# Compelling Economics for OXINIUM◊ Technology

With excellent survivorship at 8 years and patient-reported outcome measures (PROMs) data for POLARSTEM◊ Cementless Stem System, R3◊ Acetabular System, and OXINIUM◊/XLPE (VERILAST◊ Technology), the POLAR3 Total Hip Solution delivers outcomes that outperform.[1]

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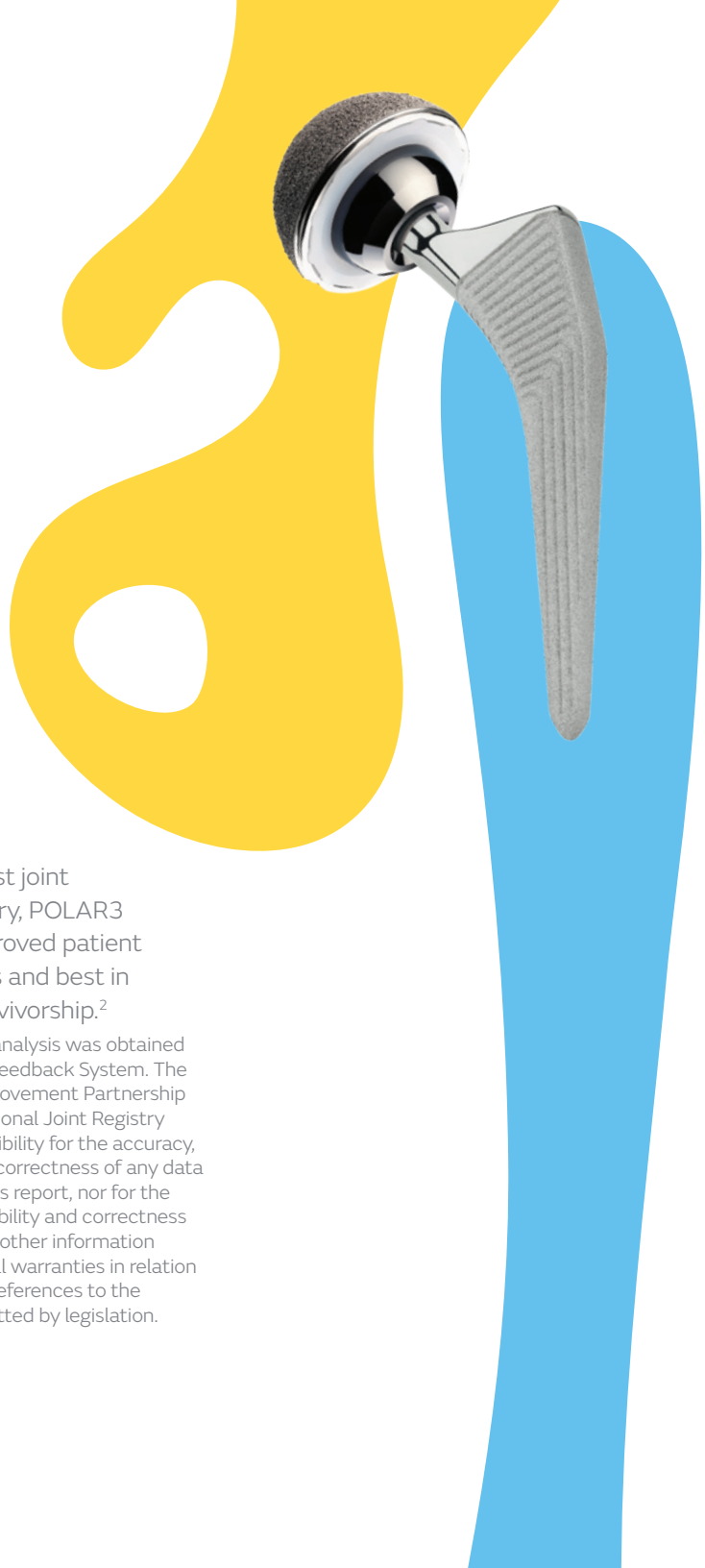
POLAR3◊
Total Hip Solution



- OXINIUM patients were 44% (p=0.04120) less likely to have a 30 day readmission than those implanted with other Polyethylene (CoP) cementless THA implants[4]
- OXINIUM patients were 84% less likely to have a transfusion, have a 36% higher rate of discharge to home and a 22% shorter length of stay compared to those implanted with Ceramic-on-Polyethylene (CoP) cementless THA implants[4]
- Compared to all other bearing combinations OXINIUM reduced post-acute avg. 90-day episode cost by $595 (9.9%)[5]
- From 3 months on, OXINIUM/XLPE significantly reduces the revision risk by 29% for those with a primary diagnosis of OA compared to Metal/XLPE (p<0.001) (AOANJRR 2019) [3]
- OXINIUM/XLPE technology shows a significantly lower* cumulative revision rate at 15 years (3.5%) compared to any other bearing combination (AOANJRR 2019)[3]
  *Based on 95% CI
- Patients who received POLAR3 were also significantly more satisfied (p<0.001) with their THA than those who received other cementless stems.[2]
- In the world's largest joint replacement registry, POLAR3 demonstrated improved patient reported outcomes and best in class mid-term survivorship.[2]

*The data used for this analysis was obtained from the NJR Supplier Feedback System. The Healthcare Quality Improvement Partnership ("HQIP") and/or the National Joint Registry ("NJR") take no responsibility for the accuracy, currency, reliability and correctness of any data used or referred to in this report, nor for the accuracy, currency, reliability and correctness of links or references to other information sources and disclaims all warranties in relation to such data, links and references to the maximum extent permitted by legislation.

JOURNEY II BCS Total Knee System is associated with significantly reduced total hospital cost (p<0.0001), significantly reduced hospital stays (p<0.0001), and reduced likelihood of a 30 day readmission compared with other total knee arthroplasty (TKA) systems.[7]

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# JOURNEY◊ II TKA

Total Knee Arthroplasty

- JOURNEY II BCS patients were 51% less likely to be readmitted to hospital within 30 days (p=0.0037) compared to other TKA systems[7]
- JOURNEY II BCS patients are 41% less likely to be discharged to a skilled nursing facility (p<0.001) compared to other TKA systems and 28% less likely compared to Triathlon Knee System™ (Stryker Orthopaedics, Mahwah, NJ, USA)[7,8]
- JOURNEY II BCS demonstrated $1,690 (9%) lower total inpatient cost compared other TKA systems[7]
- A study has shown that JOURNEY II BCS patients experience comparable levels of satisfaction as THA patients[9]
- In patients <55 years old, the 5-year revision rate for JOURNEY II BCS was less than half compared to those implanted with cemented posterior stabilized implants (3 vs 7%)[10]

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**References**

**1.** National Joint Registry for England, Wales and Northern Ireland: 16th Annual Report. 2019. **2.** National Joint Registry for England, Wales and Northern Ireland: POLARSTEM cementless (Oxinium/XLPE/R3 cup) bespoke summary report. 14 August 2019. Available at:http://bit.ly/POLAR3_Aug2019 **3.** Australian Orthopaedic Association National Joint Replacement Registry (AOANJRR). Hip, Knee & Shoulder Arthroplasty: 2019 Annual Report. Adelaide: AOA, 2018. Accessed November 16, 2018. **4.** Duncan S, Patel AR, Delhougne G, Patrick C. Hospital Related Clinical and Economic Outcomes of a Hip System in Utilizing Oxidized Zirconium in Total Hip Arthroplasty Patients. Poster presented at: ISPOR Symposium; May 22, 2019; New Orleans, LA, USA. **5.** Smith+Nephew Oxinium CJR: Risk Adjusted Modeling Results: Avalere Health, April 2019. Q4 2017 to Q2 2018 Claims from the Medicare Standard Analytic File. **6.** Smith+Nephew Oxinium CJR: Risk Adjusted Modeling Results: Avalere Health, August 2019. Q4 2017 to Q3 2018 Claims from the Medicare Standard Analytic File; **7.** 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. **8.** Patel AR, Delhougne G. Hospital related clinical and economic outcomes of two premium knee system in total knee arthroplasty patients. Poster presented at: ISPOR Symposium; May 22, 2019; New Orleans, LA, USA. **9.** Snyder MA, Sympson A, Gregg J, Levit A. A comparison of patient reported outcomes between total knee arthroplasty patients receiving the JOURNEY II bi-cruciate stabilizing knee system and total hip arthroplasty patients. *Orthop Trauma Prosth.* 2018. http://doi.org/10.15674.0030-5987201835. **10.** Harris AI, Luo TD, Lang JE, Kopjar B. Short-term safety and effectiveness of a secondgeneration motion-guided total knee system. *Arthroplast Today.* 2018;4:240–243.