



Singapore Healthcare Management 2017

To Provide Seamless Transfer of Patients from PACU to ICA

Project team members:

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BACKGROUND

A new workflow was introduced for the direct transfer of fast track patients from the Post-Anaesthesia Care Unit (PACU) to the cardiac surgical ward, Intermediate Care Area (Ward 56 ICA); bypassing the Intensive Care Unit (ICU) to facilitate the continuation of acute care after open heart surgery.

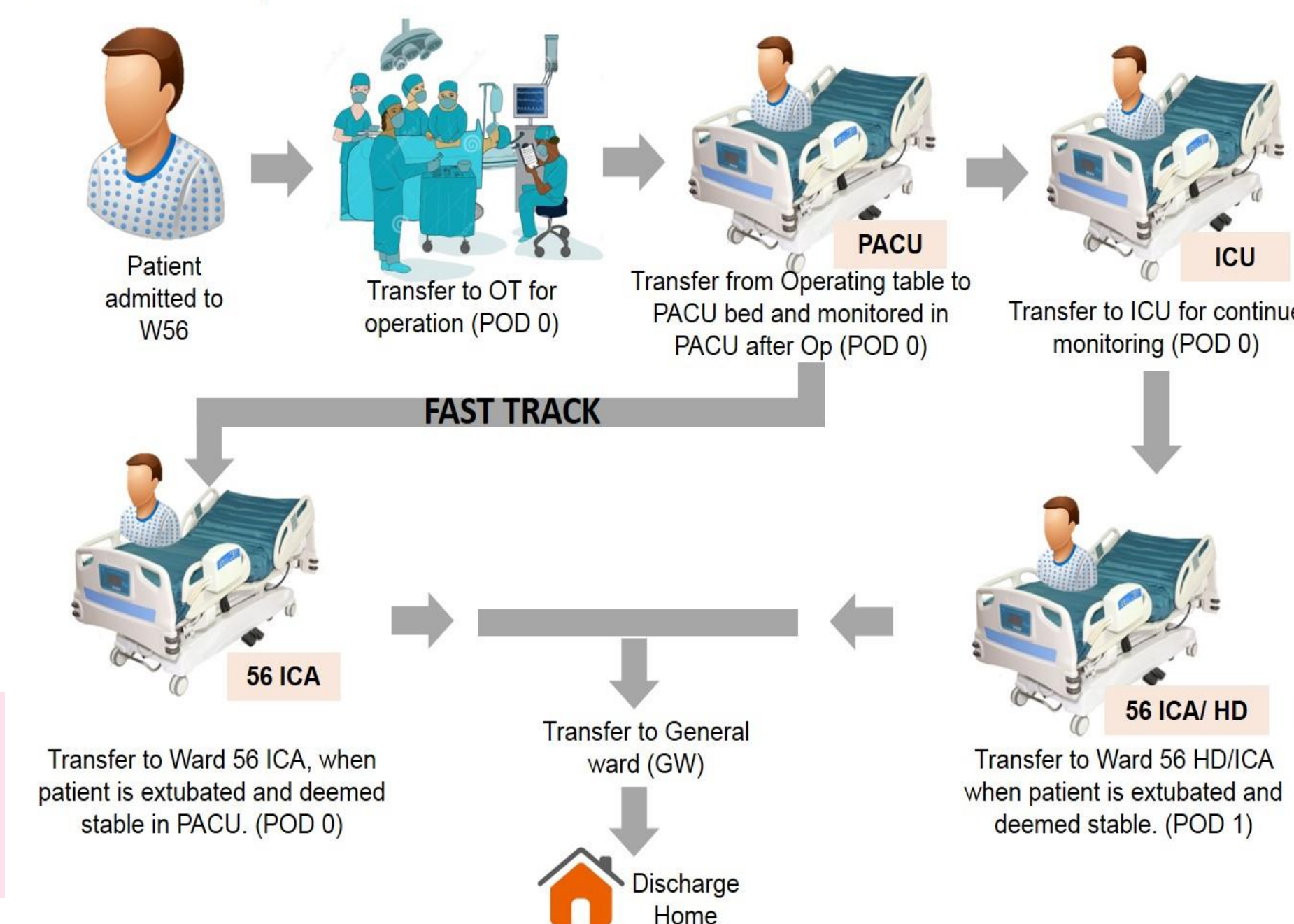
An efficient bed transfer process will increase the surgeons' confidence in putting more eligible patients on the fast track program hence increase the take up rate of the fast track program, allowing patients to save on hospitalisation cost. Besides cost savings for patients, the fast track program would relieve more CTICU beds for the care of critically ill patients.

Patients on the fast track will save about \$418.37 for bypassing the more expensive stay in ICU.

Mission Statement:

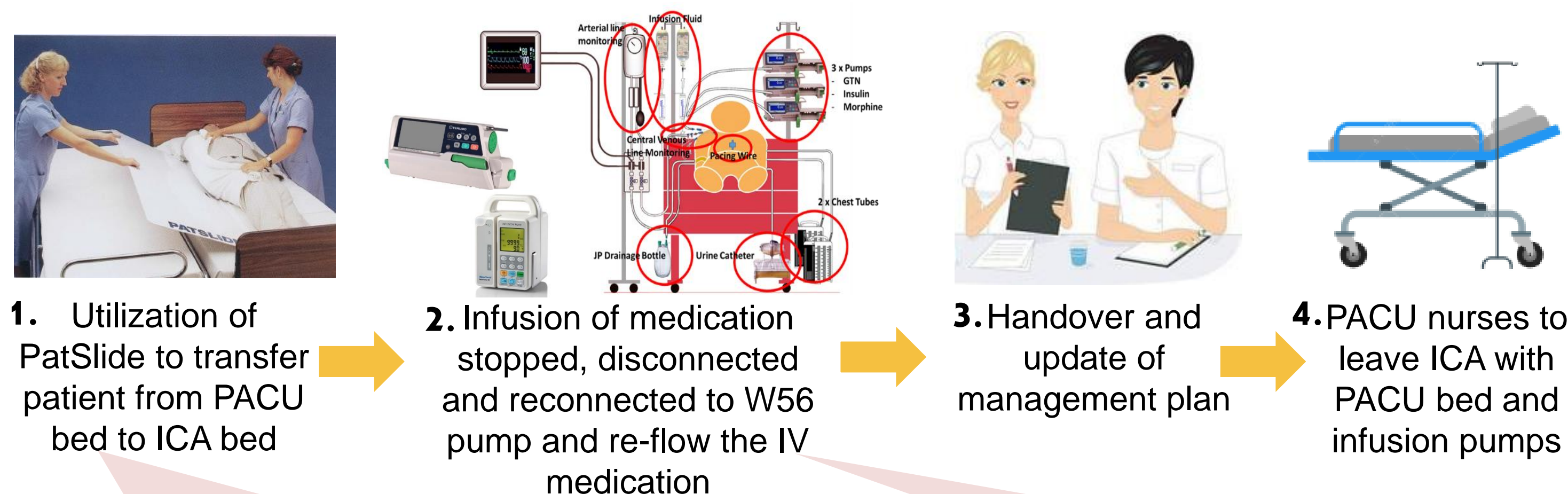
Improve the step-down care transfer (PACU to 56ICA) for fast track open heart surgery patients

Patient flow process for elective CABG



PRE-IMPLEMENTATION

Previous Situation during the transfer (~6 hours post operation)



Problem:
1. Patients have regained consciousness, bed transferring leads to pain and discomfort.
2. Possibility of drains/lines dislodgement.

Problem:
1. No continuous flow of medication as the flow is disrupted.
2. Pumps need to be swop as they belong to different units.

SOLUTIONS

PDCA 1 - 5S tool (Standardisation)

The bed transfer (PACU bed to W56 bed) is **postponed** from Operation Day to POD 1 onwards. On POD1 some IV medications discontinued and drains/lines are also removed, hence **reducing the risk of dislodgement**.

1. Utilization of PatSlide to transfer patient from PACU/ bed to ICA bed on POD 0



PDCA 2 - Streamlining the process

Eliminate swapping of pumps during the transfer from PACU to Ward 56 ICA to **ensure continuous flow** of medication post-operatively.



2. Change of Pumps: Stop the infusion of medication and drugs, disconnect and reconnect to the W56 pump and re-flow the IV medication and infusions

3. Handover and update of management plan from PACU nurse to W56 nurse



4. PACU nurse to leave with PACU bed and PACU infusion pumps

CONCLUSION

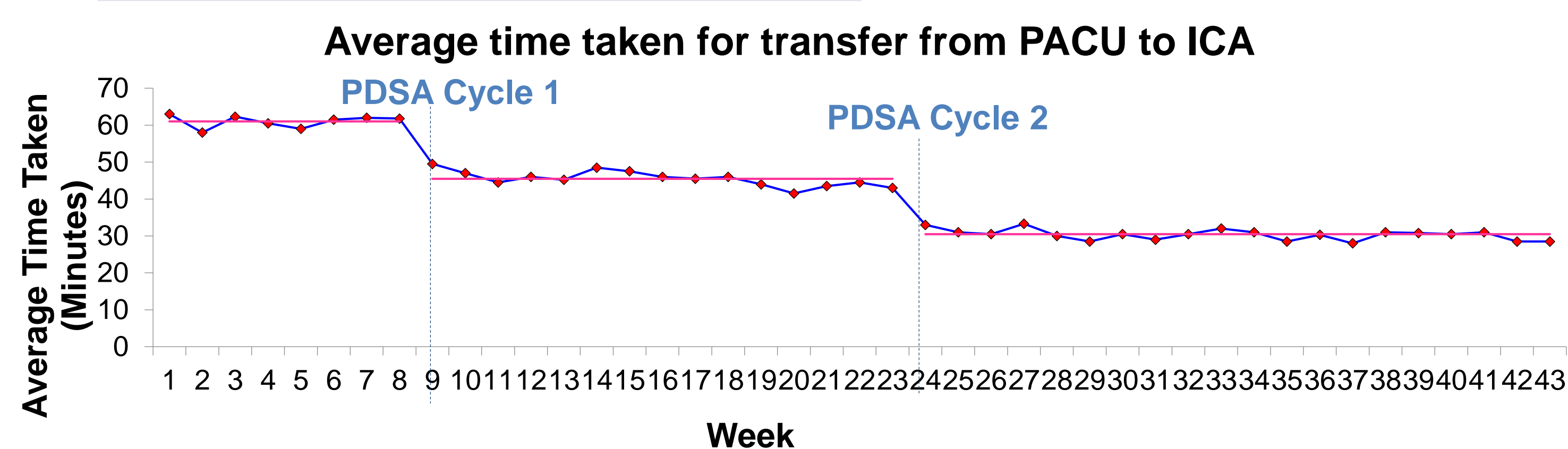
The new seamless transfer workflow had achieved a time saving of 30 minutes and attained cost saving of \$31,200 for NHCS. In addition, the new workflow has increased staff efficiency and satisfaction. Most importantly, patient's overall experience during the journey in NHCS has improved without compromising service and patient care. The project has showed our commitment to SingHealth SPREE quality priorities and NHCS goal of providing excellent in healthcare for patients.

RESULTS

✓ Patient Safety

- On POD1 several IV medications discontinued, drains/lines are also removed, hence bed transfer poses a lesser risk for patients.
- No disruption to patient treatment, especially intravenous medication. Improve patient safety and reduced potential medication errors.

✓ Time and Manpower savings



Stages (per case)	Total time taken (patient transfer)	No. of Manpower (patient transfer)	Total time per patient transfer	Time taken to clean pumps	Total man hours	Total no. of /year
Pre implementation	60 minutes	4	240 minutes	30 minutes (2 sets of pump)	4.5	864
Post implementation	30 minutes	2	60 minutes	15 minutes (1 set of pump)	1.25	240

624 man hours saved per annum!

Time taken during step-down care transfer was reduced by **30 Minutes** + Manpower required was reduced from **4 to 2 Nurses**

The project led to an estimated **Man Hour savings of \$31,200 per annum!**



✓ Patient Hospital Care savings

Doctors' confidence in the fast track process lead to an increase in take up rate from **10 cases** per month to average of **16 cases** per month. The fast track patient will by-pass 1 night stay in the ICU which is more costly than the ICA or General ward. ⇒ Average savings per fast track patient = **\$418.37**

72 more cases per annum

The project led to an estimated **Patient Hospital Care savings of \$30,123 per annum!**



✓ Staff Satisfaction

The percentage of staff with satisfaction level above 5 **improved** from **5% to 65%**



✓ Team Work & Collaboration

1.Reduced restrictions
Ward 56 ICA staff can accept transfer patient at any time with the improved transfer process.

2.Reduced potential hazard
During transfer, there are potential risks involved such as injury to staff/patient if pump drop.