Cohere Medical Policy -
Open Shoulder Surgical Procedures

Clinical Guidelines for Medical Necessity Review

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Important Notices

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Guideline Information:

Specialty Area: Disorders of the Musculoskeletal System
Guideline Name: Cohere Medical Policy - Open Shoulder Surgical Procedures

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Type: [**X**] Adult (18+ yo) | [**X**] Pediatric (0-17 yo)

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Medical Necessity Criteria

Service: Open Shoulder Surgical Procedures

Description

Open shoulder surgical procedures involve one or more procedures, including rotator cuff repair with or without allograft augmentation, distal clavicle resection, subacromial decompression, open Bankart repair, capsular shift, or coracoid transfers. To access the shoulder joint, an incision of approximately 5 centimeters is made; this is in contrast to arthroscopic shoulder procedures, wherein multiple smaller incisions are used alongside arthroscopic tools to access the shoulder. Open shoulder surgical procedures are used to treat various problems with the shoulder, such as tendon and ligament injuries, shoulder instability, and bone damage, as well as when there are numerous coexisting shoulder pathologies, and when there is a high likelihood that arthroscopic surgery will fail or provide incomplete visualization.[1]

Medical Necessity Criteria

Indications

- ➔ **Open shoulder surgical procedures** are considered appropriate if **ANY** of the following is **TRUE**:
  - ◆ **Open rotator cuff repair with or without allograft augmentation** is considered appropriate if **ANY** of the following is **TRUE**[2]:
    - Acute rotator cuff tear with **ALL** of the following after an inciting event or injury:
      - **ANY** of the following positive exam findings[3-4]:
        - ◆ Documentation of Subscapularis injury (internal rotator [IR] weakness, Belly-press test, Bear hug test); **OR**
        - ◆ Documentation of Superspinatus and/or External rotation injury (Jobe/empty cast test, Drop arm test, Hornblower's sign); **AND**
      - Significantly impacted activities of daily living (ADLs); **AND**
      - Advanced imaging (e.g., magnetic resonance imaging [MRI], computed tomography [CT]) with

image report demonstrates a full-thickness rotator cuff tear (Cofield classification); **OR**

- Chronic rotator cuff tear with **ALL** of the following:
  - **AT LEAST TWO** positive findings from the following[5]:
    - Pain with overhead activities (lateral deltoid pain with activity); **OR**
    - Pain (lateral deltoid pain with sleep and sleep disruption); **OR**
    - Shoulder weakness (e.g., abduction, external rotation, internal rotation); **AND**
  - **ANY** of the following positive exam findings[3-4]:
    - Documentation of Subscapularis injury (internal rotator [IR] weakness, Belly-press test, Bear hug test); **OR**
    - Documentation of Superspinatus and/or External rotation injury (Jobe/empty cast test, Drop arm test, Hornblower's sign); **AND**
  - Failure of conservative management for greater than 3 months, including **ALL** of the following:
    - Anti-inflammatory medications, non-opioid analgesics, or prescription medications (e.g., oral steroids, neuropathic pain medications) if not contraindicated; **AND**
    - Physical therapy; **AND**
    - **ANY** of the following:
      - Corticosteroid injection if medically appropriate; **OR**
      - Corticosteroid injection is contraindicated; **AND**
  - Advanced imaging (e.g., MRI, CT) demonstrates evidence of **ANY** of the following:
    - High-grade partial-thickness rotator cuff tear; **OR**
    - Full-thickness rotator cuff tear (Cofield classification); **OR**

- **Open revision of a previous rotator cuff repair** is considered appropriate if **ANY** of the following is **TRUE**[6]:
  - Advanced imaging (e.g., MRI, CT) demonstrates evidence of a recurrent rotator cuff tear; **OR**

- Suspected postsurgical complication; **OR**

◆ **Open clavicle resection** is considered appropriate if **ANY** of the following are **TRUE**:

- Tumor or malignancy requiring claviculectomy for surgical exposure[7,8]; **OR**
- Intervention of the subclavian artery (e.g., subclavian artery aneurysm) requiring claviculectomy for surgical exposure[9]; **OR**
- Central venous stenosis that persists after balloon angioplasty, requiring claviculectomy as an alternative to first rib resection for adequate venolysis[10]; **OR**
- Osteomyelitis or osteitis[11,12]; **OR**
- **ALL** of the following:
  - The patient has significant pain and/or functional impairment that impacts ADLs[13]; **AND**
  - Localized tenderness to palpation of the acromioclavicular (AC) joint[14]; **AND**
  - **ANY** of the following positive orthopedic tests on physical examination when compared to the non-involved side[14]:
    - Cross-body adduction test; **OR**
    - Resisted AC joint extension test; **AND**
  - Failure of conservative management for greater than 3 months including **ALL** of the following[13,14,15]:
    - Anti-inflammatory medications, non-opioid analgesics, or prescription medications (e.g., oral steroids, neuropathic pain medications) if not contraindicated; **AND**
    - Physical therapy; **AND**
    - **ANY** of the following:
      - ◆ Corticosteroid injection if medically appropriate; **OR**
      - ◆ Corticosteroid injection is contraindicated; **AND**
  - Plain radiographs demonstrate **ANY** of the following findings consistent with pathology in the subacromial space or at the AC joint[7]:
    - Cystic formation in the distal clavicle; **OR**
    - Presence of osteophytes; **OR**

        - Moderate to severe degenerative changes in the AC joint; **OR**
- **Subacromial decompression** is considered appropriate if **ANY** of the following is **TRUE**[16]:
    - The procedure coincides with the indicated repair of a rotator cuff injury; **OR**
    - The patient has history and exam consistent with subacromial impingement syndrome, including **ALL** of the following[17]:
        - Significant pain and/or functional impairment that impacts activities of daily living; **AND**
        - The patient demonstrates **ANY** of the following positive orthopedic tests on physical examination when compared to the non-involved side:
            - Neer impingement sign/test; **OR**
            - Hawkins-Kennedy impingement sign/test; **AND**
        - Failure of conservative management for greater than 3 months, including **ALL** of the following:
            - Anti-inflammatory medications, non-opioid analgesics, or prescription medications (e.g., oral steroids, neuropathic pain medications) if not contraindicated; **AND**
            - Physical therapy; **AND**
            - **ANY** of the following:
                - Corticosteroid injection if medically appropriate; **OR**
                - Corticosteroid injection is contraindicated; **AND**
        - Plain radiographs demonstrate **ANY** of the following findings consistent with pathology in the subacromial space:
            - Subacromial spurs/osteophytes; **OR**
            - Type III (hooked) acromion; **OR**
            - Acromioclavicular osteoarthritis with inferior osteophyte formation; **OR**
- **Arthrotomy with or without biopsy** is considered appropriate if **ANY** of the following is **TRUE:**
    - Septic arthritis[18-23]; **OR**

- Pre-revision tissue biopsy prior to revision shoulder arthroplasty to evaluate for periprosthetic joint infection in the setting of a painful shoulder arthroplasty without clear evidence of infection[24,25]; **OR**
- Biopsy of lesion that is suspicious for tumor/neoplasm.[26,27]

Non-Indications

➔ **Open shoulder surgical procedures** are not considered appropriate if **ANY** of the following is **TRUE**:

- Debridement, rotator cuff repair, and/or removal of intra-articular loose body is not considered to be indicated in the presence of Kellgren-Lawrence grade 3 or 4 osteoarthritis[14]; **OR**
- Use of subacromial balloon spacer to treat irreparable rotator cuff tear[28]; **OR**
- Presence of active infection[29]; **OR**
- Rotator cuff arthropathy.[30]

Level of Care Criteria

Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
23100	Arthrotomy, glenohumeral joint, including biopsy
23120	Claviculectomy; partial
23125	Claviculectomy; total
23130	Acromioplasty or acromionectomy, partial, with or without coracoacromial ligament release
23410	Repair of ruptured musculotendinous cuff (eg, rotator cuff) open; acute
23412	Repair of ruptured musculotendinous cuff (eg, rotator cuff) open; chronic
23420	Reconstruction of complete shoulder (rotator) cuff avulsion, chronic (includes acromioplasty)

Medical Evidence

The American Academy of Orthopaedic Surgeons (AAOS) published a 2019 guideline for the management of rotator cuff injuries. Regarding open vs. arthroscopic repair, a strong recommendation is given regarding supportive evidence for no difference in long-term (greater than one year) patient-reported outcomes or cuff healing rates. They state that the arthroscopic-only technique is associated with better short-term improvement in postoperative recovery of motion and function.[14]

In a 2017 prospective study, Jain et al. examined the diagnostic accuracy of special tests for rotator cuff tears. 208 participants, 45 years of age or older with shoulder pain of at least 4 weeks duration, were included in the study. Special tests that were performed included lift-off test, passive lift-off test, belly-press test, belly-off sign, bear hug, external rotation lag sign at 0°, external rotation lag sign at 90°, Hornblower's sign, full can test, drop arm test, Jobe's test, Neer's sign, Hawkin's sign, bicipital groove tenderness, and Speed's test. The tests were not always performed in the same order. Blind evaluations of MRI results were completed. In conclusion, it was determined that these tests are highly sensitive in diagnosing rotator cuff tears and may reduce reliance on expensive imaging in these cases.[3]

Barber et al. (2012) performed a prospective, randomized evaluation of acellular human dermal matrix augmentation for arthroscopic rotator cuff repair. Twenty-two patients in Group 1 and 20 patients in Group 2 were included. The mean age was 56 years. Group 1 underwent augmentation while Group 2 did not. Large tears greater than 3 cm were measured. The American Shoulder and Elbow Surgeons (ASES) scores in Group 1 were statistically better than Group 2, with intact repairs demonstrated in 85% of Group 1 and 40% in Group 2.[31]

Park et al. (2005) evaluated the diagnostic accuracy of clinical tests for the different degrees of subacromial impingement syndrome. Eight physical examination tests were used including "the Neer impingement sign, Hawkins-Kennedy impingement sign, painful arc sign, supraspinatus muscle strength test, Speed test, cross-body adduction test, drop-arm sign, and infraspinatus muscle strength test". The authors concluded that most tests for

rotator cuff disease have greater sensitivity than specificity; this is supported by similar studies found in the literature.[4]

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Clinical Guideline Revision History/Information

Original Date: December 29, 2023		
Review History		
Version 2	2/20/2025	• Annual review. • Updated conservative care language to match standardized MSK conservative care requirements, specifically changing "oral steroids or anti-inflammatory medication" to "anti-inflammatory medications, non-opioid analgesics, or prescription medications (e.g., oral steroids, narcotics, neuropathic pain medications) if not contraindicated". • Literature review, 6 references added to the Indications section: Fares et al. (2023), Cobb et al. (2022), Coghlan et al. (2019), Lädermann et al. (2016), Karjalainen et al. (2019), and Salunkhe et al. (2024).
Version 3	5/22/2025	Added total claviculectomy code, as well as four additional indications to address this code (malignancy, subclavian access, central venous stenosis, osteomyelitis) and the corresponding references Removed redundant indication for subacromial decompression Removed impingement tests from open claviculectomy indication as not relevant to testing for AC joint pain Added arthrotomy/biopsy code, as well as three indications to address this code (septic arthritis, pre-revision biopsy, tumor biopsy) Simplified positive exam criteria for rotator cuff injury to improve ease of policy use