

## OXINIUM<sup>®</sup> (oxidized zirconium) bearings reduce 90-day episode of care costs compared to non-oxidized zirconium bearings in total hip arthroplasty (THA)

Patients implanted with OXINIUM bearings had lower use of skilled nursing facilities (SNF), fewer related hospital readmissions and less inpatient rehabilitation time compared to non-oxidized zirconium bearings



### Study overview

- A retrospective study from the US Centers for Medicare and Medicaid Services (CMS) database (Q4 2017 to Q2 2018) compared 90-day episode of care outcomes for OXINIUM bearings (n=1,758; 401 hospitals) versus non-oxidized zirconium bearings (n=8,790; 1,893 hospitals) in patients undergoing THA
- Patient and provider characteristics were matched 5:1 (ie every OXINIUM patient was matched with five non-OXINIUM patients)
- Clinical and economic outcomes were compared between the groups



### Key results

Compared with patients implanted with non-oxidized zirconium bearings, those implanted with OXINIUM bearings demonstrated:

- Significantly lower cost per 90-day episode of care (\$18,364 vs \$18,966;  $p=0.003$ ; Figure 1)
- 9.9% lower average post-acute cost per 90-day episode of care by (\$5,430 vs \$6,025)<sup>1</sup>
- 21.3% lower rate of 30-day all-cause readmissions ( $p=0.096$ )
- 12.7% lower rate of 90-day all-cause readmissions ( $p=0.194$ )
- 15.9% lower rate of discharge to SNFs ( $p=0.002$ )
- 11.9% lower average length of stay in SNFs ( $p=0.005$ )
- 34.4% lower revision rate in the first 90 days (0.9 vs 1.4%,  $p=0.110$ ; Figure 2)

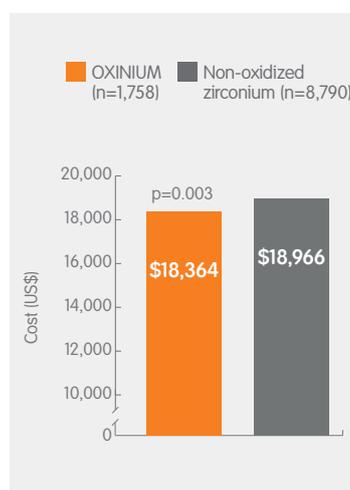


Figure 1. 90-day episode of care costs

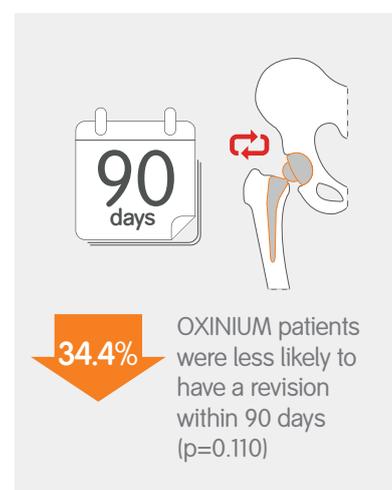


Figure 2. 90-day revision rate

## Evidence in focus (continued)



### Conclusion

OXINIUM<sup>®</sup> bearing in hips reduced average post-acute cost per 90-day episode of care by \$595 (9.9%). This was attributed to lower use of SNFs, fewer related hospital readmissions, and less inpatient rehabilitation time.



### Considerations

- Limitations include quality of data, accuracy of coding, generalizability of a single payer information
- Reduced readmissions and episode costs can help providers improve performance on Medicare quality programs



### Study citation

\*Patrick C, Delhougne G, Patel AR. Retrospective analysis of oxidized zirconium bearing surface in hip replacement 90-day episode claims. Poster presented at: International Society for Pharmacoeconomics and Outcomes Research (ISPOR); May 18–22, 2019; New Orleans, Louisiana, USA.

### References

1. Smith & Nephew Oxinium CJR: Risk Adjusted Modeling Results: Avalere Health, April 2019. Q4 2017 to Q2 2018 Claims from the Medicare Standard Analytic File.