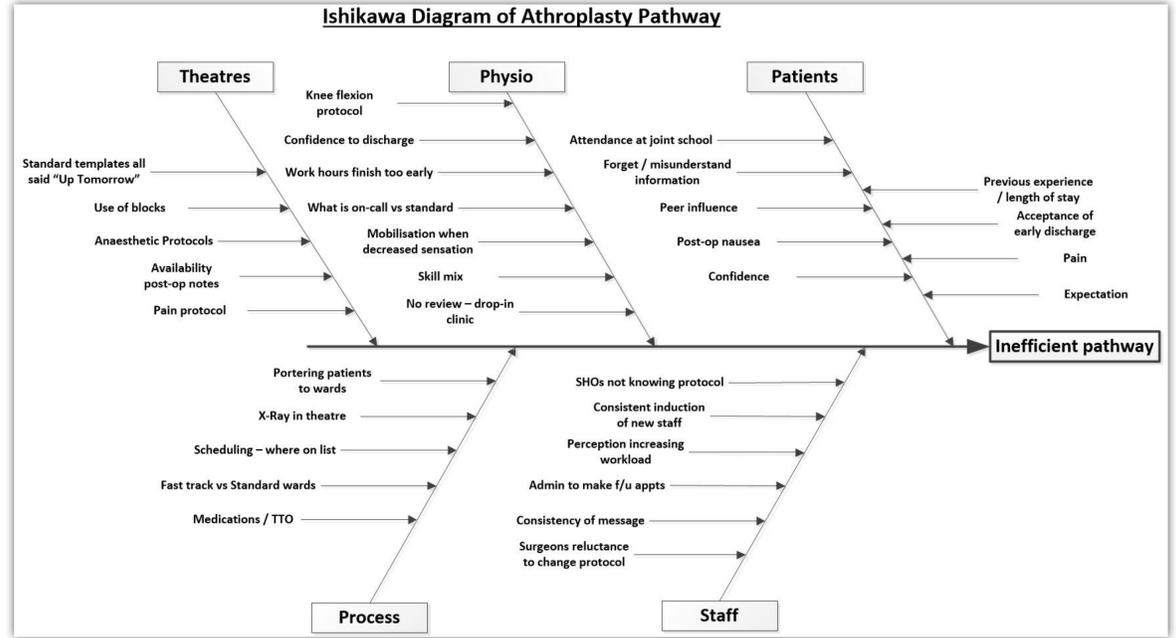
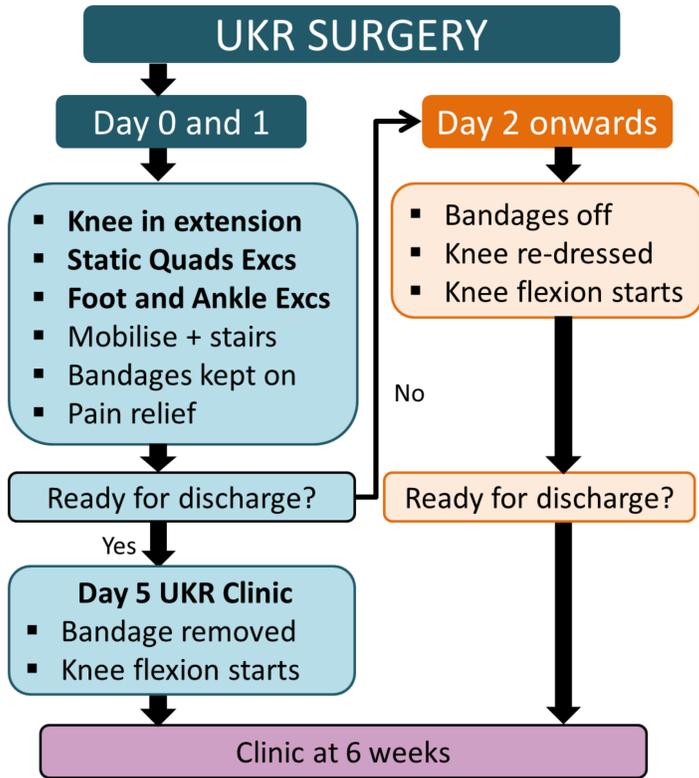


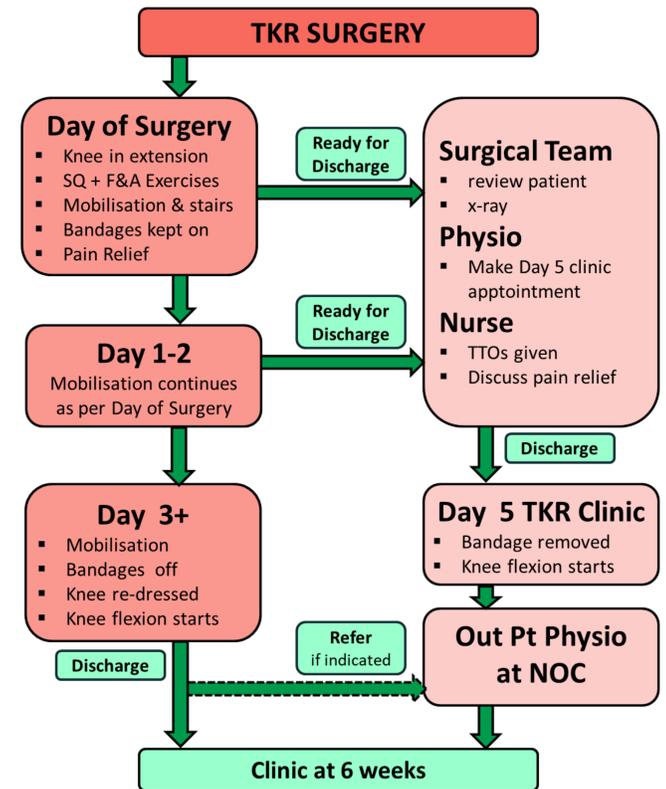
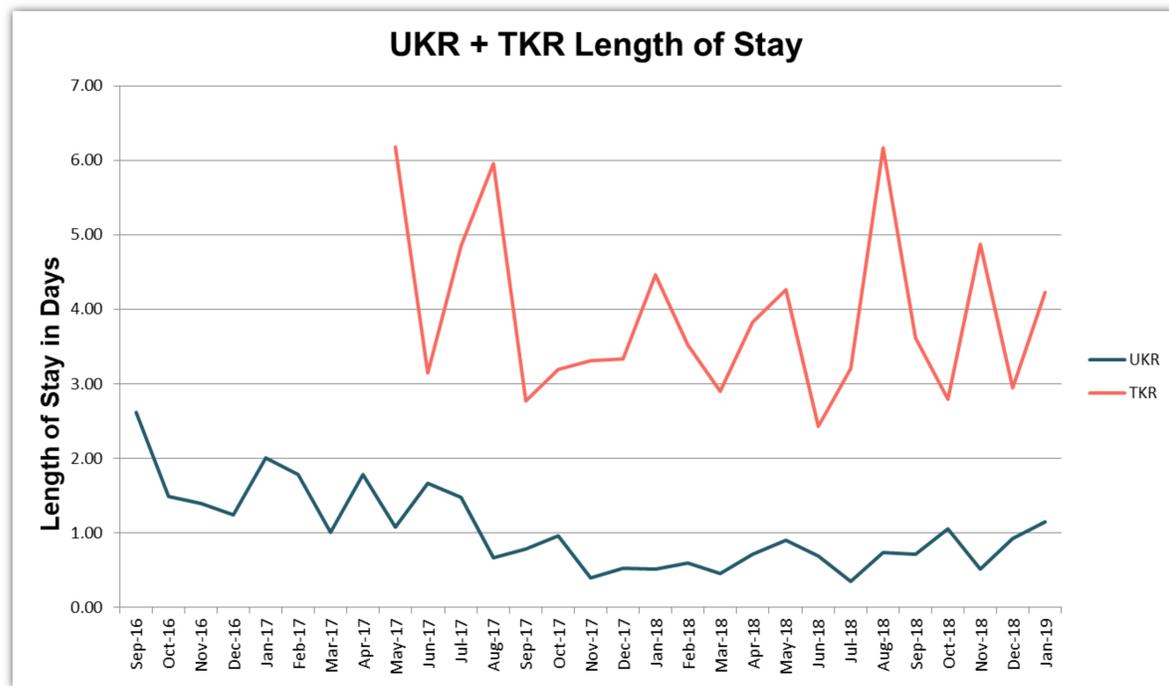
## Purpose

- An NHS focus is to safely reduce length of stay (LOS)
- High volume pathways are ideal for this approach
- Aim to evaluate the application of a service improvement methodology to different knee replacement pathways, focusing on LOS, range of motion and adverse events



## Methods

- September 2016 a new UKR pathway introduced and by July 2017 it was routine practice<sup>1</sup>
- Total Knee Replacement (TKR) rehabilitation remained unchanged until July 2018
- July 2018 introduction of an accelerated pathway for TKRs
- TKR pathway based on similar principles to our UKR pathway - delaying knee flexion until Day 5
- TKR surgery is not minimally invasive so small changes were required
- All TKRs, following their Day 5 appointment were **routinely** referred for out-patient physiotherapy



## UKR Results

- In 28 months 1000 UKRs completed the UKR pathway
- 456 patients (45.5%) discharged on Day of Surgery
- LOS reduced from 2.6 to 1.04 days (median of 1 day)
- There was 1 MUA required
- A saving of 1560 bed days and £468,000

## TKR Results

- 62 TKRs discharged with the delayed knee flexion protocol
- Day 5 mean flexion 70° (range 48-93)
- Six week mean flexion 100° (range 64-125)
- Two readmissions; (i) washout + oral antibiotics, (ii) DAIR
- No MUAs required
- 89% of patients were "very satisfied" and "would do it all again"

## Conclusions

- By successfully introducing a UKR enhanced recovery pathway we noted the LOS for our traditional unchanged TKR pathway reduced
- We feel the reasons for this were; (i) A culture change within the hospital encouraging day of surgery mobilisation, (ii) Staff were confident to adopt the successful UKR principals to TKR surgery

## Implications

- We have shown that delaying TKR knee flexion to Day 5 post-op does not have any long term effect on flexion
- The new TKR pathway was safe and acceptable to patients and allows 54% to be discharged by day 2

Nuffield Orthopaedic Centre TKR Out-Patient Physio n=62	
None required	5 (8%) *
1 Appointment	26 (42%)
2 Appointments	15 (24%)
3 Appointments	6 (10%)
4 Appointments	9 (15%)

\* 1 person referred directly to physio nearer home

Total Knee Replacement Discharge Day		
Discharge Day	Traditional TKR Pathway July 2017 n=33	Accelerated TKR Pathway July 18 – January 19 n=114
Day 0	0 (0%)	1 (1%)
Day 1	2 (6%)	25 (22%)
Day 2	5 (15%)	36 (31%)
Day 3+	26 (79%)	52 (46%)