

Preoperative Optimization Checklists Within the CJR Bundle Have Not Decreased Hospital Returns

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Introduction: The Comprehensive Care for Joint Replacement (CJR) model has resulted in the evolution of preoperative optimization programs to decrease costs and readmissions. At the investigating institution, one center is not within the CJR bundle and has dedicated fewer resources to this effort. The remaining centers have adopted an 11 metric checklist designed to identify and mitigate modifiable preoperative risks. We hypothesized that this checklist would improve postoperative outcomes for total knee arthroplasty (TKA) patients eligible for participation in CJR.

Methods: The institutional database was retrospectively queried for patients undergoing TKA from 2014 to 2018. Only patients with eligible participation in the CJR reimbursement system were included. Demographic information including age, sex, body mass index (BMI), and ASA score were determined, and outcome measurements comprising length of stay (LOS), disposition, 90-day ED visits, and hospital readmissions were explored. Statistical analysis was performed to determine differences in outcomes between CJR participating and non-CJR participating hospitals.

Results: 2,308 TKA patients including 1,564 from a CJR participating center and 744 from a non-CJR center were analyzed. There was no significant difference in patient age (median 71 years) or sex (62.4% female); however, patients at the non-CJR hospital had significantly higher BMI ($p < 0.001$) and ASA scores ($p < 0.001$). Patients in the CJR network had significantly greater discharges to home ($p = 0.050$) compared to skilled nursing facilities, and shorter LOS ($p < 0.001$). However, there was no reduction in 90-day ED visits or readmissions.

Conclusions: The resources utilized at CJR participating hospitals, including patient optimization checklists, did not effectively alter patient outcomes following discharge. Investments in infrastructure impacted only discharge disposition and LOS. While contributing to cost savings, this does not translate to improved patient outcomes. Likely, a checklist alone is insufficient and detailed optimization protocols for modifiable risk factors must be investigated.