

Echocardiography (ECHO) Service Redesign Westmead Hospital

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Case for change



2013 – 2017:
13,780 activities
underreported
impacting on
funds for additional
resources



Waiting list:
18.5 inpatients & 20
outpatients per week
resulting in patients
utilising other
services



Duplication of
processes
including bookings
impacting on flow
of service

Which Means:



Improved patient and staff
experiences;
Timely discharges

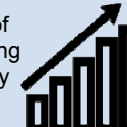
Updated Models
of Care aligned
with Westmead
Redevelopment



Improved
appointment wait
and reporting
times, improving
patient treatment



Meet demand of
1.3 million growing
Western Sydney
population by
2020



Goal

To maximise efficiency of Westmead Hospital Echocardiography Service by streamlining processes and utilising resources for the inpatient and outpatient service.

Objectives

Objective #1 To increase the number of potential scheduled appointments available for inpatients and outpatients from 155 patients per week to 186 patients per week by February 2018.

Objective #2 Decrease the outpatient waiting time from receipt of referral to appointment from 6 weeks to 4 weeks by February 2018.

Objective #3 Improve the quality of data capture from 9.6% to >90% by February 2018.

Methods



Using the Clinical Redesign Methodology, the project was conducted between April 2017 to April 2018, including consumers, patients, nurses, medical, clerical and executive staff members within the organisation

82% staff agreed aspects of ECHO service requires improvement
Echo Staff Survey 2017

Patients:

- Patient Survey (n=30)
- Patient Interview (n=11)
- In/Outpatient Observations
- Consumer Workshop (n=9)



Data 2013 to Present:

- Electronic Data Records
- Manual Data / Audits
- Root Cause Analysis

Staff:

- Staff Surveys (n=17)
- Informal Staff Interviews
- In/Outpatient Observations
- Diagnostic Workshop (n=18)
- Solutions Workshop (n=13)

"There are limited Echo bookings available for my patients so they can have their assessments delayed"
Echo Staff Survey 2017

"The clinic seemed a bit chaotic, they were trying to locate my referral, feeling a bit anxious"
Patient Interviews, 2017

Diagnostics

Capacity Vs Demand

Diagnostics links to Solutions

Average demand per Sonographer per day: 9.00
Average capacity per sonographer per day: 7.34

Each sonographer would need to perform extra 1.5 ECHO to meet current demand

Issue: 1

Activities underreported
Lack of resources
Impact:
Unable to increase scanning capacity – under budgeted;
Inadequate resources to meet demand
Root Cause:
No clear process defined
Workforce structure suboptimal
Poor data capture – activities not recorded

Issue: 2 3

Communication within service/organisation suboptimal
No transparency of work performed
Practices siloed within service
Impact:
Scans delayed; Duplication;
Decreased patient satisfaction
Root Cause:
No overarching co-ordinator located in the service area

Issue: 1 5

Patient arrival/departures recorded incorrectly
Impact:
Loss of revenue, Future planning
Root Cause:
No. of scans not correctly recorded nor reported -
No clear process defined or monitored

Issue: 3 5

Booking and scanning delays
Variable mode referrals received
Duplication of referrals received
Triaging of referrals not clinically prioritised
Impact:
Long wait times for inpatient and outpatients
Decreased patient satisfaction
Root Cause:
No clear process defined or monitored

Issue: 3

Patients over/under booked
Long wait times in/outpatients
Impact:
Patients over/under booked
Loss of revenue
Root Cause:
No clear process to book patients
Outdated bookings and scheduling processes

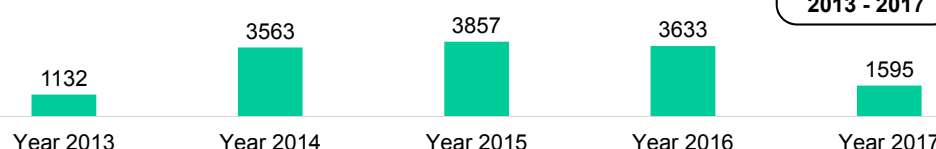
Issue: 3 4

Duplication of processes
Impact:
Echo reports delayed;
Decreased patient satisfaction
Root Cause:
Processes not defined resulting in practice variations

"I waited over 6 weeks for my appointment!"
Patient Interviews, 2017

13,780 activities not recorded 2013 - 2017

Inpatient Echo Activity Not Recorded



Solutions



1 Manual data entered into electronic system, improving data capture



3 Medically driven new triaging process and referral criteria



2 Daily team huddles to improve communication processes



4 Reporting guidelines to standardise processes and facilitate faster reports



5 Echo nurse to coordinate service and assist with triaging referrals

Results

Vacant Bookings Coordinator role led to fewer scheduled appointments than expected, increasing patient wait times

	Baseline Performance:	Performance After Implementation:
Objective #1	155 patients per week	131 patients per week
Objective #2	Wait time >6 weeks	Wait time >8 weeks
Objective #3	9.6% accuracy	99.3% accuracy

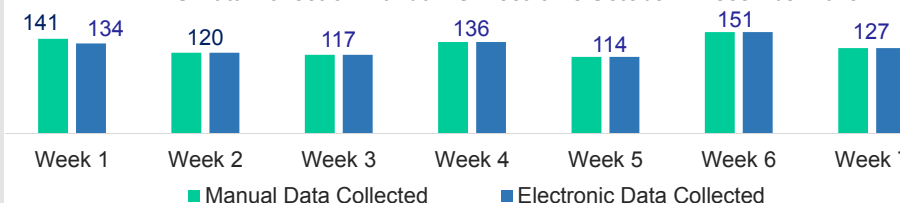
Improve patient experience as patients are seen in a timely manner.

Improve patient outcomes as patients scanned according to their acuity.

Reduce cost per capita as inefficiencies within the service are removed, increasing revenue as opportunity to scan more patients are created.

Objective 3 achieved - 99.3% data accuracy

ECHO Data Collection Manual vs Electronic October – December 2018



Sustaining change

Workforce and operational issues impacted the project resulting in postponing further implementation of solutions.

Strategies to sustain change will need to focus on the right sponsors providing positive reinforcement on the desired behaviours. This will result in sustaining new ways of working as part of business as usual.

Lessons Learnt include:

- Strong sponsorship is critical to the success of the project
- Stakeholder engagement (team huddles) is fundamental to sustaining change
- Resistance needs to be addressed early with positive reinforcement strategies
- Aligning the change to larger projects increases the probability of success

Acknowledgements

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