

Formal Physical Therapy Clearance is not Necessary for Safe Home Discharge after Primary Total Joint Arthroplasty: A Retrospective Cohort Study

Brooke Nicole Merchant, Jaime L Harris, Sumon Nandi

INTRODUCTION: Conventionally, physical therapy (PT) evaluation and clearance are sought prior to total joint arthroplasty (TJA) discharge. However, PT staffing limitations may preclude same-day home discharge in patients having surgery late in the day. With our institutional PT department, we developed a novel protocol for discharging TJA patients without formal PT clearance. Our aims were to determine if our novel protocol: 1) allows safe TJA home discharge and 2) preserves postoperative patient satisfaction and patient-reported outcomes.

METHODS:

Our departmental billing database was queried for all primary TJA performed by a single surgeon at 3 hospitals from 2020 to 2023 (n = 325). Patients were divided into 2 study cohorts based on whether they were discharged using a conventional (n = 242) or novel (n = 83) discharge protocol. In our novel TJA discharge protocol, PT administers gait and stair training immediately preoperatively. Patients are then discharged home after ambulating with recovery room nurses trained by PT on postoperative mobilization.

Primary study endpoint was 30-day postoperative falls. Secondary endpoints were 90-day emergency room (ER) visits and readmissions. Patient-Reported Outcomes Measurement Information System (PROMIS) computer adaptive testing in the domains of physical function, pain interference, fatigue, social satisfaction, anxiety, and depression, as well as the Surgical Satisfaction Questionnaire (SSQ-8), were recorded 6 weeks postoperatively. Endpoints and outcomes of interest were compared between patient cohorts.

Multivariable logistic regression was utilized to assess the association between discharge protocol and study endpoints while controlling for demographic and clinical factors including age, gender, BMI, surgical site (hip versus knee), and hospital.

RESULTS: There was no difference in 30-day postoperative falls between conventional and novel TJA discharge protocols; 90-day ER visits and readmissions did not differ between protocols either ($P > 0.05$). We did not find any differences between discharge protocols across any domains of the PROMIS or SSQ-8 ($P > 0.09$).

DISCUSSION AND CONCLUSION:

Our novel discharge protocol allows for all eligible primary TJA patients to be safely discharged home the day of surgery without formal postoperative PT clearance. Maximizing same-day discharge by removing the bottleneck of PT staffing limitations minimizes risks associated with longer length-of-stay. Unnecessary hospital bed occupancy, which increases costs and limits operating room throughput for surgeries requiring inpatient admission, is also avoided.