

Facility Rehabilitation following Total Knee Arthroplasty

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INTRODUCTION: Rehabilitation protocols are an integral part of a total knee arthroplasty (TKA), but best practices remain unknown. The aim of this study is to assess outcomes of patients transferred to rehabilitation facilities following TKA. Secondly, we will characterize the population at risk of requiring these transfers.

METHODS: This was a retrospective cohort study including all patients undergoing TKA from the National Readmissions Database, from years 2016 to 2019. For all patients, demographic data, hospital related outcomes, and postoperative complications were collected. Multivariate regression, controlling for demographics and comorbidities using the Elixhauser Comorbidity Index, was performed to assess outcomes associated with facility transfer for rehabilitation.

RESULTS: A total of 1,906,670 patients were included. Of these, 25,485 were transferred to a facility for rehabilitation. Patients over the age of 80 (Odds Ratio (OR) 2.252; $p < 0.001$), females (OR 1.095; $p < 0.001$), patients with greater comorbidities (OR 1.381; $p < 0.001$), those in the lowest income quartile (OR 1.352; $p < 0.001$) were more likely to be transferred. Patients who were transferred had increased medical complications (OR 1.916; $p < 0.001$) and surgical complications (OR 2.738; $p < 0.001$). They also had reduced rates of reoperation within 30-days (OR 0.606; $p = 0.002$), but longer length of hospital stay (LOS) (OR 5.27; $p < 0.001$), and greater total charges (OR 1.884; $p < 0.001$). They also had greater odds of routine discharge (1.329; $p < 0.001$).

DISCUSSION AND CONCLUSION: Transferring patients for rehabilitation may improve outcomes for some patients following TKA. While they may require longer stays, and transfer is associated with greater costs, they had reduced reoperation rates and more routine discharges. Older, sicker, and lower socioeconomic status patients may be predisposed to transfer.

