

Patient-Focused Technology-Enabled Programs Improve Experience and Outcomes In Primary Total Hip (THR) And Knee Replacement (TKR) Surgery

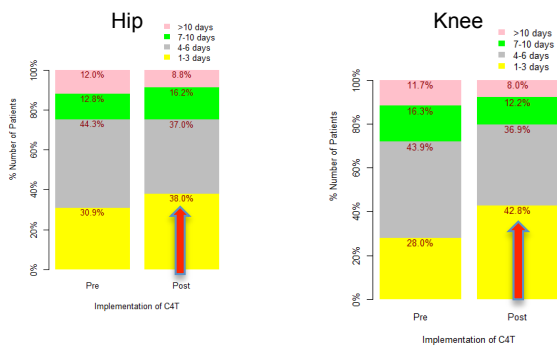
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BACKGROUND & METHOD

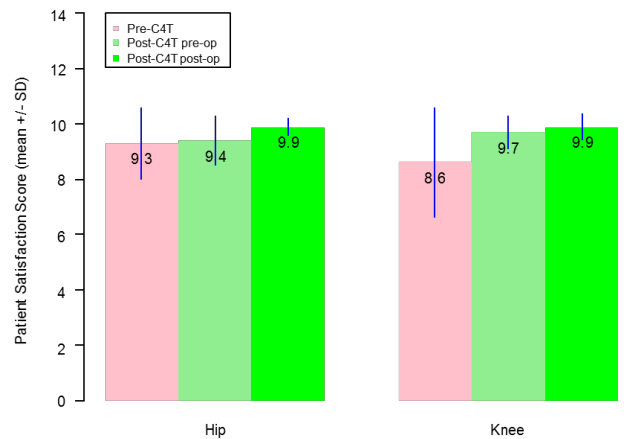
A program including patient focussed health advice and multi-media technology aimed at improving patient engagement in primary THR and TKR was assessed. Data on a consecutive series of 2389 THR (n=1130) and TKR (n=1259) was collected; retrospectively for a pre-program cohort (n=1483) and prospectively for a post-program cohort (n=906). Service-level and clinical outcomes were acquired in all patients, whilst a smaller cohort (n=280) completed a bespoke patient experience survey.

RESULTS

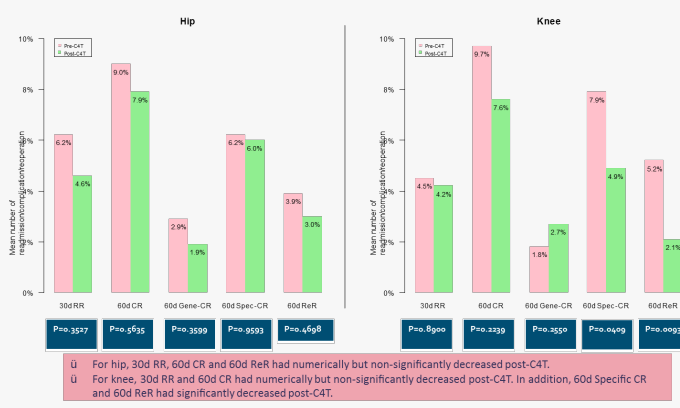
- ✓ LOS had significantly decreased post-C4T for both hip and knee.
- ✓ For both hip and knee, modal LOS was 1-3 days post-C4T, whilst modal LOS was 4-6 days pre-C4T.



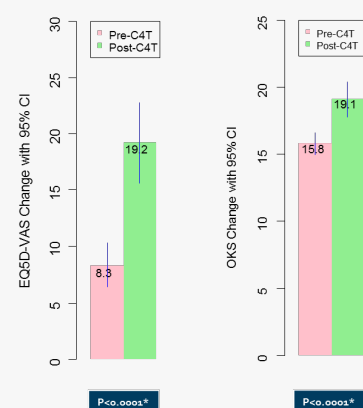
LOS	P-value (hip)	P-value (knee)
1-3 days	0.0071	<0.0001
4-6 days	0.0053	0.0074
7-10 days	0.1727	0.0297
>10 days	0.1946	0.0577



	P-value (hip)	P-value (knee)
Pre-C4T vs. Post-C4T pre-op	0.2549	0.0001
Pre-C4T vs. Post-C4T post-op	0.0002	0.0001
Post-C4T pre-op vs. Post-C4T post-op*	0.0001	0.0101



- ⊘ For hip, 30d RR, 60d CR and 60d ReR had numerically but non-significantly decreased post-C4T.
- ⊘ For knee, 30d RR and 60d CR had numerically but non-significantly decreased post-C4T. In addition, 60d Specific and 60d ReR had significantly decreased post-C4T.



CONCLUSIONS

Significant reductions were observed in LoS (THR 6.2d to 5.5, p=0.0071; TKR 6.6 to 5.2; p<0.0001) and delayed discharge rate (THR 69.1% to 62%, p=0.0085; TKR 72% to 57.2%, p<0.0001) with a numerical reduction in 30-day readmission rate, 60-day complication and reoperation rate. Significantly larger improvements were also seen in OKS and EQ5D in patients following TKR. This approach can be applied to established clinical pathways to enable the development of a patient-focused ERAS pathway that strives to engage and empower patients, while delivering superior clinical outcomes and reducing length of stay.