

Project Title

Same Day Discharge Following Unilateral Mastectomy

Project Lead and Members

Project leaders: Lui Su Ann

Project members: Lin Chunyu, Bation Jeanibeth Molde, Juvy Russell Amenamen Cruz, Koh Siew Yi, Murugaiyapandian Uma, Evelyn Chng Pei Pin, Jessie Tan Yuxin, Priscilla Ho Seok Lay, Joanna Goh Poh Seok, Noreen Bte Salleh, Huang Zhenna, Zarina Bte Ismail, Jasmine Leong Sok Yee, Nur Haziqah Bte Halim, Lim Yan Tong, Elizabeth, Nur Izzati Binte Ramlee, Ong See Inn Sheily, Lim Poh Jin, Yeoh Yen Shing

Organisation(s) Involved

National University Hospital

Healthcare Family Group Involved in this Project

Medical

Applicable Specialty or Discipline

Surgery, Oncology

Project Period

Start date: March 2023

Completed date: December 2023

Aims

To evaluate the feasibility, safety, and efficacy of same-day discharge after unilateral mastectomy at NUH breast surgery by December 2023.

Background

Traditionally, mastectomy has required an inpatient stay of at least one night. The COVID-19 pandemic has increased the need for outpatient management due to a shortage of acute hospital beds. Implementing same-day discharge can reduce post-surgical complications, accelerate recovery, and increase patient satisfaction.

Methods

Developed a new workflow for same-day discharge post-mastectomy, involved multidisciplinary planning and patient education, and ensured coordination across various healthcare teams. The process included patient selection, counseling, and readiness assessment.

Results

Overall success rate for same-day discharge was 63%. There were no post-operative complications or readmissions reported. All required inpatient medical reviews were completed. The reasons for unsuccessful discharge included medical conditions, anesthesia side effects, and patient anxieties.

Lessons Learnt

Clear communication with patients, effective multidisciplinary coordination, and adherence to Enhanced Recovery After Surgery (ERAS) principles are essential for successful implementation of same-day discharge.

Conclusion

The project demonstrated that same-day discharge following mastectomy is feasible, safe, and effective with appropriate patient selection and multidisciplinary coordination. Further expansion to other surgical disciplines may be considered.

Project Category

Care & Process Redesign

Quality Improvements, Clinical Practice Improvements, Value Based Care, Safe Care, Patient Satisfaction, Access to Care, Length of Stay, Discharge Planning

Care Continuum

Outpatient Care

Keywords

Same Day Discharge (SDD), Unilateral Mastectomy, Enhanced Recovery After Surgery (ERAS), Outpatient Management, Postoperative Complications, Patient Satisfaction ☐ Breast Surgery, Early Mobilization, Quality Improvement, Healthcare Efficiency ☐

Hospital Bed Management, Digital Teleconsultation, Patient-Centric, Multidisciplinary
Coordination

Name and Email of Project Contact Person(s)

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Incredible Care QIX Award (Process Excellence)

Project Title 3: Same day discharge following unilateral mastectomy

Department: Surgery

Period: March 2023 – Dec 2023

Facilitators/Author: See Li Ling

Sponsors (HODs): Nil

Team Leader/s: Lui Su Ann

Team Members: Lin Chunyu, Bation Jeanibeth Molde, Juvy Russell Amenamen Cruz, Koh Siew Yi, Murugaiyapandian Uma, Evelyn Chng Pei Pin, Jessie Tan Yuxin, Priscilla Ho Seok Lay, Joanna Goh Poh Seok, Noreen Bte Salleh, Huang Zhenna, Zarina Bte Ismail, Jasmine Leong Sok Yee, Nur Haziqah Bte Halim, Lim Yan Tong, Elizabeth, Nur Izzati Binte Ramlee, Ong See Inn Sheily, Lim Poh Jin, Yeoh Yen Shing

A. Define the Problem (PLAN)

Current Standard

Mastectomy has traditionally been an inpatient procedure with at least an overnight stay in the hospital. Currently, patients underwent mastectomy at NUH will stay 1-2 nights.

Why Change?

- The COVID-19 pandemic have resulted in a shift toward outpatient management of patients undergoing mastectomy due to shortage of acute hospital beds.
- Enhanced recovery after surgery (ERAS®) principles has been proven beneficial in many surgical procedures.
- Same-day discharge (SDD) encourages early mobilization which reduces the risk of post-surgical complications, accelerates recovery of functional capacity and shorten length of hospital stay.
- Evidence has shown that in patients having SDD post mastectomy, there is no difference between readmission rates, wound complications, reoperation rates, or number of visits to the emergency department. Patient satisfaction with SDD has been shown to be higher, and psychological recovery is also quicker. Importantly, literature also suggests that SDD is not associated with a significant increase in caregiver burden.

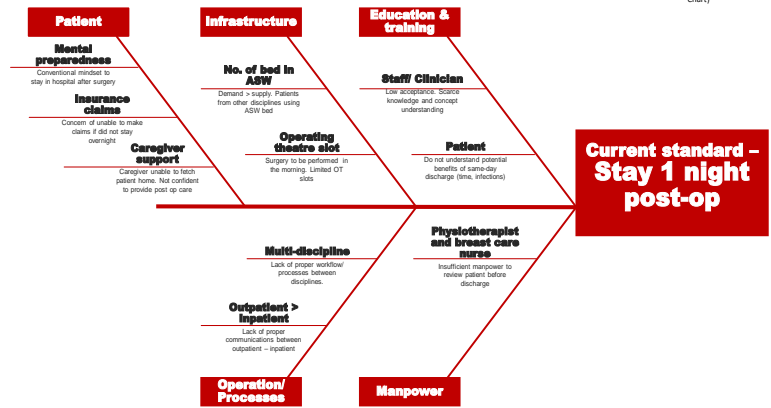
B. Goal (PLAN) Set SMART goals | Specific, Measurable, Achievable, Relevant, Time-based |



To evaluate the feasibility in terms of safety and efficacy of same-day-discharge after mastectomy at NUH breast surgery by Dec 2023

- % of patients successfully discharged within the same day before 9pm from ASW
- % of post-op complication rates (hematoma, seroma etc)
- % of re-admission rates

C. Problem Analysis (PLAN) Gap Analysis

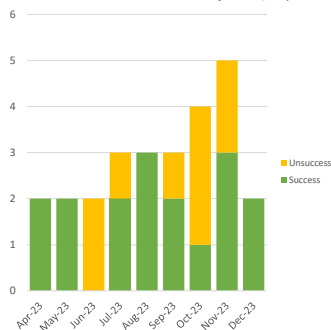


D. Interventions & Action Plan (DO)

SN	Description	People responsible	Date of implementation
1	Project introduction and briefing	Project leader	March 2023
2	Planning and discussions of workflow and potential difficulties across disciplines	Project leader, Breast care nurse (BCN)	March to April 2023
3	Develop SDD post mastectomy workflow	Project leader	April 2023
4	Subject identifications	Surgeon, BCN, coordinator	April 2023 - ongoing
5	Counsel patient and assess willingness and eligibility to take part in the program	Surgeon, BCN, coordinator	April 2023 - ongoing
6	Inform physiotherapist, anaesthetist, ASW nurses on recruited patients	Surgeon, Breast care nurses	April 2023 - ongoing
7	Review patient POD0 before discharge	Physiotherapist	Day of discharge
8	Discharge review & checklist	Surgeon, ASW nurse	Day of discharge
9	Convert BCN inpatient review on POD 1 to teleconsult	Breast care nurses	April 2023 - ongoing
10	Interim review and feedback	Project leader, OPS team, coordinator	March 2024

E. Benefits / Results (CHECK)

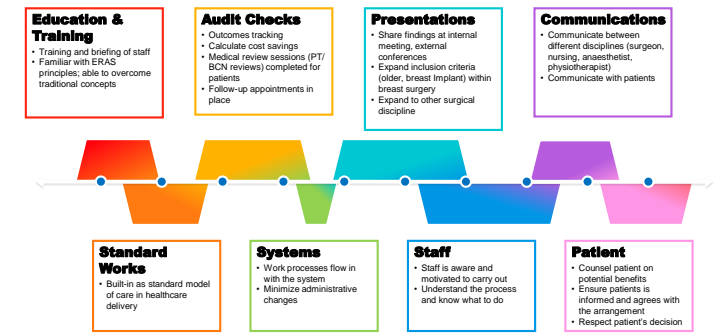
Overall success rate 63% (N = 12/19)



Other Key KPIs	
Post-op complication rate	0%
Re-admission rate	0%
Inpatient medical review sessions completed (e.g PT / BCN review)	100%

Reasons of unsuccessful events	
- Medical reasons (e.g. drain output >200mls/hr, hematoma, wound gapping)	
- Anesthesia side effects (nausea, vomit, giddy with unstable gait, unable to urinate)	
- Unsafe for home as assessed by physiotherapist	
- Increase anxieties over personal reasons	

F. Strategy for Spreading/ Sustaining (ACT)



A. Define the Problem (PLAN)

Current Standard

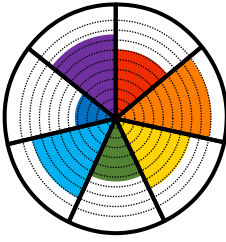
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B. Goal (PLAN)

Set SMART goals | Specific, Measurable, Achievable, Relevant, Time-based |

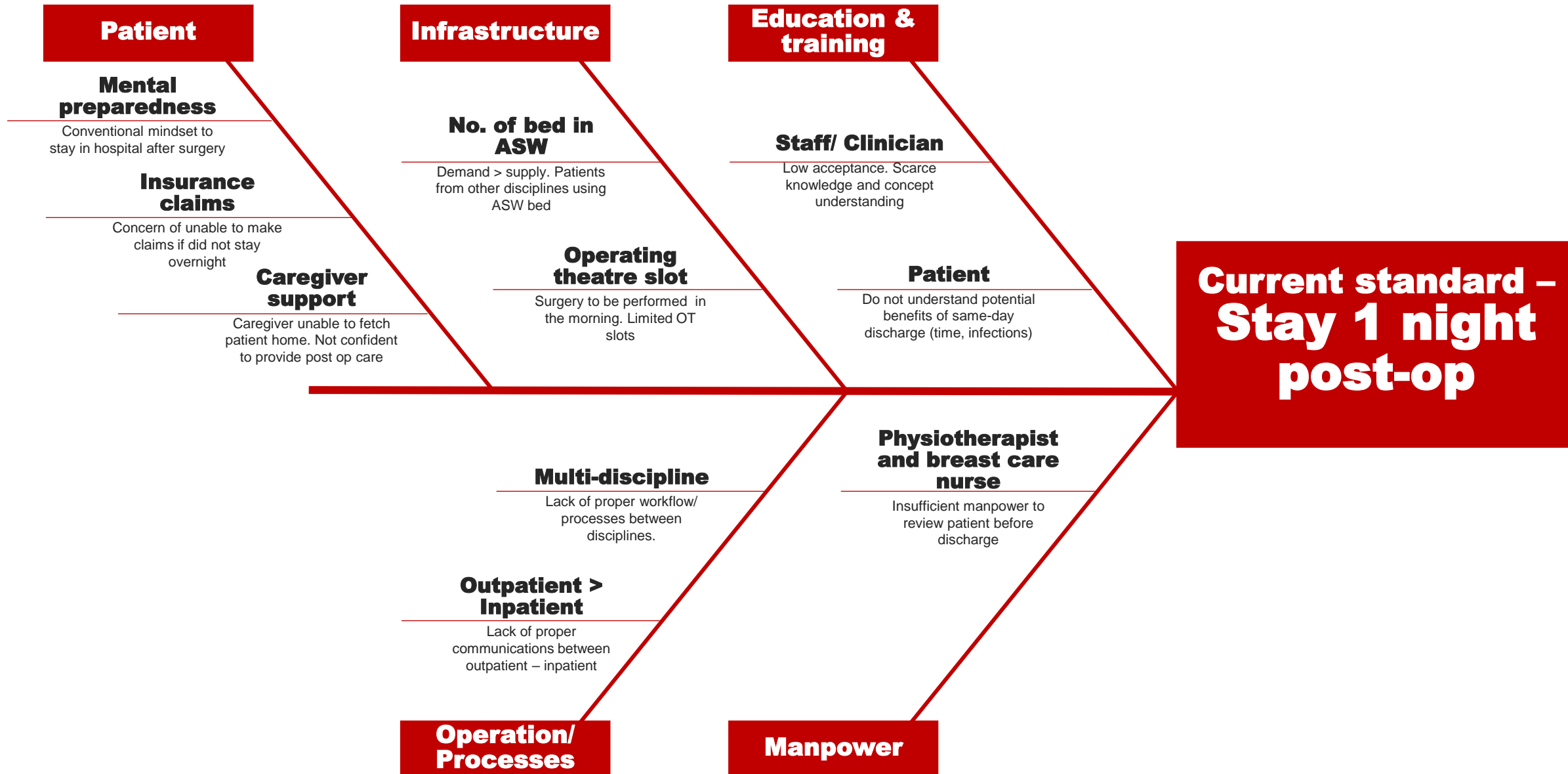


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C. Problem Analysis (PLAN) Gap Analysis

You may use more than 1 problem solving tools (Gap Analysis, VSM, Paradigm, Pareto Chart)



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Other Key KPIs

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F. Strategy for Spreading/ Sustaining (ACT)

Education & Training

- Training and briefing of staff
- Familiar with ERAS principles; able to overcome traditional concepts

Audit Checks

- Outcomes tracking
- Calculate cost savings
- Medical review sessions (PT/BCN reviews) completed for patients
- Follow-up appointments in place

Presentations

- Share findings at internal meeting, external conferences
- Expand inclusion criteria (older, breast Implant) within breast surgery
- Expand to other surgical discipline

Communications

- Communicate between different disciplines (surgeon, nursing, anaesthetist, physiotherapist)
- Communicate with patients



Standard Works

- Built-in as standard model of care in healthcare delivery

Systems

- Work processes flow in with the system
- Minimize administrative changes

Staff

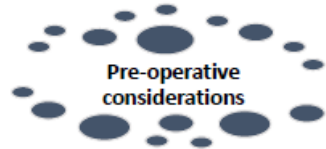
- Staff is aware and motivated to carry out
- Understand the process and know what to do

Patient

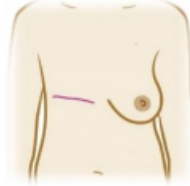
- Counsel patient on potential benefits
- Ensure patients is informed and agrees with the arrangement
- Respect patient's decision

Appendix

Same Day Discharge Unilateral Mastectomy Patients in ASW



Pre-operative considerations



Surgeon identify eligible patients based on inclusion criteria:

- Unilateral breast cancer for mastectomy with axillary surgery
 - Bilateral/ Combined surgery/ Reconstruction surgery are not eligible
- Aged < 65yo
- Surgery skin closure before noon
- No significant pre-morbidities or clinically fit for day surgery admission according to breast surgeon or outpatient anaesthesia protocol
 - No cardiac disorder
 - No renal failure
 - No diabetes or well controlled with HbA1c <8%
 - Not on blood thinning medication
 - No mental health issues or not on medications for anxieties / depression /schizophrenia
- Presence of social support – caregiver identified
- No coping issue related to home with drains
- No issue with insurance-related criteria (eg need overnight stay for claims)

What to do next?

- Patient and caregiver agree to SDD
- Refer to BCNs
 - Counseling
 - Videos on pre and post op surgery care
- AOCC (decided by surgeon)
- List as the 1st or 2nd op case of the day



Appendix

Inpatient Discharge Process

DR discharge review

- Patient fulfilled discharge criteria (discharge score ≥ 9)
- Ensure orders are raised for:
- Standardized medications for pain, nausea/vomiting and constipation (to do intra-op to expedite process)
- Discharge summary (to include diagnosis and hospitalization leave)
- x3 TCU outpatient follow ups - nurse televisit review (on 2nd POD), BCN review (on 5th POD), surgeon postop review 2/52

Nurse discharge checklist

- Patient and identified carer taught on PFE and given drain bottles
- Discharge summary and Follow up appointment given and explained to pt and carer
- Medications for oral analgesia ready for collection in pharmacy
- PT has seen for arm exercises by 4pm

Appendix

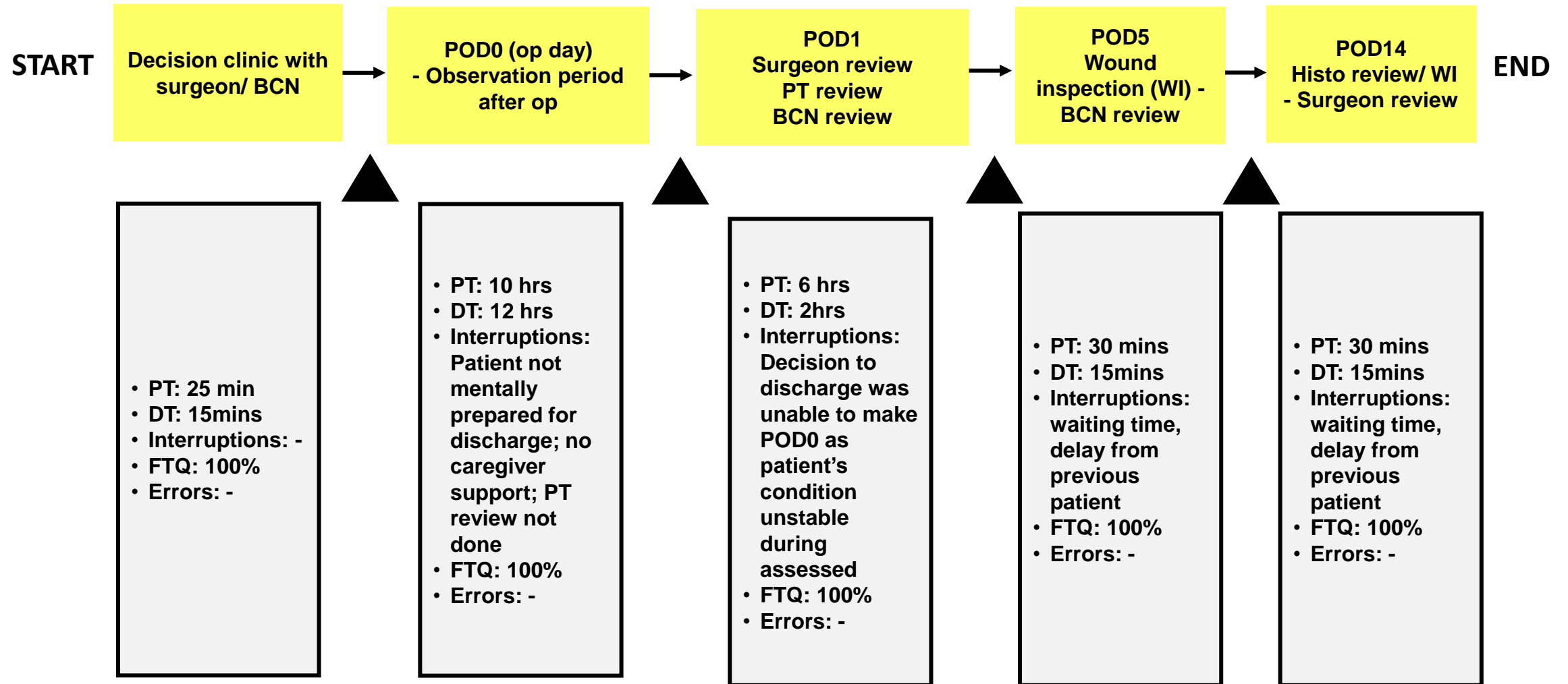
Same-day discharge post-op assessment

Discharge Criteria

Criteria	0	1	2
Vital Signs – stable and consistent with age and pre-operative baseline	BP & pulse > 20% of pre-op baseline	BP & pulse 20% of pre-op baseline	BP& pulse within 20% of pre-op baseline
Activity level – Patient must be able to ambulate at pre-op level	Unable to ambulate	Requires assistance	Steady gait, no giddiness, or meets pre-op level
Nausea and vomiting – Patient should have minimal nausea and vomiting before discharge	Severe – continues after treatment	Moderate – successfully treated with intramuscular medication	Minimal – successfully treated with medication
Pain – Patient should have minimal or no pain before discharge. The level of pain should be acceptable with patient. The location, type, and intensity of pain should be consistent with anticipated post op discomfort		Pain score 4 - 6	Pain score 0 - 3
Surgical bleeding – should be consistent with expected blood loss for the procedure	Severe – > 3 dressing change required (>200mls HSF/hr)	Moderate – up to 2 dressing change required	Minimal – does not require dressing change

- Patients scoring greater or equal to 9 are fit to be assessed by doctor for discharge.
- Escalate to doctor if criteria are not met. Patient cannot be discharge.

C. Problem Analysis (PLAN) Value Stream Map



PT: Process Time
 DT: Delay Time
 FTQ: First time quality