



Pre Admission Service Passport to Better Surgical Outcomes

Claire Culley

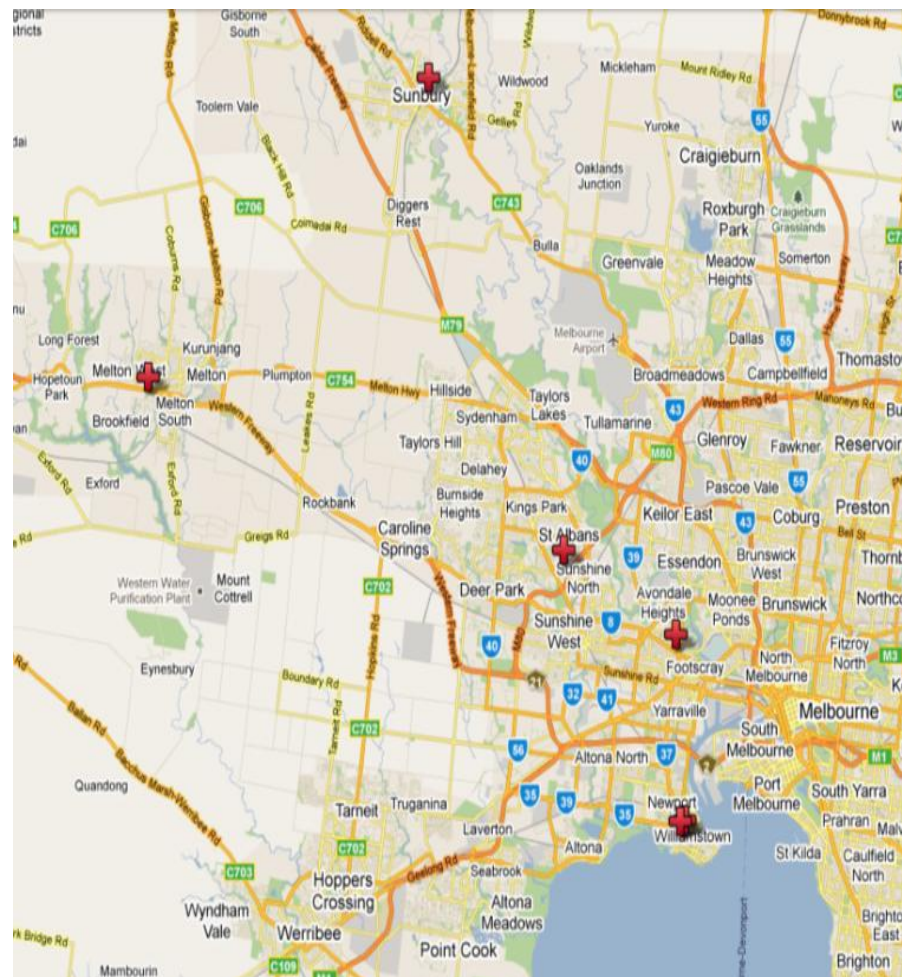
Divisional Director

Surgical Services Western Health



About Western Health

- The only major health service in Melbourne's west
 - 4 Acute Hospitals
 - 2 Aged Care facilities
 - Drug and Alcohol Services
- Fastest growth population corridor in Australia
- Current catchment of 775,000
- 5,000 staff
- Annual budget of \$470 million





Our Demographics

Population growth

- Fastest growing area of Australia
- 260,000 extra people in 15 years
- 33% population growth
- Birthing growth: >10% pa
- Forecast activity growth: 4.2% pa

More local services

- Outer west : 43% self sufficiency
- Development of tertiary health care
- Reduce travel to inner city

City third biggest and rising

Only behind Geelong and Casey, and one of state's top growth regions

Community | Linh Ly

BRIMBANK'S population remains the third-largest in the state and the second in metropolitan Melbourne, latest statistics have shown.

Australian Bureau of Statistics figures for the 2009-10 financial year has put the municipality's population at about 189,386 people, behind only Greater Geelong and Casey.

Brimbank grew by about 3380 people, just inside the top 10 on sheer growth number.

the state. While proper planning and commitment were needed from governments to manage the growth, he felt they were on "the right sort of track".

"There's a whole new future of opportunity with major investment in transport and infrastructure," he said.

"I often think it's much better to be in a place that's growing with vibrancy and life," he said.

Victorian Council of Social Service chief executive Cath Smith said she hoped an urban infill in Brimbank would give instifi-

605,411
This is how much Melbourne has grown by in the past 9 years

City	Population	Change
Melbourne	605,411	+189,386
Geelong	189,386	+3380
Casey	189,386	+3380
Ballarat	189,386	+3380
Hobart	189,386	+3380
Canberra	189,386	+3380
Gold Coast	189,386	+3380
Adelaide	189,386	+3380

City
Outer suburbs fastest growing in the nation



Future Role of Each Campus

Sunshine Hospital

- Tertiary, emergency, maternity, paediatric

Western Hospital

- Increasing elective role in specific stream
- Maintain emergency function

Williamstown Hospital

- Low acuity urgent care
- Elective surgery

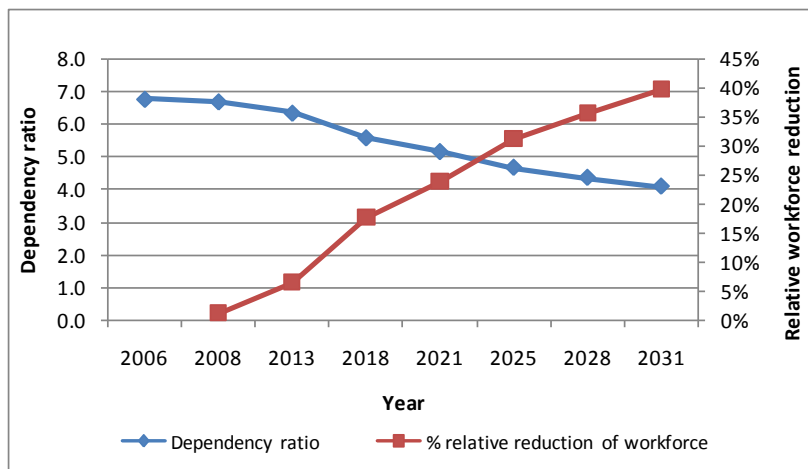
Sunbury Day Hospital

- Low complexity surgery, dialysis and clinics



Future Health Service Challenges

- Population growth
- Chronic disease and ageing
- Older patients with multiple ongoing problems
- Workforce availability
- Medical devices, tests, drugs
- Consumer expectation
- More information and decision making
- Less tolerant of poor performance



Preadmission Service Journey

Commenced November 2009

Recognition of previous reviews attempted in 2006 & 2008

Opportunity to start afresh

Clearly define service objectives

Opportunities for Improvement

Design a long term sustainable service





Pre Admission Service Objectives

Pre-operative evaluation of the patient
Pre-operative patient education
Timely assessment and work-up prior to admission



Improve patient care
Improve theatre utilization
Reduce cancellations due to medical & social reasons
Reduce bed occupancy
Reduce length of stay
Reduce patient anxiety and reported pain

360 Degree Process Redesign

Establishment of Steering Committee

- NUM Pre-admission Service
- Deputy Director Anaesthetics
- Peri-operative Services Manager
- Safety & Quality Managers (Surgery)

Consultation with internal and external stakeholders

Internal stakeholders regarding the service provision included

- Consumers
- Junior Medical Staff
- Nursing staff involved with PAC

External stakeholders included

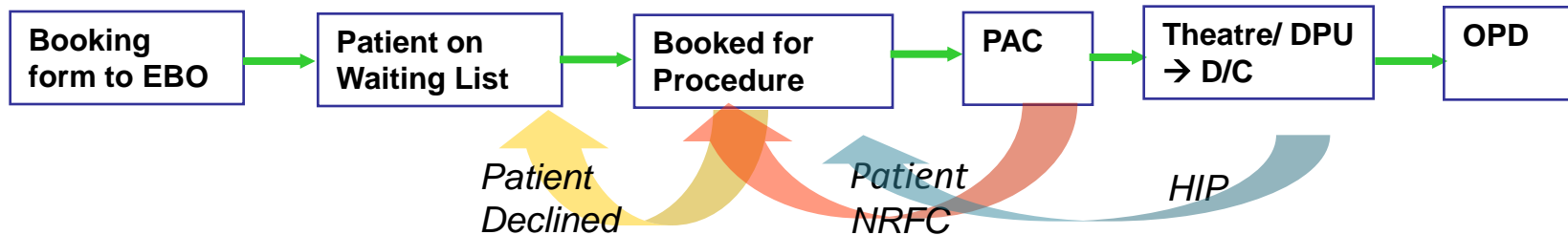
- Northern Hospital
- Southern Health Care Network
- Austin Health Care Network
- Department of Health Surgical Services Programs

Literature Review

Advisory Board “ Best in Class”



Review Of Current System



System difficult for patients to navigate

“late notice” cancellation of NRFC patients.

Replacement patients sought to maintain theatre activity- late PAC Bookings, insufficient time to prepare patient for surgery.

ICU/HDU needs identified after Theatre booked increased potential for cancellations on DOS.

Current process created elective access inefficiencies.



Opportunities For Improvement

1. Service Governance

- Create PAC Triage Team to Manage; Coordinate and Review Service Outcomes
- Develop a Nurse led service framework
- Develop Clinical guidelines for PAC Service.

2. Availability of Patient Health Information

- Improve available patient health information available
- Improve compliance with completion of waitlist forms
- Allocation PAC resources based on need
- Define the patient surgical journey

3. Reduce Duplication of Processes

- Single Patient Assessment Process
- Coordination of Booking office, suspensions and re-bookings of Patients



Opportunities For Improvement cont...

4. Theatre List Efficiency

- Reduce Cancellations on Day of Surgery
- Improve theatre utilisation
- Improve elective surgery waitlist management

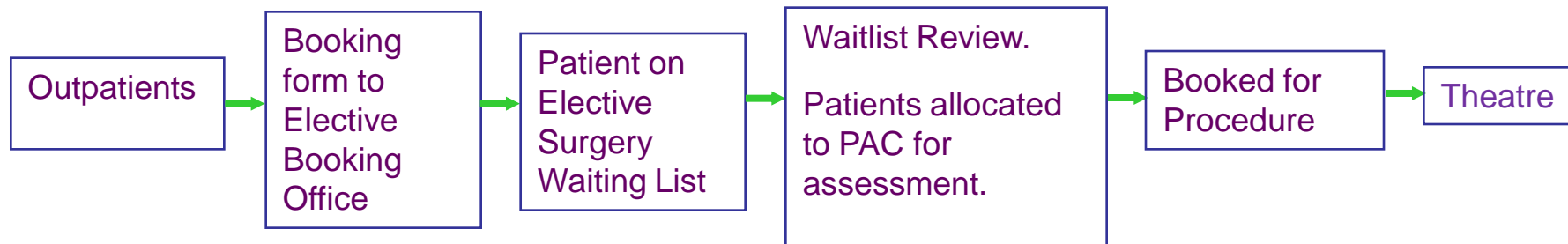
5. Define Patient Surgical Journey

- Decrease Late Bookings > Short Lead Time To Theatre
- Eliminate 'Not Fit For Surgery Pending Further Investigations' cancellations
- Reduce time to treatment

6. Staff Education and Training

- Develop clinical guidelines
- Reduce Excessive investigations ordered
- Decrease Intern time in PAC - ward discharges improved
- Improve clinical guidance to JMS in PAC

Harnessing Opportunity Assessment



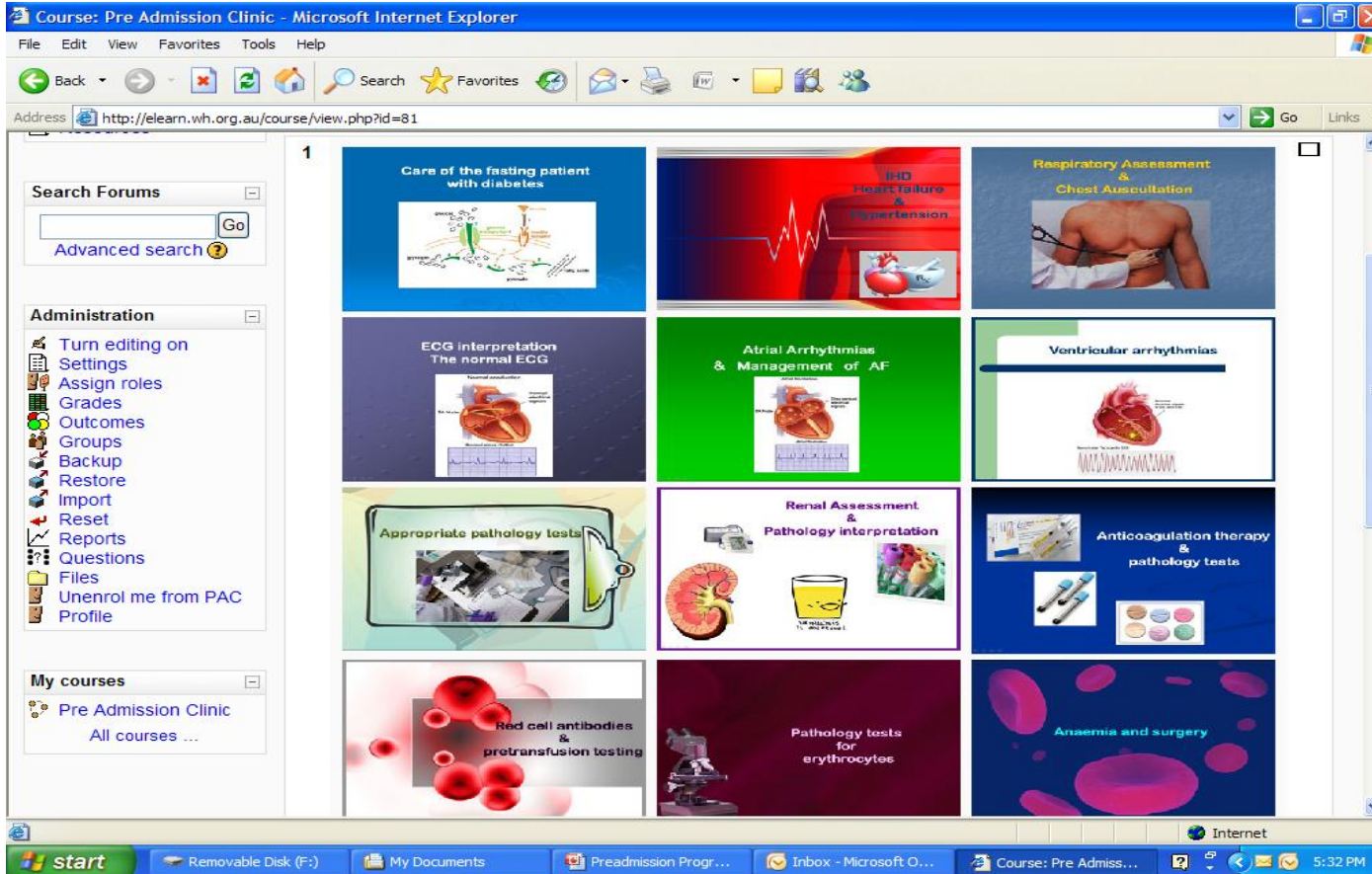
1. Streamline the patient journey by assessing individual health needs
2. Coordinate assessment resources; CPX, Respiratory function, PAC assessment prior to allocation of theatre date.
3. Minimise rework of the current model by ensuring each patient is as fit as possible for their surgery with the required resources allocated.



Nurse Led Pre Admission Service Model Extended the Scope of Nursing Practice

- Extensive Education Program.
- Interactive Educational Website.
- Clinical Guidelines underpin practice.
- Professional Affiliations.
- Endorsement of Scope of Practice Committee to order pathology tests as indicated in clinic guidelines.
- Annual Clinical Competencies.
- Supported by Department of Surgery & Anaesthetics / Pain Management

Nurse Education & Training – Extended Scope of Practice



The screenshot shows a web browser window titled "Course: Pre Admission Clinic - Microsoft Internet Explorer". The address bar displays "http://elearn.wh.org.au/course/view.php?id=81". The page content is organized into a grid of 12 modules, each with a title and a representative image:

- Module 1:** Care of the fasting patient with diabetes (diagram of the digestive system)
- Module 2:** IHD Heart Failure & Hypertension (EKG waveform and heart diagram)
- Module 3:** Respiratory Assessment & Chest Auscultation (physician examining a patient's chest)
- Module 4:** ECG interpretation The normal ECG (heart diagram and EKG waveform)
- Module 5:** Atrial Arrhythmias & Management of AF (heart diagram and EKG waveform)
- Module 6:** Ventricular arrhythmias (heart diagram and EKG waveform)
- Module 7:** Appropriate pathology tests (laboratory equipment)
- Module 8:** Renal Assessment & Pathology interpretation (kidney, urine cup, and pathology test results)
- Module 9:** Anticoagulation therapy & pathology tests (blood test tubes and pathology results)
- Module 10:** Red cell antibodies & pretransfusion testing (microscopic view of red blood cells)
- Module 11:** Pathology tests for erythrocytes (microscope)
- Module 12:** Anaemia and surgery (microscopic view of red blood cells)

On the left side of the browser window, there is a sidebar with the following sections:

- Search Forums:** Includes a search box and a "Go" button.
- Administration:** Lists various system management tasks such as "Turn editing on", "Settings", "Assign roles", "Grades", "Outcomes", "Groups", "Backup", "Restore", "Import", "Reset", "Reports", "Questions", "Files", "Unenrol me from PAC", and "Profile".
- My courses:** Shows the current course "Pre Admission Clinic" and a link for "All courses ...".

The Windows taskbar at the bottom shows the "start" button, several open applications including "Removable Disk (F:)", "My Documents", "Preadmission Progr...", "Inbox - Microsoft O...", and "Course: Pre Admiss...", along with the system clock showing "5:32 PM".



Addressing Current Needs – Meeting Future Demand

Stage 1 – Patient Health Information / Assessment

- All patients to complete a patient health questionnaire with waitlist in outpatient clinic / rooms
- Cat 1 patients to undergo a health assessment by JMO in the OPD clinic, investigations relevant to surgery completed on day prior to patient leaving hospital
- All completed paperwork sent to Booking office for processing then to PAC Triage Team.

Stage 2 - PAC Triage Team

- Reviews results and available health information
- Notifies treating unit of any abnormalities detected
- Coordinates additional investigations required
- Allocates Preadmission resources required

Default information Collection

- Nurse Phone PAC Service > Expansion of hours 0800-2030 Mon – Thurs
- Accessing health information from other hospitals, private rooms and external pathology providers

Addressing Current Needs – Meeting Future Demand

Anaesthetic Review Pre Admission Clinic

- Dedicated anaesthetic clinic.
- Open access to expedite assessment process.

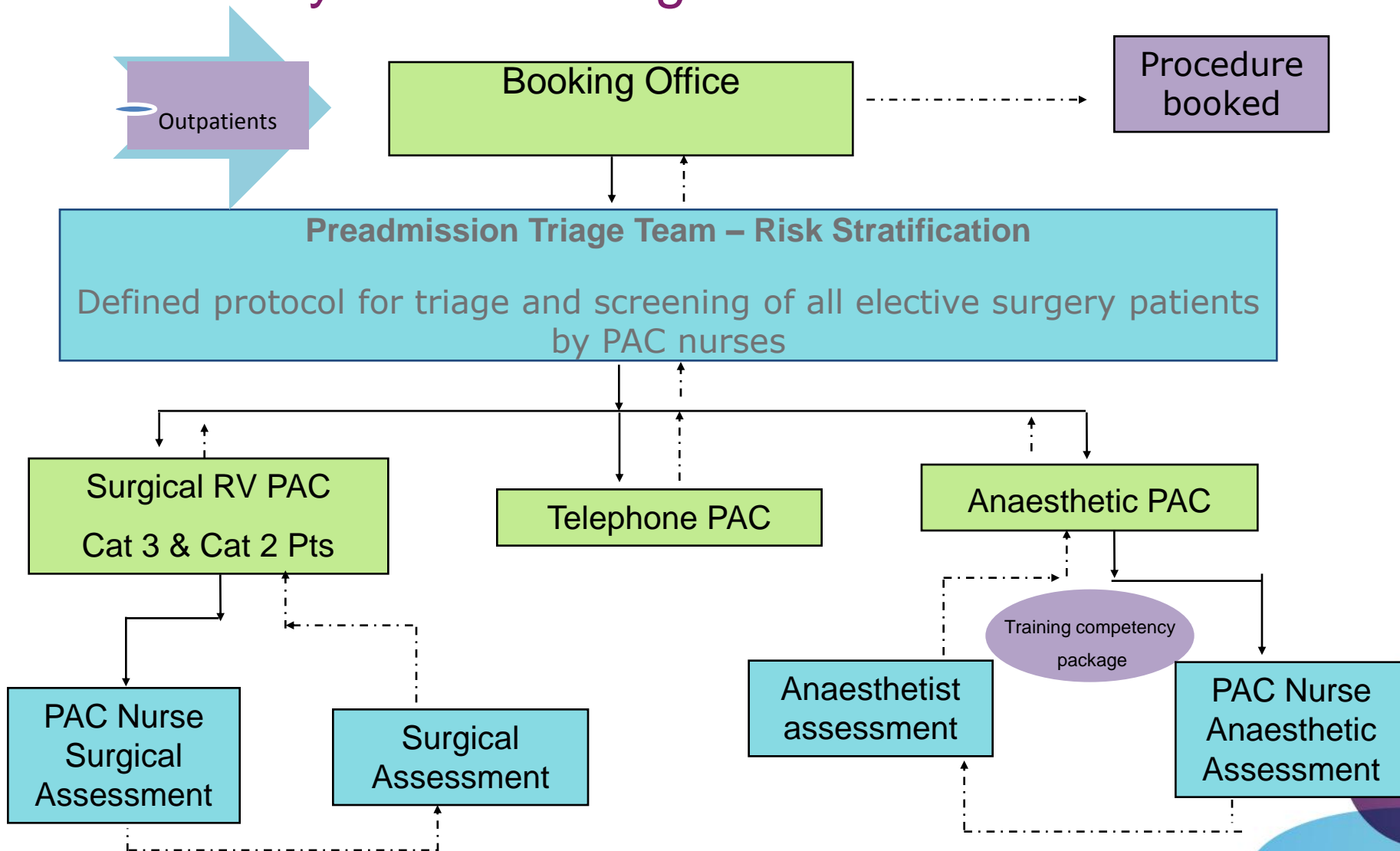
Surgical Review Pre Admission Clinic

- Waitlist review – Cat 3 & Long wait Cat 2 Patients.
- Unit based medical model.
- Junior Registrar +/- Intern in attendance.
- Review proposed surgery, generate new waitlist; further investigations as indicated in consultation with Consultant
- Predicated outcome, remove some patients from waitlist no longer requiring surgery; Reduce cancellations of day of surgery; improve theatre utilisation; create access.

THEATRE DATE ALLOCATED WHEN PAC PROCESS COMPLETED > PT Optimised for Procedure



PAC System Redesign – Cat 2 & 3





Achievement of Outcomes

- Information gathering at commencement of patient surgical journey.
- Improved patient management through risk identification.
- More efficient utilisation of preadmission resources.
- Elimination of Duplication of process.
- Access for patients in Category 1 & 2 to preadmission services has improved.
- < Cancellations on DOS relating to preoperative fitness
- > Improved theatre utilisation.
- < Waiting lists misplaced in Out Patient Clinics

Service Evaluation

Process Measures	Outcome Measures
Proportion of patients triaged or screened by pre-admission service	Time to admit patients on day of surgery
Proportion of patients stratified to each stream	Day of surgery cancellations due to fitness for surgery
Attendance at PAC <ul style="list-style-type: none"> • Throughput • Failure to attend rate to PAC 	Late starts in theatre due to Anaesthetic work-up on day of surgery
Appropriate referrals to Anaesthetic Clinic	Unplanned overnight stays
Recruitment & retention of PAC nurses	Pathology / Radiology expenditure

Lessons Learnt

- The service must consider the cultural needs of the population it serves to maintain relevance.
- Create a service that generates capacity to address the future needs of the health care population
- Clinical guidelines and competencies underpin the service operations to ensure sustainability and reliability
- Stakeholder support is essential for success.
- Be sure to maintain a Patient Focus.

In Summary

- A patient focused model of care
- Improved nursing and junior medical staff satisfaction
- A system able to cope with increased demand

Right patient at the right site at the right time for the right surgery every time.