

National Quality Improvement Conference

Reducing Average Length of Stay (ALOS) for Elective Total Hip Replacement (THR) Patients

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Problem Statement

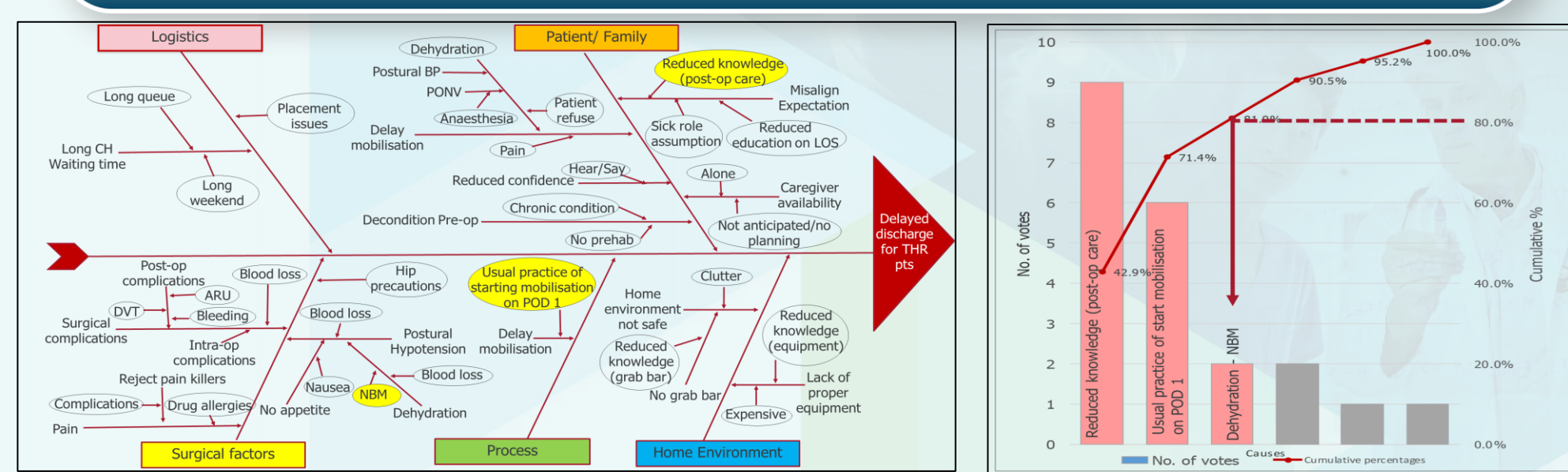
Elective THR cases in TTSH have a prolonged ALOS (4.8 days) as compared to international standards.

- Washington University of Medicine (2015) & Netherland (2013) showed ALOS of THR patients reduced to 2.0 to 2.9 days with rapid protocol.

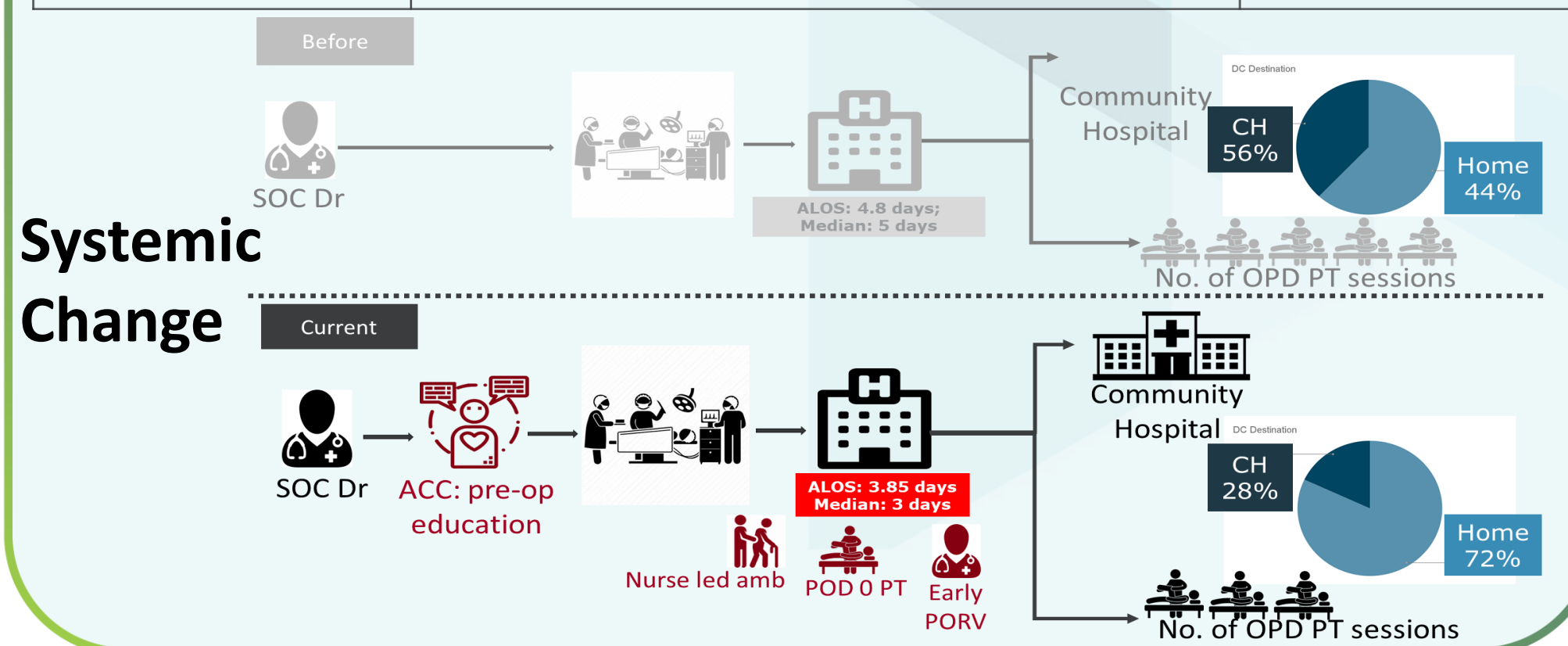
- Retrospective TTSH data collection also revealed that 55% of elective THR patients were discharged to community hospital.

- COVID-19 pandemic reminded us the importance of reserving the inpatient beds more medically unwell patients.

Potential Solutions



CAUSE / PROBLEM (refer to Pareto Chart)	INTERVENTION	DATE OF IMPLEMENTATION
Cause 1: Reduced knowledge (post-operative care)	PDSA 1a: Pre-operation counselling done via phone	24 October 2022
	PDSA 1b: Pre-operation counselling done at clinic visit	11 November 2022
	PDSA 1c: Personalise pre-operation counselling by Advance-scope Care Coordinator (ASCC)	June 2023
Cause 2: Usual practice of starting mobilisation on POD 1	PDSA 2a: Create POD 0 Guideline to Doctors & Physiotherapists	28 November 2022
	PDSA 2b: Revised POD 0 Guideline	15 December 2022
Cause 3: Dehydration - Nil by mouth	PDSA 3a: Early oral intake at PACU	



Project Aim

To reduce ALOS of patients after elective THR in Ward 85 in TTSH from 4.8 days to 2.9 days over a sustained period.

- Cohort patients: primary elective total hip replacement (THR) patients
- Data Collection: TTSH Hip registry
- Outcome measure: ALOS
- Balance measures: 30 days readmission rate

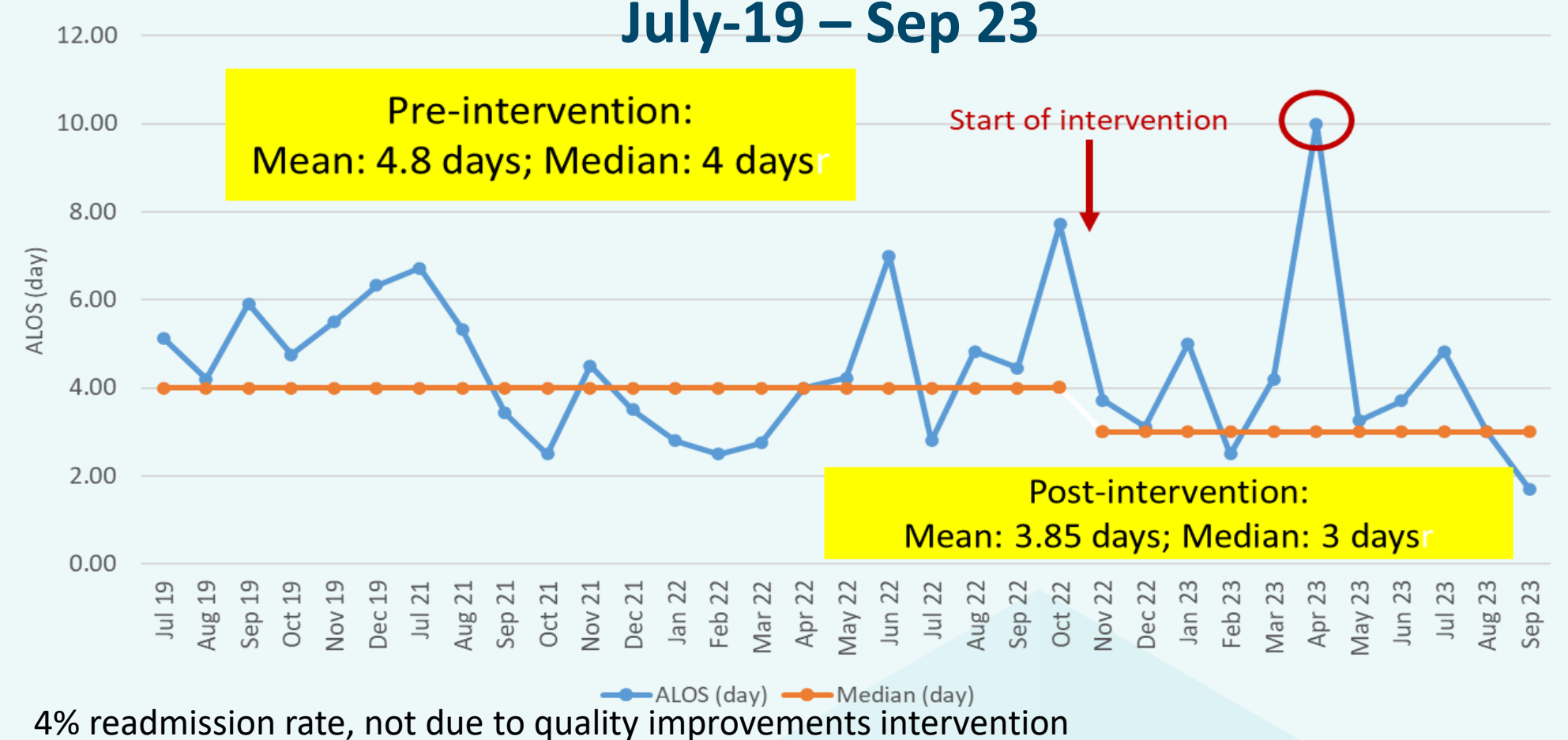
Lessons Learnt

Challenges	Solutions
Medical teams had limited time to provide comprehensive pre-operative education	Empowering coordinator to conduct personalized pre-operative education and discharge care plan
Patient arrived at ward late, hence was unable to be review by Physiotherapist on post-operative day (POD) 0	Upskilling nurses to assist with mobilization of patient on POD 0

Learning point:
- Plan-Do-Study-Act (PDSA) is important to evaluate effectiveness of intervention.

Outcomes & Impacts

ALOS of elective THR patients from July-19 – Sep 23



4% readmission rate, not due to quality improvements intervention

72% Patients were discharged home (post intervention)

72 Bed Days saved annually

\$30,744 Inpatient stay saved annually

- Patient/ customer feedback:**
- 100% Patients were satisfied with the outcomes of THR
 - "Pain was better than before the operation"
 - "I self-progressed to walk with walking stick within a week post discharge"
 - "I am more mobile now"
 - "Never expect to start walking on POD 0"