

Success of Bundled Payment Initiative in Hip Fracture Patients in Comprehensive Care for Joint Replacement Model

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Purpose: With the inclusion of hip fracture patients into the Comprehensive Care for Joint Replacement (CJR) payment model, analysis of these patients is warranted as they are higher risk than elective arthroplasty patients. The purpose of this study was to analyze the effectiveness of an initiative (designed for the Bundled Payments for Care Improvement [BPCI] program) for hip fracture patients included in the CJR model with respect to improving patient outcomes and reducing cost.

Methods: Patients discharged with the diagnosis-related group codes 469-470 performed for hip fractures from one academic medical center between January 2015 and December 2016 were evaluated. A BPCI initiative focused on optimizing care coordination/patient education/expectations and minimizing post-acute facility and resource utilization was initiated in January 2016. Patient length of stay, location of discharge, and readmission within 90 days were recorded. Medicare reimbursement claims data for the 90-day episode of care were collected and compared pre- and post-initiative. Patient outcomes prior to the introduction of the BPCI initiative were compared to those who participated in the initiative using a P value of <0.05 as significant.

Results: During this period, 108 hip fracture patients underwent arthroplasty procedures. 43 patients received care prior to initiative, and 65 patients participated in the initiative. There was no decrease in length of stay; however, the percentage of patients discharged home increased with the introduction of the BPCI initiative (14.0% vs 24.6%). There was also a 22.3% reduction in total 90-day episode of care costs (\$55,648 vs \$43,259) (costs as reimbursed by Medicare) upon introduction of the initiative. This change in mean cost is largely from the decrease in spending on skilled nursing facilities and acute rehabilitation facilities and an increase in spending on home health aides. There was no significant difference in readmission rate between the 2 cohorts.

Conclusion: Unlike elective joint replacements, there is little chance to optimize orthopaedic trauma patients presenting with hip fractures before surgery. As such, with the introduction of these patients into the CJR model, initiatives to provide resource conscious yet high-quality care to these patients is imperative. This study shows the success of one such program aimed at care coordination and minimizing post-acute hospitalization facility care both with respect to improved patient outcomes and substantial cost reduction.