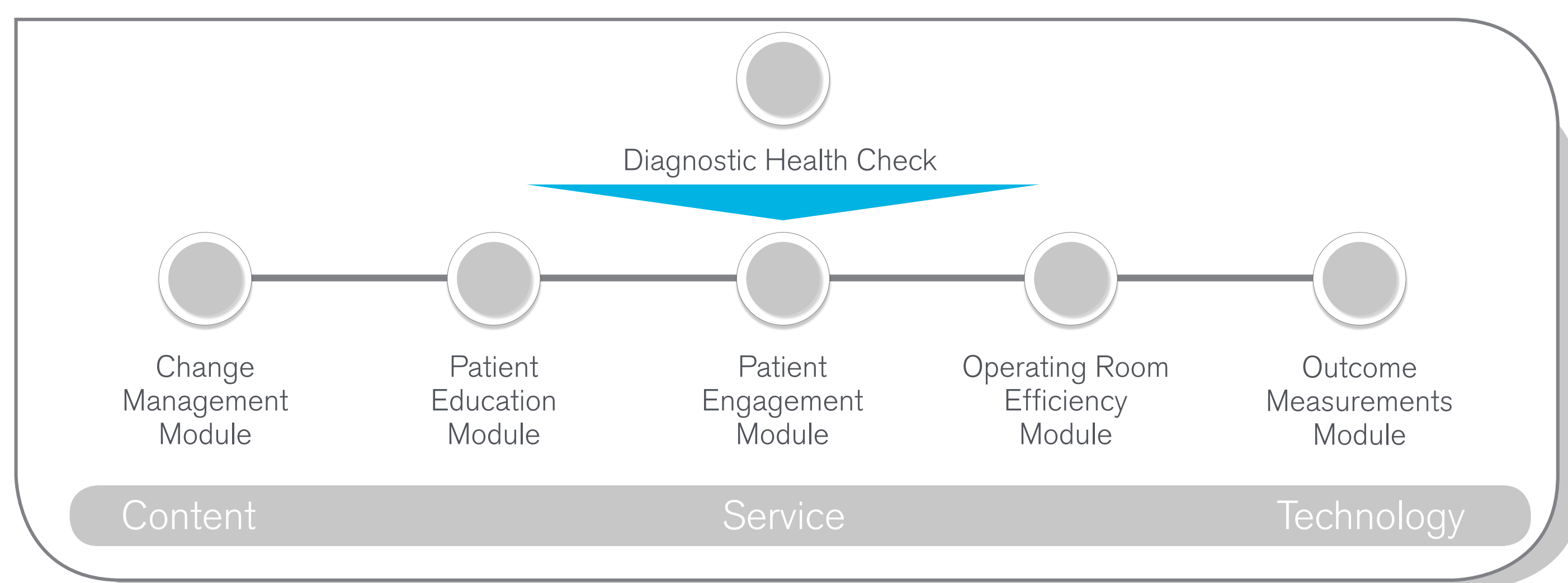


Optimizing Outcomes using Patient-focused Technology-enabled programs in Total Knee Replacement (TKR)

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Background

Enhanced recovery after surgery aims to improve outcomes and patient experience, leading to a reduced length of stay and more rapid return to function.¹ A program integrating technological enhancement of patient engagement and pathway management with clinical Enhanced recovery after surgery protocols in primary TKR was assessed. This included a variety of patient-focused health and multi-media components targeted at improving patient experience whilst maintaining clinical effectiveness.

Objectives

Primary objectives assessed impact on patient outcomes. Secondary objectives assessed impact on a series of clinical and service level outcomes.

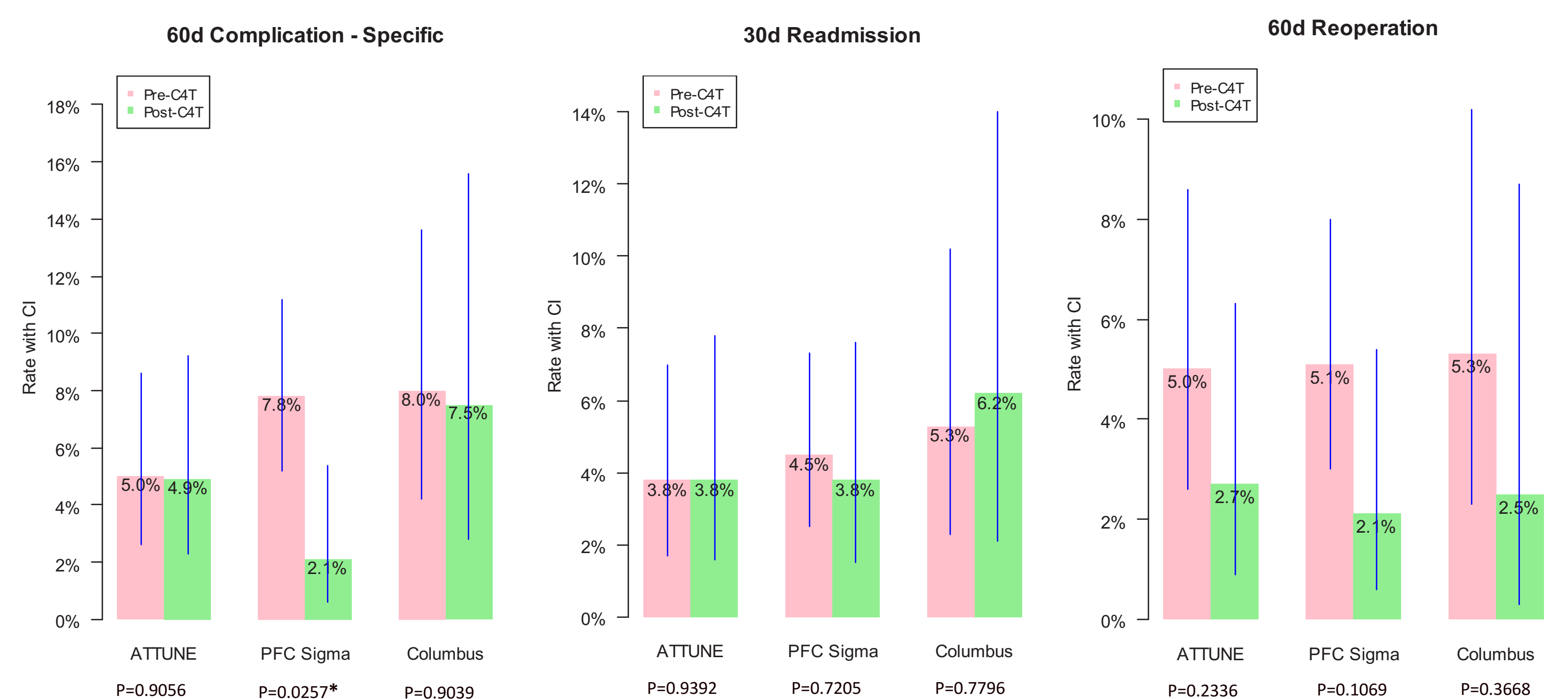
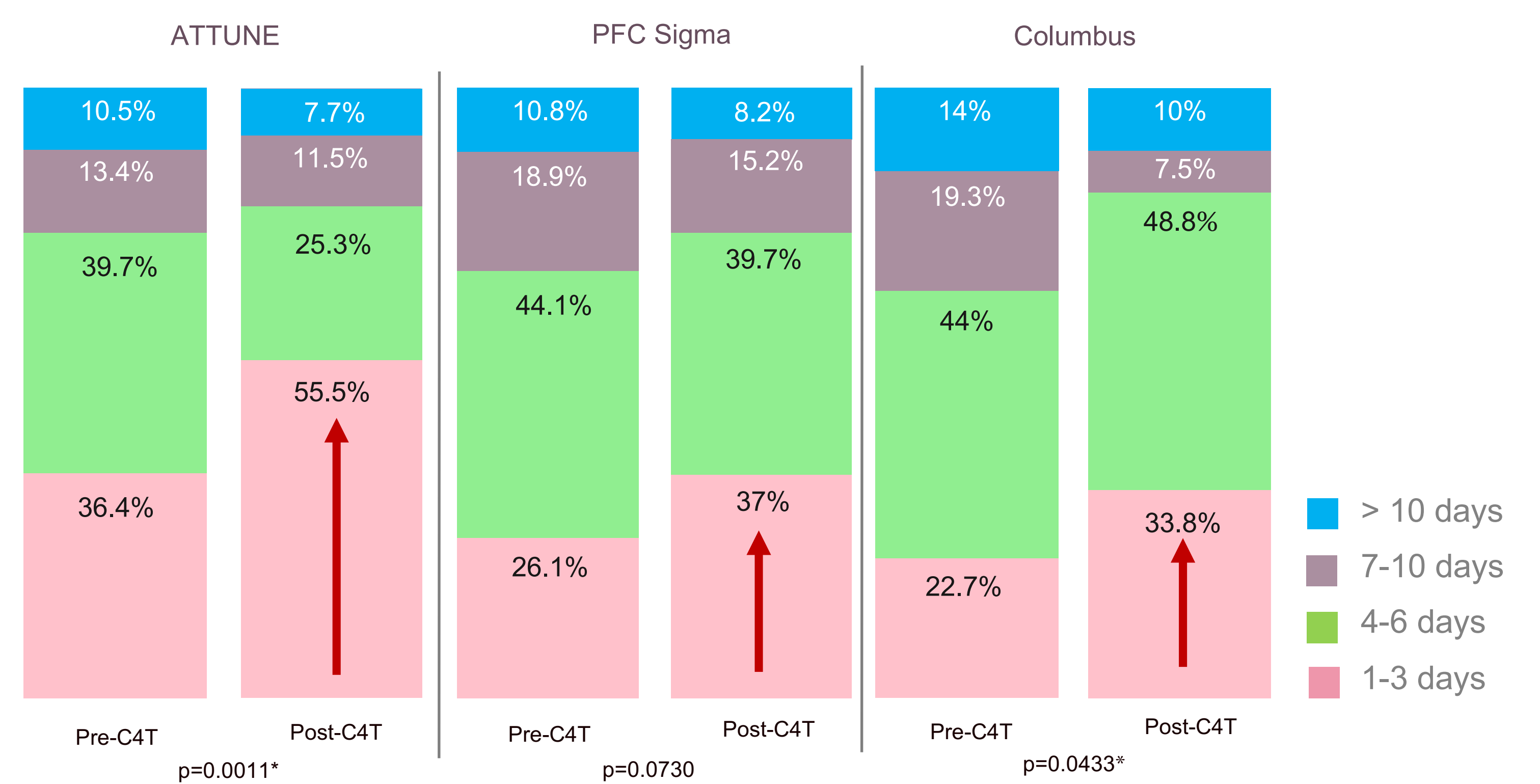
Methods

Data on a consecutive series of adults undergoing primary TKR (n=1259) was collected; retrospectively for a pre-program cohort (n=785) and prospectively for a post-program cohort (n=474). TKR implant systems used were ATTUNE, PFC SIGMA, Columbus. Service-level and clinical outcomes were acquired in all patients, whilst a smaller cohort (n=280) completed a bespoke patient experience survey and PROMs (Oxford Knee Score and EQ-5D-VAS).

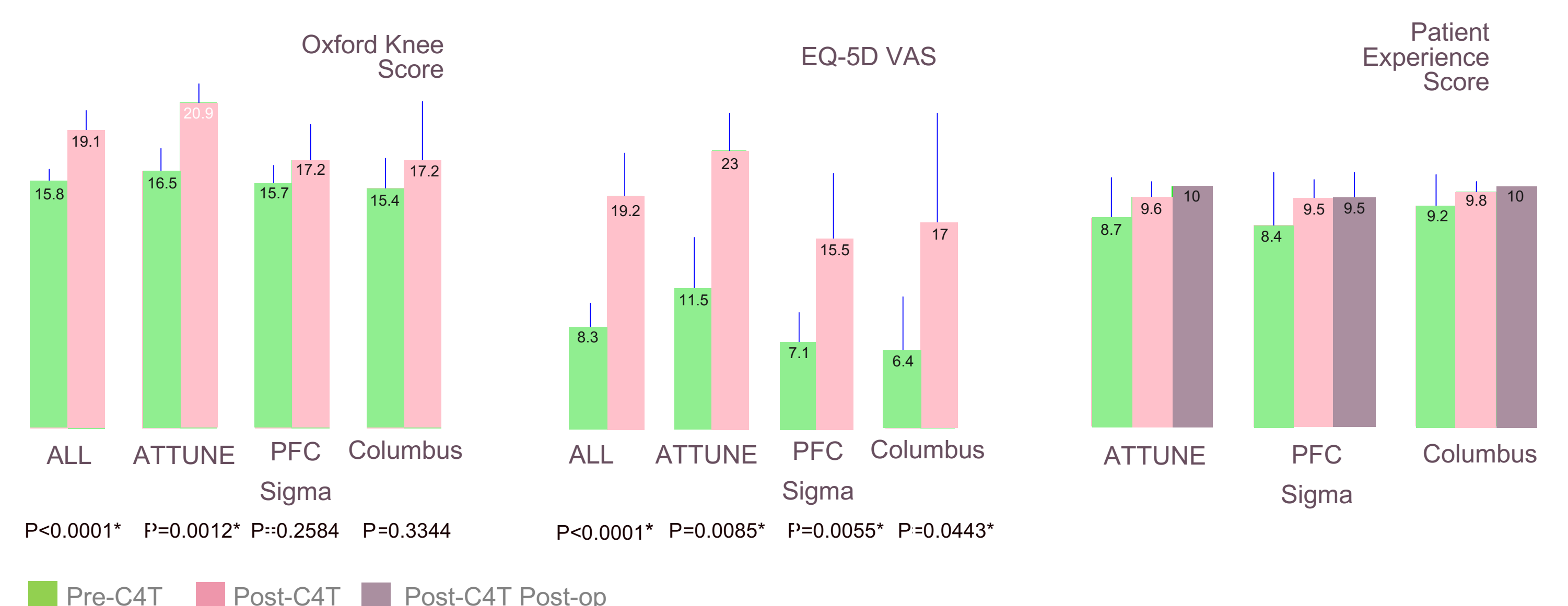
Results

Patient outcome was improved in all domains following introduction of the program. Significant reductions were observed in LoS (TKR 6.6 to 5.2; p<0.0001) and delayed discharge rate (TKR 72% to 57.2%, p<0.0001) with a numerical reduction in 30-day readmission rate, 60-day complication and reoperation rate following the program and accounting for implant type. The ATTUNE TKR system in combination with the program was particularly beneficial in terms of LoS and patient outcomes.

Length of Stay



PROMS/PREMS



Conclusion

This approach can be applied to established clinical pathways to enable the development of a patient-focused Enhanced recovery after surgery pathway that strives to engage and empower patients, while providing sustained improvements in patient outcomes, delivering superior clinical outcomes and reducing length of stay.

Reference: 1. Husted H. Fast-track hip and knee arthroplasty: clinical and organizational aspects. Acta Orthop Suppl. Oct 2012;83(346);1-39