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Shoulder Arthroscopy - Single Service Clinical Guidelines for Medical Necessity Review

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Guideline Information:

Specialty Area: Diseases & Disorders of the Musculoskeletal System (M00-M99) **Guideline Name:** Shoulder Arthroscopy (Single Service)

Literature review current through: 2/15/2024 Document last updated: 2/15/2024 Type: [X] Adult (18+ yo) | [X] Pediatric (0-17yo)

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Medical Necessity Criteria

Service: Shoulder Arthroscopy

General Guidelines

- Units, Frequency, & Duration: None.
- Criteria for Subsequent Requests: The patient has a different diagnosis.
- **Recommended Clinical Approach:** A shoulder arthroscopy procedure can involve one or more of several procedures. The procedure allows the surgeon to thoroughly visualize the shoulder and treat several conditions involving the structures of the joint.¹⁸
- **Exclusions:** Other pathologies (e.g., cervical radiculopathy).

Medical Necessity Criteria

Indications

- → Shoulder Arthroscopy is considered appropriate if ANY of the following is TRUE:
 - Capsular release/lysis of adhesions is considered appropriate if ALL of the following are TRUE⁶⁻⁸:
 - Significant pain and/or functional impairment that impact activities of daily living; **AND**
 - Significant loss of both active AND passive shoulder range of motion on exam; **AND**
 - Failure of conservative management for greater than 6 months, including **ALL** of the following:
 - Oral steroids, anti-inflammatory medications, or analgesics; AND
 - Physical therapy including self-directed or home exercise program; AND
 - **ANY** of the following:
 - Corticosteroid injection if medically appropriate; OR
 - Corticosteroid injection is contraindicated; AND
 - Imaging findings (e.g., radiographs, CT, or MRI) do not identify any other shoulder pathology (e.g. severe arthritis, rotator cuff tear, labral tear, etc.) as the primary source of the symptoms; OR

• Capsulorrhaphy/labral repair for shoulder instability is considered appropriate if ALL of the following are TRUE⁹:

- Documented history of traumatic or atraumatic shoulder instability/laxity (e.g. dislocation, subluxation) with documented loss of shoulder function that impacts activities of daily living or demands of employment; **AND**
- The patient has **ANY** of the following positive exam tests:
 - Apprehension test; OR
 - Relocation test; **OR**
 - Load/Shift test; OR
 - Anterior and/or posterior drawer; **OR**
 - Jerk test; OR
 - Sulcus sign; AND
- **ANY** of the following:
 - Failure of conservative management is not required for acute traumatic injuries less than or equal to 30 days old; OR
 - Failure of conservative management for greater than 3 months, including ALL of the following:
 - Oral steroids, anti-inflammatory medications, or analgesics; AND
 - Physical therapy; AND
 - **ANY** of the following:
 - Corticosteroid injection if medically appropriate; **OR**
 - Corticosteroid injection is contraindicated; AND
- Advanced diagnostic imaging (e.g., MRI, CT) of ANY of the following findings consistent with instability:
 - ALPSA lesion; OR
 - Bankart lesion; OR
 - Capsular tear; OR
 - GLAD lesion; OR
 - HAGL lesion; **OR**
 - Patulous/redundant capsule; **OR**
 - Reverse Bankart lesion; OR
 - Hill Sachs lesion; OR
 - Reverse Hill Sachs lesion; **OR**
- Diagnostic arthroscopy is considered appropriate if ALL of the following are TRUE:
 - Significant pain and/or functional impairment that impact activities of daily living; **AND**
 - The patient has **ANY** of the following positive exam findings:
 - Instability; OR
 - Weakness; **OR**
 - Decreased range of motion; **OR**
 - Painful shoulder range of motion; AND

- Failure of conservative management for greater than 3 months, including **ALL** of the following:
 - Oral steroids, anti-inflammatory medications, or analgesics; AND
 - Physical therapy; AND
 - ANY of the following:
 - Corticosteroid injection if medically appropriate; OR
 - Corticosteroid injection is contraindicated; AND
- Imaging findings (e.g., radiographs, CT, or MRI) are inconclusive as to the source of shoulder pain; **OR**
- Rotator cuff repair (RCR) is considered appropriate if ANY of the following is TRUE¹⁻²:
 - Acute rotator cuff tear and ALL of the following after an inciting event or injury:
 - Significant pain and/or functional impairment that impact activities of daily living; AND
 - The patient has **ANY** of the following positive exam tests¹⁰:
 - Drop arm test; OR
 - ♦ Full can test; **OR**
 - ◆ Jobe/empty can test; **OR**
 - Weakness of external rotation; OR
 - ♦ Belly-press test; OR
 - Hawkins (Hawkins-Kennedy) sign/test; OR
 - ◆ Neer/Neer impingement test; OR
 - ◆ Lift-off/Gerber's test; AND
 - Advanced diagnostic imaging (e.g., MRI, CT) demonstrates **ANY** of the following:
 - High-grade partial thickness rotator cuff tear;
 OR
 - Full-thickness rotator cuff tear; **OR**
 - Chronic rotator cuff tear and ALL of the following¹:
 - Significant pain and/or functional impairment that impact activities of daily living; AND
 - The patient has **ANY** of the following positive exam tests¹⁰:
 - Drop arm test; OR
 - Full can test; **OR**
 - ◆ Jobe/empty can test; **OR**
 - Weakness of external rotation; OR
 - Belly-press test; OR
 - Hawkins (Hawkins-Kennedy) sign/test; OR
 - Neer/Neer impingement test; OR

- ◆ Lift-off/Gerber's test; AND
- Failure of conservative management for greater than 6 weeks, including **ALL** of the following:
 - Oral steroids, anti-inflammatory medications, or analgesics; AND
 - Physical therapy including self-directed or home exercise program; AND
 - **ANY** of the following:
 - Corticosteroid injection if medically appropriate; **OR**
 - Corticosteroid injection is contraindicated; AND
- Advanced diagnostic imaging (e.g., MRI, CT) demonstrates **ANY** of the following:
 - High-grade partial-thickness rotator cuff tear;
 OR
 - A full-thickness rotator cuff tear (Cofield classification); OR
- **Revision of a previous rotator cuff repair** is considered appropriate if **ANY** of the following is **TRUE**¹²:
 - Advanced diagnostic imaging findings of a recurrent rotator cuff tear; **OR**
 - Suspected postsurgical complication; **OR**
- Distal clavicle resection is considered appropriate if ALL of the following are TRUE⁵:
 - Significant pain and/or functional impairment that impact activities of daily living; **AND**
 - The patient demonstrates localized tenderness to palpation of the acromioclavicular (AC) joint and **ANY** of the following positive orthopedic tests on physical examination when compared to the non-involved side:
 - Cross-body adduction test; **OR**
 - Resisted AC joint extension test; OR
 - Neer impingement test; **OR**
 - Hawkins-Kennedy impingement test; AND
 - Failure of conservative management for greater than 3 months, including **ALL** of the following:
 - Oral steroids, anti-inflammatory medications, or analgesics; AND
 - Physical therapy including self-directed or home exercise program; AND
 - **ANY** of the following:

- Corticosteroid injection if medically appropriate; OR
- Corticosteroid injection is contraindicated; AND
- Imaging findings (e.g., radiographs, CT, or MRI) demonstrate
 ANY of the following findings consistent with pathology in
 the subacromial space or at the AC joint¹³:
 - Cystic formation in the distal clavicle; **OR**
 - Presence of osteophytes; OR
 - Moderate to severe degenerative changes in the AC joint; OR
- Biceps tenodesis/tenotomy is considered appropriate if ALL of the following are TRUE¹⁴:
 - Significant pain and/or functional impairment that impact activities of daily living; **AND**
 - The patient has **2 or more** of the following positive exam tests:
 - Anterior slide test; **OR**
 - Biceps load test; OR
 - Biceps tendon tenderness in the bicipital groove; **OR**
 - Clunk test; OR
 - Compression rotation test; **OR**
 - O'Brien's test; OR
 - Speed's test; OR
 - Uppercut test; **OR**
 - Yergason test; AND
 - Failure of conservative management for greater than 3 months including **ALL** of the following:
 - Oral steroids, anti-inflammatory medications, or analgesics; AND
 - Physical therapy; AND
 - Corticosteroid injection if medically appropriate and not contraindicated; AND
 - Advanced diagnostic imaging (e.g., MRI, CT) demonstrate biceps tendon pathology that correlates with the patient's reported symptoms and physical exam findings including ANY of the following:
 - Biceps tendon subluxation; **OR**
 - Biceps tendinopathy/tearing; **OR**
 - $\circ~$ Superior labrum anterior and posterior (SLAP) tear; OR

- Debridement is considered appropriate if ALL of the following are TRUE²:
 - **ANY** of the following:
 - The procedure coincides with the indicated repair of a rotator cuff injury; **OR**
 - There is a need for decompression and debridement after a full-thickness rotator cuff tear; **OR**
 - Subacromial impingement syndrome, including **ALL** of the following:
 - Significant pain and/or functional impairment that impacts activities of daily living; AND
 - The patient demonstrates ANY of the following positive exam tests when compared to the non-involved side¹¹:
 - Neer impingement sign/test; **OR**
 - Hawkins (Hawkins-Kennedy)
 impingement sign/test; AND
 - Imaging studies 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; **AND**
 - Significant pain and/or functional impairment that impacts activities of daily living; AND
 - Failure of conservative management for greater than 3 months, including **ALL** of the following:
 - Oral steroids, anti-inflammatory medications, or analgesics; AND
 - Physical therapy; **AND**
 - **ANY** of the following:
 - Corticosteroid injection if medically appropriate; OR
 - Corticosteroid injection is contraindicated; AND
 - Imaging studies (e.g., radiographs, MRI, CT) demonstrate bony and/or soft tissue pathology that correlates with symptoms and physical exam findings; OR
- Removal of loose body is considered appropriate if ALL of the following are TRUE:

- Shoulder pain and mechanical symptoms (e.g., catching, locking, clicking); AND
- Imaging findings (e.g., radiographs, CT, or MRI) demonstrate the presence of a loose body; **OR**
- Superior labrum anterior and posterior (SLAP) repair is

considered appropriate if **ALL** of the following are **TRUE**¹⁵⁻¹⁶:

- Significant pain and/or functional impairment that impacts activities of daily living; **AND**
- The patient has **ANY** of the following positive exam tests:
 - O'Brien's test; OR
 - Biceps load test; OR
 - Crank test; OR
 - Modified dynamic labral shear test; **OR**
 - Anterior slide test; **AND**
- Failure of conservative management for greater than 3 months, including **ALL** of the following:
 - Oral steroids, anti-inflammatory medications, or analgesics; 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 a SLAP lesion that correlates with symptoms and exam findings;
 OR
- Subacromial Decompression is considered appropriate if ANY of the following is TRUE¹⁷:
 - The procedure coincides with the indicated repair of a rotator cuff injury; **OR**
 - There is a need for decompression and debridement after a full-thickness rotator cuff tear; **OR**
 - Subacromial impingement syndrome, including **ALL** of the following:
 - Significant pain and/or functional impairment that impacts activities of daily living; AND
 - The patient demonstrates ANY of the following positive exam tests when compared to the non-involved side¹⁸:

- ◆ Neer impingement sign/test; OR
- Hawkins (Hawkins-Kennedy) impingement sign/test; AND
- Failure of conservative management for greater than 3 months, including ALL of the following:
 - Oral steroids, anti-inflammatory medications, or analgesics; AND
 - Physical therapy; AND
 - **ANY** of the following:
 - Corticosteroid injection if medically appropriate; **OR**
 - Corticosteroid injection is contraindicated; AND
- Imaging (radiographs, CT, MRI) demonstrates 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

 Synovectomy (partial or complete) is considered appropriate if ALL of the following are TRUE¹⁹:

- Significant pain and/or functional impairment that impacts activities of daily living; **AND**
- Failure of conservative management for greater than 3 months, including **ALL** of the following:
 - Oral steroids, anti-inflammatory medications, or analgesics; AND
 - Physical therapy; AND
 - **ANY** of the following:
 - Corticosteroid injection if medically appropriate; OR
 - Corticosteroid injection is contraindicated; AND
- Advanced diagnostic imaging (e.g., MRI, CT) demonstrates findings consistent with pathologic synovial disease (e.g., synovial plica, synovial chondromatosis, pigmented villonodular synovitis, inflammatory/rheumatoid arthritis, crystalline arthropathy, infection).

Non-Indications

- → Shoulder Arthroscopy is not considered appropriate if ANY of the following is TRUE:
 - Arthroscopic debridement and/or removal of intra-articular loose body is not considered to be indicated in the presence of Kellgren-Lawrence grade 3 or 4 osteoarthritis¹⁹; OR
 - Use of subacromial balloon spacer to treat irreparable rotator cuff tear²⁰; OR
 - Rotator cuff and/or labral repair in the presence of active infection (local or remote); OR
 - Rotator cuff arthropathy.

Level of Care Criteria

Outpatient.

Procedure Codes (HCPCS/CPT)

HCPCS Code	Code Description/Definition
23929	Unlisted procedure, shoulder
29805	Diagnostic examination of shoulder using an endoscope
29806	Arthroscopy, shoulder, surgical; capsulorrhaphy
29807	Surgical arthroscopy of shoulder with repair of SLAP lesion
29819	Removal of loose or foreign body of shoulder using an endoscope
29820	Arthroscopy, shoulder, surgical; synovectomy, partial
29821	Arthroscopy, shoulder, surgical; synovectomy, complete
29822	Surgical arthroscopy of shoulder with debridement Surgical arthroscopy of shoulder with limited debridement
29823	Surgical arthroscopy of shoulder with debridement Surgical arthroscopy of shoulder with extensive debridement

29824	Surgical arthroscopy of shoulder with distal claviculectomy
29825	Surgical arthroscopy of shoulder with lysis and resection of adhesions Surgical arthroscopy of shoulder with lysis and resection of adhesions with manipulation
29826	Arthroscopy, shoulder, surgical; decompression of subacromial space with partial acromioplasty, with coracoacromial ligament (ie, arch) release, when performed (List separately in addition to code for primary procedure)
29827	Surgical arthroscopy of shoulder with repair of rotator cuff
29828	Surgical arthroscopy of shoulder with biceps tenodesis
C9781	Arthroscopy, shoulder, surgical; with implantation of subacromial spacer (e.g., balloon), includes debridement (e.g., limited or extensive), subacromial decompression, acromioplasty, and biceps tenodesis when performed
S2300	Arthroscopy, shoulder, surgical; with thermally-induced Not Covered capsulorrhaphy

Medical Evidence

Kim et al. (2021) examined the predominance of arthroscopic distal clavicle excision procedures, specifically those using a fluoroscopic Kirchner wire guide. The technical aspects of the procedure were described, and the group concluded using the fluoroscopic wire leads to surgical success, particularly in new orthopedic surgeons as the distal clavicle excision is a technically demanding procedure due to visualization difficulties. They state that open distal clavicle excision remains the gold standard procedure for acromioclavicular joint arthritis.¹³

Redler et al. (2019) examined the literature related to treating adhesive capsulitis of the shoulder, with a discussion of the higher incidence of the diagnosis in diabetic patients, particularly those with long-standing, poorly controlled disease. Hyperthyroidism was determined in studies to be an independent risk factor for developing adhesive capsulitis. The authors preferred surgical technique post-nonsurgical interventions, including both anterior and posterior capsular release with rotator interval release and release of the coracohumeral ligament.²

Optimal management of glenohumeral osteoarthritis was reviewed by Ansok et al. (2018), concluding initial conservative treatment includes the use of viscosupplementation or corticosteroid injections. The age and function of the affected patient should determine the necessity of operative treatment, and operative treatment of young individuals with glenohumeral osteoarthritis remains controversial. Younger, more active patients do benefit from non-arthroplasty techniques or procedures with minimal bone resection.²¹

Millett et al. (2018) examined the options for treating young, active patients with primary glenohumeral osteoarthritis, stating that arthroplasty may not be ideal in that population. They state that clinical studies report arthroscopic approaches for procedures such as synovectomy, chondroplasty, loose body removal, capsular release, and biceps tenodesis may improve clinical outcomes. It is concluded that arthroscopic management of glenohumeral osteoarthritis has numerous advantages over total shoulder arthroplasty; however, additional larger studies are needed.¹⁹

National and Professional Organizations

The American Academy of Orthopaedic Surgeons (AAOS) has published the following clinical guidelines related to shoulder arthroscopy:

- Management of Glenohumeral Osteoarthritis (2020): Arthroscopic debridement with capsular release is recommended for young patients with glenohumeral joint osteoarthritis.¹
- Management of Rotator Cuff Injuries (2019): Moderate strength evidence does not support the routine use of acromioplasty as adjunct treatment compared to arthroscopic repair alone. Strong recommendation given for arthroscopic-only technique for better short-term improvement compared to open repair. For unrepairable tears without arthropathy, various arthroscopic treatments received a consensus recommendation.²

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