Smith+Nephew

Real-world evidence suggests RI.KNEE on CORI◊ Surgical System improves OR efficiency and reduces costs compared with conventional knee arthroplasty[1,2]

Evidence from two clinical studies suggests, compared to conventional methods, RI.KNEE on CORI Surgical System results in:

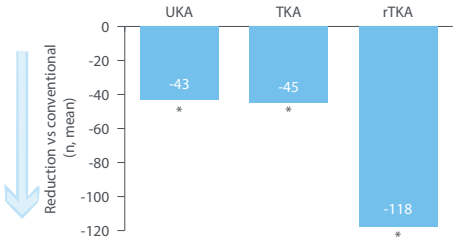
Significantly improved OR efficiencies across knee arthroplasty procedures[1]

Significant short-term cost savings across knee arthroplasty procedures[1,2]

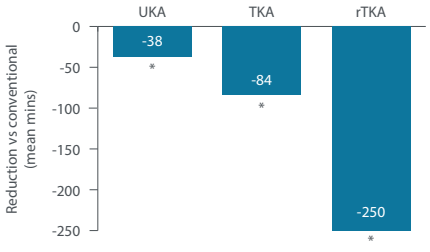
46% **shorter mean length of stay** post-TKA[2] (0.97 vs 0.53 days; p<0.0001)

RI.KNEE on CORI Surgical System resulted in **significantly improved OR efficiencies through reduced instrumentation** and **sterilisation time across knee arthroplasty procedures** and **diverse healthcare settings** compared to conventional methods[1]

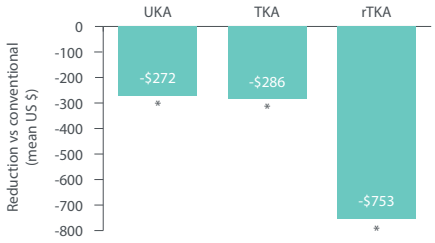
- Study of 10 US centres comparing instruments used for TKA, UKA and revision TKA [rTKA] with RI.KNEE on CORI Surgical System versus conventional methods (each surgeon/facility was their own control)[1]
- Data was reported for sites with complete data records: 9 for TKA, 4 for UKA and 8 for rTKA[1]



43–118 fewer instruments used per procedure



38–250 mins of sterilisation time† saved per procedure



$272–$753 sterilisation costs‡ saved per procedure

*Statistically significant reduction (p<0.001) versus conventional methods.

TKA with RI.KNEE on Smith+Nephew handheld robotics resulted in **significantly lower short-term costs** and **shorter length of stay** versus conventional methods[2]

A retrospective, matched-cohort, real-world analysis of the Premier PINC AI™ Healthcare Database comparing Smith+Nephew handheld robotic-assisted TKA (n=2,746) with conventional TKA (n=8,220) between September 2017–September 2022

Compared with conventional TKA, Smith+Nephew handheld robotic-assisted TKA led to:

$945 **saving** for 90-day episode of care ($15,670 vs $14,725; p<0.0001)

46% **shorter mean length of stay** (0.97 vs 0.53 days; p<0.0001)

Conclusions

Real-world evidence suggests knee arthroplasty with RI.KNEE on CORI Surgical System can help improve OR efficiencies and short-term costs versus conventional methods.[1] Compared with conventional TKA, length of stay was also significantly shorter after Smith+Nephew robotic-assisted TKA,[2] building on a previous independent, matched-cohort study which also reported earlier discharge after TKA with RI.KNEE on CORI Surgical System.[3]

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†Sterilisation time (determined by surgeon consensus): 105 minutes (+ 30.25 minutes per tray used). ‡Sterilisation cost calculation: multiply instrument number by average instrument sterilisation cost ($6.40; literature-derived).

Abbreviations: OR = operating room; rTKA = revision total knee arthroplasty; TKA = total knee arthroplasty; UKA = unicompartmental knee athroplasty.

References: 1. Burkhardt J, Chow J, Antell N, Li B, Johnston A, Ayers T, Nherera L, Aros B, Guild G, Kaper BP, McKissick RC, Nishiyama S, Seyler T, Sweet II R, Urish KL. Operating room and sterilization efficiencies for total, revision and unicompartmental knee arthroplasty using a handheld robotic-assisted surgical system. Poster presented at: ISPOR 2024; May 5–8, 2024; Atlanta, GA, USA. **2.** Nherera L. Handheld robotically-assisted primary TKA demonstrates lower short-term costs and length of stay compared to conventional instrumentation TKA. Poster presented at: ISPOR 2024; May 5–8, 2024; Atlanta, GA, USA. **3.** Cochrane NH, Kim BI, Leal J, Hallows RK, Seyler TM. Comparing a robotic imageless second-generation system to traditional instrumentation in total knee arthroplasty: a matched cohort analysis. *J Orthop.* 2024;57:1–7.

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46125 V1 12/24. Published December 2024.

Developed by Evidence Communications, Global Clinical & Medical Affairs
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