

Project Title

Nurse-Led Anaesthetic Discharge in Post Anaesthesia Care Unit in Perioperative Settings.

Project Lead and Members

Project lead: Lye Soh Teng

Project members: Lai, F.W.; Law, P.S.; Leong, A.; Shao, M.; Castillo, J. N.; Seet, E., Cheong, G.; Bin, W.H.

Organisation(s) Involved

Yishun Health, Khoo Teck Puat Hospital

Healthcare Family Group(s) Involved in this Project

Allied Health, Nursing

Applicable Specialty or Discipline

Anaesthesiology, Surgery

Project Period

Start date: not indicated

Completed date: not indicated

Aims

The Nurse-Led Anesthetic Discharge (NLAD) initiative aims to enhance quality and care experience to our surgical patients by transforming care via training & empowering nurses to discharge post-surgery patients from Post Anaesthesia Care Unit (PACU).

Background

See poster appended/below

Methods

- Nurses are trained in Basic Modules 136hours and Specific structured curriculum of 13 hours with E-learning as yearly competency. Basic training - Anaesthesia Nurse trained with BCLS, ECG interpretation, Life support course for nurses (LSCN), Simulation Resuscitation, Venepuncture and IV Cannulation, Pain and airway management (66hours) and 70 hours of on-the-job training.
- Specific training - Structured curriculums (2 hours E-lecture modules were co-developed to train and certify the nurses for the expanded job scopes, 4 hours of NLAD lectures and 7 hours of NLAD OJT, making it 13 hours of specific training. E-learn lectures and modules are formulated and established in the training system

Results

See poster appended/below

Conclusion

NLAD success is accredited to 4 main supports namely, leadership support, robust training and accreditation system, standardized workflow and acceptance of change. NLAD has consistently achieved optimal operational efficiency, manpower productivity and enhanced nurses' professional standing.

Project Category

Training & Education

Assessment

Keywords

Post-surgery patients, Post Anaesthesia Care Unit, Basic Training, Simulation resuscitation, Venepuncture, Lean Six-Sigma, Lewin's Change Methodology,

Name and Email of Project Contact Person(s)

Name: Lai Foon Wan Anne

Email: lai.foon.wan@ktph.com.sg

Nurse-Led Anaesthetic Discharge in Post Anaesthesia Care Unit in Perioperative Settings.

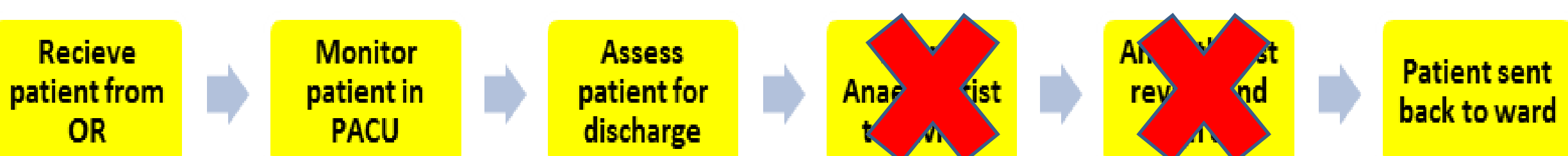
¹Lai, F.W.; ¹Law, P.S.; ¹Leong, A.; ¹Shao, M.; ¹Castillo, J. N.; ²Seet, E.; ²Lye, S.T.; ²Cheong, G.; ²Bin, W.H.
Day Surgery Centre¹, Anaesthesia Department²
Khoo Teck Puat Hospital

Background and Aims

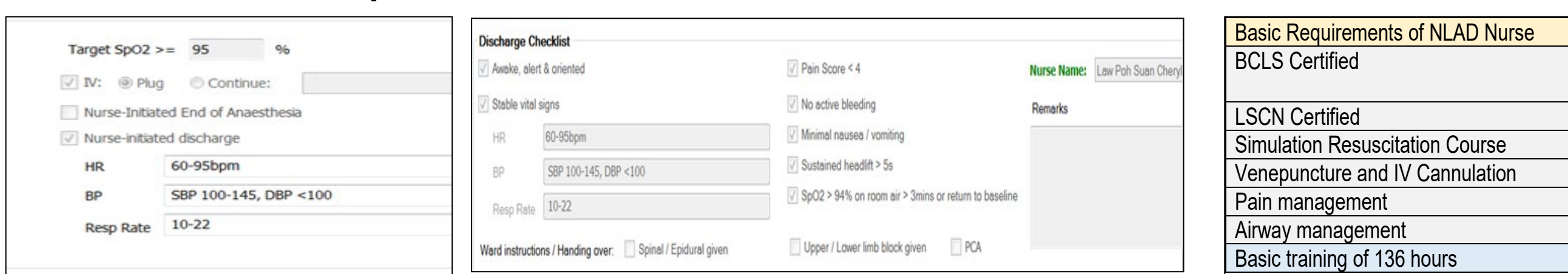
This is a collaborative project by Department of Anaesthesia and Perioperative Nursing Team. The **Nurse-Led Anaesthetic Discharge (NLAD) initiative aims to enhance quality and care experience to our surgical patients** by transforming care via training & empowering nurses to discharge post-surgery patients from Post Anaesthesia Care Unit (PACU).



As-was process involves a lot of coordination, communication and hand-over of cases.



To-be process, NLAD utilized a trained nurse to provide post-operative anesthetic care and authorized them to discharge patient under their care, supported by protocol guidance and Anaesthetist supervision.



Basic Requirements of NLAD Nurse
BCLS Certified
LSCN Certified
Simulation Resuscitation Course
Venepuncture and IV Cannulation
Pain management
Airway management
Basic training of 136 hours

Methodology

Unfreeze Process – For new staff, we apply unfreeze to prepare them for change.

Change Process– For existing staff, we encourage and provide continuous support and recognition through completion of their re-accreditation.

Refreeze Process – Continuous monitoring of process is carried out to ensure potential gaps were closed. Competencies were reviewed yearly to ensure new training requirements are included. Cases will be audited retrospectively for tracking NLAD performance.

Results and Project Impact

Since implementation, **more than 8000 NLAD cases** were successfully carried out uneventfully.

Improved Discharge Times

Patient's stay in the PACU is effectively preventing bottleneck.

	As Is Workflow	To Be Workflow
Discharge Time (when patient is ready for discharge)	10 to 15mins	0 mins (no need for Anaesthetist to review)

Dedicated Trained Staff To date,

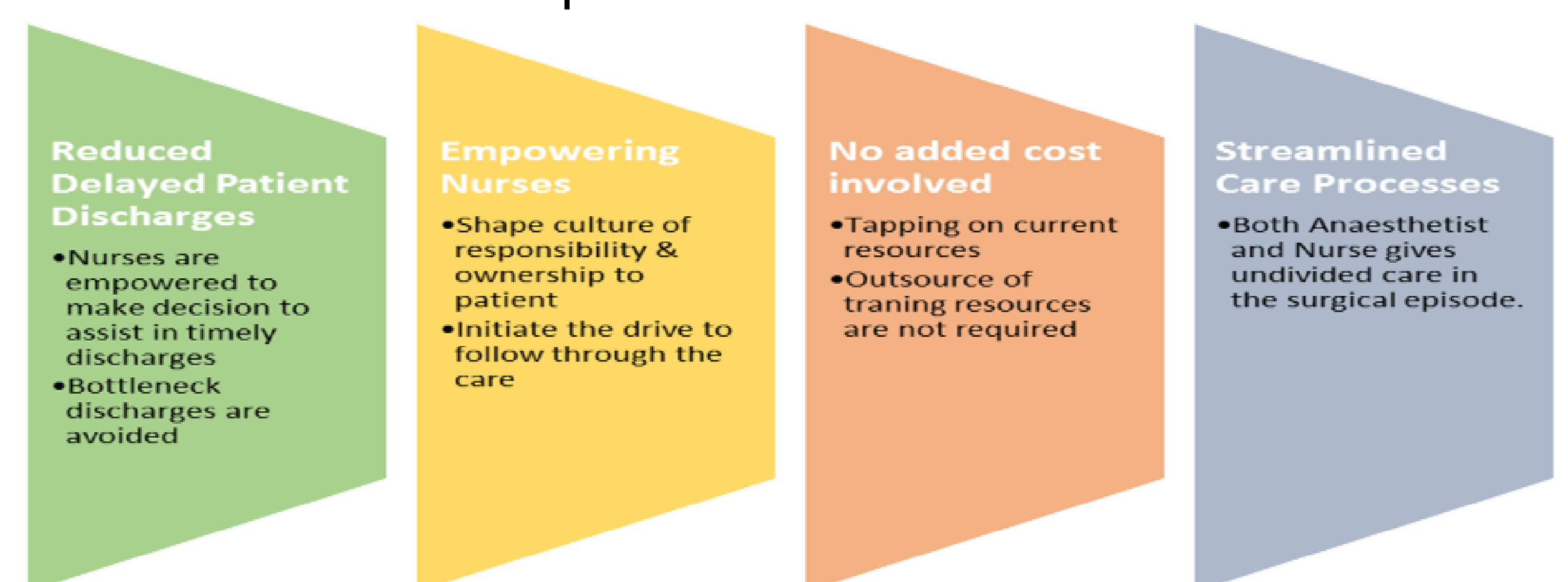
25 AU nurses are trained competent to carry out NLAD.

Initiatives / Measurement and Impact	Hospital savings	Patient savings and care	Productivity
Nurse-led Discharge of Post Anaesthesia Care Patients in Day Surgery Centre	Time-Savings: Time needed to review patient is negated. GA Time Savings: 40 Mins MAC Time savings: 10mins	Care process is streamlined. Patient Savings: Patients do not need to stay longer in recovery unit resulting in faster discharges. Cost avoidance of additional charges to prolonged stay in recovery	Productivity savings: Anaesthetist do not need to come out from OT to review the case in PACU. Total time savings for 7956 patients: 119,340 mins = 83 days



This project has sustained few significant impacts. Both organization and nurses contributed to cost-savings, effective care and improved professional knowledge.

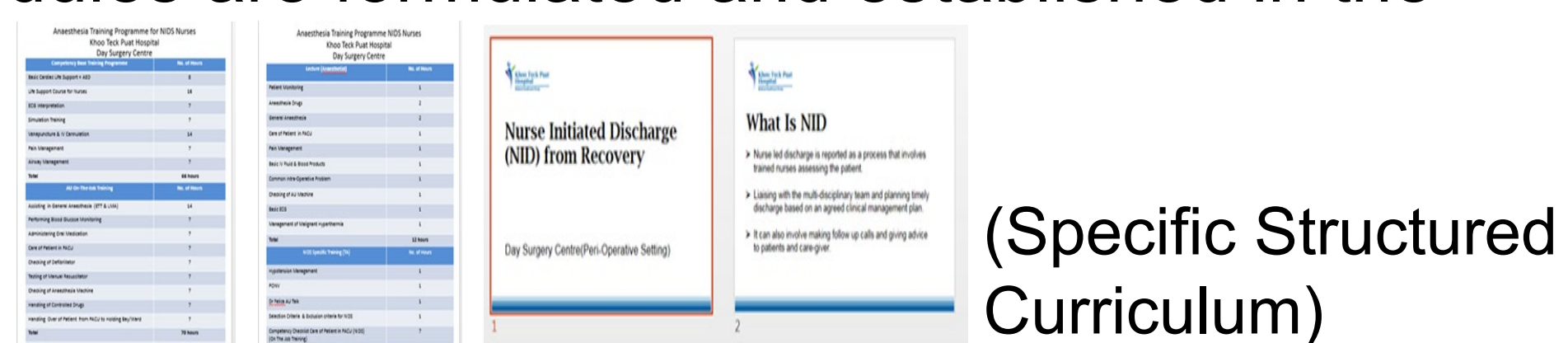
Project impact included: Reduced delayed patient discharges, empowering nurses, no added cost involved and streamlined care processes.



Methodology

Nurses are trained in **Basic Modules 136hours** and **Specific structured curriculum of 13 hours** with E-learning as yearly competency. **Basic training** - Anaesthesia Nurse trained with BCLS, ECG interpretation, Life support course for nurses (LSCN), Simulation Resuscitation, Venepuncture and IV Cannulation, Pain and airway management (66hours) and 70 hours of on-the-job training.

Specific training - Structured curriculums (2 hours E-lecture modules were co-developed to train and certify the nurses for the expanded job scopes, 4 hours of NLAD lectures and 7 hours of NLAD OJT, making it 13 hours of specific training. E-learn lectures and modules are formulated and established in the training system.



(Specific Structured Curriculum)

Unfreeze (Readiness to Change)	Change (Implementation)	Refreeze (Integrate and Sustain)
<ul style="list-style-type: none"> Educate & Inform all stakeholders Plan objectives, resources, time scales, budget Organize work plans Appoint team leads and members 	<ul style="list-style-type: none"> Praise & Encourage Recognition and Empathy Coach & Train Lead & Manage Regular Feedback Provide Resources 	<ul style="list-style-type: none"> Set performance indicators Monitor & Evaluate performance Establish systems & control Reward for new behavior Consolidate & Sustain

(Lewin's Change Methodology)

Sustainability and Follow-Up

Control and sustainability plan is via **Lean Six-Sigma and Lewin's Change Methodology** to continuous monitor and evaluate the changed process.



Process Standardization	<ul style="list-style-type: none"> Standardized Training Structure Standardized workflow
Focused Improvement	<ul style="list-style-type: none"> Team members empowered to identify & resolve problem(s) themselves. Problem-solving can be shared retrospectively for case-learning.
Mistake Proofing the Process	<ul style="list-style-type: none"> Standardised Operating Procedures Standardised Training Methodology Simulation Exercises
Monitoring	<ul style="list-style-type: none"> Control Charts to monitor progress

This project involves the integration and coordination to become a standardised care path, communication is done among team members founded on **mutual respect and professionalism, collaborative approach and collective leadership, value-add, patient-centric, coordinated care.**

Conclusion

NLAD success is accredited to 4 main supports namely, **leadership support, robust training and accreditation system, standardized workflow and acceptance of change.** NLAD has consistently achieved optimal operational efficiency, manpower productivity and enhanced nurses' professional standing.