

Evidence in focus

Study summary

Harris AI, et al. *J Arthroplasty* (2019)*



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JOURNEY[®] II BCS total knee arthroplasty (TKA) shows favourable mid-term revision rates compared with registry-reported cemented posterior stabilised (PS) implants

With less than 1% of JOURNEY II BCS TKAs requiring major revision at 6 years



Study overview

- Retrospective analysis of 2,059 JOURNEY II BCS in 1,648 consecutive TKA patients (mean age, 64.3 years; females, 58.5%)
- Procedures were performed at seven US and three European sites, with up to 6.1 years of follow up (median, 4.2 years)
- Cumulative incidence of implant revision was compared to data for primary TKAs with cemented PS implants from the Australian Orthopaedic Association National Joint Replacement Registry (AOANJRR)



Key results

- The 5-year revision rate for JOURNEY II BCS was lower than that reported for cemented PS implants in the AOANJRR (3.6 vs 4.1%; Figure)
- In patients <55 years old (n=246 TKAs), the 5-year revision rate for JOURNEY II BCS was less than half the rate for cemented PS implants (males, 3.0 vs 7.0%; females, 3.1 vs 6.9%; Figure)
- Total of 67 revisions (3.2%)
 - Most common reason for revision was infection (33%), followed by mechanical loosening (21%), fracture of bone around the joint (16%) and implant instability (15%)
 - Twenty (29.85% of revisions; 1% JOURNEY II BCS TKAs) were classified as major revisions involving the removal of the tibial baseplate or femoral component, compared to 41.6% of revisions in the AOANJRR
 - The other 47 revisions were minor involving the removal of the patella component and/or the tibial insert

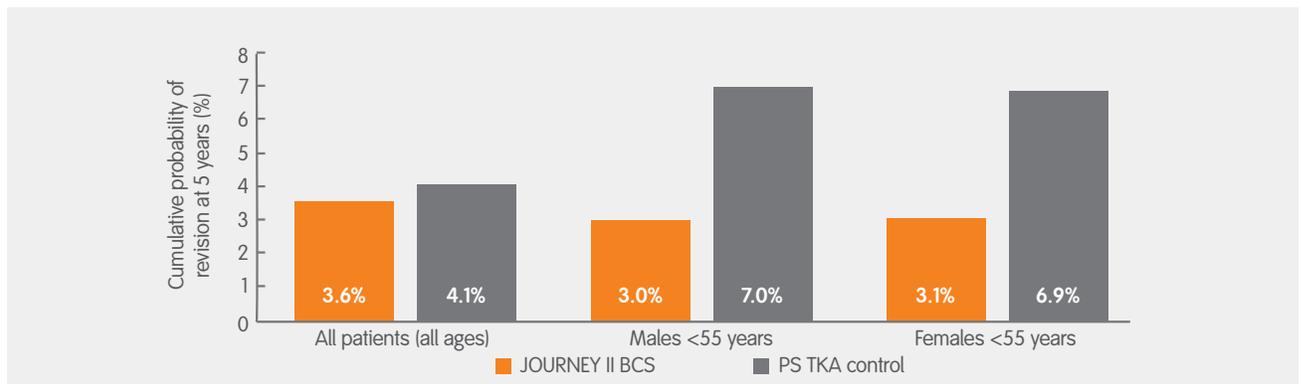


Figure. Five-year revision rates for JOURNEY II BCS compared to cemented PS implants (PS TKA control) from the AOANJRR

Evidence in focus (continued)



Conclusion

The JOURNEY[®] II BCS knee system performs favourably when compared to PS TKA control from the AOANJRR, particularly in patients <55 years of age. At up to 6.1 years post TKA, less than 1% of all JOURNEY II BCS TKAs required major revision.



Considerations

- This study represents the largest available global revision risk estimate for JOURNEY II BCS
- The authors chose to compare to the AOANJRR rather than the UK NJR as the UK NJR is limited by a higher degree of under-reporting of knee revisions and has an extensive waiting list of patients requiring joint replacement, which may affect the comparability of revision rates



Study citation

*Harris AI, Christen B, Malcorps JJ, et al. Mid-term performance of a guided motion bicruciate stabilized total knee system; results from the international study of over 2,000 consecutive primary total knee arthroplasties. *J Arthroplasty*. 2019 Feb 14. [Epub ahead of print]

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