Cohere Medicare Advantage Policy - Periacetabular Osteotomy/Surgical Dislocation

Clinical Guidelines for Medical Necessity Review

Version: 1
Effective Date: March 20, 2025

Important Notices

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GUIDELINES ARE SOLELY FOR COHERE'S USE IN PERFORMING MEDICAL NECESSITY REVIEWS AND ARE NOT INTENDED TO INFORM OR ALTER CLINICAL DECISION-MAKING OF END USERS.

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Other Notices:

Guideline Information:

Specialty Area: Disorders of the Musculoskeletal System
Guideline Name: Cohere Medicare Advantage Policy - Periacetabular Osteotomy/Surgical Dislocation

Date of last literature review: 3/10/2025
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Type: [**X**] Adult (18+ yo) | [**X**] Pediatric (0-17 yo)

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Medical Necessity Criteria

Service: Periacetabular Osteotomy/Surgical Dislocation

Benefit Category

Not applicable.

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

Related CMS Documents

There are no applicable NCDs and/or LCDs for open meniscus repair. Please refer to the CMS Medicare Coverage Database for the most current applicable CMS National Coverage.

Recommended Clinical Approach

A periacetabular osteotomy (PAO) is an orthopedic procedure to correct developmental hip deformities including acetabular dysplasia. The surgery is meant to improve the mechanics of the hip joint and delay the development of degenerative arthritis. During a PAO, the acetabulum is reoriented in the pelvis to correct acetabular dysplasia, thereby relieving pain and improving hip function. This procedure may be indicated for a retroverted acetabulum. A trochanteric osteotomy may be performed with surgical hip dislocation.[1,2]

Evaluation of Clinical Harms and Benefits

Cohere Health uses the criteria below to ensure consistency in reviewing the conditions to be met for coverage of periacetabular osteotomy/surgical dislocation. 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:

- A possible decrease in the range motion of the hip following the surgery or a lack of joint preservation.[2,3]
- Nerve injuries, including injuries to the lateral femoral cutaneous nerve and femoral and sciatic nerves
- Wound complications, including superficial and deep infections, dehiscence, and hemotomas.[2,4,5]
- Vascular complications including blood loss and arterial thrombosis.[5]
- Intraoperative complications and fractures, including acetabular fractures, posterior column fractures, and over and under-corrections.[2,4,5]
- A systematic review by Clohoisy et al (2009) found that PAO failure rates were higher among patients with moderate or advanced osteoarthritis.[2]
- Increased healthcare costs and complications from the inappropriate use of emergency services and additional treatments.

The clinical benefits of using these criteria include:

- The correction of severe dysplastic deformities results in improved hip function and a reduction in pain.[2,6,7]
- The improvement in clinical outcomes, including hip flexion and internal rotation.[4,7-10]
- A systematic review by Clohoisy et al (2009) found the procedure is optimal for young patients with little or no perioperative osteoarthritis.[2]
- 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

- ➔ **Periacetabular osteotomy/surgical dislocation** is considered appropriate if **ALL** of the following are **TRUE**[1-12]:
  - ◆ The patient has **ANY** of the following clinical symptoms:
    - Pain in hip, groin, buttocks, or thigh; **OR**
    - Clicking, locking, catching, or giving way; **OR**
    - Hip instability; **OR**
    - Discomfort or pain that worsens with activities such as prolonged sitting, prolonged standing, walking, climbing stairs, or running[13]; **OR**
    - Stiffness; **OR**
    - Limping[14]; **AND**
  - ◆ The patient has **ANY** of the following physical examination findings:
    - Flexed knee gait while walking; **OR**
    - Positive impingement test; **OR**
    - FADIR* test produces hip pain; **OR**
    - FABER** test produces hip pain; **OR**
    - Limited hip flexion and hip abduction; **OR**
    - Limited internal rotation with the hip at 90° of flexion; **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; **AND**
  - ◆ The patient has **ANY** of the following[1]:
    - Bony morphology that prevents arthroscopic treatment; **OR**
    - Surgical dislocation of the hip is indicated to treat intra-articular and bony pathology; **AND**
  - ◆ No evidence of advanced degenerative osteoarthritis (Tönnis Grade 2 to 3); **AND**
  - ◆ Imaging findings indicate femoroacetabular impingement (FAI) or developmental dysplasia of the hip (DDH).

NOTE:
*** FADIR (Flexion, Adduction, and Internal Rotation) test:** The test begins with a supine patient. The examiner raises the patient's leg with their hip flexed to 90° and knee flexed to 90°. The examiner then adducts and internally rotates the hip. A positive result occurs when the patient reports groin pain.
**** FABER (Flexion, Abduction, and External Rotation) test:** A test to assess a suspected labral tear. The examination begins with a supine patient. The examiner places the patient in a figure-4 position with their hip flexed and abducted with the lateral ankle resting on the contralateral thigh proximal to the knee. The examiner then applies gentle downward force against the knee of the abducted leg. A positive result occurs when the patient reports groin pain on the affected side.[15]

Non-Indications

- ➔ **Periacetabular osteotomy/surgical dislocation** is **NOT** considered appropriate if **ANY** of the following is **TRUE**[12]:
  - ◆ Severe osteoarthritis (Tönnis Grade 2 or 3, see note below)[16]; **OR**
  - ◆ Subluxation resulting in a femoral head within a neo-acetabulum; **OR**
  - ◆ A mismatch between a smaller acetabular radius and femoral head; **OR**
  - ◆ Severe restriction in range of motion.

Tönnis Grading Scale of Hip Osteoarthritis

Grade	Radiographic Features
0	-No signs of osteoarthritis
1	-Slight narrowing of joint space -Slight lipping at the joint margin -Slight sclerosis of the temporal head or acetabulum
2	-Small cysts in the femoral head or acetabulum -Increasing narrowing of joint space -Moderate loss of sphericity of the femoral head
3	-Large cysts -Severe narrowing or obliteration of joint space -Severe deformity of the femoral head -Avascular necrosis

Level of Care Criteria

Inpatient or Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
27146	Osteotomy of acetabular bone; Osteotomy of iliac bone; Osteotomy of innominate bone
27299	Unlisted procedure on hip joint; Unlisted procedure on pelvis

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

Medical Evidence

Zebala et al (2007) completed a systematic review regarding anterior femoroacetabular impingement. The usage of the periacetabular osteotomy (PAO) is discussed as a reconstructive option for the management of acetabular dysplasia, and the group stated that severe acetabular retroversion is the main indication for a PAO in the treatment of impingement. They cite a study where 26 of 29 patients with symptomatic FAI from acetabular retroversion reported excellent outcomes post-osteotomy. In the writer's practice, the procedure is generally combined with an anterior arthrotomy and osteochondroplasty as necessary.[1]

Kamath (2016) describes Bernese periacetabular osteotomy for hip dysplasia. Though technically demanding, the procedure has demonstrated success in mid- and long-term clinical studies over the past 30 years. It is stated that pelvic osteotomy is a preferred alternative to arthroplasty in young, active patients with correctable structural hip deformities.[12]

Coobs and colleagues (2015) reviewed periacetabular osteotomy for hip dysplasia in the young adult hip patient. In recent years, obesity has been found to contribute significantly to the risk of major complications with PAO surgery. Obese patients demonstrated a 22.3% risk of major postoperative complications compared with 3.1% of non-obese patients. A systematic review of 13 studies involving 626 hips with 2-5 year follow-ups yielded reliable deformity correction with PAO and significant improvements in hip function.[14]

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Clinical Guideline Revision History/Information

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