in 90% of single-level procedures and 72% of two-level procedures. (Kaiser, 2002) (Martin, 1999) See Plate fixation, cervical spine surgery.

Complications:

Collapse of the grafted bone and loss of cervical lordosis: 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. (Trojanovich, 2002) (Herrmann, 2004) (Katsuura, 1996) The significance on outcome of kyphosis or loss of cervical lordosis in terms of prediction of clinical outcome remains under investigation. (Peolsson, 2004) (Haden, 2005) (Poelsson, 2007) (Hwang, 2007)

Pseudoarthrosis: This is recognized as an etiology of continued cervical pain and unsatisfactory outcome. Treatment options include a revision anterior approach vs. a posterior approach. Regardless of approach, there is a high rate of continued moderate to severe pain even after solid fusion is achieved. (Kuhns, 2005) (Mummaneni, 2004) (Coric, 1997)

Anterior versus posterior fusion: In a study based on 932,009 hospital discharges associated with cervical spine surgery, anterior fusions were shown to have a much lower rate of complications compared to posterior fusions, with the overall percent of cases with complications being 2.40% for anterior decompression, 3.44% for anterior fusion, and 10.49% for posterior fusion. (Wang, 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, gainful employment, higher preoperative NDI 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, litigation and workers' compensation. ([Anderson, 2009](#)) ([Peolsson, 2006](#)) ([Peolsson, 2003](#)) Patients who smoke have compromised fusion outcomes. ([Peolsson, 2008](#)) See [Plate fixation, cervical spine surgery](#). See also [Adjacent segment disease/degeneration \(fusion\)](#) & [Iliac crest donor-site pain treatment](#).

Use of Bone-morphogenetic protein (BMP): FDA informed healthcare professionals of reports of life-threatening complications associated with recombinant human Bone Morphogenetic Protein (rhBMP) when used in the cervical spine for spinal fusion. The safety and effectiveness of rhBMP in the cervical spine have not been demonstrated, and these products are not approved for this use. These complications were associated with swelling of neck and throat tissue, which resulted in compression of the airway and/or neurological structures in the neck. ([FDA MedWatch, 2008](#)) Bone-morphogenetic protein was used in approximately 25% of all spinal fusions nationally in 2006, with use associated with more frequent complications for anterior cervical fusions. No differences were seen for lumbar, thoracic, or posterior cervical procedures, but the use of BMP in anterior cervical fusion procedures was associated with a higher rate of complication occurrence (7.09% with BMP vs 4.68% without BMP) with the primary increases seen in wound-related complications (1.22% with vs 0.65% without) and dysphagia or hoarseness (4.35% with vs 2.45% without). ([Cahill-JAMA, 2009](#))

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)