Cohere Medicare Advantage Policy - Knee Arthroscopy

Clinical Guidelines for Medical Necessity Review

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Important Notices

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Other Notices:

Guideline Information:

Specialty Area: Disorders of the Musculoskeletal System
Guideline Name: Cohere Medicare Advantage Policy - Knee Arthroscopy

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

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Medical Necessity Criteria

Service: Knee Arthroscopy

Benefit Category

Incident to a physician's professional service
Inpatient hospital services
Physicians' services

Please Note: This may not be an exhaustive list of all applicable Medicare benefit categories for this item or service.[1]

Recommended Clinical Approach

Knee arthroscopy is a standard treatment for the removal of inflamed synovial tissue, fragments of bone or cartilage that are loose, and the removal (or partial removal) of the meniscus. The procedure may be performed to trim or reconstruct damaged articular cartilage as well as to reconstruct a torn anterior cruciate ligament (ACL) or posterior cruciate ligament. Direct visualization during this procedure is helpful in treating knee sepsis and issues related to the patella.[2]

Arthroscopy is not recommended for the treatment of severe osteoarthritis of the knee, beyond mild to moderate cases where arthroscopic debridement and lavage may be necessary.[3]

Evaluation of Clinical Benefits and Potential Harms

Cohere Health uses the criteria below to ensure consistency in reviewing the conditions to be met for coverage of knee arthroscopy. This process helps to prevent both incorrect denials and inappropriate approvals of medically necessary services. Specifically, limiting incorrect approvals reduces the risks associated with unnecessary procedures, such as complications from surgery, infections, and prolonged recovery times.

The potential clinical harms of using these criteria may include:

- Inadequate management of knee conditions such as meniscus or ligament tears, leading to complications like progression of degenerative joint disease and worsening pain and mobility. Untreated

acute meniscus tears can lead to knee instability which may increase fall risk. Overtime untreated intra-articular knee pathology can result in knee degenerative arthritis. In addition, untreated knee pain can decrease mobility resulting in associated medical comorbidities.

- Risks with inappropriate surgical procedures include infection, bleeding, injury to neurovascular structures, injury to the articular cartilage, implant (anchor) migration, anesthetic risk and need for repeat or additional procedures. O'Connor et al reviewed the literature and determined that arthroscopic surgery is not recommended for patients with symptomatic degenerative knee disease as the clinical evidence does not show clinically significant outcomes in pain, function, or quality of life.[2] In addition, arthroscopy may increase the advancement of knee osteoarthritis and may increase additional knee surgery. According to Friberger et al, complications related to knee arthroscopy report an absolute risk of 1.1%.[4] The most significant risks were pyogenic arthritis, venous thromboembolism. Many have reported the overall risk to be closer to 8% if pain and swelling post surgery are included. They conclude that the indications for arthroscopic surgery need to be scrutinized for evidence of efficacy over non surgical treatment. According to Beaufils, arthroscopic knee surgery for a partial meniscus tear should not be considered as the first line of treatment as many clinical trials have not shown long term clinical benefit.[5] The AAOS Clinical Practice Guideline Summary for Management of Osteoarthritis of the knee (Nonarthroplasty)reports strong evidence for non surgical treatment first, including physical therapy for partial meniscus tears.[6] Home exercise programs and education have also been shown to be effective.
- Increased healthcare costs and complications from the inappropriate use of emergency services and additional treatments.

The clinical benefits of using these criteria include:

- Improved patient outcomes by ensuring timely and appropriate access to knee arthroscopy for managing various knee conditions. Treatment of a meniscus tear can result in decreased pain, improved mobility and can prevent early degenerative changes. Nakamaya et al report that 80% of patients following knee arthroscopy for a meniscus tear can return to their previous level of activity/sport.[7] A recurrent tear occurred in 8.7% of patients.

- Reduction in complications and adverse effects from unnecessary procedures. Knee arthroscopy has associated complications and can worsen patients outcomes therefore careful selection of those patients that did not improve with conservative treatment is needed. Knee arthroscopy can result in damage to the articular cartilage, thus further worsening degenerative changes in the knee.
- Enhanced overall patient satisfaction and healthcare experience.

This policy includes provisions for expedited reviews and flexibility in urgent cases to mitigate risks of delayed access. Evidence-based criteria are employed to prevent inappropriate denials, ensuring that patients receive medically necessary care. The criteria aim to balance the need for effective treatment with the minimization of potential harms, providing numerous clinical benefits in helping avoid unnecessary complications from inappropriate care.

In addition, the use of these criteria is likely to decrease inappropriate denials by creating a consistent set of review criteria, thereby supporting optimal patient outcomes and efficient healthcare utilization.

Medical Necessity Criteria

Indications

➔ **Knee arthroscopy** is considered appropriate if **ANY** of the following is **TRUE**:

- **Articular cartilage lesion** when **ALL** of the following are **TRUE**[4]:
  - Symptoms are related to chondral injury; **AND**
  - Advanced imaging demonstrates articular cartilage defect; **AND**
  - Failure of conservative management (e.g., rest, analgesics, physical therapy, oral or injectable corticosteroids) must be documented for a period of greater than 3 months. Documentation should include detailed evidence of the measures taken, rather than solely a physician's statement; **OR**
- **Autologous chondrocyte implantation (ACI)** when **ALL** of the following are **TRUE**[8]
  - The patient has knee symptoms (pain, swelling, mechanical); **AND**

- **ANY** of the following:
    - Loss of function due to isolated chondral lesions over 2 cm and up to 4 cm; **OR**
    - Osteochondral defects grade III or IV; **OR**

◆ **Debridement, drainage, or lavage** when the patient has **ANY** of the following conditions:

- Arthroscopic lavage is used in combination with other procedures for osteoarthritis of the knee; **OR**
- Arthroscopic debridement is used for osteoarthritis with knee pain in addition to other symptoms; **OR**
- Arthroscopic debridement and lavage (with or without debridement) for mild to moderate osteoarthritis (Outerbridge grades 0-II [see table below])[1]; **OR**

◆ **Intraarticular joint pathology evaluation** when **ANY** of the following is **TRUE**:[9-10]

- Chronic knee pain and **ALL** of the following are **TRUE**:
    - Unknown etiology of symptoms; **AND**
    - Failure of conservative management (e.g., rest, analgesics, physical therapy, oral or injectable corticosteroids) must be documented for a period of greater than 3 months. Documentation should include detailed evidence of the measures taken, rather than solely a physician's statement; **AND**
    - Imaging does not yield definitive results; **AND**
    - Diagnostic arthrocentesis with synovial fluid analysis when **ANY** of the following is **TRUE**:
        - ◆ Nondiagnostic; **OR**
        - ◆ Not indicated; **OR**
- Symptoms include locking, catching, and giving way; **OR**
- Imaging demonstrates **ANY** of the following:
    - A loose body; **OR**
    - A foreign body (e.g., hardware); **OR**
- Hemangioma with symptoms; **OR**

◆ **Lateral retinacular release for patellar compression syndrome** when **ALL** of the following are **TRUE**:

- Failure of conservative management (e.g., rest, analgesics, physical therapy, oral or injectable corticosteroids) must be documented for a period of greater than 3 months. Documentation should include detailed evidence of the

measures taken, rather than solely a physician's statement; **AND**
- Imaging does not yield definitive results; **AND**
- The patient has **ANY** of the following:
  - Chondromalacia patella; **OR**
  - Patellofemoral instability done in conjunction with other stabilization or realignment procedures; **OR**
  - Lateral patellar hyperpressure syndrome[11]; **OR**
  - Abnormal patellar tracking after total knee arthroplasty; **AND**
- Advanced imaging shows **ANY** of the following:
  - Patellar compression syndrome; **OR**
  - Abnormal patellar tracking; **OR**

◆ **Synovectomy** when **ALL** of the following are **TRUE**:[12-13]
- Failure of conservative management (e.g., rest, analgesics, physical therapy, oral or injectable corticosteroids) must be documented for a period of greater than 3 months. Documentation should include detailed evidence of the measures taken, rather than solely a physician's statement; **AND**
- The procedure is indicated by **ANY** of the following:
  - Inflammatory (e.g., rheumatoid arthritis, psoriatic arthritis, Lyme arthritis) arthritis[14]; **OR**
  - Benign neoplastic disorders (osteochondromatosis, tenosynovial giant cell tumor, and recurrent hemarthrosis)[14]; **OR**
  - Recurrent effusion; **OR**
  - Limited range of motion of the knee due to adhesions or scar tissue; **OR**
  - Hemophilic joint disease; **OR**
  - Diffuse tenosynovial giant cell tumor (also known as pigmented villonodular synovitis); **OR**
  - Lipoma arborescens; **OR**
  - Other chronic inflammatory conditions (e.g., antibiotic-resistant Lyme arthritis); **OR**

◆ **Treatment of anterior cruciate ligament (ACL) tear** when **ALL** of the following is **TRUE**:[15-16]
- Advanced imaging shows **ALL** of the following:
  - Presence of ACL tear; **AND**

        - No evidence of advanced arthritis; **AND**
    - Limited activities of daily living (ADLs) due to pain and instability; **AND**
    - Treatment is indicated for **ANY** of the following:
        - ACL tear confirmed that is concurrent with injury of **ANY** of the following:
            - Medial collateral ligament; **OR**
            - Lateral collateral ligament; **OR**
            - Posterior cruciate ligament; **OR**
            - Posterolateral ligamentous corner[17]; **OR**
        - ACL reconstruction required due to patient's occupation; **OR**
        - Failure of conservative management (e.g., rest, analgesics, physical therapy, oral or injectable corticosteroids) must be documented for a period of greater than 3 months. Documentation should include detailed evidence of the measures taken, rather than solely a physician's statement; **OR**
        - Locked knee is secondary to concomitant displaced meniscal tear; **OR**
        - Treatment recommended due to the patient's activity level (e.g., those that require cutting, jumping, pivoting); **AND**
    - Range of motion restored and initial swelling decreased; **OR**
- **Treatment of osteochondral defect (e.g., osteochondritis dissecans)** when **ALL** of the following are **TRUE**[18]:
    - Advanced imaging demonstrates osteochondral defect; **AND**
    - **ANY** of the following is **TRUE**:
        - Displaced osteochondral lesion; **OR**
        - Nondisplaced osteochondral lesion; **OR**
        - Presence of loose body; **OR**
- **Treatment of posterior cruciate ligament (PCL) tear** when **ALL** of the following are **TRUE**:[19]
    - Advanced imaging shows **ALL** of the following:
        - Presence of PCL tear; **AND**
        - No evidence of advanced arthritis; **AND**
    - **ANY** of the following indications for treatment is **TRUE**:
        - ACL tear; **OR**

        - Concomitant avulsion fracture; **OR**
        - Medial collateral ligament tear; **OR**
        - Posterolateral corner of the knee is injured; **OR**
        - Tibial displacement of more than 8 mm is demonstrated on stress radiographs; **OR**
        - Failure of conservative management (e.g., rest, analgesics, physical therapy, oral or injectable corticosteroids) must be documented for a period of greater than 3 months. Documentation should include detailed evidence of the measures taken, rather than solely a physician's statement; **OR**
- **Treatment of torn meniscus** when **ANY** of the following is **TRUE**[2,20-21]:
    - Arthroscopic partial meniscectomy when **ANY** of the following is **TRUE**:
        - The tear is an acute tear and **ALL** of the following are **TRUE**:
            - Advanced imaging demonstrates a meniscal tear; **AND**
            - Acute, painful locking knee due to irreparable tear[22-23]; **AND**
            - Persistent mechanical symptoms; **AND**
            - Failure of conservative management (e.g., rest, analgesics, physical therapy, oral or injectable corticosteroids) must be documented for a period of greater than 4 weeks. Documentation should include detailed evidence of the measures taken, rather than solely a physician's statement; **OR**
        - The tear is a chronic tear with minimal arthritis and **ALL** of the following are **TRUE**:
            - Advanced imaging demonstrates a meniscal tear; **AND**
            - Persistent mechanical symptoms; **AND**
            - Failure of conservative management (e.g., rest, analgesics, physical therapy, oral or injectable corticosteroids) must be documented for a period of greater than 3 months. Documentation should include detailed

evidence of the measures taken, rather than solely a physician's statement; **OR**

- The tear is a recurrent tear or failed repair demonstrated on advanced imaging[23]; **OR**

- Meniscus repair when **ALL** of the following are **TRUE**:
  - The patient has mechanical symptoms following an acute injury; **AND**
  - The patient has **ANY** of the following advanced imaging findings[23]:
    - Medial or lateral meniscus tears in a young active patient; **OR**
    - Unstable tears, such as bucket handle and double longitudinal tears; **OR**
    - Isolated simple pattern meniscus tears in stable knees; **OR**
    - Posteromedial and posterolateral root tears; **OR**
    - Longitudinal tears greater than 10 mm; **OR**
    - Tears mostly in the vascular zones of the meniscus; **OR**
    - Acute traumatic meniscal tear[23]; **OR**
- Meniscus allograft when **ALL** of the following are **TRUE**[8]**:**
  - Failure of conservative management (e.g., rest, analgesics, physical therapy, oral or injectable corticosteroids) must be documented for a period of greater than 3 months. Documentation should include detailed evidence of the measures taken, rather than solely a physician's statement; **AND**
  - Physically active patient with persistent pain; **AND**
  - Normal knee alignment and stable knee ligaments; **AND**
  - Advanced imaging shows **ANY** of the following:
    - The meniscus is damaged beyond repair; **OR**
    - There is insufficient meniscus left for repair (previous surgery or injury).

Outerbridge classification for grading the degeneration of cartilage	
Grade	**Visual Finding**
0	Normal articular cartilage
I	Swelling and softening of the articular cartilage
II	Fibrillation or superficial fissures of the cartilage
III	Deep fibrillation or fissures of the cartilage without exposed bone
IV	Exposure of subchondral bone

Non-Indications

- ➔ **Knee arthroscopy** is not considered appropriate if **ANY** of the following is **TRUE**:
  - ◆ Severe osteoarthritis of the knee (Outerbridge grade III or IV).[22, 24]

Level of Care Criteria

Outpatient.

Procedure Codes (CPT/HCPCS)

HCPCS/CPT Code	Code Description
27412	Autologous chondrocyte implantation, knee
27599	Unlisted procedure, femur or knee
29850	Arthroscopically aided treatment of intercondylar spine(s) and/or tuberosity fracture(s) of the knee, with or without manipulation; without internal or external fixation (includes arthroscopy)
29851	Arthroscopically aided treatment of intercondylar spine(s) and/or tuberosity fracture(s) of the knee, with or without manipulation; with internal or external fixation (includes arthroscopy)
29855	Arthroscopically aided treatment of tibial fracture, proximal (plateau); unicondylar, includes internal fixation, when performed (includes arthroscopy)

29856	Arthroscopically aided treatment of tibial fracture, proximal (plateau); bicondylar, includes internal fixation, when performed (includes arthroscopy)
29866	Arthroscopy, knee, surgical; osteochondral autograft(s) (e.g., mosaicplasty) (includes harvesting of autograft[s])
29867	Arthroscopy, knee, surgical; osteochondral allograft (e.g., mosaicplasty)
29868	Arthroscopy, knee, surgical; meniscal transplantation (includes arthrotomy for meniscal insertion), medial or lateral
29870	Arthroscopy, knee, diagnostic, with or without synovial biopsy (separate procedure)
29871	Arthroscopy, knee, surgical; for infection, lavage and drainage
29873	Arthroscopy, knee, surgical; with lateral release
29874	Arthroscopy, knee, surgical; for removal of loose body or foreign body (e.g., osteochondritis dissecans fragmentation, chondral fragmentation)
29875	Arthroscopy, knee, surgical; synovectomy, limited (e.g., plica or shelf resection) (separate procedure)
29876	Arthroscopy, knee, surgical; synovectomy, major, 2 or more compartments (e.g., medial or lateral)
29877	Arthroscopy, knee, surgical; debridement/shaving of articular cartilage (chondroplasty)
29879	Arthroscopy, knee, surgical; abrasion arthroplasty (includes chondroplasty where necessary) or multiple drilling or microfracture
29880	Arthroscopy, knee, surgical; with meniscectomy (medial AND lateral, including any meniscal shaving) including debridement/shaving of articular cartilage (chondroplasty), same or separate compartment(s), when performed

29881	Arthroscopy, knee, surgical; with meniscectomy (medial OR lateral, including any meniscal shaving) including debridement/shaving of articular cartilage (chondroplasty), same or separate compartment(s), when performed
29882	Arthroscopy, knee, surgical; with meniscus repair (medial OR lateral)
29883	Arthroscopy, knee, surgical; with meniscus repair (medial AND lateral)
29884	Arthroscopy, knee, surgical; with lysis of adhesions, with or without manipulation (separate procedure)
29885	Arthroscopy, knee, surgical; drilling for osteochondritis dissecans with bone grafting, with or without internal fixation (including debridement of base of lesion)
29886	Arthroscopy, knee, surgical; drilling for intact osteochondritis dissecans lesion
29887	Arthroscopy, knee, surgical; drilling for intact osteochondritis dissecans lesion with internal fixation
29888	Arthroscopically aided anterior cruciate ligament repair/augmentation or reconstruction
29889	Arthroscopically aided posterior cruciate ligament repair/augmentation or reconstruction
29999	Unlisted procedure, arthroscopy
J7330	Cultured chondrocytes implant
S2112	Knee arthroscopy harvest

Disclaimer: S, I, and N Codes are non-covered per CMS guidelines due to their experimental or investigational nature.

Medical Evidence

O'Connor et al. (2022) reviewed the literature to determine the efficacy of arthroscopic knee surgery for the treatment of symptomatic knee osteoarthritis, including for degenerative meniscal tears. While current guidelines discourage the use of the procedure for these indications, it is still performed. The review also analyzed benefits and harms (e.g., debridement, partial meniscectomy, or both) when compared to non-surgical interventions (e.g., physical therapy, exercise, intra-articular glucocorticoid injections, non-arthroscopic lavage, non-steroidal anti-inflammatory drugs, hyaluronic acid injections) or placebo surgery. Sixteen trials included randomized control trials (RCTs) and trials using quasi-randomised methods of participant allocation. A total of 2105 patients (age range 46 to 65 years; 56% women) met inclusion criteria. The authors conclude that arthroscopic surgery is not recommended for patients with symptomatic degenerative knee disease as evidence does not show clinically significant outcomes in pain, function, or quality of life. In addition, arthroscopy may increase the advancement of knee osteoarthritis and may increase additional surgery (e.g., replacement, osteotomy).[2]

Brignardello-Petersen et al. (2017) performed a systematic review to analyze the effect of arthroscopic surgery vs. conservative treatment (e.g., physical therapy) among patients with degenerative knee disease. The review included 13 RCTs and 12 observational studies that focus on primary outcomes including pain, function, and adverse events. Overall, a small reduction in short- and long-term pain (up to three months), function, and quality of life is noted for patients with degenerative knee disease.[25]

The **Academy of Orthopaedic Surgeons (AAOS)** has published the following:

- *Management of Anterior Cruciate Ligament Injuries.* The AAOS supports operative treatment in select patients; non-operative treatment is recommended in patients with combined ACL and MCL tears.[26]
- *Management of Osteoarthritis of the Knee (Non-Arthroplasty).* The AAOS does not recommend arthroscopy with lavage and/or debridement for knee osteoarthritis. Arthroscopic partial meniscectomy may be medically necessary to repair meniscal tears in patients with concomitant mild to moderate osteoarthritis and when conservative treatment (e.g., physical therapy) has been unsuccessful.[20]

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Clinical Guideline Revision History/Information

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