



Singapore Healthcare Management 2016

Establishment of Preoperative Evaluation Clinic (PEC) Service to Streamline the Workflow in Cardiothoracic Surgery

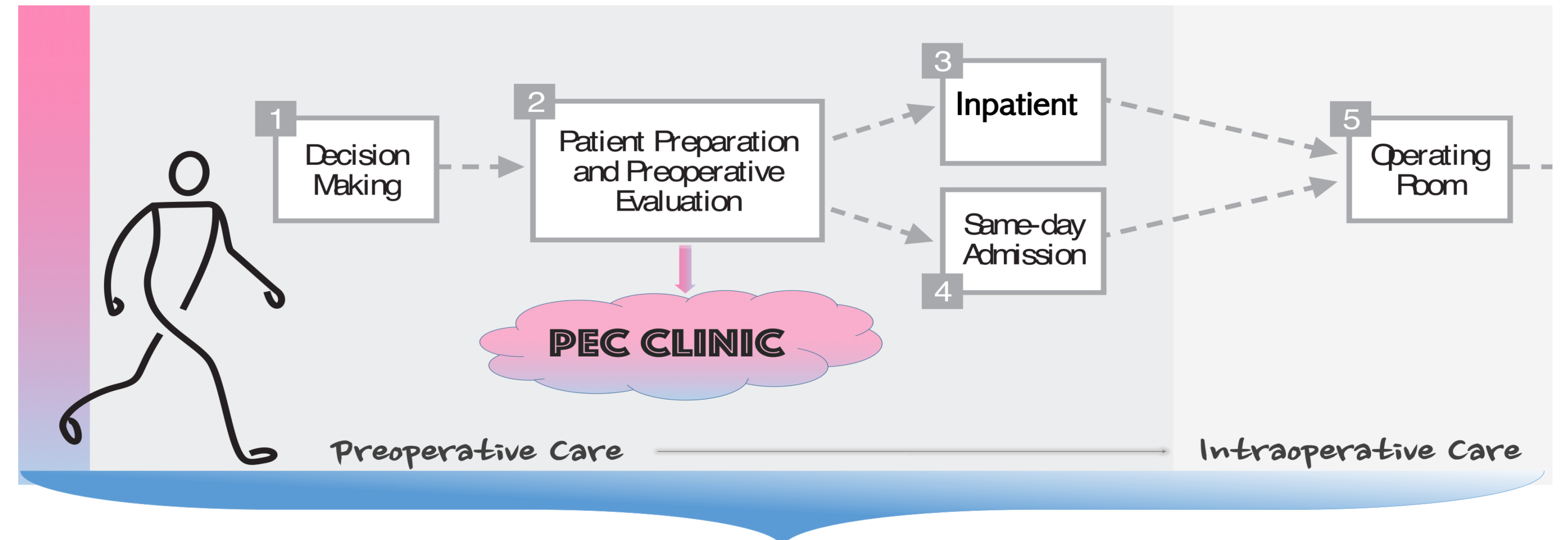
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INTRODUCTION

Cardiothoracic surgeries carry significant risks and require thorough preoperative assessment and optimization. By employing a streamlined preoperative evaluation workflow, we aim to enhance the perioperative safety and efficacy, as well as to optimize resources and facilities.

The cardiothoracic Surgery System



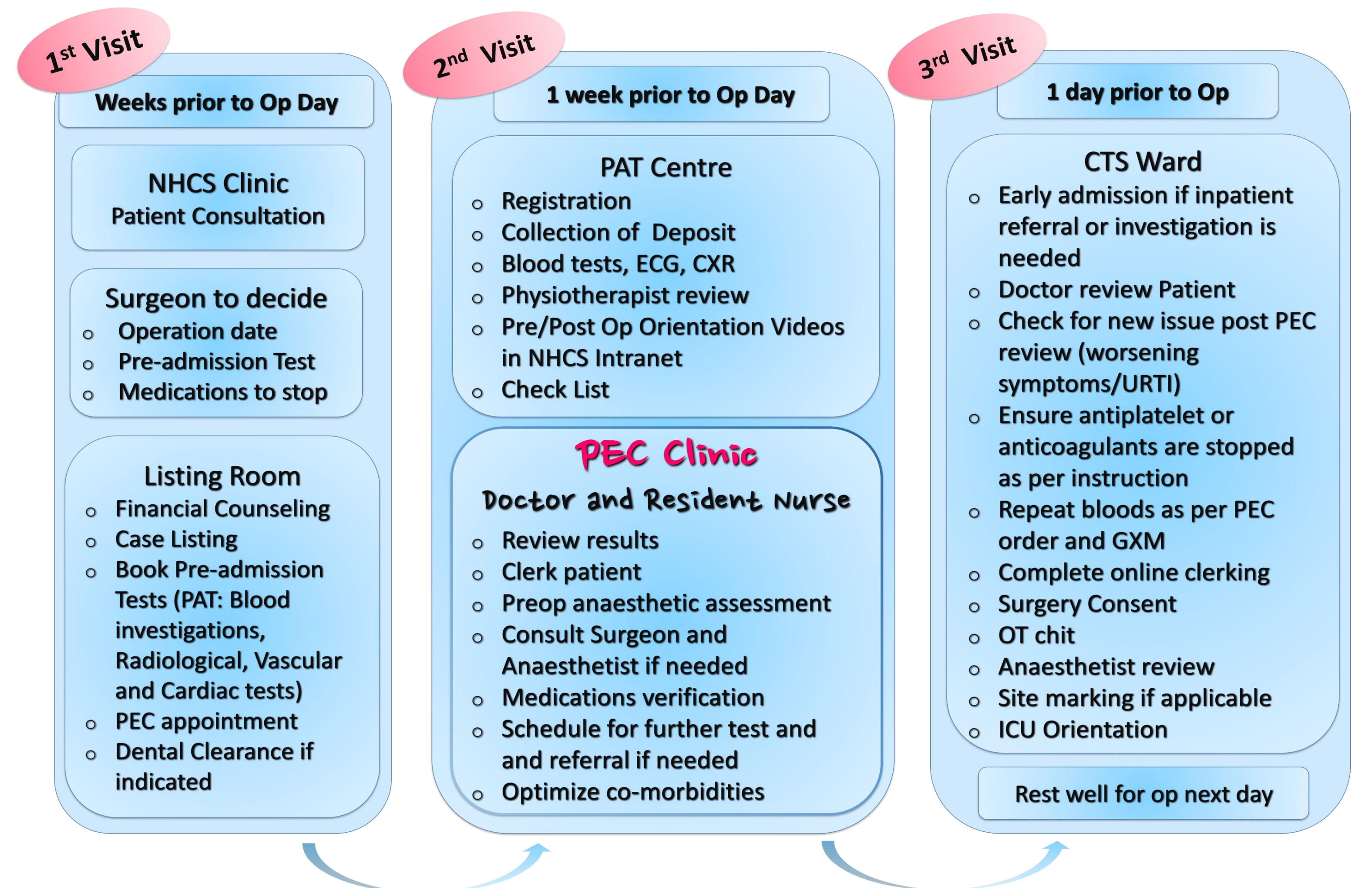
METHODOLOGY

The **Preoperative Evaluation Clinic (PEC)** was established in Nov 2015 to provide both **SURGICAL** and **ANAESTHETIC** assessment for all elective cases in Cardiothoracic Surgery department of NHCS.

What is PEC Clinic?

- ✓ To incorporate “one-stop” preoperative visit into the conventional “Clinic-Admission” pathway.
- ✓ To adequately prepare patients and “ready-to-go” for major cardiac or thoracic operations before admission.
- ✓ To Identify potentially avoidable factors so that early interventions could be made before surgery.
- ✓ Reduce last minute cancellation of cases.

NHCS Cardiothoracic Surgery Elective Admission PEC Workflow



RESULTS

Figure 1. Preoperative Evaluation Clinic (PEC) Workload

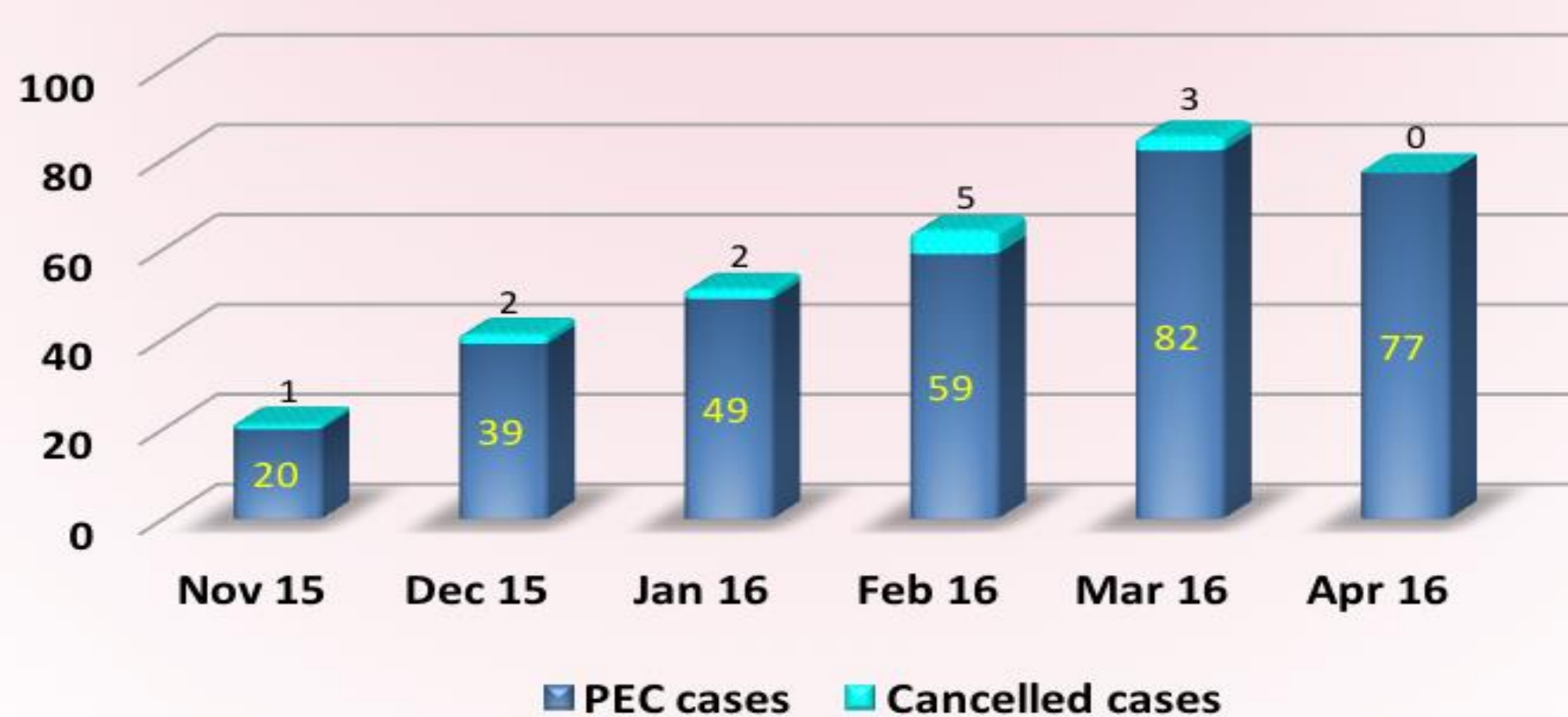
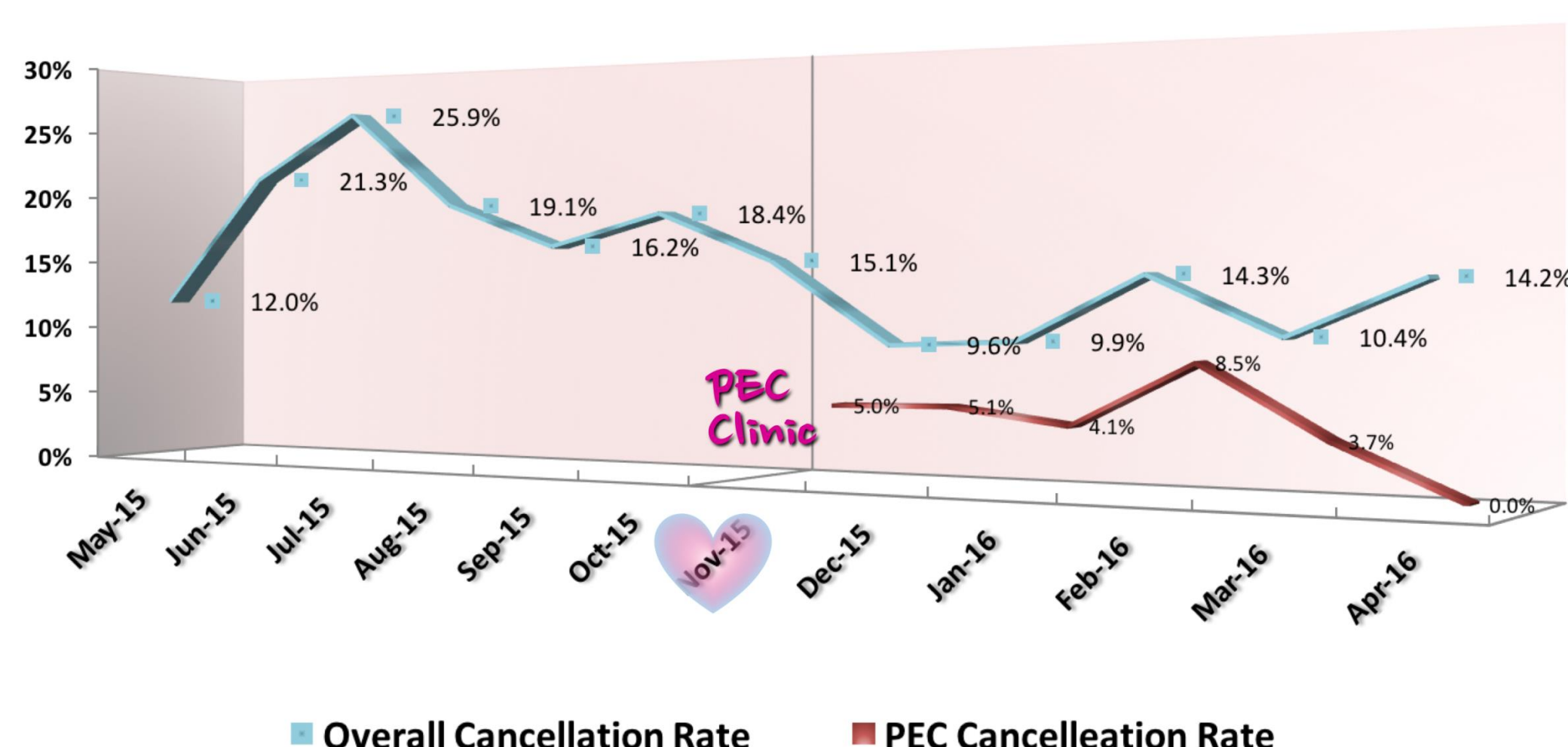


Figure 2. Overall and PEC Cancellation Rate of Elective Cases



Cancellations were analysed and compared before and after PEC clinic was launched. Since its opening in Nov 2015, PEC has received 326 elective cases in the first 6 months.



Cancellations of PEC cases upon admission has reduced from 5.0% in November 2015 to 0% in April 2016.

- ✓ Most common reasons included newly-onset of fever/Upper respiratory tract infections after PEC visit, incidental findings of abnormal results requiring treatment such as acute Deep vein thrombosis, or change of decision by patient or surgeon.
- ✓ Avoidable causes such as no cessation of antiplatelet agents, lack of dental clearance for valve cases or request for further investigations by anaesthetist in view of high risk for general anaesthesia have been minimised.
- ✓ Patients also felt more comfortable and less anxious after appropriate orientation and counselling during PEC visit.

A comparisons study was made between PEC and non PEC cases when patients would only go through the “Clinic-Admission” pathway.



Overall cancellation rate of all elective cases has decreased to 12.3% from a previous 18.8%.

CONCLUSIONS

PEC workflow specifically designed for cardiothoracic surgery has been successfully established in NHCS. This streamlined preoperative evaluation system has significantly reduced the cancellation rate of elective cases with improved patient satisfaction. PEC workflow also serves as a platform for the further expansion of a Same-Day Admission (SDA) system for straightforward “low-risk” cases.