Arthroplasty place of service

A 2018 study published by Sloan and Associates projects that by 2030 the number of total hip arthroplasty (THA) and total knee arthroplasty (TKA) procedures ordered in the U.S. will grow by 71% and 85%, respectively. Likewise, an earlier report by Inacio et al. estimates an increase of 143% in the number of TKAs by 2050 (as compared to a baseline in 2012). Additional studies have shown the cost effectiveness of outpatient arthroplasty procedures; however, each patient must be considered individually to see if they are a candidate for an outpatient procedure.

Factors to consider when choosing level of care required for surgery

Identifying the optimal level and place of care for surgical procedures has been increasingly recognized as a critical component to improving outcomes and reducing costs. Recent advances in surgical technique and care delivery, including pain and anesthesia management, perioperative medical optimization, early mobilization and care coordination, have enabled the move of specific surgical procedures out of the inpatient environment and into the outpatient setting.

Providers and patients have recognized the benefits associated with surgical procedures performed in the outpatient setting, with either a same-day discharge to home or a short period of post-operative observation. While total hip and knee arthroplasty were previously designated by The Centers for Medicare & Medicaid Services (CMS) as procedures belonging on the inpatient-only (IPO) list, CMS now allows for these procedures to be performed in an outpatient setting.

In 2020, the COVID-19 pandemic required a cancellation of many inpatient surgical procedures to conserve resources for an already over-burdened health care system, resulting in an accelerated move of arthroplasty procedures to the outpatient environment. This trend did not result in an increase in complications or hospital readmissions; in fact, some studies have demonstrated an actual decrease in arthroplasty complications performed in the outpatient versus the inpatient environment.

Despite the increasing prevalence and appropriateness of performing certain procedures in the outpatient setting (e.g., total joint arthroplasty), there remains a sub-group of patients for whom elective hip, knee or shoulder arthroplasty may be more appropriately performed in the inpatient setting. Although position statements developed by orthopedic specialty societies provide some guidance for outpatient surgery criteria, there is no definitive agreement as to which patients can safely have surgery in the outpatient environment. Patient general health and suitability, as well as surgical complexity, play a central role in the decision-making process.

In addition to patient selection based on clinical criteria, other factors may be equally as important in the safe move of surgery to less-intensive environments. For example, managing preoperative patient and family education, as well as preoperative physical therapy assessment, can prepare a patient for a safe discharge to home. Additionally, the entire care team must understand those factors that require optimization, including anesthesiologist familiarity with outpatient pain management techniques that require the minimal use of opioids, nursing management of fluids in the post-acute unit, early ambulation within hours of surgery and the ability to identify and manage short-term physiologic impacts of surgery. Of particular interest are those potential complications that can occur within the first 24 hours of surgery, such as urinary retention, hypotension or dehydration requiring the prolonged use of IV fluids, and prolonged nausea and vomiting. Although the literature and science are evolving rapidly, there is a growing consensus regarding the factors that impact the most appropriate setting for a given procedure on a given patient, and each facility must adapt to the care of these patients as they gain and solidify their experience with major surgery in the outpatient arena.

Successful facilities most adept at performing outpatient surgery are those that commit to refining their approach through the adoption of team-based care guided by multidisciplinary, guideline-based care pathways that are continuously refined through increasing experience.

Level of care vs. place of service

The terms associated with "level of care" are often confused with the terminology used for "place of service" (or POS).

- **Level of care** refers to the intensity of the services patients require while they are receiving care.
    - **Inpatient surgery** is surgical treatment administered to a patient whose condition requires treatment in a hospital or other healthcare facility, and the patient is formally admitted to the facility by a doctor. Inpatient surgery can only take place in an inpatient, hospital facility.

    - **Outpatient surgery** occurs when a patient has surgery and is expected to be discharged without requiring a hospital admission. Outpatient surgery can include both same day surgery (patient returns home on the same day) or surgery that includes an observation period that may extend to include overnight.

- **Place of service** (POS) is the facility code that is applied to claims to describe where a medical procedure was performed. It impacts reimbursement to the facility, determines whether a procedure qualifies for specific programs, for example the Bundled Payments for Care Improvement initiative or the Comprehensive Care for Joint Replacement model, and determines which claims-based outcomes reporting system is utilized.
    - **Hospital** - POS Code 21

A facility, other than psychiatric, which primarily provides diagnostic, therapeutic (both surgical and nonsurgical), and rehabilitation services by, or under the supervision of, physicians to patients admitted for a variety of medical conditions.

- **Outpatient hospital on campus** - POS Code 22
  A portion of a hospital's main campus which provides diagnostic, therapeutic (both surgical and nonsurgical) and rehabilitation services to sick or injured persons who do not require hospitalization or institutionalization.
- **Ambulatory surgery center**- POS Code 24
  A freestanding facility, other than a physician's office, where surgical and diagnostic services are provided on an ambulatory basis.

Criteria for selection of inpatient setting for elective hip, knee and shoulder procedures

Patients having elective hip, knee or shoulder procedures will generally be managed as outpatients, with or without an observation level of care following the procedure. It is expected that most patients undergoing these procedures will not require inpatient hospital services to deliver either complex care or more than overnight observation. The procedures listed below require prior authorization for medical necessity.

- Total knee arthroplasty
- Total hip arthroplasty

In certain circumstances, a patient will qualify for inpatient level of care. Inpatient level of care will be deemed appropriate when **ANY** of the criteria listed below are met for the following procedures:

- Revision or conversion total joint arthroplasty
- Bilateral total joint arthroplasty
- Age 70 and above
- Morbid obesity, BMI ≥ 40 kg/m²
- Preoperative requirement for a walker or wheelchair
- Patient lives alone and has no available caregiver and is unable to care for individual needs
- Travel time to facility is over two hours and limits safe transfer of care to home within 48 hours following surgery
- Patient has history and **ongoing** need for complex treatment of **ANY** of the following:
  - Heart problems (prior heart surgery, heart attack, heart failure, coronary artery disease, arrhythmia, pacemaker or defibrillator)
  - Lung problems (COPD or asthma)
  - Chronic kidney or liver problems (kidney failure or cirrhosis)
  - Blood clots or bleeding problems
  - Sleep apnea

- Prior pain management problems or chronic pain medication use
- Patient has prior history of anesthesia problems
- Poorly controlled diabetes (A1C ≥7.5 or requires postoperative monitoring)
- Stroke or transient ischemic attack
- High blood pressure that requires three or more drugs to control
- Cognitive impairment or dementia

NOTE: ALL criteria require additional documentation from the treating physician and/or subspecialist consultant.

Conversion from outpatient to inpatient status

Conversion from outpatient to inpatient status may be considered for the following:

- Delayed recovery such as persistent cardiovascular instability or hypoxia
- Ambulatory status has not been achieved in a reasonable amount of time
- A surgical complication or circumstance now requires inpatient level of care, such as a neurovascular injury, extensive or prolonged surgery, conversion to a more complex procedure or requirement for excessive transfusion
- Prolonged nausea or vomiting, delirium, altered mental status or inadequate pain control

Magellan's management approach

The review process for appropriate level of care occurs in conjunction with the prior authorization process for determining procedure appropriateness. The appropriate level of care is determined by leveraging clinical validation of records by our specialty-matched peer review clinicians for alignment of the patient condition represented in clinical records to the criteria outlined in this document.

About the authors

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Dr. Carson, a board-certified orthopedic surgeon, joined Magellan in 2015. He oversees the hip, knee and shoulder program and is a member of the Guideline Committee. Throughout his career of more than 30 years, Dr. Carson has been active in orthopedic education and sports medicine, and authored numerous articles and textbook chapters pertaining to arthroscopic surgery. He mentors Magellan's orthopedic surgeon reviewers and is active in their training and continuing education. Dr. Carson has also served as a team physician in the National Football League and Major League Baseball. He completed his orthopedic surgery residency at Emory University and a fellowship in sports medicine at the Hughston Clinic.

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