

JOURNEY[®] II BCS associated with significantly reduced total hospital cost, less likely to have 30 days readmission and significantly reduced hospital stays compared with other total knee arthroplasty (TKA) systems

A retrospective analysis of a real-world database also noted JOURNEY II BCS patients have higher odds of being discharged to home and lower odds of being discharged to a skilled nursing facility



Study design

- A retrospective cohort study from the Premier Perspective Database (2014 to 2016) compared patients with osteoarthritis undergoing primary TKA with JOURNEY II BCS (1,692 patients; mean age, 64.1 years) or other TKA devices (1,692 patients; mean age, 63.9 years)
- Hospital-related clinical and economic outcomes (reported as 2016 US dollars) were compared between the groups; 1:1 propensity score matching was used to control patients and provider characteristics



Key results

- Compared with patients receiving other TKA devices, those receiving JOURNEY II BCS:
 - Experienced significantly reduced mean patient hospital costs ($p < 0.0001$; Figure 1)
 - Were **51%** less likely to be readmitted to hospital within 30 days ($p = 0.0037$; Figure 2; calculated value)
 - Were **35%** more likely to be discharged to home ($p = 0.0008$; calculated value)
 - Were **41%** less likely to be discharged to a skilled nursing facility ($p < 0.0001$; calculated value)
 - Experienced significantly reduced mean length of hospital stay (2.45 days vs 2.66 days; $p < 0.0001$)



Figure 1. Mean total hospital costs (2016 US dollars; adjusted to nearest dollar)

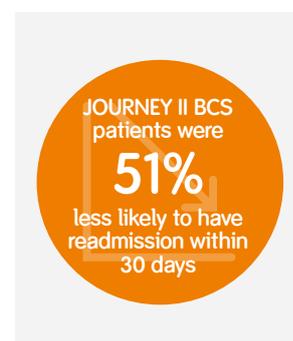


Figure 2. Readmission to hospital rates (calculated value)



Conclusion

JOURNEY II BCS led to significant reductions in total hospital cost, less likely to have 30 days readmission and significant reductions in hospital stay. Patients receiving this device were also more likely to be discharged to home and less likely to be discharged to a skilled nursing facility when compared with patients undergoing primary TKA with other posterior-stabilized devices. Real-world data on cost and outcomes can help hospitals and healthcare professionals make informed decisions when choosing the best knee implant for their patients.



Considerations

- This is an observational study, unmeasured confounders were not evaluated



Study citation

*Mayman DJ, Patel AR, Carroll KM. Hospital Related Clinical and Economic Outcomes of a Bicruciate Knee System in Total Knee Arthroplasty Patients. Poster presented at: ISPOR Symposium; May 19-23, 2018; Baltimore, Maryland, USA.