✚ Evidence in focus

Smith+Nephew

Increasing cost-effectiveness and improved health outcomes in horizontal cleavage tears (HCTs) treated with meniscal repair (MR), with NOVOSTITCH◊ Pro, compared to partial meniscectomy (PM)[1]

To find out more about NOVOSTITCH Pro scan the QR code:

Background

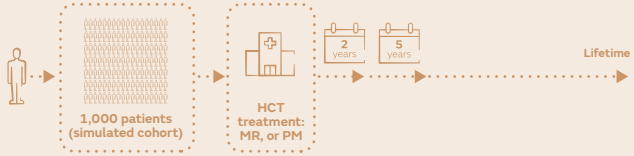
HCTs are estimated to comprise up to one-third of meniscal tears[2,3]

46% A meta-analysis showed that treating a HCT with MR instead of PM could reduce OA progression risk by 46%[4]

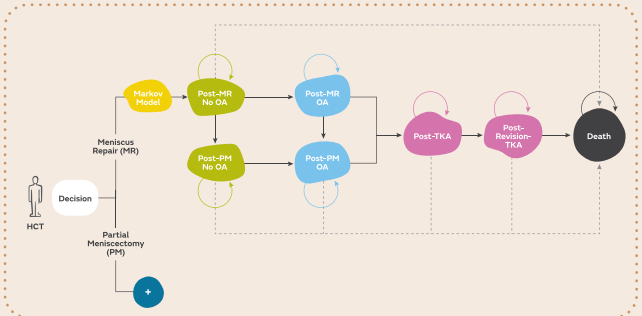
Reduction in OA risk may reduce the number of patients that require treatment for OA, but may also lower the likelihood that patients need a TKA

Study design

Economic analysis of a simulated cohort of patients



Economic model from a US payor perspective*



Results

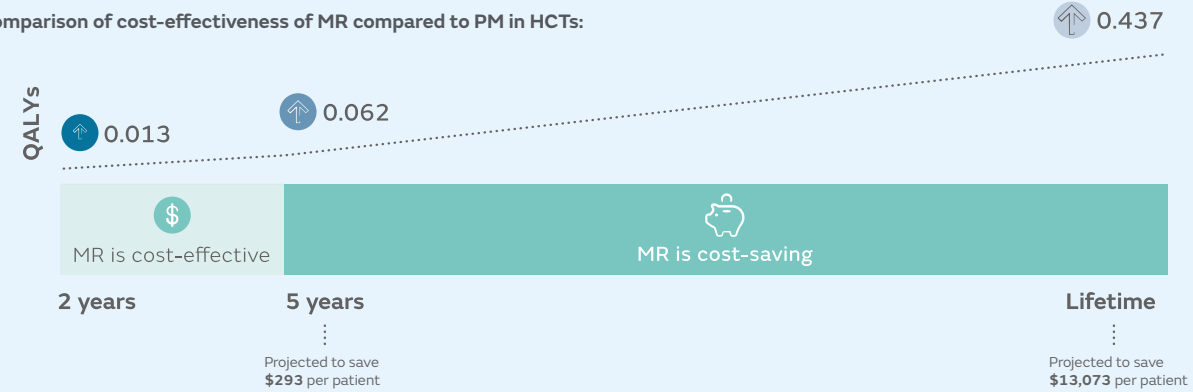
Compared to partial meniscectomy, meniscal repair of horizontal cleavage tears are:

2 years — **Cost-effective;** comparable cost to PM (projected to cost $705 more per patient) and demonstrate improved health outcomes (0.013 QALYs per patient)

5 years — **Cost-saving;** projected to cost $293 less per patient and continue to improve health outcomes (0.062 QALYs per patient)

Lifetime — **Projected to save $13,073 per patient** and further improve health outcomes (0.437 QALYs per patient)

Comparison of cost-effectiveness of MR compared to PM in HCTs:



The results of this study show a widening in incremental cost and QALYs, which indicates an improved cost-effectiveness of MR when compared to PM in HCTs in the medium- to long-term.

Conclusions

The economic analysis demonstrated that, from a US payor's perspective, mensical repair with NOVOSTITCH Pro, when compared to partial meniscectomy for the repair of horizontal cleavage tears, is cost-effective 2-years post-operatively, cost-saving 5-years post-operatively and continues to increase savings and improve health outcomes over a projected lifetime.

*Costs were estimated from the perspective of a US third-party payor, with Medicare reimbursement used as a proxy for some parameters and uplifted to present costs in 2021 US Dollar. **Cost effective definition:** MR demonstrates improved clinical outcome versus conventional bearing and is below the cost-effectiveness threshold of the payer. **Cost saving definition:** MR demonstrates improved clinical outcome and costs less than conventional bearing.
HCTs = horizontal cleavage tears; MR = meniscal repair; OA = osteoarthritis; PM = partial meniscectomy; QALYs = quality-adjusted life years; TKA = total knee arthroplasty; US = United States.

References
1. Askew N, Nherera L, Searle R. Cost-effectiveness of meniscus repair when compared to partial meniscectomy for horizontal cleavage tears. Poster presented at: The Professional Society for Health Economics and Outcomes Research (ISPOR) Annual Congress; May 16–18, 2022; Washington DC, USA. **2.** Jarraya M, Roemer FW, Englund M, et al. Meniscus morphology: Does tear type matter? A narrative review with focus on relevance for osteoarthritis research. *Semin Arthritis Rheum*. 2017;46(5):552-561. **3.** Metcalf MH, Barrett GR. Prospective evaluation of 1485 meniscal tear patterns in patients with stable knees. *Am J Sports Med*. 2004;32:675-680. **4.** Smith+Nephew Global Clinical and Medical Affairs; Meniscal repair vs. meniscectomy: A systematic literature review with meta-analysis of comparative clinical studies EA/SPM/KneeRepair/002/v1.

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