

Sit Out of Bed in a Surgical Unit of an Acute Care Hospital (Sustainability Phase)

Ms K Suvaseni & Ms U Amutha Valli
Ward Level 11

Mission Statement

To increase the percentage of eligible# patients who meet "Sit out of bed" target* from baseline of 20% to 100% for post-operative General Surgery patients in Ward 11D over a sustained period

Eligible Patients for Sit out of Bed

- Premorbid Independent
- CNS: Obeys command, muscle power \geq 4/5
- Respiratory system: RR \leq 20 breaths/minute, SpO₂ \geq 95%, Fraction of Inspired Oxygen \leq 50%
- CVS: No vasopressor support; no new arrhythmia; no complain of chest pain past 24 hours; postural blood pressure drop
- No open wound
- No active bleeding
- Pain score \leq 5 (at rest)
- In addition, perform a quick check to ensure Hb: no drop of $>$ 2g/dL; Hb $>$ 8g/dL; Serum Potassium & Sodium levels within normal range

*Target: Achieve "Met" for 2 out of 3 PODs: either POD1=4Hours; POD2=6Hours; POD3=6Hours

Team Members

SN	Name	Designation	Department	Role
1.	Ms K Suvaseni	Unit Nurse Manager	Ward Level 11	Leader
	Ms U Amutha Valli	Senior Nurse Manager	Ward 11C&11D *	Co-Leader
2.	Dr. Low Jee Kim	Senior Consultant	General Surgery	Member
3.	Dr. Ishara Maduka	Medical Officer	General Surgery	Member
4.	Ms Zhang Yabo	Senior Staff Nurse	PACE	Member
5.	Ms Angela Ng	Senior Staff Nurse	Clinic 2A	Member
6.	Ms Remegio Rozanne Soy	Assistant Nurse	Ward 11D	Member
7.	Ms Tan Jiali Charmaine	Senior Staff Nurse	Ward 11D	Member
8.	Ms Adeline Chi	Senior Physiotherapist	Allied Health	Member

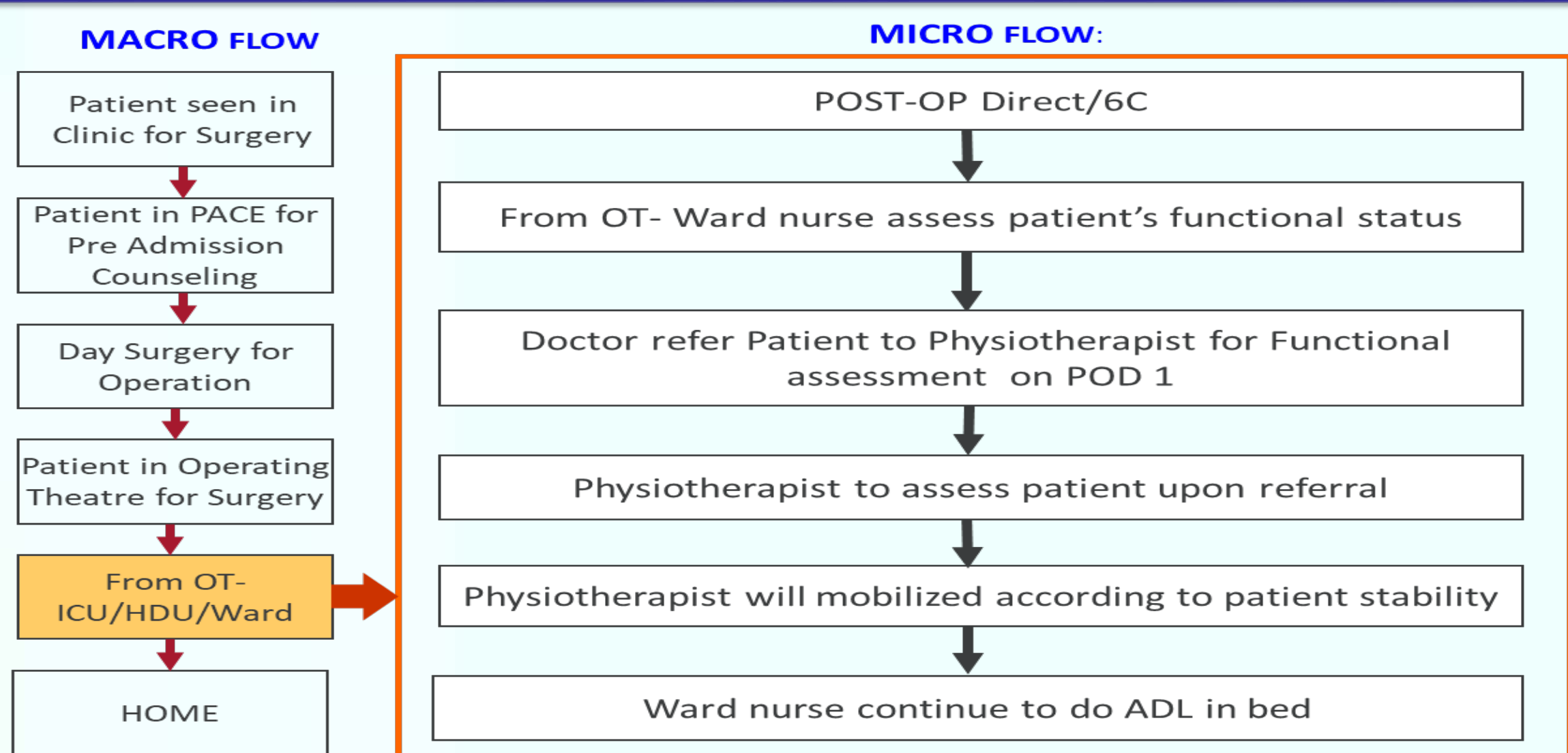
Mentors: Adj A/Prof Tan Hui Ling (Assistant Chief Medical Board), Ms Sui Huangbo (Senior Nurse Manager, Ward Level 5)

* Note: Present department is at Level 13

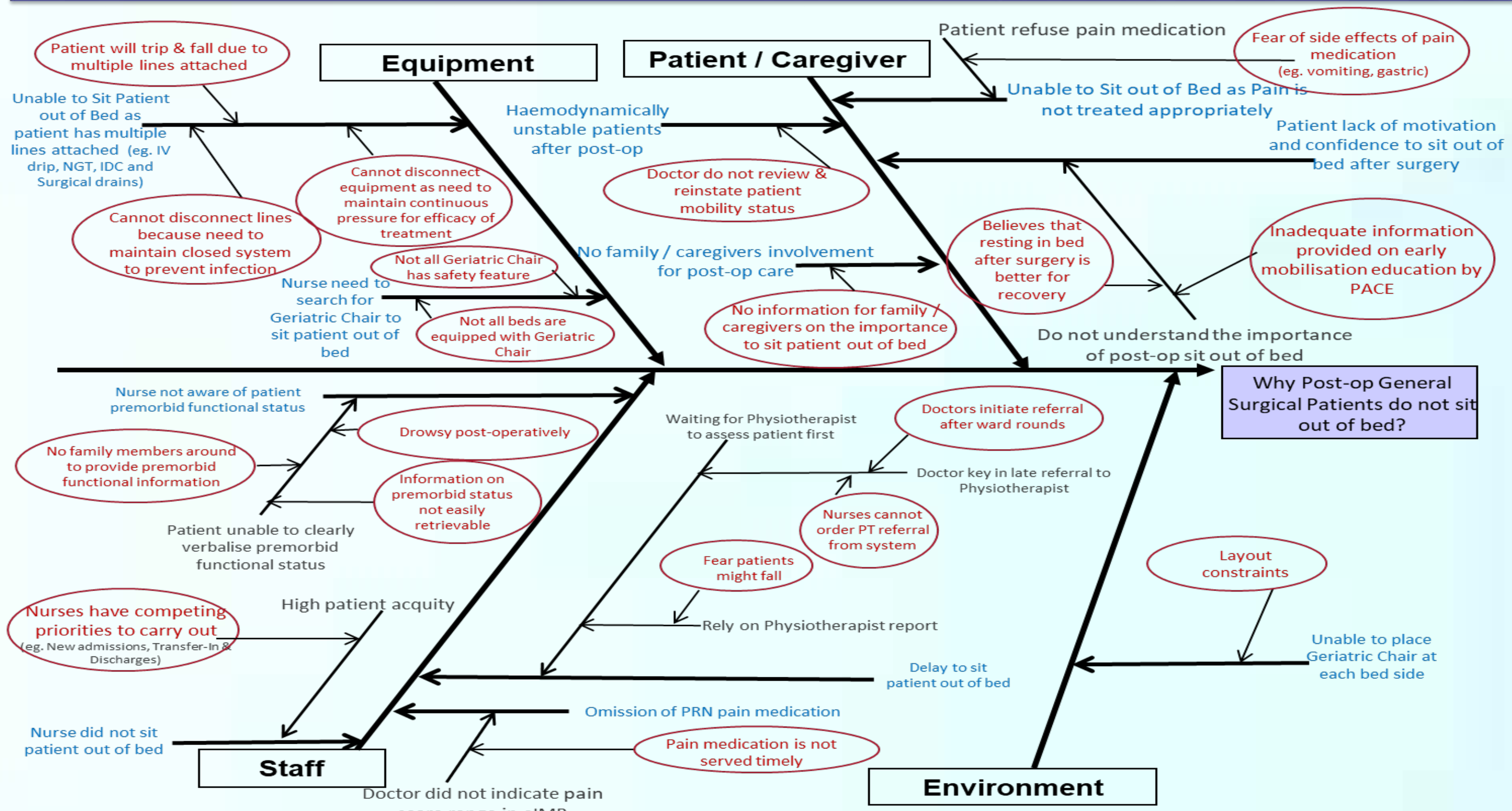
Evidence for a Problem Worth Solving



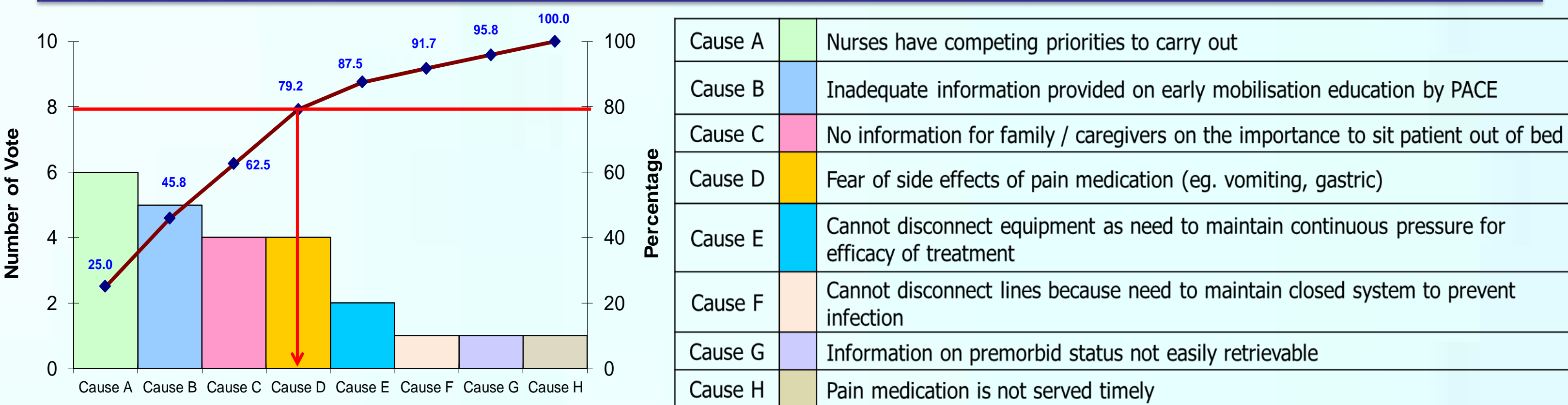
Flow Chart of Process



Cause and Effect Diagram



Cause and Effect Diagram



Cause	Description
Cause A	Nurses have competing priorities to carry out
Cause B	Inadequate information provided on early mobilisation education by PACE
Cause C	No information for family / caregivers on the importance to sit patient out of bed
Cause D	Fear of side effects of pain medication (eg. vomiting, gastric)
Cause E	Cannot disconnect equipment as need to maintain continuous pressure for efficacy of treatment
Cause F	Cannot disconnect lines because need to maintain closed system to prevent infection
Cause G	Information on pre-morbid status not easily retrievable
Cause H	Pain medication is not served timely

Implementation

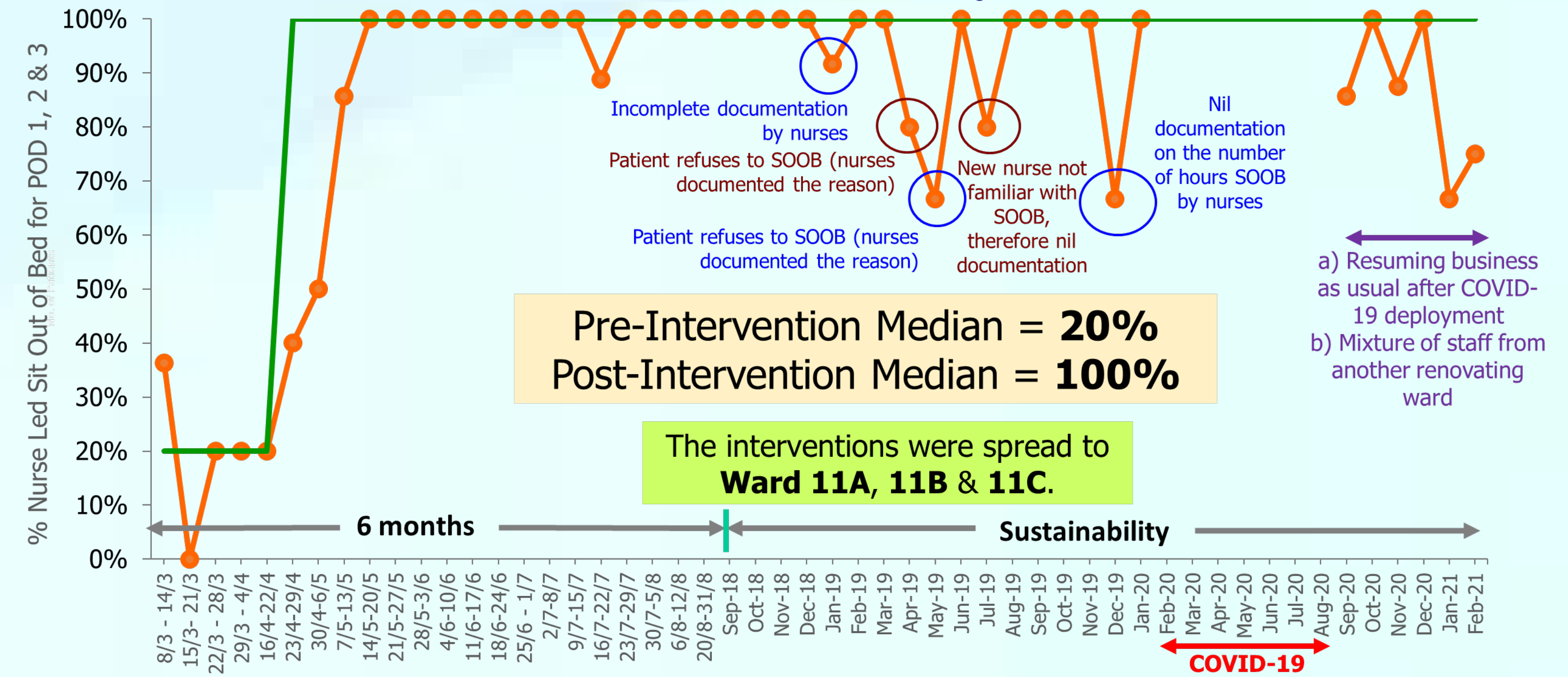
CAUSE / PROBLEM	INTERVENTION	DATE OF IMPLEMENTATION
Cause A: Nurses have competing priorities to carry out	PDSA 1: Standardisation of Schedule for Nurse Led Sit Out of Bed on POD 1, 2 & 3 in the Trend-care and indicate hours patient sat out of bed in the Ambulation Care Form.	16 April 2018
Cause C: No information for family / caregivers on the importance to sit patient out of bed	PDSA 2: Implemented pictorial script for PN/EN to educate patient, family/caregivers.	7 May 2018

Results

Sustainability Phase: % Nurse Led Sit Out of Bed for POD 1, 2 & 3

(achieve "Met" for 2 out of 3 POD)

Period: March 2018 to February 2021



Week	8/3-14/3	15/3-21/3	22/3-28/3	29/3-4/4	5/4-11/4	12/4-18/4	19/4-25/4	26/4-2/5	3/5-9/5	10/5-16/5	17/5-23/5	24/5-30/5	31/5-6/6	7/6-13/6	14/6-20/6	21/6-27/6	28/6-4/7	5/7-11/7	12/7-18/7	19/7-25/7	26/7-1/8
No. of Patients who fulfilled Nurse Led Sit out of Bed (achieve "Met" for 2 out of 3 POD)	4	0	1	2	1	4	4	6	6	4	4	4	5	9	9	3	2	3	8	8	
Total No. of Eligible Patients in Ward 11D	11	8	5	10	5	10	8	7	6	4	4	4	5	9	3	2	3	9	8		

Cost Savings

Assumption: Same patient profile in terms of pre-op functional status

Period	Pre-Intervention	Post-Intervention
No. of Patients who required Rehab Post-Op (in 3 months)	7 patients	2 patients
Assume average length of stay for patients required Rehab = 16 days		
Cost of Care at Rehab (Per Month)	(7 patients x 16 days x \$420) / 3 = \$15,680	(2 patients x 16 days x \$420) / 3 = \$4,480
Total Cost of Care at Rehab (Annualized)	\$15,680 x 12 = \$188,160	\$4,480 x 12 = \$53,760
Potential Cost Avoidance		\$188,160 - \$53,760 = \$134,400

Note: Cost Per Patient Day (at Rehab) = \$420

Problems Encountered

1. Difficult to get team together for discussion as members belong to multidisciplinary group
2. Promoting culture to change workflow takes time, effort & reinforcement.
3. Data collection is tedious and needs dedication

Lessons Learnt

1. Leadership & teamwork is imperative for successful planning & implementation of interventions.
2. Staff commitment & assertion is essential to sustain this project.
3. Change in current workflow is challenging, yet most satisfying as it anchors the success of improving patient care.

Strategies to Sustain

1. Identify ward champion to monitor the progress.
2. Continue to hold meetings & feedback sessions regularly to provide updates, successes & challenges.
3. Listen and document any concerns & have a timeline to address concerns.
4. Educate new nurses on the workflow and how change will affect patients.
5. Show appreciation for efforts by celebrating successes.