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Department of Nutrition and Dietetics

Mission Statement

To improve percentage of post-operative days that meet nutrition targets on ERAS protocol* in post elective colorectal surgical patients from 44% to 80% (stretch goal 100%) within the next 6 months.

*ERAS Protocol nutrition targets

POD 0 ≥ 300Kcal, POD 1 ≥ 600Kcal, POD 2 ≥ 600Kcal, POD 3 ≥ 600Kcal

Team Members

	Name	Designation	Department
Team Leader	Ms Ong Yawei	Senior Dietitian	Nutrition & Dietetics
Team Members	Mr Wong Hon Guan	Assistant Nurse Clinician	Ward 6C
	Ms Norafida Bte Ismail	Nurse Clinician	Level 11
	Ms Feng Dongxia	Senior Staff Nurse	Level 11
	Dr Tham Hui Yu	Resident	General Surgery
	Ms Gillian Chong	Dietitian	Nutrition & Dietetics
Sponsor	Dr Lim Yen Peng	Head	Nutrition & Dietetics
Mentors	Ms Zenne Tng & Dr Heng Wei Quan		

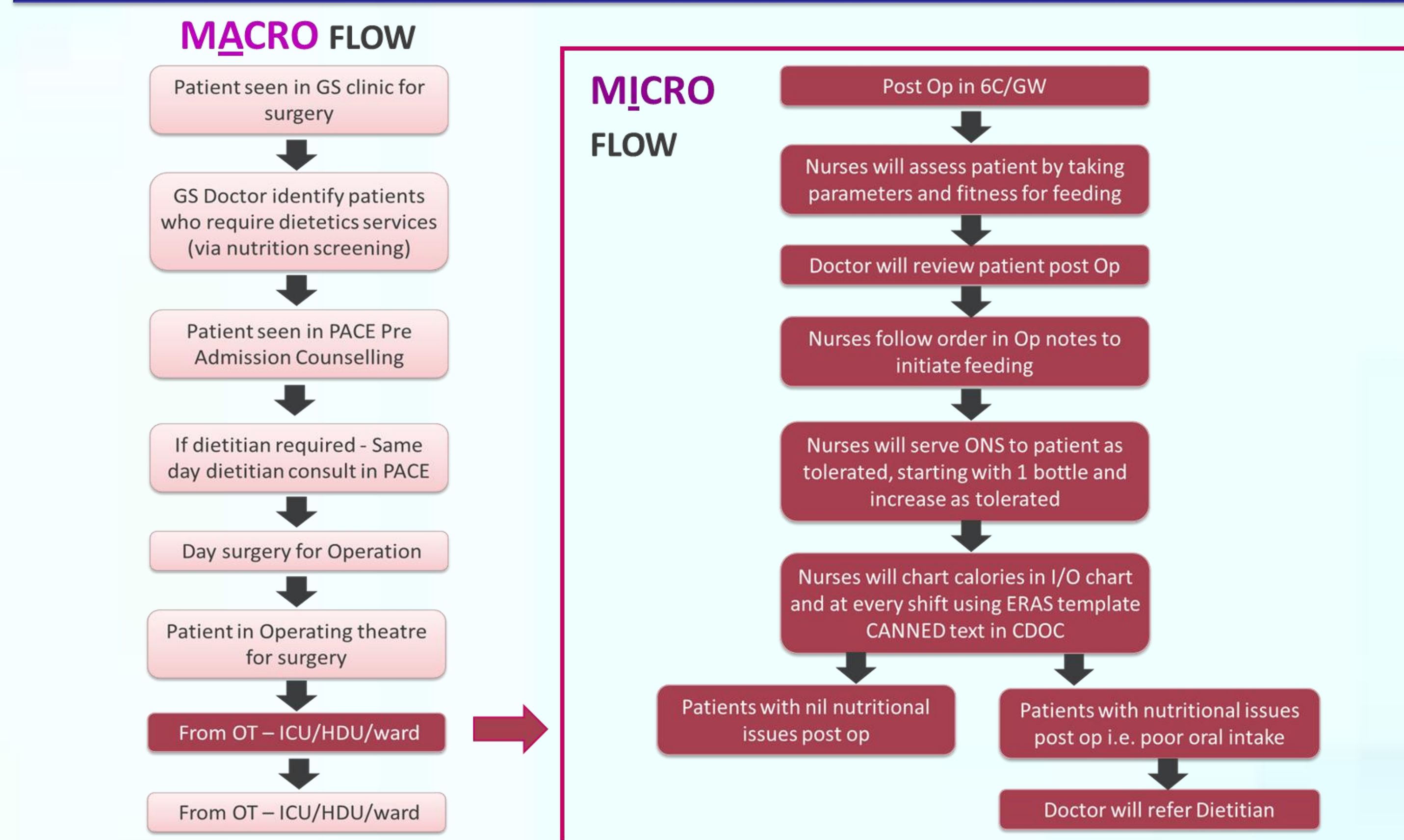
Evidence for a Problem Worth Solving

- Nutrition plays an important role in optimising and enhancing post-operative recovery.
- Studies have shown that early post-operative nutrition has been linked to significant reduction in total complications compared with traditional post-operative feeding practices and beneficial effects on outcomes such as mortality, anastomotic dehiscence, resumption of bowel function or hospital Length of Stay (LOS).
- Better adherence (>70%) to the ERAS protocol (which includes early post-operative nutrition) has shown to improve surgical outcome following major colorectal cancer surgery.

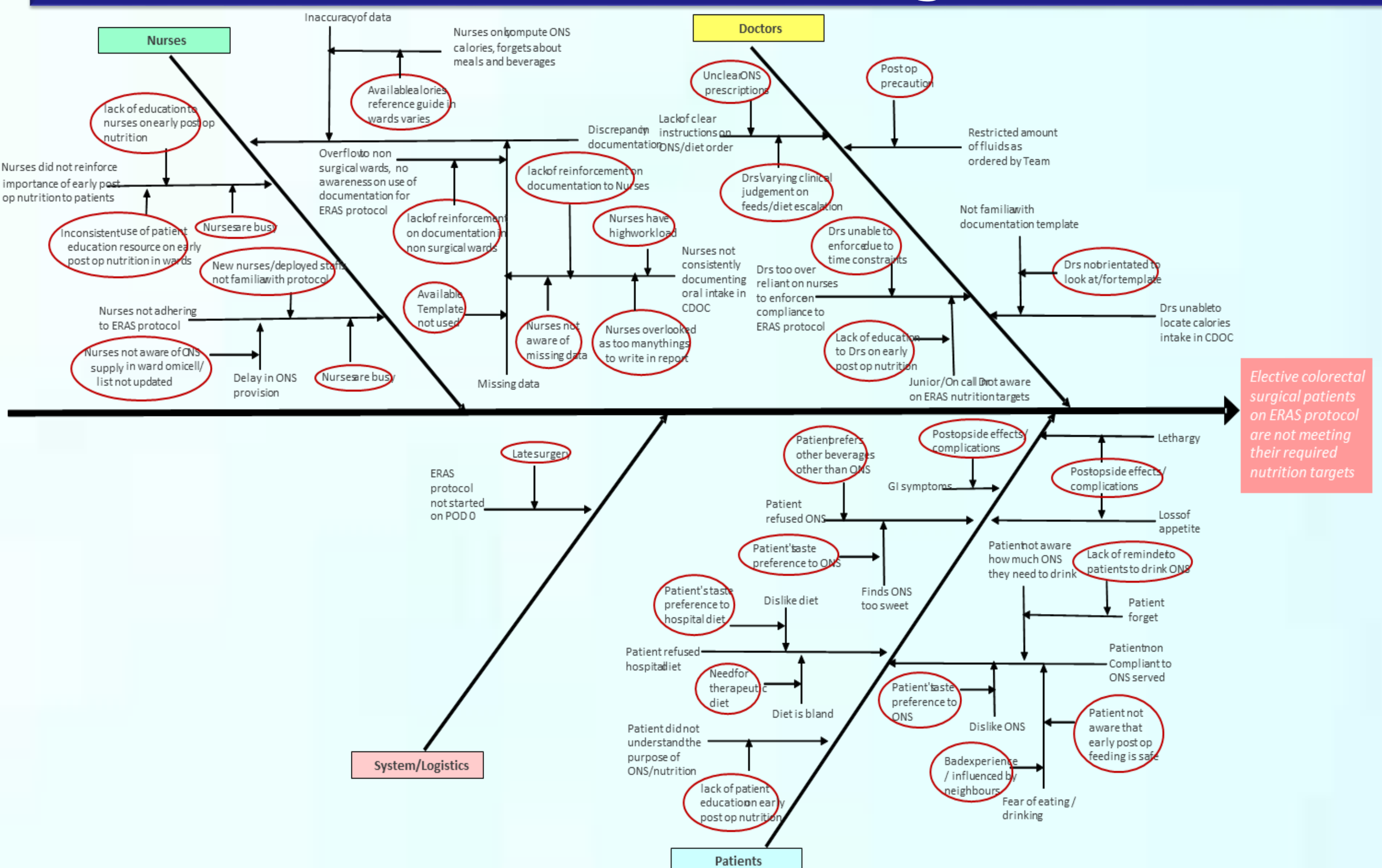
Current Performance of a Process

Observational audits conducted from 1 Feb 2021 to 25 Jul 2021 revealed that the percentage of post-operative days that meet nutrition targets for elective colorectal surgical patients is 44%.

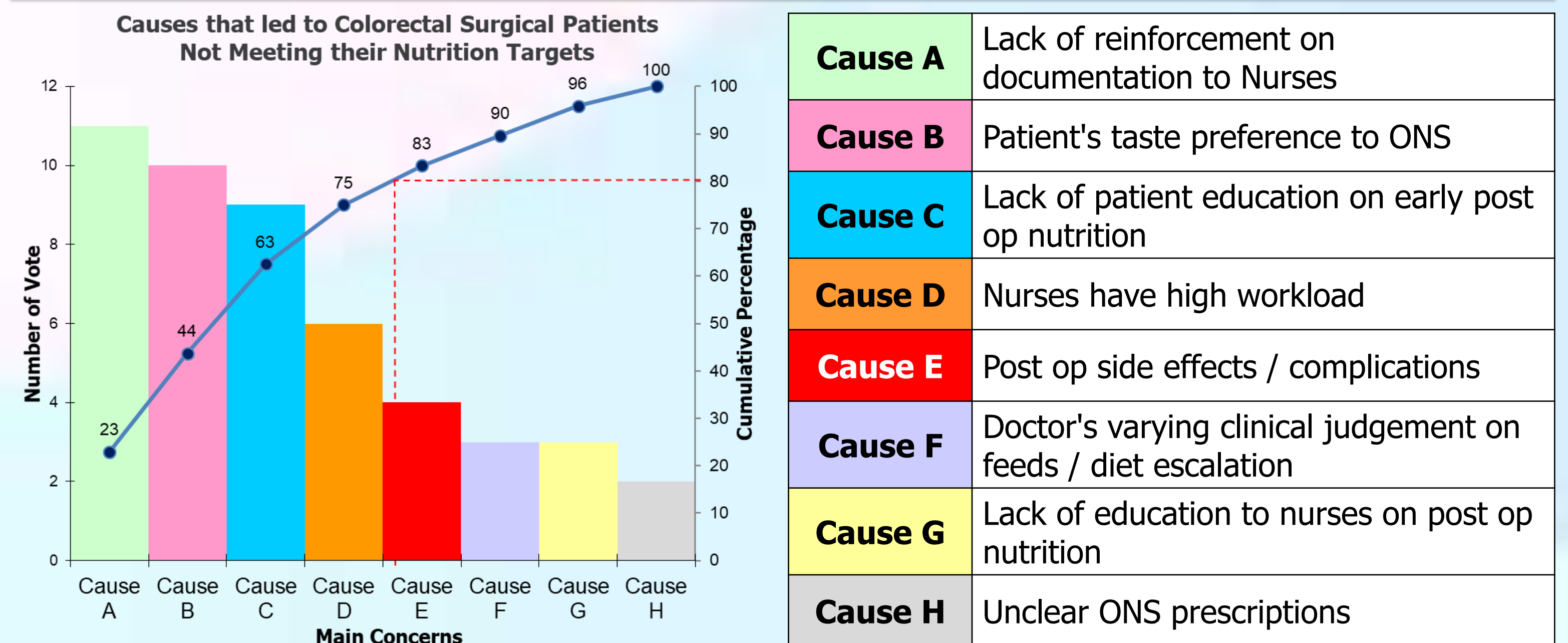
Flow Chart of Process



Cause and Effect Diagram



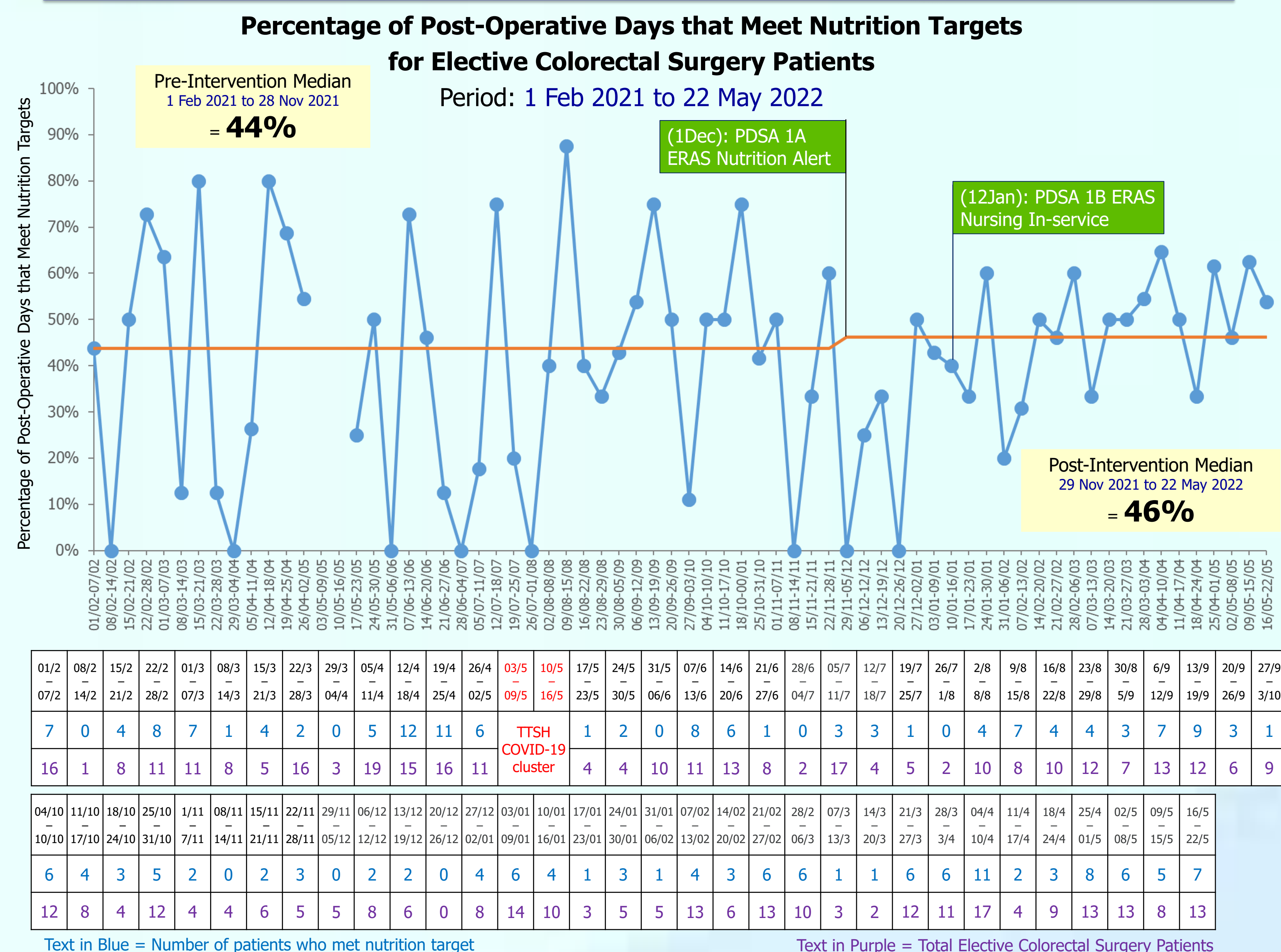
Pareto Chart



Implementation

Root Cause	Intervention	Implementation Date
Cause A: Lack of reinforcement on documentation to Nurses	ERAS Nutrition Alert (visual cue, easy reference and reminder)	1 Dec 2021
Cause D: Nurses have high workload		

Results



Cost Savings

- Taking reference from literature review (for the analysed group of patients who able to tolerate oral diet on the first post-operative day), the number of bed days saved per patient is 3 days.
- Potential cost savings for inpatient stay per patient: \$3,342 (unit cost for inpatient stay per patient per day = \$1,114).
- Assume that the number of elective colorectal surgical patients that could benefit from the intervention in 1 month is 6 patients.
- Total number of bed days saved in 1 year is 216 days (equivalent to \$240,624 a year).

Lessons Learnt

- During COVID, due to manpower deployment and also closure of wards. The surgical patients are not going to level 11 like they used to. Even though surgical HD (ward 6C) and level 12 was targeted for intervention, some still went to other wards during COVID.
- Even though ERAS champions were engaged to disseminate the information to the Nurses, it was observed that Nurses may not understand the value / intent of the alert. This may indicate the need for in-depth education prior to roll out.

Strategies to Sustain

- Future plans to explore integrating some components of the ERAS Nutrition Alert into NGEMR
- Increase awareness among nurses
- Continue monitoring of compliance data and sharing of data with ERAS champions