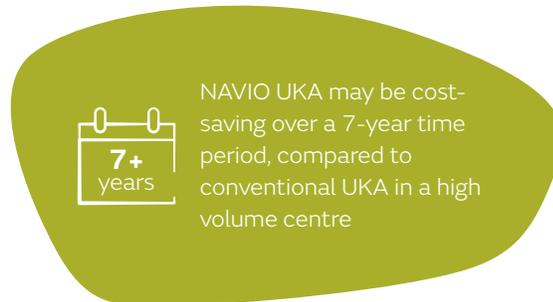
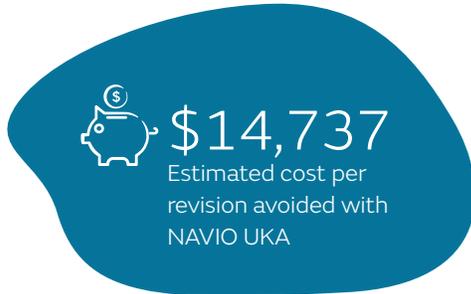


## + Evidence in focus

Publication summary: Yeroushalmi D, et al. *J Knee Surg* (2020)\*

## NAVIO<sup>◇</sup> Surgical System unicompartmental knee arthroplasty (UKA) may be more cost-effective than conventional UKA over a 5-year time period

### + Plus points

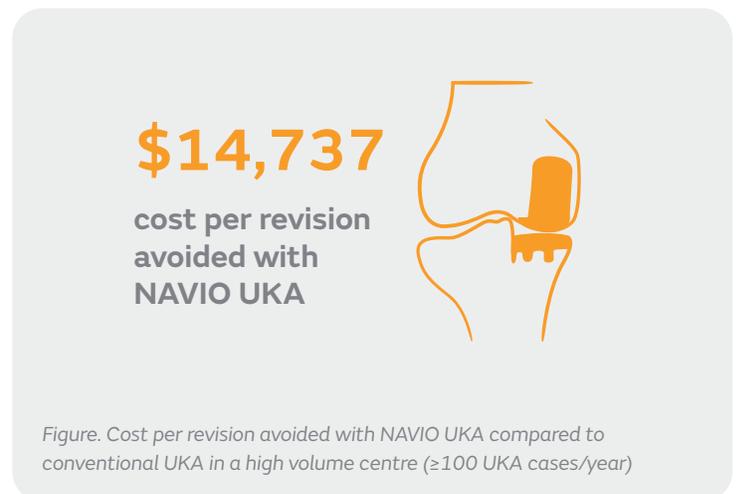


### Overview

- A Markov model was used to evaluate the cost-effectiveness of NAVIO UKA compared to conventional UKA in the US over a 5-year time period
- The model assumed a high volume centre conducting 100 UKA cases/year and a cohort mean age of 65 years
- Five year revision rate for conventional UKA was taken from the 2018 National Joint Registry for England, Wales, Northern Ireland and the Isle of Man
- Revision rate for NAVIO UKA was obtained from a retrospective cohort study (n=128) with a follow up of 2.3 years
- Sensitivity analyses were conducted to assess the impact of various model assumptions, such as patient age, case load and time period

### Results

- NAVIO UKA resulted in an estimated additional cost of \$173,890 (2018 US dollars), but resulted in 12 fewer revisions per every 100 cases
- The estimated cost per revision avoided with NAVIO UKA was \$14,737 (Figure)
- Although NAVIO UKA was cost effective across all age groups, sensitivity analysis showed it was greater in younger patients (<55 years) compared to older age groups
- For follow up beyond 7 years, NAVIO UKA becomes cost-saving ie, results in cheaper overall total costs and better clinical outcomes (based on assumptions)
- Model results are sensitive to assumptions around the case load, where low volume centres may not be as cost-effective



### Conclusions

NAVIO UKA was shown to be a cost effective procedure over a 5-year time period, and can potentially be cost saving beyond a 7-year time period, compared to conventional UKA. Younger patients benefit more compared to older age groups and the model is sensitive to case volumes.

### Citation

\*Yeroushalmi D, Feng J, Nherera L, Trueman P, Schwarzkopf R. Early economic analysis of robotic-assisted unicompartmental knee arthroplasty may be cost effective in patients with end-stage osteoarthritis. *J Knee Surg*. 2020; DOI: 10.1055/s-0040-1712088

Available at: [Journal of Knee Surgery](#)