



Cohere Medicare Advantage Policy – Hip Arthroplasty

Clinical Guidelines for Medical Necessity Review

Version: 2
Effective Date: June 10, 2024

Important Notices

Notices & Disclaimers:

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.

Cohere Health, Inc. ("**Cohere**") has published these clinical guidelines to determine the medical necessity of services (the "**Guidelines**") for informational purposes only, and solely for use by Cohere's authorized "**End Users**". These Guidelines (and any attachments or linked third-party content) are not intended to be a substitute for medical advice, diagnosis, or treatment directed by an appropriately licensed healthcare professional. These Guidelines are not in any way intended to support clinical decision-making of any kind; their sole purpose and intended use is to summarize certain criteria Cohere may use when reviewing the medical necessity of any service requests submitted to Cohere by End Users. Always seek the advice of a qualified healthcare professional regarding any medical questions, treatment decisions, or other clinical guidance. The Guidelines, including any attachments or linked content, are subject to change at any time without notice. This policy may be superseded by existing and applicable Centers for Medicare & Medicaid Services (CMS) statutes.

©2024 Cohere Health, Inc. All Rights Reserved.

Other Notices:

HCPCS® and CPT® copyright 2024 American Medical Association. All rights reserved.

Fee schedules, relative value units, conversion factors and/or related components are not assigned by the AMA, are not part of CPT, and the AMA is not recommending their use. The AMA does not directly or indirectly practice medicine or dispense medical services. The AMA assumes no liability for data contained or not contained herein.

HCPCS and CPT are registered trademarks of the American Medical Association.

Guideline Information:

Specialty Area: Disorders of the Musculoskeletal System

Guideline Name: Cohere Medicare Advantage Policy - Hip Arthroplasty

Date of last literature review: 6/10/2024

Document last updated: 6/10/2024

Type: ☒ Adult (18+ yo) | ☐ Pediatric (0-17yo)

Table of Contents

| | |
|--|-----------|
| Important Notices | 2 |
| Table of Contents | 3 |
| Medical Necessity Criteria | 4 |
| Service: Hip Arthroplasty | 4 |
| Benefit Category | 4 |
| Recommended Clinical Approach | 4 |
| Evaluation of Clinical Benefits and Potential Harms | 4 |
| Medical Necessity Criteria | 6 |
| Indications | 6 |
| Non-Indications | 7 |
| Level of Care Criteria | 8 |
| Procedure Codes (CPT/HCPCS) | 8 |
| Medical Evidence | 9 |
| References | 10 |
| Clinical Guideline Revision History/Information | 12 |

Medical Necessity Criteria

Service: Hip Arthroplasty

Benefit Category

Not applicable.

Recommended Clinical Approach

Surgical intervention is appropriate in patients with persistent and disabling symptoms despite conservative and non-surgical management. Partial hip replacement may be indicated when only the femoral head of the damaged hip joint is replaced. Total hip arthroplasty is the procedure of choice when indicated, replacing the ball and socket sections of the hip joint as well as any damaged part of the femur. Arthroscopic debridement is not recommended.¹⁻² Neuraxial anesthesia is appropriate to decrease postoperative pain and opioid use.² General anesthesia is also acceptable. If a patient has had a joint arthroplasty and presents with pain that may be due to infection, recurrent hip dislocation, aseptic loosening, wear, mechanical failure of prosthesis, or fracture, then revision surgery may be indicated.

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 hip arthroplasty procedures. 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, adverse reactions, and infection.

The potential clinical harms of using these criteria may include:

- Adverse effects from delayed or denied treatment, such as increased pain and decreased mobility, can worsen patient outcomes. Rees has reported that hip replacement surgery has been shown to be a cost-effective treatment when nonsurgical means do not provide relief of arthritis pain.¹⁴ Therefore, delaying or denying surgery in appropriate candidates may worsen their outcomes with ongoing persistent pain

that could result in opioid addiction, emergency room visits and decreased quality of life.

- Risks with inappropriate surgical procedures include infection, bleeding requiring a transfusion, injury to neurovascular structures, anesthetic risk and need for repeat or additional procedures due to implant failure, periprosthetic fracture and ongoing pain. According to Kelmer et al, the average time to revision of a primary total hip arthroplasty is 8.51 years.¹³ The major mechanisms of failure are mechanical failure, metallosis, dislocation or instability, periprosthetic fracture, infection, hematoma, poor wound healing and pain. If a patient has an inappropriate initial total hip arthroplasty this can lead to additional surgeries, therefore criteria to select appropriate candidates is in the patient's best interest. Rees reports that non-narcotic management with NSAIDs improves short term pain and function in patients with hip arthritis.¹⁴ There is strong evidence to support this recommendation, therefore this should be attempted for patients prior to consideration of surgery.
- 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 hip arthroplasty. Gademan et al evaluated the indication criteria for total hip arthroplasty.¹⁰ They noted that careful patient selection is tied to the best outcomes and can prevent revision surgery. The most common indications for hip arthroplasty are pain that cannot be controlled by conservative therapy, functional deficits, and radiologic changes with evidence of joint degeneration. These are included in the guidelines to allow selection of appropriate candidates.
- Reduction in complications and adverse effects from unnecessary procedures. Given the high rate of revision surgery, as described by Kelmer et al , with average time to revision of a primary total hip arthroplasty of only 8.51 years, it is important to avoid an unnecessary surgery as it result in additional surgeries.¹³
- Partial hip arthroplasty or hemiarthroplasty is indicated for adults with a femoral neck fracture. According to O'Connor, patients with a hip fracture who have surgery performed within 24 to 48 hours of admission have better outcomes.³ This criteria allows approval for

patients with an acute fracture of the femoral head or neck without requiring any additional treatment in order to expedite their treatment.

- 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

→ **Hip arthroplasty** is considered appropriate if **ANY** of the following is **TRUE**:

- ◆ The procedure is a **partial hip arthroplasty (hip hemiarthroplasty)** and **ANY** of the following is **TRUE**²:
 - Acute fracture of the femoral head or neck untreatable with reduction and internal fixation³; **OR**
 - Fracture dislocation of the hip untreatable with reduction and internal fixation; **OR**
 - Avascular necrosis of the femoral head; **OR**
 - Non-union fracture of the femoral neck; **OR**
 - Degenerative arthritis of the femoral head only in which the acetabulum does not need replacement; **OR**
 - Certain high subcapital and femoral neck fractures in the elderly; **OR**
- ◆ The procedure is a **total hip arthroplasty** and **ALL** of the following are **TRUE**⁴⁻⁹:
 - If a bilateral total hip arthroplasty is performed, documentation of advanced joint disease on radiographs must be present in both hips (or not applicable); **AND**
 - **ANY** of the following is **TRUE**:

- Advanced joint disease and **ALL** of the following:
 - ◆ Radiographic supported evidence or when conventional radiography is not adequate, magnetic resonance imaging (MRI) and/or computed tomography (CT) (in situations when MRI is non-diagnostic or not able to be performed) supported evidence (subchondral cysts, subchondral sclerosis, periarticular osteophytes, joint subluxation, severe joint space narrowing, avascular necrosis); **AND**
 - ◆ Failure of conservative management (e.g., rest, analgesics, physical therapy, oral or injectable corticosteroids) must be documented. Documentation should include detailed evidence of the measures taken, rather than solely a physician's statement; **AND**
 - ◆ Pain or functional disability from injury due to trauma or arthritis of the joint; **OR**
- Malignancy of the joint involving the bones or soft tissues of the pelvis or proximal femur; **OR**
- Avascular necrosis (osteonecrosis of femoral head); **OR**
- Fracture of the femoral neck; **OR**
- Acetabular fracture; **OR**
- Non-union or failure of previous hip fracture surgery; **OR**
- Mal-union of acetabular or proximal femur fracture; **OR**
- ◆ The procedure is a **replacement/revision of prior arthroplasty** and **ANY** of the following is **TRUE**:⁴⁻⁹
 - Loosening of one or both components; **OR**
 - Fracture or mechanical failure of the implant; **OR**
 - Recurrent or irreducible dislocation; **OR**
 - Infection; **OR**
 - Treatment of a displaced periprosthetic fracture; **OR**
 - Clinically significant leg length inequality not amenable to conservative management; **OR**
 - Progressive or substantial bone loss; **OR**

- Bearing surface wear leading to symptomatic synovitis or local bone or soft tissue reaction; **OR**
- Clinically significant audible noise; **OR**
- Adverse local tissue reaction; **OR**
- Tissue or systemic reaction to metal implant.

Non-Indications

→ **Hip Arthroplasty** is not considered appropriate if **ANY** of the following is **TRUE**^{4-9,14}:

- ◆ Active infection of the hip joint or active systemic bacteremia; **OR**
- ◆ Active urinary tract or dental infection; **OR**
- ◆ Active skin infection (exception of recurrent cutaneous staph infections) or open wound within the planned surgical site of the hip; **OR**
- ◆ Rapidly progressive neurological disease except in the clinical situation of a concomitant displaced femoral neck fracture
- ◆ Skeletal immaturity¹⁵; **OR**
- ◆ Neurotrophic arthritis; **OR**
- ◆ In patients with **ANY** of the following conditions and in the absence of clearly documented rationale to proceed with surgery under such circumstances:
 - Absence or relative insufficiency of abductor musculature; **OR**
 - Any process that is rapidly destroying bone.

Level of Care Criteria

Inpatient or outpatient.

Procedure Codes (CPT/HCPCS)

| HCPCS/CPT Code | Code Description |
|-----------------------|--|
| 26990 | Drainage of abscess or blood accumulation in pelvis or hip joint |
| 26991 | Incision of infected fluid filled sac (bursa) of pelvis or hip joint |
| 27030 | Incision of hip joint with drainage |
| 27125 | Hemiarthroplasty, hip, partial (eg, femoral stem prosthesis, bipolar arthroplasty) |
| 27130 | Replacement of thigh bone and hip joint prosthesis |
| 27132 | Conversion of previous replacement of thigh bone and hip joint prosthesis |
| 27134 | Revision of thigh bone and hip joint prosthesis |
| 27137 | Revision of hip joint prosthesis |
| 27138 | Revision of femoral component of total hip arthroplasty; Revision of femoral component of total hip arthroplasty with allograft |
| 27236 | Open treatment of femoral fracture, proximal end, neck, internal fixation or prosthetic replacement |
| 27250 | Treatment of hip dislocation |
| 27299 | Unlisted procedure, pelvis or hip joint |

Medical Evidence

Kirkley et al. (2008) conducted a single-center, randomized, controlled trial of arthroscopic surgery for knee osteoarthritis. Patients were assigned randomly to either an arthroscopic procedure (lavage and debridement) with the addition of optimized medical and physical treatment or medical and physical treatment alone. It was concluded that there was no additional benefit when compared to optimized physical and medical therapy.¹

In a 2016 systematic review, Johnson et al. evaluated the evidence related to patient outcomes in spinal or epidural anesthesia vs. general anesthesia use for total hip or knee arthroplasties. The conclusion was that neuraxial anesthesia appeared to be equally effective when compared with general anesthesia, without increased morbidity. They found limited evidence that neuraxial anesthesia produced better outcomes perioperatively.²

Liu et al. (2015) conducted a retrospective study of 402 patients with a first revision surgery. It was concluded that patients with infection and osteoarthritis had higher odds of revision from infection and loosening than those patients with osteonecrosis. Asian patients were found to have higher incidence of osteonecrosis than Caucasian populations.¹³

The American Academy of Orthopaedic Surgeons (AAOS) has published two related guidelines:

- Management of Hip Fractures in Older Adults (2021) recommends hip fracture surgery within 24 hours for best outcomes, and recommends arthroplasty over fixation of unstable femoral neck fractures.⁴
- Management of Osteoarthritis of the Hip (2017) supports the use of risk assessment tools, careful patient screening (weight, age, smoking status) to improve surgical outcomes.¹⁵

References

1. Johnson RL, Kopp SL, Burkle CM, et al. Neuraxial vs general anesthesia for total hip and total knee arthroplasty: a systematic review of comparative-effectiveness research. *Br J Anaesth*. 2016;116(2):163-176. doi:10.1093/bja/aev455
2. Food and Drug Administration (FDA). *DePuy Corail AMT Hip Prosthesis DePuy Orthopaedics Inc., Approval for Intent to Market Device*. FDA.gov. December 2021.
3. O'Connor MI, Switzer JA. AAOS Clinical Practice Guideline Summary: Management of Hip Fractures in Older Adults. *J Am Acad Orthop Surg*. 2022;30(20):e1291-e1296. doi:10.5435/JAAOS-D-22-00125
4. Centers for Medicare and Medicaid Services (CMS). Local coverage determination: Total Hip Arthroplasty (L34163). Revision Effective Date December 1, 2019. Accessed May 24, 2024. <https://www.cms.gov/medicare-coverage-database/search.aspx>
5. Centers for Medicare and Medicaid Services (CMS). Local coverage determination: Total Hip Arthroplasty (L36573). Revision Effective Date December 1, 2019. Accessed May 24, 2024. <https://www.cms.gov/medicare-coverage-database/search.aspx>
6. Centers for Medicare and Medicaid Services (CMS). Local coverage determination: Total Joint Arthroplasty (L33456). Revision Effective Date June 15, 2023. Accessed May 24, 2024. <https://www.cms.gov/medicare-coverage-database/search.aspx>
7. Centers for Medicare and Medicaid Services (CMS). Local coverage determination: Major Joint Replacement (Hip and Knee) (L33618). Revision Effective Date January 8, 2019. Accessed May 24, 2024. <https://www.cms.gov/medicare-coverage-database/search.aspx>
8. Centers for Medicare and Medicaid Services (CMS). Local coverage determination: Lower Extremity Major Joint Replacement (Hip and Knee) (L36007). Revision Effective Date November 14, 2019. Accessed May 24, 2024. <https://www.cms.gov/medicare-coverage-database/search.aspx>
9. Centers for Medicare and Medicaid Services (CMS). Local coverage determination: Total Joint Arthroplasty (L36039). Revision Effective Date October 10, 2019. Accessed May 24, 2024. <https://www.cms.gov/medicare-coverage-database/search.aspx>

10. Gademian MG, Hofstede SN, Vliet Vlieland TP, Nelissen RG, Marang-van de Mheen PJ. Indication criteria for total hip or knee arthroplasty in osteoarthritis: a state-of-the-science overview. *BMC Musculoskelet Disord.* 2016;17(1):463. Published 2016 Nov 9. doi:10.1186/s12891-016-1325-z
11. Ruiz Santiago F, Santiago Chinchilla A, Ansari A, et al. Imaging of Hip Pain: From Radiography to Cross-Sectional Imaging Techniques. *Radiol Res Pract.* 2016;2016:6369237. doi:10.1155/2016/6369237
12. Liu KL, Wu WT, Wang JH, Yu TC, Wen SH, Chen IH. When and how do prosthetic hips fail after total hip arthroplasties?—A retrospective study. *J Formos Med Assoc.* 2016;115(9):786–793. doi:10.1016/j.jfma.2015.07.014
13. Kelmer G, Stone AH, Turcotte J, King PJ. Reasons for Revision: Primary Total Hip Arthroplasty Mechanisms of Failure. *J Am Acad Orthop Surg.* 2021;29(2):78–87. doi:10.5435/JAAOS-D-19-00860.
14. Rees, Harold W. MD Management of Osteoarthritis of the Hip, *Journal of the American Academy of Orthopaedic Surgeons.* 2020;28(7): e288–e291. doi: 10.5435/JAAOS-D-19-00416.
15. Van de Velde SK, Loh B, Donnan L. Total hip arthroplasty in patients 16 years of age or younger. *J Child Orthop.* 2017;11(6):428–433. doi:10.1302/1863-2548.11.170085

Clinical Guideline Revision History/Information

| | | |
|-----------------------------|-----------|--------------------------|
| Original Date: May 27, 2024 | | |
| Review History | | |
| Version 2 | 6/10/2024 | 422.101 Disclaimer added |
| | | |
| | | |