

Study explores trends and outcomes in outpatient joint replacement compared to hospital stay

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With outpatient hip and knee replacements on the rise, Geoffrey Westrich, MD, and colleagues at Hospital for Special Surgery (HSS) launched a study to analyze trends and compare complication rates of patients who go home the same day they have surgery versus those who spend one or more nights in the hospital.

Analyzing information from a large database that included patients nationwide, the researchers found no significant difference in complication rates requiring a [hospital readmission](#) for outpatient total hip replacement. For total [knee](#) replacement, they found slightly higher odds of complications in patients who left the hospital on the day they had [surgery](#). The study appeared online ahead of print in *The Journal of Arthroplasty*.

"In recent years there has been increasing interest among surgeons and hospital systems in shifting [joint replacement](#) to outpatient centers safely and efficiently," said Dr. Westrich, research director emeritus in the Adult Reconstruction and Joint Replacement Service at HSS. "However, there has been limited data on trends, comorbidities, and complications in patients discharged the same day they have surgery."

Using the PearlDiver Mariner Database, Dr. Westrich and colleagues identified almost 1.8 million patients who underwent a primary, elective total hip or total knee replacement between 2010 and 2017. Patients

were divided into groups based on which surgery they had and whether it was performed on an inpatient or outpatient basis. For each group, researchers collected data on patient demographics, comorbidities, and complications within 90 days of surgery that required readmission to the hospital.

Investigators found that the annual prevalence of outpatient hip replacement and outpatient knee replacement increased exponentially from 2010 to 2017, with a mean annual change of 15.8% in the hip replacement group and 11.1% in the outpatient knee replacement group. Overall, patients discharged on the day they had surgery were younger and healthier, with fewer medical conditions such as diabetes and chronic pulmonary disease.

For hip replacement patients, there was no significant difference in complications requiring readmission to the hospital within 90 days, whether the surgery was performed outpatient or with a hospital stay. In knee replacement patients discharged the same day, there was a slightly higher odds ratio of complications requiring a hospital readmission. Overall, complications were not common in either knee replacement group, with an incidence of less than 1 percent.

The study authors indicated that they believe same-day discharge joint replacement is safe but requires additional patient monitoring in the early postoperative period. Dr. Westrich emphasizes the importance of patient selection to ensure the best outcomes, noting that good general health is essential for anyone considering outpatient joint replacement. People who have heart or lung disease, diabetes or sleep apnea would not qualify. They should be nonsmokers. Younger patients in their 40s or 50s and 60s tend to be better candidates, but people in their early 70s in very good general health may also qualify.

"Individuals considering same-day discharge should feel comfortable

forgoing a night in the hospital where they would receive nursing care," Dr. Westrich added. "A patient who is very anxious about surgery or experiences a great deal of stress about recovery may not be a good candidate."

Dr. Westrich notes that the shift toward outpatient joint replacement has become more pronounced with the introduction of the Bundled Payment for Care Improvement (BPCI) by the Center for Medicare and Medicaid Services (CMS), which incentivizes reducing nonessential hospital-associated costs and length of stay.

"Our study aimed to augment the literature on outpatient joint replacement surgery to help orthopedic surgeons and their patients make an informed decision," he says. "Although we found it can be performed safely and efficiently, it's an option, not a requirement. Every patient is different, and individuals and their doctors should make an [informed decision](#) based on what makes patients feel most comfortable."

More information: Eytan M. Debbi et al, Same-Day Discharge Total Hip and Knee Arthroplasty: Trends, Complications, and Readmission Rates, *The Journal of Arthroplasty* (2021). [DOI: 10.1016/j.arth.2021.11.023](#)

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