

Right to Information Decision – Public Disclosure Log

Right to Information No.: RTI201617-010

Information Requested

- 1 The Diagnostic Reports prepared for the North, South and North West for Medical Patient Journey – general medicine.
- 2 The Diagnostic Reports for the North, South and North West for surgeries.

Time Period: 2015 to present

Decision and Statement of Reasons

See below.

**THERE'S
NO PLACE LIKE HOME**

*Timely, quality healthcare to get
you safely back home*

Medical Patient Journey

Diagnostic Report NWRH

Clinical Redesign Program – North West
Rethinking healthcare service delivery



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HEALTH SERVICES
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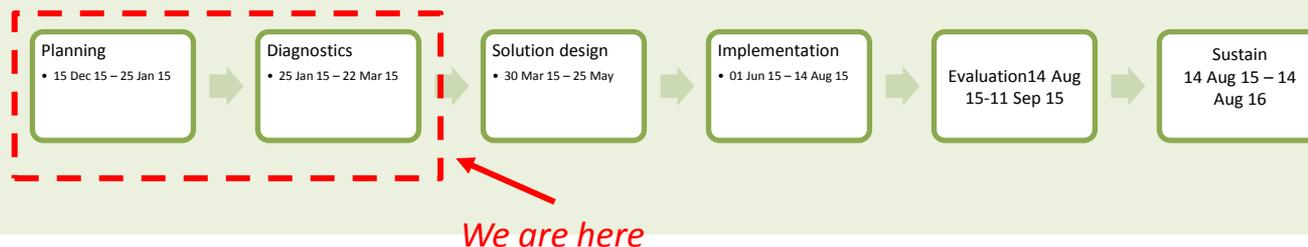
Executive Summary

Planning and Diagnostic Phases - summary approach

Overview

Health Services Innovation Tasmania (HSI Tas) was established as part of the Tasmanian Health Assistance Package, funded by the Commonwealth Government. HSI Tas are committed to driving change and innovation in patient flow and access to care. Medical Patient Flow was identified as one of the priority improvement areas. Clinical redesign is the methodology that has been chosen to support the change agenda and is underpinning the activities of the Clinical redesign Office within each THO.

Clinical redesign is a phased approach that includes:



Report purpose

This report is a summary of the activities and findings of the planning and diagnostic phases of the project. The report provides the reader with an overview of the activities undertaken within these phases, which includes the articulation of the problem statement, project vision and objectives. Specific diagnostic activities were used to identify issues that are impacting upon the medical patient journey, including data collection, multiple methods of stakeholder engagement, working group formulation, clinical mapping exercises, observations of ward processes and ensuring that processes used are consistent across the state.

Report structure - For each area a series of high-level observations and issues are identified which are then described in detail, along with analysis of their contributory factors. This analysis is complemented by supporting data analytics.

Executive Summary

Planning and Diagnostic Phases - summary approach

Problem Statement

“We are unable to flow patients through our medical ward”

Vision

To work collaboratively with a broad range of stakeholders to enable the redesign of the clinical processes that demonstrably improve healthcare and outcomes for the medical patients at the NWRH.

Project scope - the North West Regional Hospital Medical Patient project focuses on the following areas:

In scope: the point at which the patient is accepted by the medical team until the patient is discharged and leaves the hospital. The medical patient is defined as a person who is admitted and discharged un the medical team, this includes outliers on other wards.

Out of scope: ED triage to accepted by medical team; pre-hospital transfers; patients admitted under a paediatrician or psychiatrist; OPD activity; oncology and MDU inpatients; surgical admissions; gynaecology admissions.

The defined project scope led to the following patient flows areas becoming the main focus of attention:



Executive Summary

Planning and Diagnostic Phases - summary approach

Project objectives

- Reduce length of stay for patients admitted with a medical DRG of Chest pain 1.39 RSI; Cellulitis 1.67 RSI and Chronic Obstructive Airways Disease 1.4 RSI -trending towards 1.0 RSI by 14/8/15 and sustain this for a period of 12 months.
- Reduce the percentage of medical inpatient beds occupied for non-clinical reasons from 27% to 20% , by 14/8/15 and sustain this for a period of 12 months.
- Increase the number of target patients who give a health care experience satisfaction rating 8/10 or greater by 20%, by 14/8/15 and sustain this for a period of 12 months.
- Increase the percentage of medical patients who are admitted in 2 hours from the ED (from decision to admit in ED to bed request; bed request to admission on ward) from 15.9% by 20%, by 14/8/15 and sustain this for a period of 12 months.
- Increase the percentage of target staff who give a work experience satisfaction rating of 8/10 or above by 20%, by 14/8/15 and sustain this for a period of 12 months.
- Maintain or reduce the readmission rate of 10.2% and sustain for 12 months.(national average is 11-36%)

Next Steps - This report will be considered by the Clinical Leads, Executive Sponsor, and Steering Committee. Subsequent to this process, a solutions design workshop will be held to commence the process of identifying, agreeing and developing a prioritised set initiatives to address the issues identified and their underlying causes. These workshops will aim to engage a wide cross-section of staff.

N.B. The emphasis during the diagnostic phase is on identifying issues at a relatively high level, as data is not always available to support the process level issues (this is also acknowledged in the following section). Further work will take place to determine the depth of these issues as the NWRH identifies its key priorities as part of the solution design phase.

Executive Summary

Diagnostic phase - summary approach

Diagnostic phase activities – this phase has included:

Key stakeholder consultations were undertaken through individual face to face meetings, group interviews and by providing opportunities for staff to record their frustrations with current processes that impact upon the care of the medical patient. In total, approximately 86 staff across medical, allied health, nursing, operational and administration craft groups were consulted within this phase.

‘Big Picture Process Mapping’ session a facilitated workshop was conducted to document the process steps from medical review through to discharge which included a broad range of participants and exposed a total of 87 issues or opportunities. This map was validated by key stakeholders.

Patient experience interviews– Targeted interviews were conducted with 5 patients to:

- Identify and describe the best or most positive aspects of their healthcare experience. Why were these seen as good?
- Identify what did not work well during their health care experience and what constructive criticism could be offered to improve this.

Patient and staff satisfaction surveys – These surveys received ethical approval from the Human Research Ethics Committee (Tasmania) Network

- Staff surveys were conducted through completion of either a written or online response to capture a baseline measure of job satisfaction
- 40 patient surveys are being conducted through written surveys completed prior to discharge to create a baseline measure of overall satisfaction during their stay in the medical ward.

Direct observation – observation of work processes and patient flow was undertaken in targeted roles such as medical registrars, pharmacists and nurses to better understand process level issues.

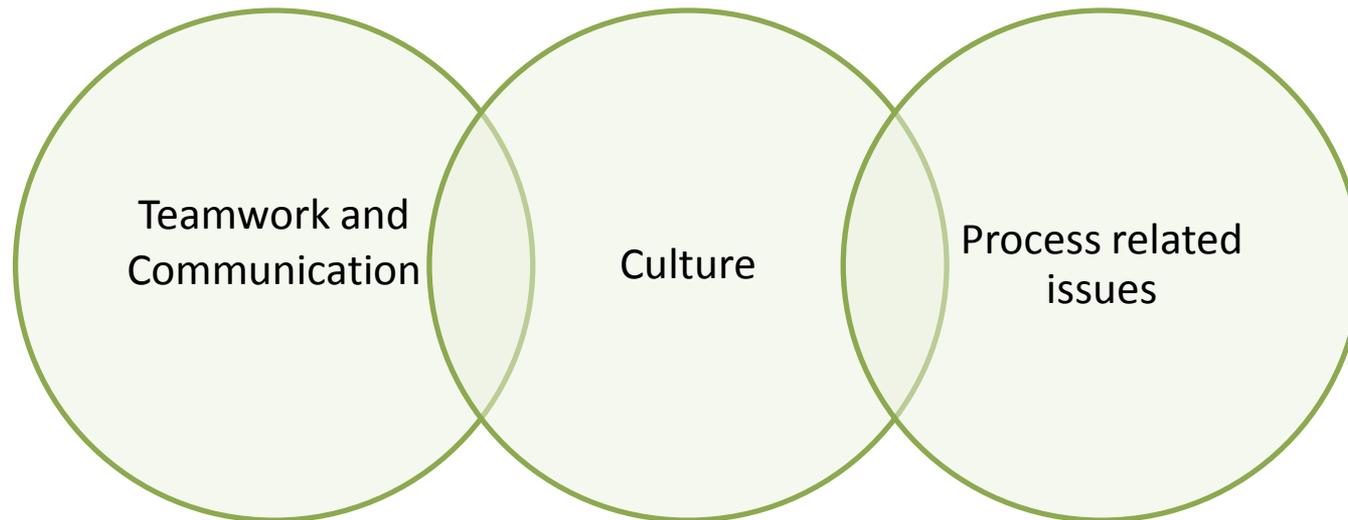
Data analysis – detailed analysis of available activity data (Oct 2012 – Sep 2014) was undertaken to provide a descriptive context to this report and, most importantly, to identify issues, describe their impact and provide evidence of some of the issues identified through qualitative aspects of project methodology.

Change management and communications activities: recognising that sustainable change relies heavily on stakeholder ‘buy-in’ and commitment to the change agenda. All opportunities to include, consult and inform stakeholders of the project and the progress have been integral to the diagnostic phase.

Site Visits will be conducted in April to Tweed and Orange peer hospitals to explore the medical patient, whole of hospital flow processes and emergency department to bring back possible solutions for the NWRH.

Emerging cross organisational themes

A number of overarching themes have emerged, suggesting that there may be some organisation-wide opportunities for change and improvement which should be considered as part of the process of identifying and developing solutions in the next phase of the project. The themes identified below are not applicable in all parts of the hospital, but have been identified in a number of areas – the examples provided are for illustrative purposes and are spread across the range of areas covered by the project.



Executive Summary

Diagnostic Phase - Overarching Themes

Overarching Themes	Description	Illustrative Examples
Process:	<p>Flow is not predicted or planned therefore patients cannot be pulled through the system.</p> <p>Patients retell their history many times during their admission.</p>	<ul style="list-style-type: none"> There are no IT systems which interface to provide a real time snapshot of bed availability for the Bed Coordinator or NUM's or after hour coordinator, resulting in many variations in how you can book a bed. Stakeholders state that they all collect a history from a patient because their information is 'different' to other clinicians requirements.
Communication and team work:	<p>Silos between wards occur at key points where there should be continuity of care for patients.</p> <p>Locum workforce and lack of consistent medical staff has impacted on medical leadership.</p>	<ul style="list-style-type: none"> Initiatives to improve handover and flow of information between teams have had limited success. The Medical Director position has been vacated and the Physician workforce are locums. Physicians operate autonomously with registrars and interns rather than as multidisciplinary with ward nursing staff and allied health.
Culture:	<p>Staff defer back to senior nurses or ward NUM for key decision making on the ward.</p>	<ul style="list-style-type: none"> Bottlenecks occur when the NUM or senior nurse is not available to be contacted for decisions or information/handover, which affects bed management, admissions and discharges.

Executive summary

High level observations and issues (1)

Developing diagnostic findings - collation and analysis of diagnostic information

For each of the four patient flow areas identified for close attention as part of the diagnostic phase, the information on current processes was collated and analysed. This allowed the identification of some important themes for each area, which have been summarised as a number of high level observations and issues. These are discussed in greater depth later in the report in the 'Observations and issues identified' section. A summary of these observations for all areas is set out at this point to provide an overview.



Decision in ED to refer to Medicine	<p>The issues are...</p> <ul style="list-style-type: none">• Decision to admit a medical patient in the emergency department exceeds two hours.• Lack of clarity around medical management of patients in emergency department and resulting in delays in commencement of treatment.• Lack of transparency of potential discharges impacting on the accuracy and availability of bed stock.• Repetition of medical assessment and documentation between ED physician and Medical registrar.
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Executive summary

High level observations and issues (2)

Transfer of care between ED and Ward	<p>The issues are...</p> <ul style="list-style-type: none">• Delay accessing a NUM for bed allocation and handover• Delay accessing an attendant• Quality of handover is inconsistent• Multiple ways to refer to allied health
Progression of Care	<p>The issues are...</p> <ul style="list-style-type: none">• Communication between medical officers and allied health/nursing staff• Medication chart and script writing errors• Quality of documentation and locating case notes• Medical care standards of outliers• Ward round progression
Discharge	<p>The issues are...</p> <ul style="list-style-type: none">• Unplanned discharges are common• Patients can be given two different discharge dates• Long length of stay for complex patients• Discharges are later in the morning or afternoon

DIAGNOSTIC OVERVIEW

North West Regional Hospital

The North West Regional Hospital at Burnie is a 160-bed facility that provides healthcare and specialist services to North West Tasmania and King Island.

It provides services in medical, surgical and allied health specialties through inpatient and outpatient departments.



High Level Facts

There are predictable patterns of admission and discharge for the medical patient

- The average age of the medical patient is 65.9 years, median 70 years.
- The major DRGs for medical patients are Chronic Obstructive Airways Disease, Respiratory infection, circulatory disorders, unstable angina, other health factors (including nursing home type), arrhythmia, chest pain, and cellulitis.
- The median Length Of Stay is 4 days, mean 5.62 and maximum of 163 days.
- Admissions to the ward peak at 1100 and are maintained until 1900 hours.
- Discharges peak between 1100 and 1600 with the majority between 1200 and 1300 hours.
- There is an average of 6.7 medical admissions per day.
- The main source of admission is the emergency department, with 44% of ED admissions going to medical ward.
- The majority of the transfers out of NWRH go to Launceston General hospital followed by Royal Hobart.
- There are 385 transfers out of medical ward per year - 4 per week to major cities, 1.2 per week to nursing homes, 1.4 per week to other smaller hospitals.
- This means that 6.6 medical patients are transferred from NWRH each week.
- Nursing home type, cellulitis and chest pain DRG have and Relative Stay Index greater than 1.0.
- Readmission rates for <28 days is 10.2% which is below the national average.
- There is a growing demand for medical beds – increasing by one bed every 5 months.

There is an upward trend in the percentage admitted over time.

General Medical Presentation rates and Admission rates

Some Facts:

In the Period : 1 Oct 2012 –30 Sep 2014

The volume of Medical overnight patients was 4934. This averages as

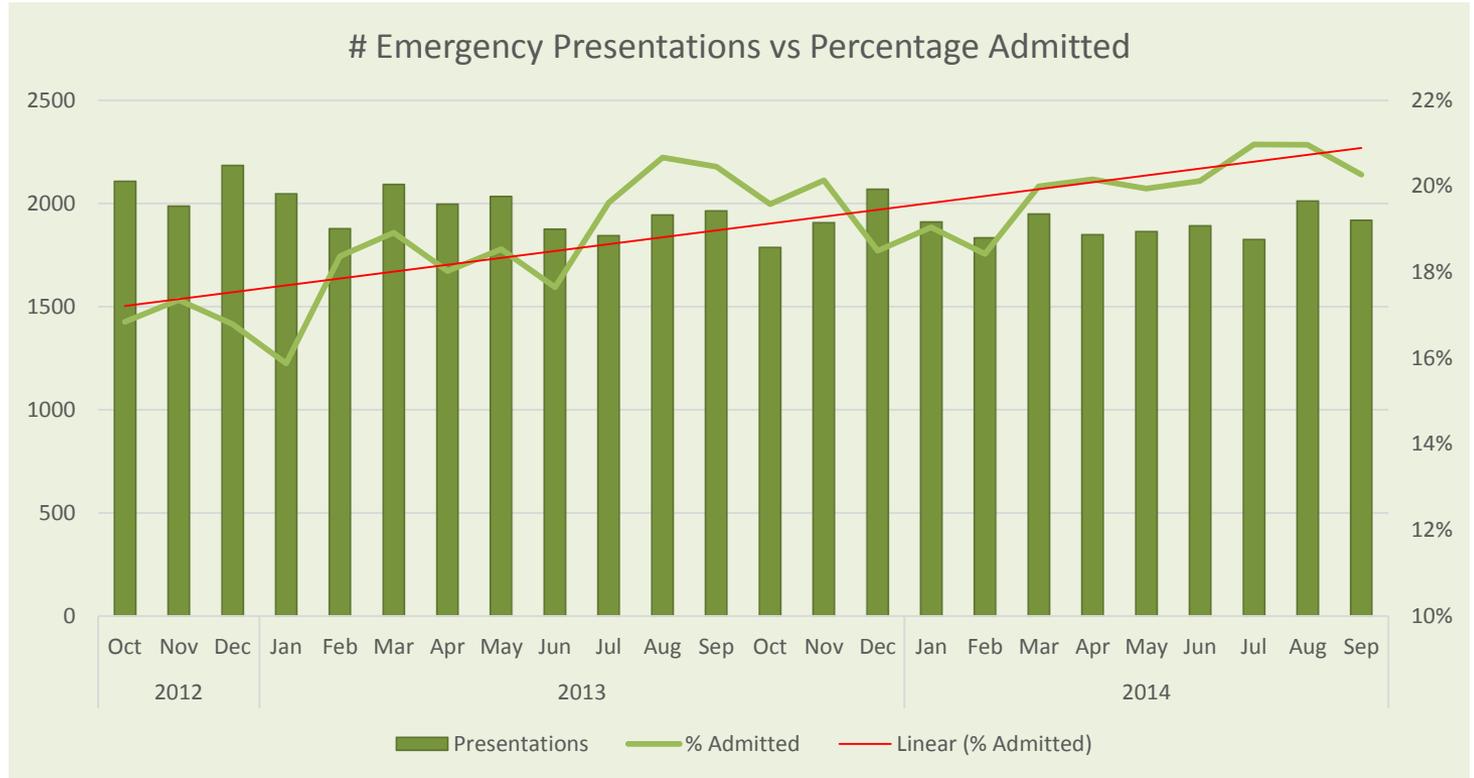
6.7 admissions per day. Average

LOS (bed days) is Median = 4 days

Mean = 5.62 days

Max = 163 days

Total bed days was 27716.

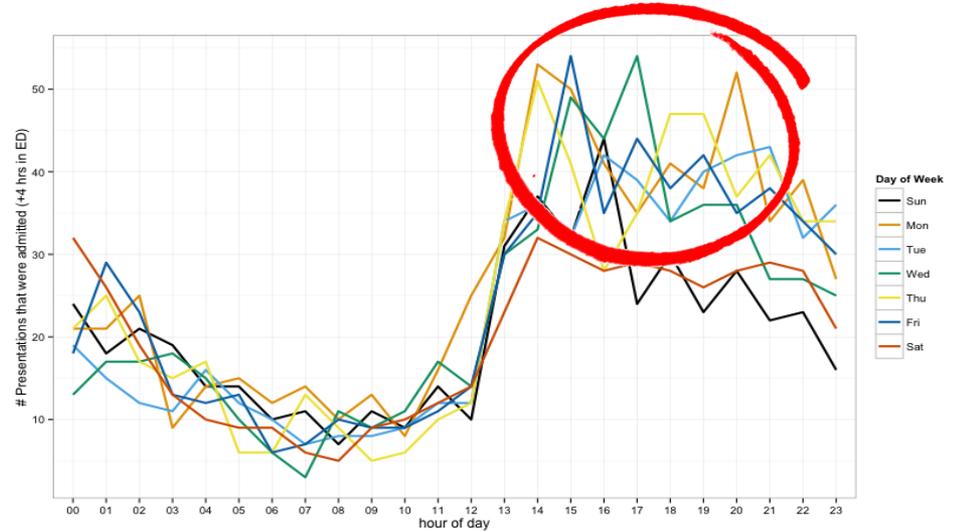
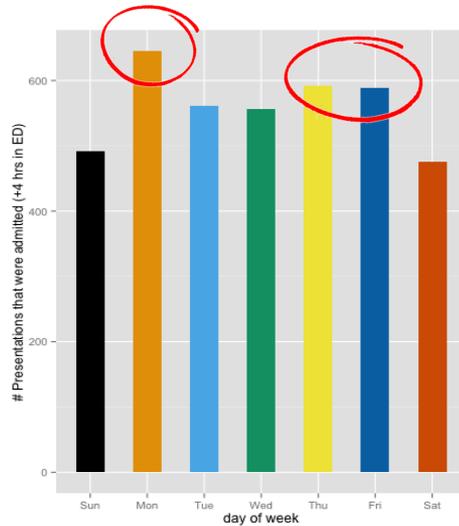


Source: BIU Separations and BIU Emergency Attendance tables from KPI menus . Period : 1 Oct 2012 –30 Sep 2014 (2 years)

Monday, Thursday and Friday are the days with greatest number of admissions.

The greatest number of admissions are between 1100 and 2000 hours

Admission Profile



Source: BIU Separations and BIU Emergency Attendance tables from KPI menus . Dates: date of discharge between Oct 2012 – Sep 2014 inclusive

The majority of admissions to medical ward are through the emergency department, followed by transfers from other hospitals.

Admission Source

Admission Source	N
Department of Emergency Medicine	4195
Transfer from another Hospital	301
Statistical Admission	154
Private Practice / Consultant Rooms	73
No Referral	64
Referred from another Hospital	64
Other	36
Outpatients Department	28
Transfer from Other Public Psychiatric	9
Other Health Care Establishment	4
Community Health Service	3
Correctional Services	2
Aged Care Facility	1

Medical patients

Volume breakdown – by Unit

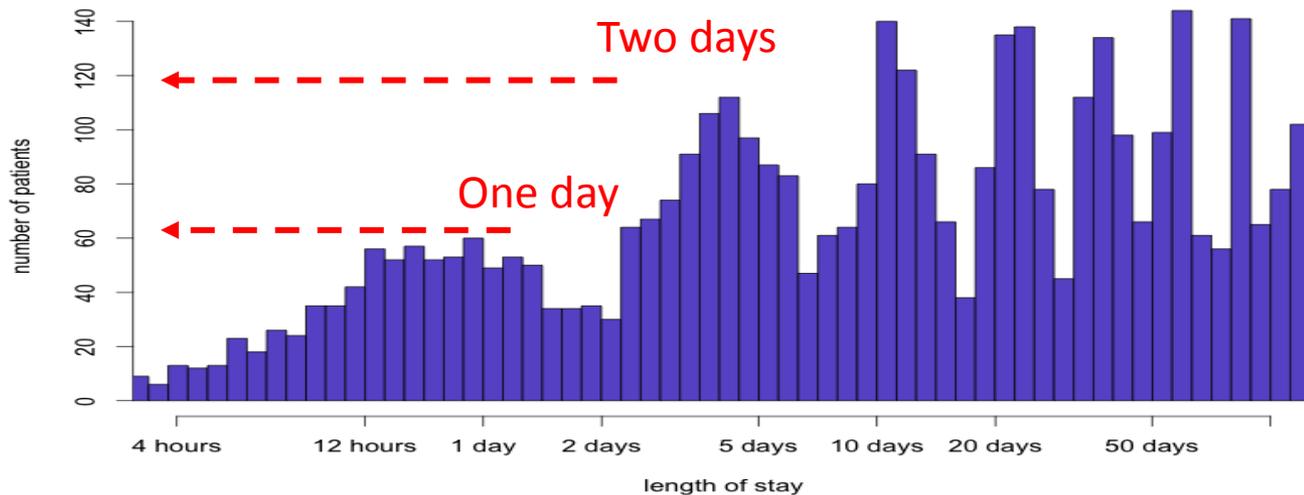
Admit Unit Group	Discharge Unit Group	Separations
Medicine	Medicine	4693
Surgery	Medicine	110
Medicine	Surgery	48
Cancer Services	Medicine	6
Medicine	Cancer Services	4
Complex, Chronic & Community Care	Medicine	4
Mental Health	Medicine	3
Medicine	WACS	3
WACS	Medicine	1

Volume breakdown – by Specialty

Specialty Admit Unit	Separations	Specialty Admit Unit	Separations
GENMED	4382	PSYCHI	3
EMERGE	195	REHABI	3
ICUMED	146	RENMED	3
GENSUR	69	RESMED	3
ORTHOP	24	DIABET	2
ANAEST	17	ENDOCR	2
GASTRO	9	GENPRA	1
CARDIO	6	GYNAEC	1
HAEONC	5	MEDONC	1

Source: BIU Separations and BIU Emergency Attendance tables from KPI menus . Period : 1 Oct 2012 –30 Sep 2014 (2 years)

Medical patient LOS (length of stay) histogram



LOS	Admissions		Bed days	
	N	%	N	%
0-6 days	3630	73.6%	10203	36.8%
7-13 days	908	18.4%	8214	29.6%
14-20 days	227	4.6%	3685	13.3%
21+	169	3.4%	5614	20.3%
Total	4934	100.0%	27716	100.0%

Source: BIU Separations and BIU Emergency Attendance tables from KPI menus . Period : 1 Oct 2012 –30 Sep 2014 (2 years)

Graphs depict medical patients stay by bed days – of note are the number of one and two day stays.

Medical patient length of stay by groupings - under 6 days is the highest representation at 36.8% followed by 7-13 days at 29.6% and however 3.4% of patients account 20.3% of bed occupancy.

Medical patient footprint

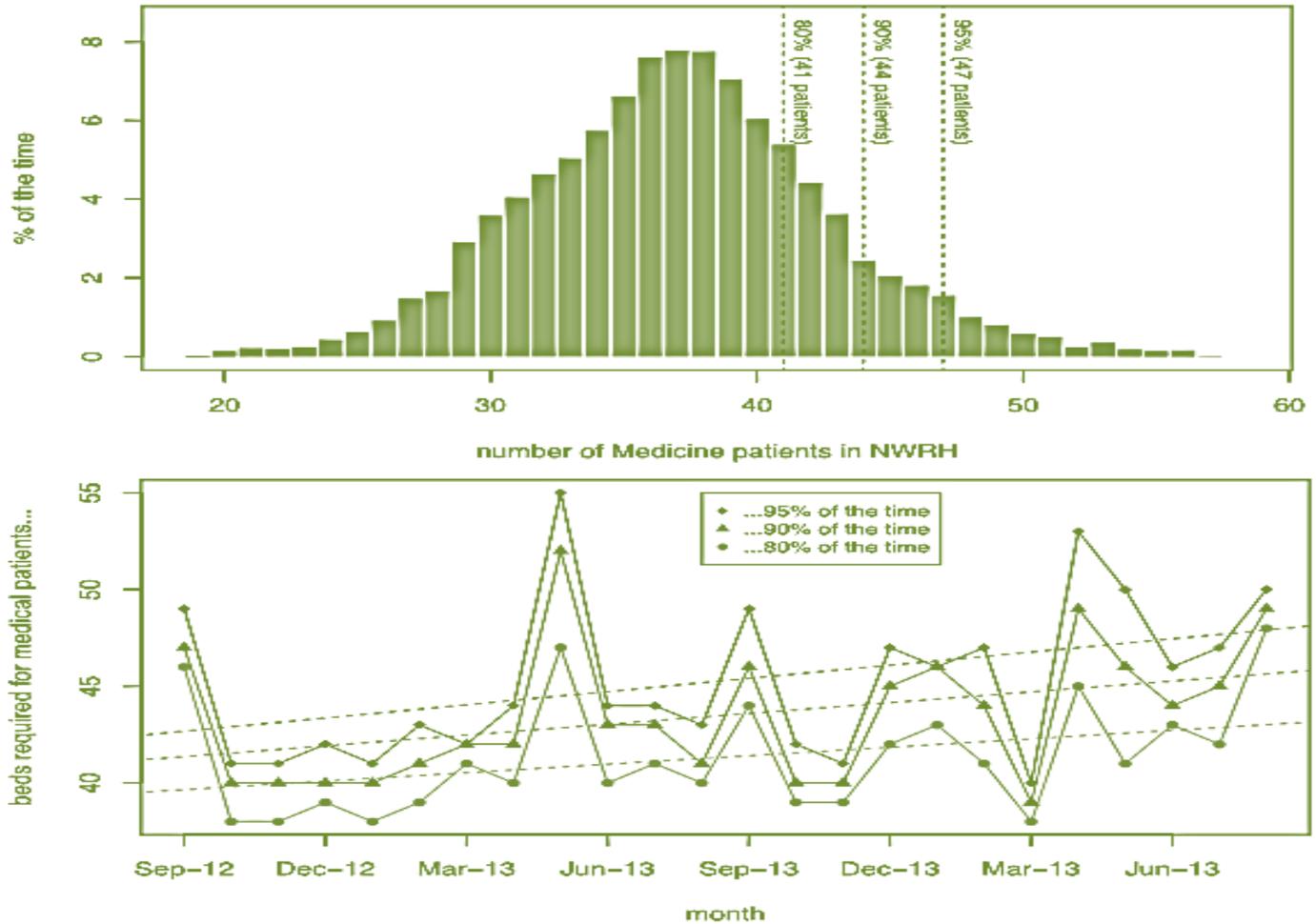
These graphs reflect the number of beds occupied by medical patients, September 2012 to August 2014.

95% of the time there are 47 beds occupied by medical inpatients

An almost significant trend in the number of beds required each month (P=0.07).

The estimated rate of increasing demand is around 1 extra bed every 5 months.

There is no significant seasonal pattern in demand for beds.



Source: BIU Separations and BIU Emergency Attendance tables from KPI menus . Period : 1 Oct 2012 –30 Sep 2014 (2 years)

Top 10 diagnoses for medical admission and the *relative stay index

Source: BIU Separations and BIU Emergency Attendance tables from KPI menus . Dates: date of discharge between Oct 2012 – Sep 2014 inclusive

DRG	Description	Separation	Bed days	RSI
E65B	Chronic Obstructive Airways Disease W/O Catastrophic CC	194	938	1.06
E62B	Respiratory Infection/Inflammation +CCC	141	662	0.93
F60B	Circulatory disorders w AMI w/o invasive cardiac investigations	138	351	0.90
F72B	Unstable Angina W/O Catastrophic or Severe CC	136	265	1.04
Z64A	Other Factors Influencing Health Status	136	632	1.18
F76B	Arrhythmia, Cardiac Arrest and Conduction Disorders W/O Cat or Severe CC	126	315	1.17
F74Z	Chest Pain	105	196	1.39
F62B	Heart Failure and Shock W/O Catastrophic CC	104	417	0.88
E62A	Respiratory Infection/Inflammation +CCC	95	712	0.84
J64B	Cellulitis W/O Catastrophic or Severe CC	85	472	1.66
		1260 (26%)	4960 (18%)	

*Relative stay indexes (RSIs) summarise the length of stay for admitted patients, with adjustments for casemix (the types of patients treated and the types of treatments provided). They are regarded as indicators of the efficiency of hospitals. An RSI greater than 1.0 indicates that an average patient's length of stay is higher than expected, given the casemix for the separations being considered. An RSI of less than 1.0 indicates that the length of stay was less than expected.

OBSERVATIONS AND ISSUES

Observations and Issues



Key observations and issues

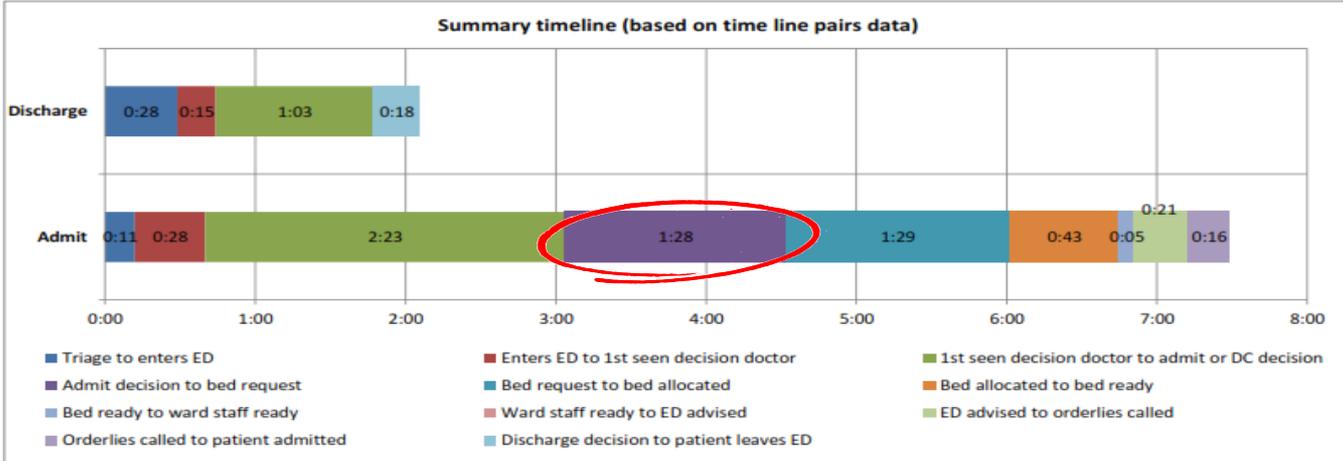
Decision in ED to refer to Medicine

1. Stakeholders report that there are instances where emergency physicians have difficulty finding a team e.g. medical/surgical to accept the patient for admission.
2. Stakeholders report that there is a lack of clarity around medical management of patients whilst they remain within the confines of the emergency department and are awaiting an inpatient bed, resulting in delays in the commencement of treatment.
3. There is no transparency of potential discharges (and therefore bed availability) with a reliance on verbal handover information from the after hours nurse manager and a paper trail. This impacts upon the accuracy and availability of bed stock information.
4. There is some repetition of medical assessment and documentation between ED physician and Medical registrar.

Key observations and issues

Decision in ED to refer to Medicine(1)

Observations and Issues	Sources	Evidence / Supporting analysis
<p>1. The time from decision to admit a medical patient in the emergency department exceeds two hours and contributes to the failure to meet the overall target of four hours.</p>	<ul style="list-style-type: none"> WOTTL study tracked 200 patients through ED over 3 days in August 2014. EDIS <p>Data source: BIU Separations and BIU Emergency Attendance tables from KPI menus Dates: date of discharge between Oct 2012 – Sep 2014 inclusive</p>	<ul style="list-style-type: none"> Medical officers took, on average, 2hr 23 mins to review and decide whether to admit patients. The bed request took, on average, 1hr 28 mins from the time the doctor made the decision to admit. It took 1hour 29 mins on average to find a bed and allocate and then a further 43 mins until the bed was ready on the ward. The ward took 21 mins on average to advise the emergency department they were ready and the orderly was called. The orderly took 16 mins to transfer to the ward. The percentage of medical patients admitted from ED within 4hrs since 1 Aug 2014 to end of January 2015 was 160 of 1008 patients . A total of 15.9%.



Key observations and issues

Decision in ED to refer to Medicine(2)

Observations and Issues	Source	Evidence/Validation
<p>2. Stakeholders report that there is a lack of clarity around medical management of patients whilst they remain within the confines of the emergency department and are awaiting an inpatient bed, which results in delays to the commencement of treatment.</p>	<ul style="list-style-type: none"> • Clinical mapping exercise • Stakeholder interviews • Observation 	<ul style="list-style-type: none"> • Stakeholders report that medical officers review and admit the patient in ED including all paperwork, orders and medications. There is variation in medical officer processes, communication or availability of staff to carry out management of the plan of care.
<p>3. There is no transparency of potential discharges (and therefore bed availability) with a reliance on verbal handover information from the after hours nurse manager and a paper trail. This impacts upon the accuracy and availability of bed stock information.</p>		<ul style="list-style-type: none"> • ED nursing staff are expected to commence a medical plan of care for admitted patients that are waiting for transfer to the medical ward. ED nurses work on a differing model of care and as such delays in treatment can occur.
<p>4. There is some repetition of medical assessment and documentation between ED physician and Medical registrar.</p>		<ul style="list-style-type: none"> • Medical ward can not access EDIS to view possible admissions. There is no standardized bed coordination process across 24 hour spectrum and no IT support to do so.

Observations and Issues



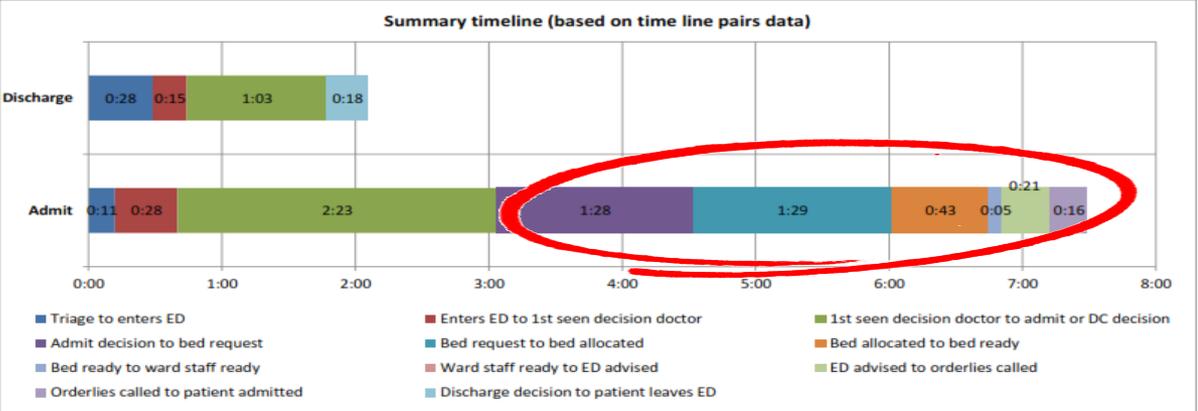
Key observations and issues

Transition of care from ED to Ward

1. There is a delay in accessing the Nurse Unit Manager for locating a bed and handing over the patient on the phone.
2. There is a delay of 4 hours from time of admit decision to patient arriving on the ward.
3. There is a delay in accessing an attendant to bring the patient to the ward.
4. Quality of patient handover between ED and ward is variable, and may or may not include an admission checklist.
5. There are several different ways of referring to an allied health professional. Sometimes the patients referral gets lost.

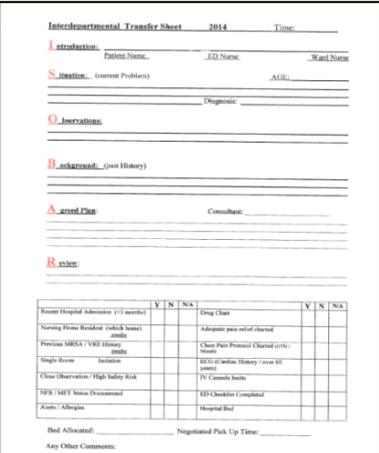
Key observations and issues

Transition of care from ED to Ward(1)

Observations and Issues	Source	Evidence / Supporting analysis																				
1. There is a delay in accessing the NUM for locating a bed and handing over the patient on the phone.	Clinical mapping Observation WOTTL	<ul style="list-style-type: none"> The NUM is the only person Monday to Friday who is responsible for locating a bed and taking a handover of the patient for admission. She may be going between 4 consultant rounds or arranging other flow issues at the time. 																				
2. There is a delay of 4 hours from time of admit decision to patient arriving on the ward.		<ul style="list-style-type: none"> Bed coordination issues were evidenced by a 1.5 hour wait for bed request once admit decision was made, 1.5 hours until bed allocated, 45 mins until the ward were ready, 21 mins for the ED to advise the attendants and then a further 16 mins for the patient to arrive on the ward. 																				
3. There is a delay in accessing an attendant to bring the patient to the ward.	Source: BIU Separations and BIU Emergency Attendance tables from KPI menus . Dates: date of discharge between Oct 2012 – Sep 2014 inclusive	<ul style="list-style-type: none"> Lack of capacity of attendants to meet the needs of the hospital simultaneously, resulting in patients waiting for transfer to the ward.  <p>Summary timeline (based on time line pairs data)</p> <table border="1"> <thead> <tr> <th>Process</th> <th>Duration</th> </tr> </thead> <tbody> <tr> <td>Triage to enters ED</td> <td>0:11</td> </tr> <tr> <td>Enters ED to 1st seen decision doctor</td> <td>0:28</td> </tr> <tr> <td>1st seen decision doctor to admit or DC decision</td> <td>2:23</td> </tr> <tr> <td>Admit decision to bed request</td> <td>1:28</td> </tr> <tr> <td>Bed request to bed allocated</td> <td>1:29</td> </tr> <tr> <td>Bed allocated to bed ready</td> <td>0:43</td> </tr> <tr> <td>Bed ready to ward staff ready</td> <td>0:05</td> </tr> <tr> <td>Ward staff ready to ED advised</td> <td>0:21</td> </tr> <tr> <td>ED advised to orderlies called</td> <td>0:16</td> </tr> </tbody> </table>	Process	Duration	Triage to enters ED	0:11	Enters ED to 1st seen decision doctor	0:28	1st seen decision doctor to admit or DC decision	2:23	Admit decision to bed request	1:28	Bed request to bed allocated	1:29	Bed allocated to bed ready	0:43	Bed ready to ward staff ready	0:05	Ward staff ready to ED advised	0:21	ED advised to orderlies called	0:16
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Key observations and issues

Transition of care from ED to ward (2)

Observations and Issues	Source	Evidence/Validation
<p>4. Quality of patient handover between ED and ward is variable and may or may not include an admission checklist.</p>	<p>Clinical mapping Stakeholder Interviews</p>	<ul style="list-style-type: none"> Stakeholders reported that a handover tool developed to support efficient and safe clinical handover on transition from ED to ward is not used by ED staff, which diminishes its value as it now functions as a one way communication checklist rather than a two way tool. <p>Interdepartmental transfer sheet</p>  <p>The image shows a form titled 'Interdepartmental Transfer Sheet' with fields for Patient Name, ED Name, Ward Name, Situation, Age, Diagnosis, Observations, Background, Agreed Plan, and Referral. It also includes a table for tracking hospital admissions and a section for 'Any Other Comments'.</p>
<p>5. There are several different ways of referring to an allied health professional. Sometimes the patients referral gets lost.</p>		<p>There are multiple methods employed to refer to an allied health professional. The referral can be verbal, paper based, placed with a ID label in a communication book in the ED or electronic. Referrals can be missed at a rate of approximately one per week.</p>

Observations and Issues



Key observations and issues

Progression of care

1. Communication between medical officers and nursing/ allied health staff in relation to discharge planning is fragmented and ad hoc.
2. There are regular medication errors on medication charts and discharge scripts, resulting in time wasted in pharmacy reconciliation (and therefore delays in discharge medication). There is also some confusion as to who can correct another doctors chart.
3. Stakeholders report general concern about the quality of documentation - illegible and absence of documentation.
4. Medical ward staff report a perception that medical outliers do not receive an equal standard of care.
5. Medical officers, nursing and allied health do not communicate a consistent message regarding the plan of care to the patient, leading to confusion and mixed messages, especially around discharge planning.
6. Ward round processes are not presently facilitating progression and communication of the plan of care.
7. Case notes, medication charts and other documents can be in many different locations causing delay and frustration in locating them.

Key observations and issues

Progression of care (1)

Observations and Issues	Source	Evidence / Supporting analysis
<p>1. Communication between medical officers and nursing/allied health staff in relation to discharge planning is fragmented and ad hoc.</p>	<ul style="list-style-type: none"> • Clinical mapping • Observing medical officer rounds • Stakeholder interviews • Registrar tracking • Quality and Safety reports 	<ul style="list-style-type: none"> • The journey board is not utilized by members of the medical team as a communication tool. • All stakeholders agree that there is no ward meeting which has all three disciplines present.
<p>2. There are regular medication errors on medication charts and discharge scripts, resulting in time wasted in pharmacy reconciliation (and therefore delays in discharge medication). There is also some confusion as to who can correct another doctors chart.</p>		<ul style="list-style-type: none"> • The most junior medical staff generally are tasked with changing medication charts and discharge scripts. • There is no checking mechanism by consultants or registrars of the scripts or charts.
<p>3. Stakeholders report general concern about the quality of documentation - illegible and absence of documentation.</p>		<ul style="list-style-type: none"> • Evidence can be found in Quality and Safety reports and audit results relating to documentation and medication errors.

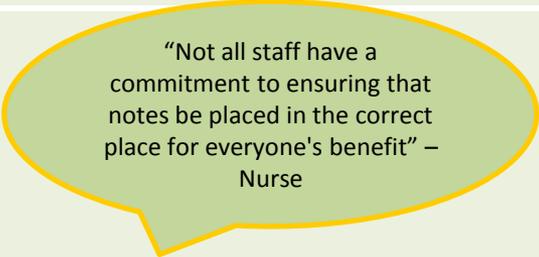
Key observations and issues

Progression of care (2)

Observations and Issues	Source	Evidence / Supporting analysis																																																																											
<p>4. Medical ward staff report a perception that medical outliers do not receive an equal standard of care.</p>		<ul style="list-style-type: none"> • Anecdotal reports from medical staff - may need further investigation. • Outliers in other wards is between 21.3 and 29% (BIU and CR information) <div data-bbox="962 458 1877 1133"> <table border="1"> <caption>Outlier % trend over 2 years</caption> <thead> <tr> <th>Year</th> <th>Month</th> <th>Outlier %</th> </tr> </thead> <tbody> <tr><td>2012</td><td>Oct</td><td>28%</td></tr> <tr><td>2012</td><td>Nov</td><td>27%</td></tr> <tr><td>2012</td><td>Dec</td><td>34%</td></tr> <tr><td>2013</td><td>Jan</td><td>26%</td></tr> <tr><td>2013</td><td>Feb</td><td>25%</td></tr> <tr><td>2013</td><td>Mar</td><td>27%</td></tr> <tr><td>2013</td><td>Apr</td><td>29%</td></tr> <tr><td>2013</td><td>May</td><td>34%</td></tr> <tr><td>2013</td><td>Jun</td><td>33%</td></tr> <tr><td>2013</td><td>Jul</td><td>26%</td></tr> <tr><td>2013</td><td>Aug</td><td>25%</td></tr> <tr><td>2013</td><td>Sep</td><td>27%</td></tr> <tr><td>2013</td><td>Oct</td><td>22%</td></tr> <tr><td>2013</td><td>Nov</td><td>27%</td></tr> <tr><td>2013</td><td>Dec</td><td>36%</td></tr> <tr><td>2014</td><td>Jan</td><td>34%</td></tr> <tr><td>2014</td><td>Feb</td><td>28%</td></tr> <tr><td>2014</td><td>Mar</td><td>30%</td></tr> <tr><td>2014</td><td>Apr</td><td>29%</td></tr> <tr><td>2014</td><td>May</td><td>23%</td></tr> <tr><td>2014</td><td>Jun</td><td>27%</td></tr> <tr><td>2014</td><td>Jul</td><td>24%</td></tr> <tr><td>2014</td><td>Aug</td><td>38%</td></tr> <tr><td>2014</td><td>Sep</td><td>34%</td></tr> </tbody> </table> </div>	Year	Month	Outlier %	2012	Oct	28%	2012	Nov	27%	2012	Dec	34%	2013	Jan	26%	2013	Feb	25%	2013	Mar	27%	2013	Apr	29%	2013	May	34%	2013	Jun	33%	2013	Jul	26%	2013	Aug	25%	2013	Sep	27%	2013	Oct	22%	2013	Nov	27%	2013	Dec	36%	2014	Jan	34%	2014	Feb	28%	2014	Mar	30%	2014	Apr	29%	2014	May	23%	2014	Jun	27%	2014	Jul	24%	2014	Aug	38%	2014	Sep	34%
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Key observations and issues

Progression of care (3)

Observations and Issues	Source	Evidence / Supporting analysis
<p>5. Medical officers, nursing and allied health do not communicate a consistent message regarding the plan of care -to the patient leading to confusion and mixed messages, especially around discharge planning.</p>	<ul style="list-style-type: none"> • Clinical mapping • Observation • Stakeholder interviews and consultation 	<ul style="list-style-type: none"> • Medical officers do not participate in the multidisciplinary team meetings with allied health and nursing. • Ward rounds commence with outliers and then are late into the morning reviewing medical ward patients. They are staff time intensive.
<p>6. Ward round processes are not presently facilitating progression and communication of the plan of care.</p>		<ul style="list-style-type: none"> • Stakeholder reports and observations validates that review of discharge patients on medical ward is not prioritized.
<p>7. Case notes, medication charts and other documents can be in many different locations, causing delay and frustration in locating them.</p>		<p style="text-align: center;">  “Not all staff have a commitment to ensuring that notes be placed in the correct place for everyone's benefit” – Nurse </p>

Observations and Issues



Key observations and issues

Discharge

1. Unplanned discharges are common.
2. Patients can be given two different discharge dates: one by medical officers and one by allied health/ nursing.
3. There are many inpatients who have longer length of stay due to social and nursing home issues.
4. Discharges occur late in the morning or afternoon, holding up admissions to the ward.

Key observations and issues

Discharge (1)

Observations and Issues	Source	Evidence / Supporting analysis
<ol style="list-style-type: none"> 1. Unplanned discharges are common. 2. Patients can be given two different discharge dates: one by medical officers and one by allied health/ nursing. 3. There are many inpatients who have long length of stay due to social and nursing home issues. 	<ul style="list-style-type: none"> • Clinical mapping • Data on >21 day stay 	<ul style="list-style-type: none"> • There is no multidisciplinary team discharge planning occurring. • There is no predicted discharge date established by the consultant. • The medical officers do not use the journey board to record predicted discharge date or changes. • There is no standard way of prioritizing discharges - which should be attended to first. • There is no formal complex client meeting to identify and proactively prevent long length of stay. <div style="display: flex; justify-content: space-around;">   </div>

Key observations and issues

Discharge(2)

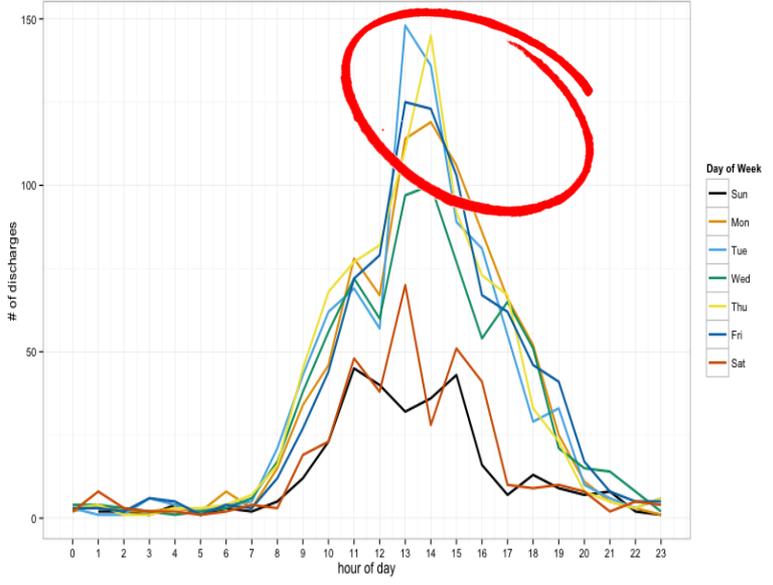
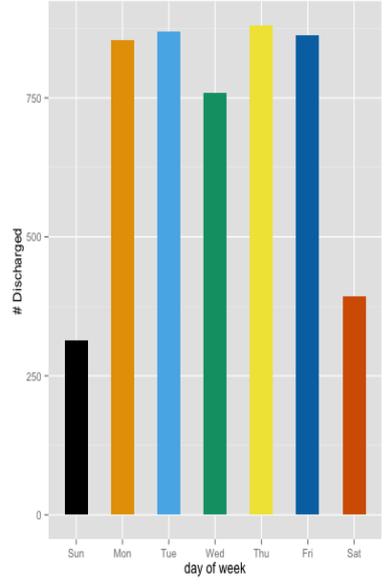
Observations and Issues	Source	Evidence / Supporting analysis
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4. Discharges occur late in the morning or afternoon, holding up admissions to the ward.

- Clinical mapping
- Discharge and admission

- Discharges are identified in the ward round by the medical officers, but not actioned until after the round.
- Discharge scripts are often blamed for the hold up in discharge. They are batched, which causes delays.
- Discharges from the ward peak at 1200-1300, with major discharges between 1100 and 1600. The largest number of discharges occur on Monday, Tuesday, Thursday and Friday.

Data Source: BIU Separations and BIU Emergency Attendance tables from KPI menus . Dates: date of discharge between Oct 2012 – Sep 2014 inclusive



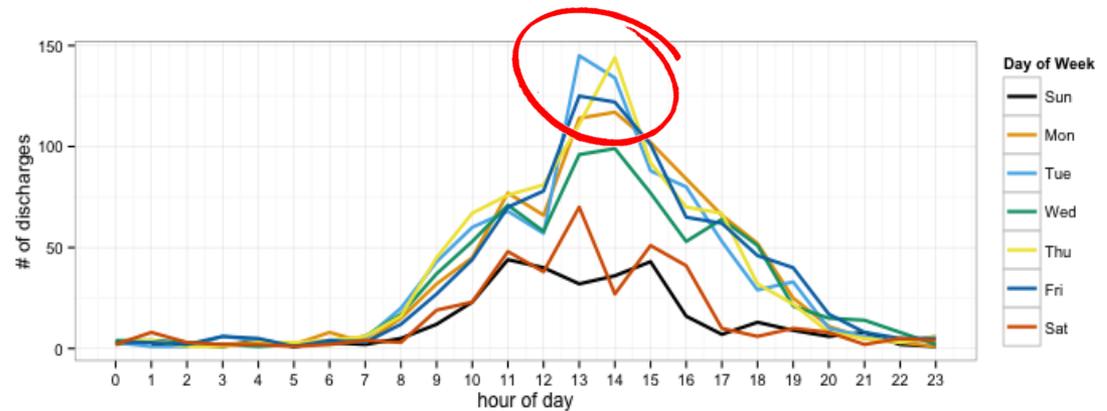
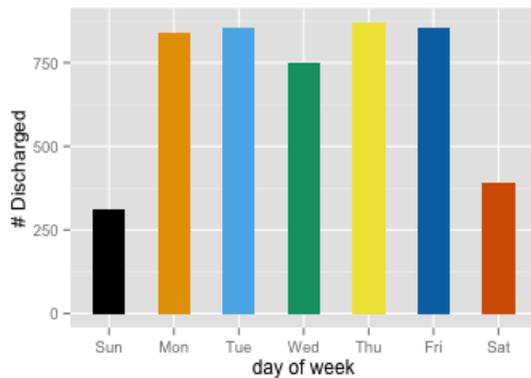
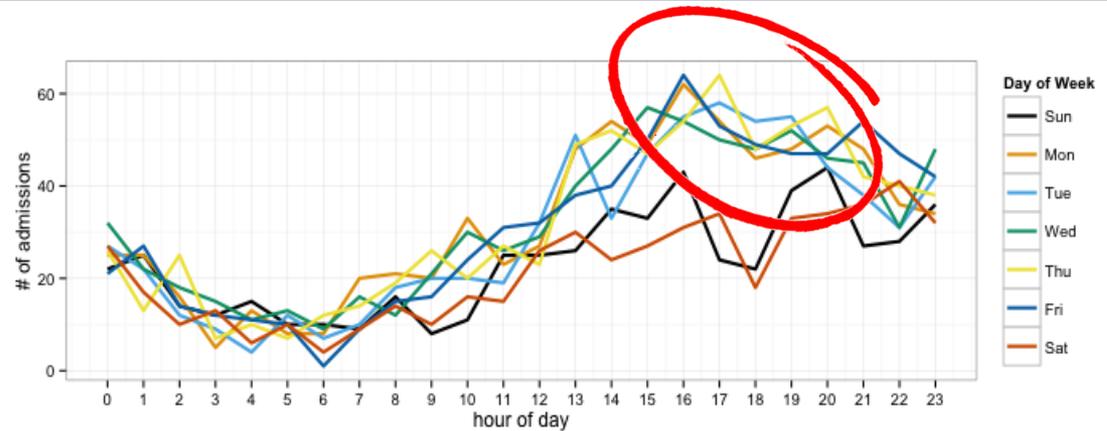
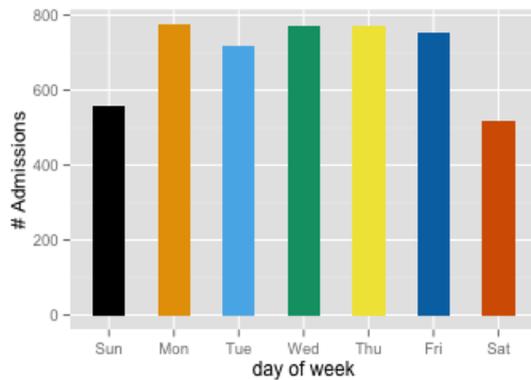
Key observations and issues

Discharge(3)

Observations and Issues	Source	Evidence / Supporting analysis												
<p>5. Discharges occur late in the morning or afternoon, holding up admissions to the ward.</p>	<ul style="list-style-type: none"> Clinical mapping Discharge and admission data 	<ul style="list-style-type: none"> Discharge scripts are often blamed for the hold up in discharge. They are batched which causes delays <div data-bbox="724 485 1816 1156"> <table border="1"> <caption>Discharge Scripts Arrival Time at Pharmacy Audit 2013</caption> <thead> <tr> <th>Arrival Time</th> <th>Discharge script %</th> </tr> </thead> <tbody> <tr> <td>Discharge scripts arrived at the Pharmacy before 1100 hours</td> <td>39%</td> </tr> <tr> <td>Discharge scripts arrived at the Pharmacy from 1101 to 1300 hours</td> <td>31%</td> </tr> <tr> <td>Discharge scripts arrived at the Pharmacy from 1301 to 1500 hours</td> <td>20%</td> </tr> <tr> <td>Discharge scripts arrived at the Pharmacy from 1501 to 1700 hours</td> <td>7%</td> </tr> <tr> <td>Discharge scripts arrived at the Pharmacy on the day before</td> <td>3%</td> </tr> </tbody> </table> <p>Source: Pharmacy Audit 2013</p> </div>	Arrival Time	Discharge script %	Discharge scripts arrived at the Pharmacy before 1100 hours	39%	Discharge scripts arrived at the Pharmacy from 1101 to 1300 hours	31%	Discharge scripts arrived at the Pharmacy from 1301 to 1500 hours	20%	Discharge scripts arrived at the Pharmacy from 1501 to 1700 hours	7%	Discharge scripts arrived at the Pharmacy on the day before	3%
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Further supporting data

Comparing Admission and Discharge Data



Source: BIU Separations and BIU Emergency Attendance tables from KPI menus . Dates: date of discharge between Oct 2012 – Sep 2014 inclusive

STAKEHOLDER ENGAGEMENT AND NEXT STEPS

Stakeholder engagement

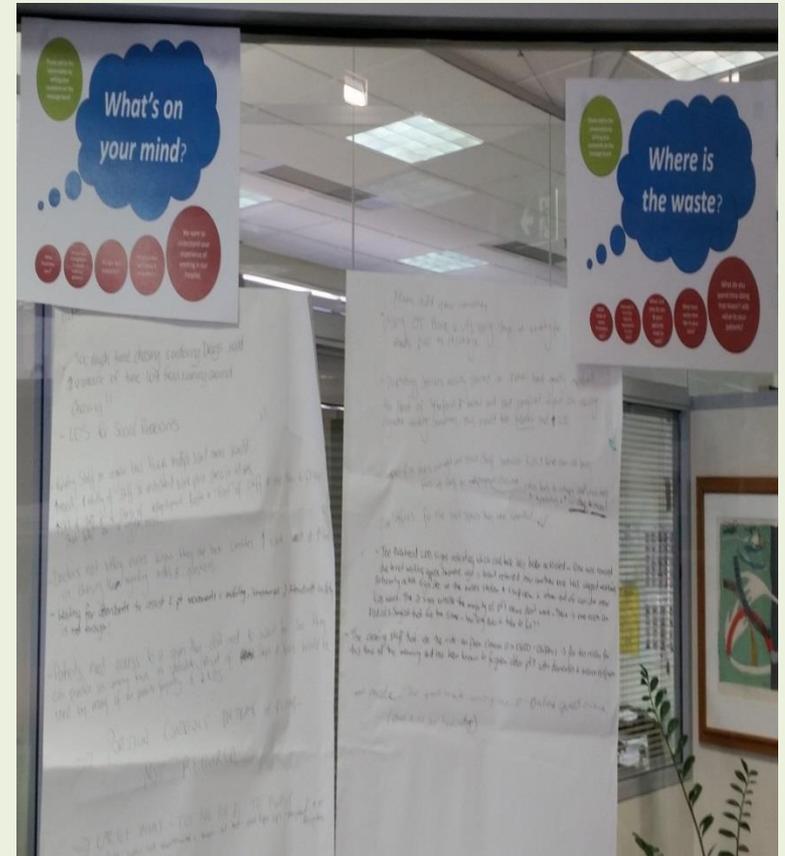
Assessing staff readiness

Change readiness tool – completed by staff participating in clinical mapping exercise

Type	Question	Response	Specify
Demographic	Focus Area:		
	Survey Respondent Occupational Stream Group:		
Project Awareness	Had you heard of the Medical Patient Journey Project before this meeting?	Yes No Unsure	
Vision	Do you understand the reason for undertaking the Medical Patient Journey project?	Yes No Unsure	
	Do you agree with the project aim to understand how we can flow medical patients through acute inpatient admissions in a manner which: <ul style="list-style-type: none"> a) Promotes positive patient and staff experiences of healthcare b) Facilitates timely and quality healthcare delivery c) Achieves best possible patient outcomes d) Is sustainable for health care providers in North West Tasmania 	Yes No Unsure	
Case for Change	Do you agree with the project focus on: <ul style="list-style-type: none"> • reducing length of stay • reducing non-clinical bed occupancy 	Yes No Unsure	
	Do you agree with the project focus on: <ul style="list-style-type: none"> • assisting to achieve E.D admit stream NEAT targets • reducing readmission rates 	Yes No Unsure	
	Comments		

Engaging ward staff

Staff room 'What's on your mind' and 'Where's the waste' comments



Mapping session in action

The mapping session brought together staff from ED and medical ward to map the transition from start to end in the medical patients journey.

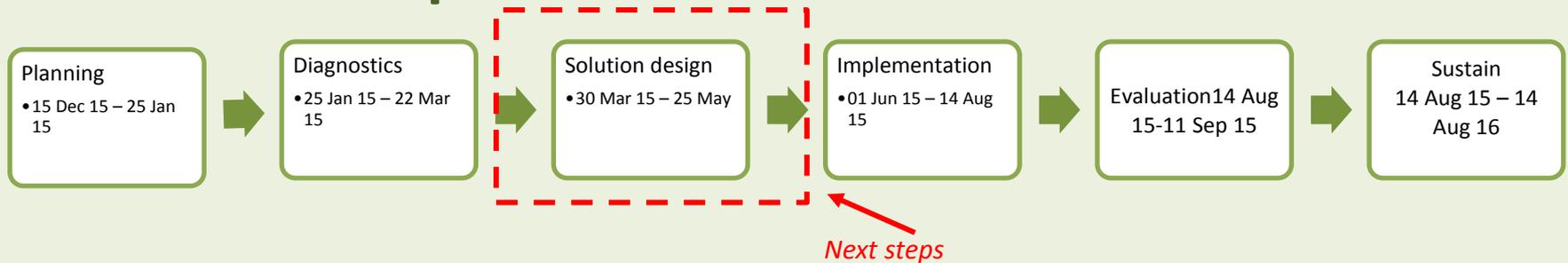
It covered decision to admit the patient, admission to ward, progression of care, discharge decision and leaving the ward.

The pink post it notes denotes areas of variation or issues in the journey.

The other colours denote the processes completed by different team members.



Next Steps



Solutions working groups

Based on the findings outlined in the Diagnostic Report, working groups will be developed to look at the key issues, with root cause analysis where necessary, to identify the underlying causes. The solutions timeframe and plan will be tabled with the steering committee to ensure alignment with organization priorities and direction.

Key Priorities:

- Ward Rounding
- Communication and team work
- Discharge planning

Appendix

Appendix

Definitions in data collection for this diagnostic report

Period : 1 Oct 2012 – 30 Sep 2014 (2 years)

Medical Patient

A patient admitted under Medicine Group specialty

OR

A patient discharged by Medicine Group specialty

Outlier

Admitted Medicine specialty not admitted to a Medical Ward (M and ICU) or

Discharged Medicine specialty not discharged from Medical Ward (M and ICU)

Exclusions

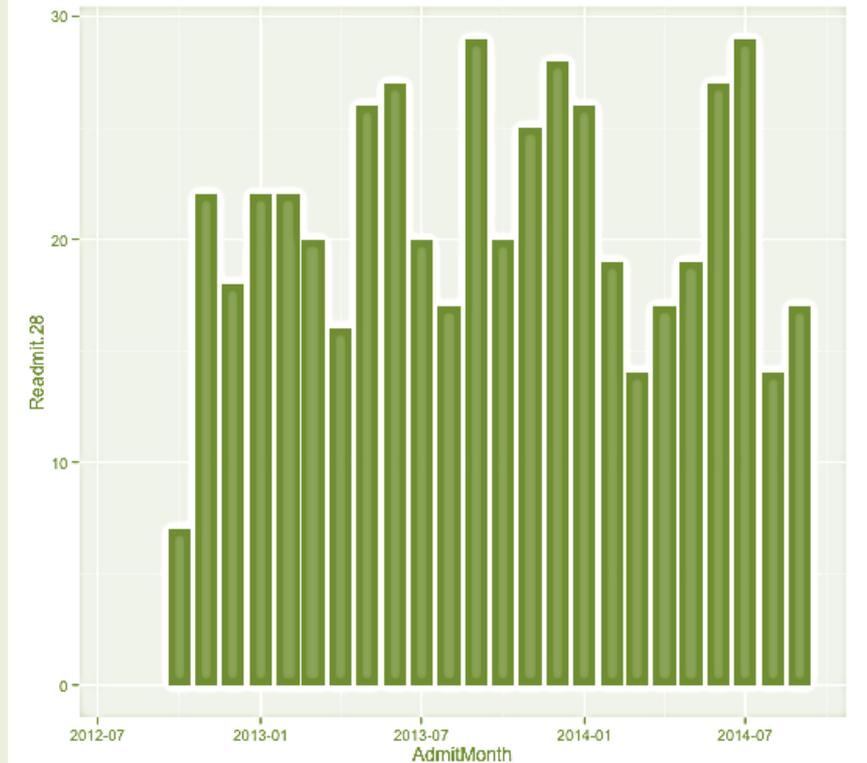
No paediatric patients (Age ≥ 16)

No same day patients

Appendix

Transfers from NWRH and readmissions to NWRH

Transfer Destination	N
Launceston General Hospital	271
Royal Hobart Hospital	92
Mersey Community Hospital	51
Umina Park	73
North West Private Hospital	37
IBIS Care	33
Yaraandoo	28
Smithton	21
Island Care - Eliza Purton Home	17
Queenstown Wards	10
MT ST Vincent Nursing Home	9
Hobart Private Hospital	7
Island Care - Coroneagh Park	6
Lyell House - West Coast District Hospital	4
King Island	3
Queenstown	3
Smithton Clinic	3
Other (<= 2)	29
	697



Appendix

Reducing length of stay in medical DRG Chronic Obstructive Airways Disease

E65B : CHRONIC OBSTRUCTIVE AIRWAY DISEASE

	ALOS	N	Bed Days	RSI
National	4.556			
NWRH	4.835	194	938	1.06
Target	4.556	194	884	1.00
Savings			54	

By reducing the RSI to 1.0 in patients with Chronic Obstructive Airways Disease, there is a potential saving of **54** bed days.

Appendix

Reducing length of stay in medical DRG F74Z chest pain

F74Z Chest pain

	ALOS	N	Bed Days	RSI
National	1.340			
NWRH	1.867	105	196	1.39
Target	1.340	105	141	1.00
Savings			55	

Example of by reducing the RSI to 1.0 in patients with chest pain, there is a potential saving of 55 bed days.

Appendix

Reducing length of stay in medical DRG J64B Cellulitis

J64B Cellulitis

	ALOS	N	Bed Days	RSI
National	3.345			
NWRH	5.553	85	472	1.66
Target	3.345	85	284	1.00
Savings			188	

By reducing the RSI to 1.0 in patients with Cellulitis, there is a potential saving of 188 bed days.

THERE'S
NO PLACE LIKE HOME
*Timely, quality healthcare
to get you safely back
home*

Medical Patient Journey THO-North

Diagnostic Report

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Acknowledgements

This report is the culmination of four months of hard work by a dedicated team but it would not have been remotely possible without the cooperation, support and invaluable contributions from a large number of people across the Launceston General Hospital. We would like to thank our Executive Sponsor, acting CEO Sonia Purse, and members of the Hospital Executive for their support of the medical patient journey clinical redesign project and of our broader program of clinical redesign. Thanks to the many RNs, physicians, regs, NUMs, CNCs, CCs, physios, pharmacists, DONs, social workers, OTs, ENs, clerks, administrators, speech pathologists and interns who gave their time to be interviewed, and to contribute to big picture mapping sessions, meetings and corridor conversations. Your willingness to participate and share quality information is crucial to the success of this project. Thanks to those who helped with data collection particularly for the discharge study and the brown paper exercise. Kerry Foster, PAS manager, generously supplied the high level data set and always made herself available to discuss the nuances of PAS.

The CRO-N has also been ably supported by an external team of skilled individuals. Thanks must go to HSI-Tasmania, in particular Greg Peterson and Craig Quarmby (Co-directors), Lauri O'Brien (Principal redesign consultant) and Jim Stankovich (Research fellow - statistics) for making the journey north on numerous occasions to discuss the progress of the project and for kindly sharing their skills and expertise. Fiona Merkel and Wilf Williams from KPMG have masterfully kept us on track and brought experience, knowledge and structure to the project. CRO-NW and CRO-S have also generously shared their experiences and have been an invaluable sounding board.

This report marks the end of the diagnostic phase of the medical patient journey clinical redesign project and the beginning of the solutions design phase. We are looking forward to continue working with you all and would like to invite everyone involved in the medical patient journey at the LGH to contribute to the solutions design and implementation phases.

Problem statement

There is currently not enough capacity at the Launceston General Hospital to meet medical patient demand, resulting in chronic access block and ward bed shortages. Capacity is a function of both bed stock and length of stay. Length of stay is determined by patient and disease characteristics in association with timeliness of decision making and implementation.

Vision statement

That all care adds value to patients, is safe and timely.

Project timeline



Executive Summary

Diagnostic phase - Summary approach

Overview

The medical patient journey clinical redesign project is led by the Clinical Redesign Office - North in THO-N with support from HSI-Tasmania and KPMG and is part of a larger program of clinical redesign that also includes emergency access, patient flow and access to elective surgery. This report is a summary of the diagnostic phase of the medical patient journey clinical redesign project and aims to both highlight opportunities for improvement and to make the case for change. It is intended that the evidence from this report will be used by working parties to prioritise areas for improvement and inform solutions design.

Medical admissions at the Launceston General Hospital have increased at a rate of 3.5 admissions per month over the last two years while available medical bed stock has remained constant at 92 beds. Despite modest reductions in the average length of stay over this period, increased demand has led to medical ward bed shortages and chronic access block. There are also significant external reforms occurring that are likely to affect how healthcare is delivered in the future. This program of clinical redesign is an opportunity to not only improve the timeliness and quality of care provided to patients but to make our institution more responsive and adaptive to change.

Project scope

The Launceston General Hospital (LGH) medical patient journey project focuses on the following areas:

- From the decision to admit a patient to discharge of that patient from the hospital
- All medical subspecialties including cardiology, gastroenterology, general medicine, haematology-oncology, infectious diseases medicine, medical oncology, neurology, respiratory medicine, stroke and radiation oncology.
- Acute and subacute/rehabilitation inpatients in the Emergency Department (ED), the Acute Medical Unit (AMU) and wards 5D, 6D and 3R.

The defined project scope led to the following patient flows becoming the main focus of attention:

- Decision to admit
- Acute medical inpatients in ED
- Acute medical inpatients in wards
- Acute medical inpatients in AMU
- Subacute and rehabilitation patients
- Discharge and transfer of care

Executive Summary

Diagnostic phase - Summary approach

Diagnostic phase approach

A multi-faceted quantitative and qualitative approach was taken to investigate the medical patient journey at the LGH. High level data analysis was used to provide an overview of the patient journey including demand, capacity, and LOS. High level data analysis was supplemented with qualitative and semi-quantitative studies aimed at providing greater detail of specific areas such as discharge or multi-disciplinary meetings. These studies included ward round follows, big picture mapping sessions, meeting observations, and staff interviews. The “voice of the patient” has not been included in this report. The voice of the patient will be captured through patient interviews, and experience survey data will be used as an evaluative tool. It is also intended that working parties will include patients to help develop patient-focused solutions. The studies undertaken for this report have examined the medical patient journey from the perspective of staff and the organization to provide both a comprehensive understanding of the current state of the medical patient journey, and a substantial evidence base on which improvements can be made.

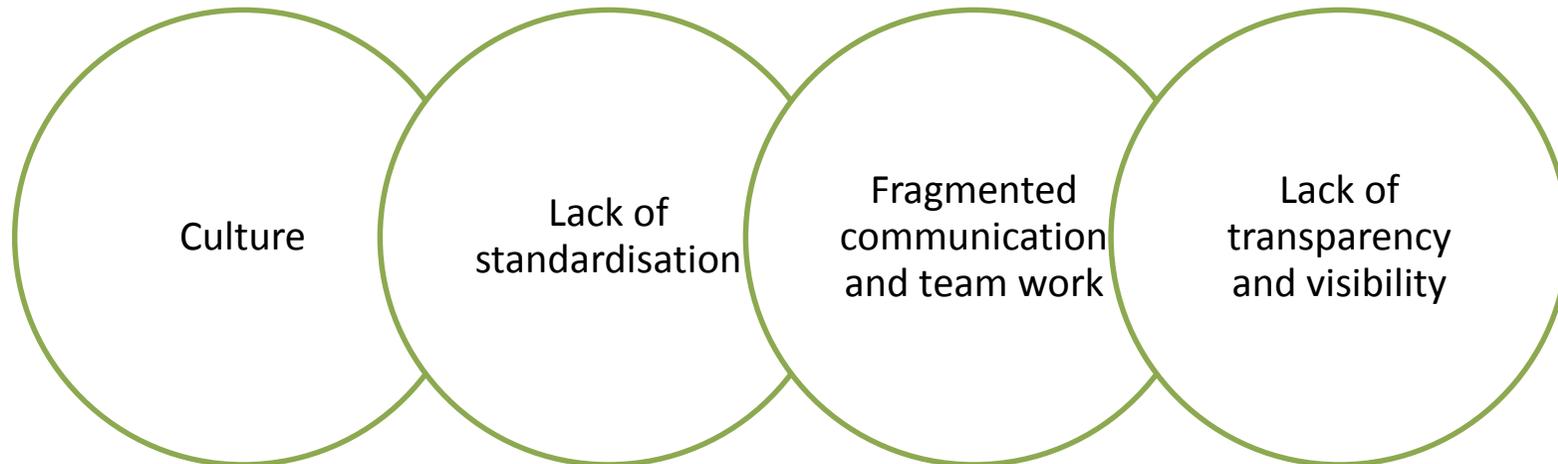
Diagnostic stage activities:

- **Key stakeholder consultations** – Key stakeholder discovery interviews were conducted with senior clinical staff from within medicine, nursing and allied health. Six physicians, three NUMs, one clinical coordinator, two allied health managers (occupational therapy, speech pathology), three allied health senior clinicians (social work, occupational therapy and physiotherapy) who are all involved in the general medicine patient journey were interviewed.
- **‘Big Picture Mapping’ sessions** – Three big picture process mapping sessions were conducted to explore the patient journey in overall medicine, the Acute Medical Unit (AMU) and Ward 3R (acute rehabilitation ward). The scope for the three process mapping sessions were:
 - Medicine – ‘decision to admit through to discharge/ transfer of care’. One hundred and eighteen (118) issues were identified in this session.
 - Acute Medical Unit – ‘high volume AMU General Medicine patient from the time of decision to admit through to discharge’. Approximately thirty five (35) issues were identified.
 - 3R – ‘acceptance of a patient to 3R through to discharge/transfer of care from 3R’. Thirty six (36) issues were identified in this session.
- **Discharge study** – A simple two week study was designed to examine how well discharges were communicated and planned in AMU, 5D, 6D and 3R.
- **Brown paper** – ‘What drives you crazy’ brown paper study? Posters posing the question “In my role caring for medical patients from admission to discharge the things that drive me crazy are” were displayed within the Allied Health Department, general medicine wards, AMU and 3R to build a broad understanding of the views of staff about medical patient journeys.
- **Data analysis** – High level data analysis was conducted using the complete patient data set extracted from PAS for the two years from October 2012 until September 2014, unless indicated otherwise. The data set contained 10,466 acute admissions and 862 rehabilitation and maintenance care admissions and was kindly provided by Kerry Foster to the HSI-Tasmania data team.
- **Observations** – Ward rounds and multi-disciplinary meetings were observed over several weeks.
 - Medical ward round follows – Six (6) post take ward rounds were followed.
 - Medical handover meetings – Six (6) medical handover rounds were observed.
 - Multidisciplinary meetings – Six (6) multidisciplinary meetings were observed.

Executive Summary

Diagnostic phase - Emerging overarching themes

A number of overarching themes have emerged suggesting that there may be some organisation-wide opportunities for change and improvement which should be considered as part of the process of identifying and developing solutions in the next phase of the project. The themes below have been identified in a number of areas – the examples provided are for illustrative purposes and are spread across the range of areas covered by the project. It should be noted that these themes do not reflect the professionalism, dedication and care shown by LGH staff at an individual level but are evident to varying degrees at a systems-wide and organisational level.



Executive Summary

Diagnostic phase - Overarching themes

Overarching Themes	Description	Illustrative Examples
Culture	<p>There is a culture of acceptance of sub optimal processes and workarounds</p> <p>There is a perceived disconnection between individual actions and organisation performance.</p>	<p>It has become normal practice for admitted medical patients to wait up to 70 hours in ED for a ward bed.</p>
Lack of standardisation	<p>There is capacity to reduce unwarranted variation within all aspects of care.</p>	<p>Processes are highly variable – referral, admission, discharge/transfer of care, multi-disciplinary team meetings, ward rounds, medical handover.</p> <p>Roles and responsibilities vary between wards and are often both poorly defined and poorly understood.</p>
Fragmented communication and team work	<p>There are inadequate processes to facilitate communication across individuals, teams, disciplines and patients.</p>	<p>Boundaries exist between disciplines, due in part to a perceived lack of trust, and prevent true integration of care.</p> <p>Documentation is unwieldy and does not always contain all information necessary to support decision making.</p>
Lack of transparency and visibility	<p>A patient’s status and care progression is not reliably visible and transparent.</p>	<p>Systems and processes to share the patient journey are paper-based, ad hoc and person dependent, and do not support decision making.</p> <p>There are few visual management tools.</p> <p>Timely access to the results of clinical investigations is an issue.</p>

Executive summary

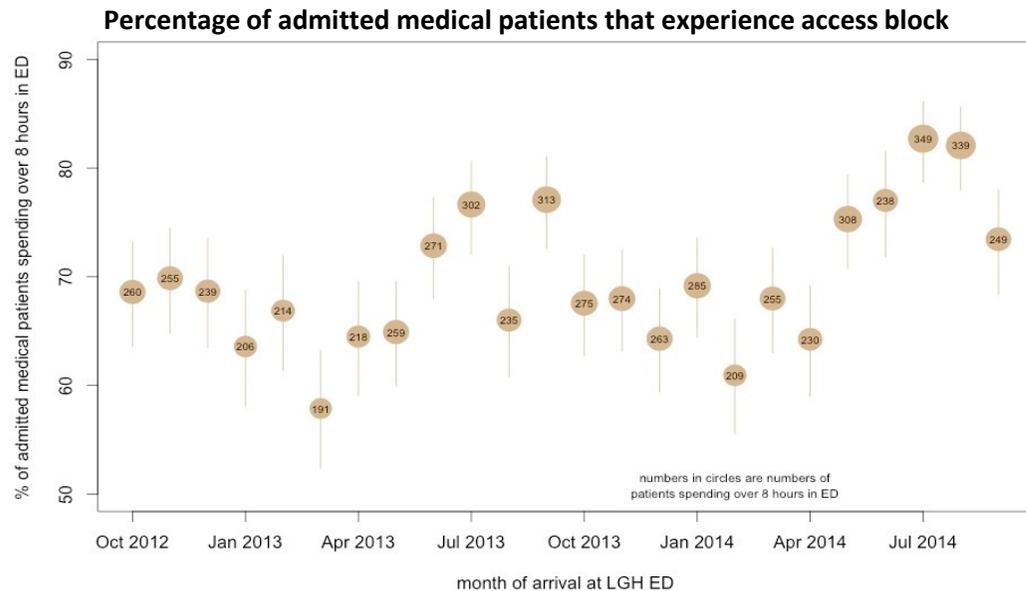
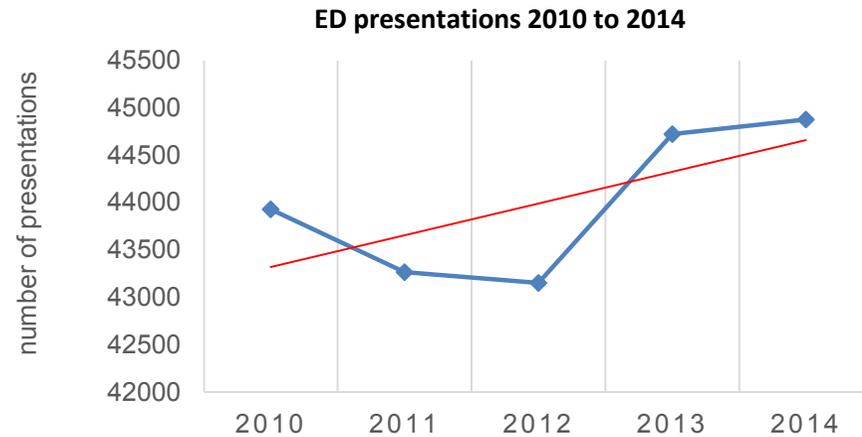
Diagnostic phase - The case for change

- ED presentations are trending upward and **medical admissions are increasing at a rate of 3.5 per month**
- Admitted medical patients remain within the Emergency Department for extended periods (< 4 hours - > **70 hours**)
- Patients who spend more than 24 hours in ED have a **total inpatient LOS that is 40% longer** than patients who spend less than 8 hours in ED
- In order to meet medical patient demand 95% of the time, 122 beds are required. Current bed stock is 92 beds
- Average LOS is reducing, but needs to reduce further to meet increasing demand
- Capacity can be created by identifying and reducing contributors to extended length of stay

Executive summary

Diagnostic phase - The case for change

- **Presentations to LGH ED have been trending upward** in the last two years
- Up to **80% of admitted medical patients** who go to a ward bed experience access block

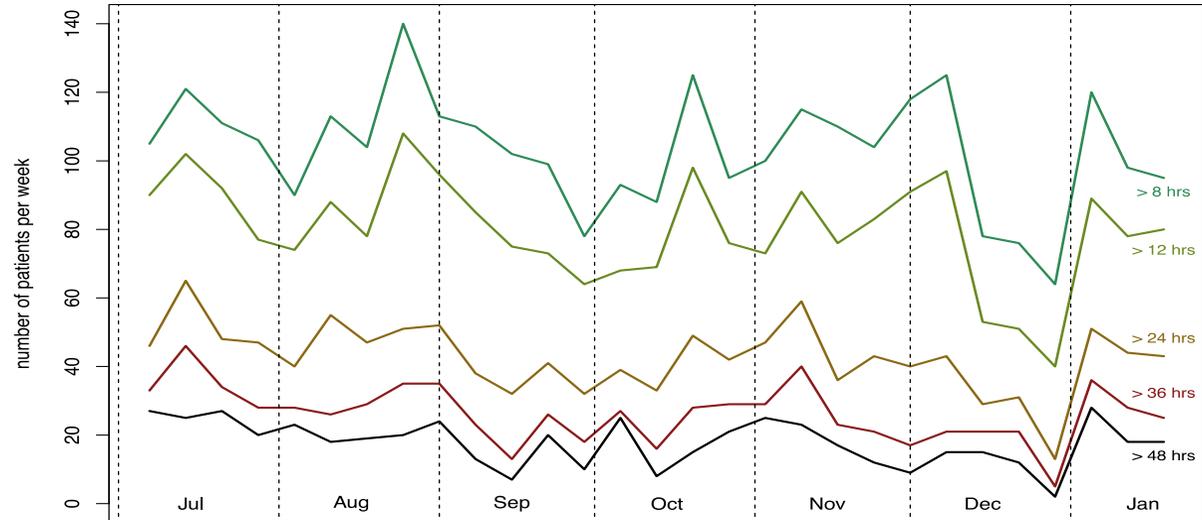


Executive summary

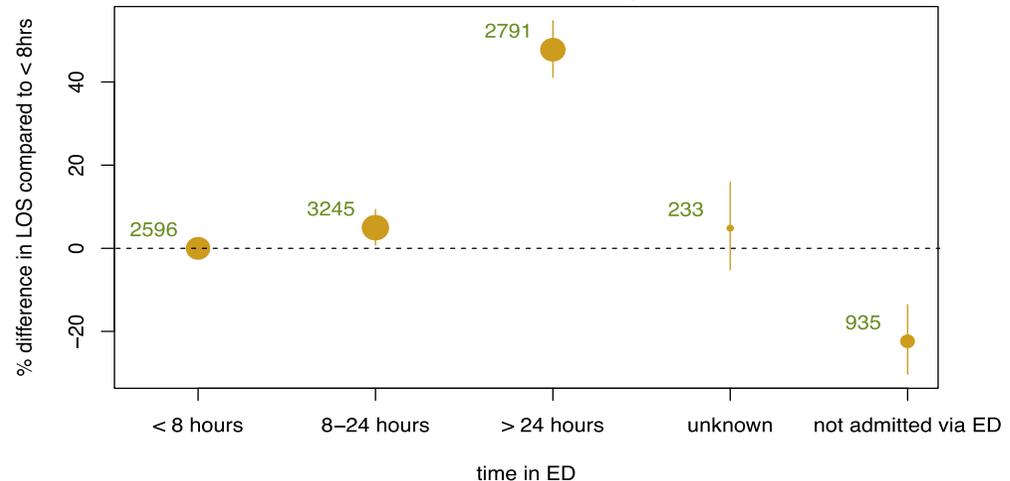
Diagnostic phase - The case for change

- The ED accounts for **over 75% of all medical admissions**. In the 2 years to September 2014, 9011 medical patients were admitted from the ED
- Significant numbers of patients spend more than 48 hours in the LGH ED as **'admitted, no bed'**
- Fewer patients wait in late December - why can't every day be Christmas?
- There is an 8.0% increase in the average time a medical patient waits in the ED for every 10 extra inpatients in the hospital
- Patients who spend more than 24 hours in ED have a **total inpatient LOS that is 40% longer than patients who spend less than 8 hours in ED**

Admitted medical inpatients spending over 8, 12, 24, 36 and 48 hours in the ED (July 2014 to January 2015)



Effect of ED LOS on total medical inpatient LOS

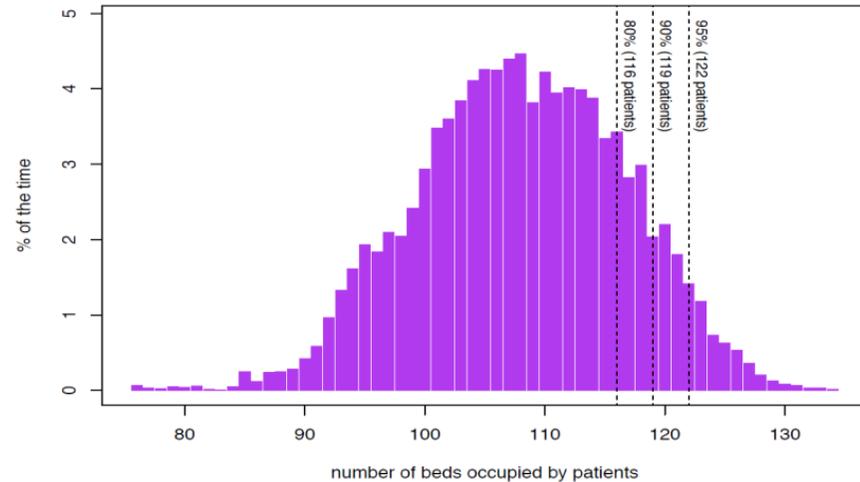


Executive summary

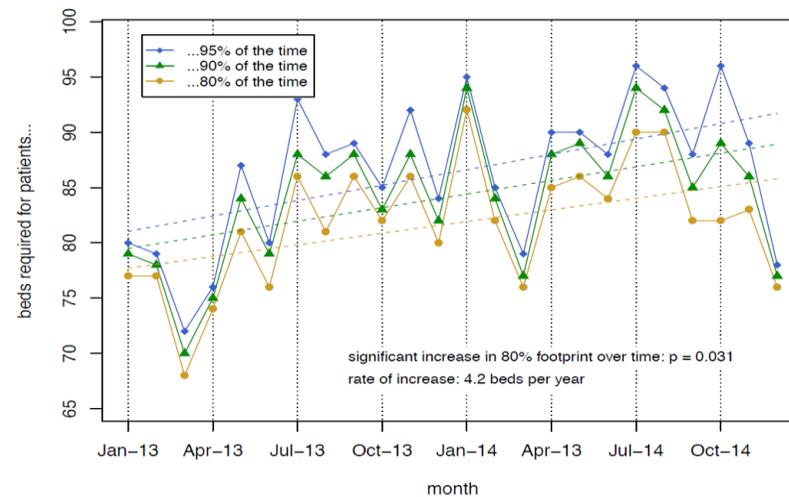
Diagnostic phase - The case for change

- These graphs reflect the number of beds required for medical patients, Jan 2013 to Sep 2014.
- To meet medical inpatient demand **95% of the time, 122 beds are required**
- The Gen Med footprint is increasing at a rate of **4.2 beds per year**

All medical patients excluding rehabilitation and intensive care medicine



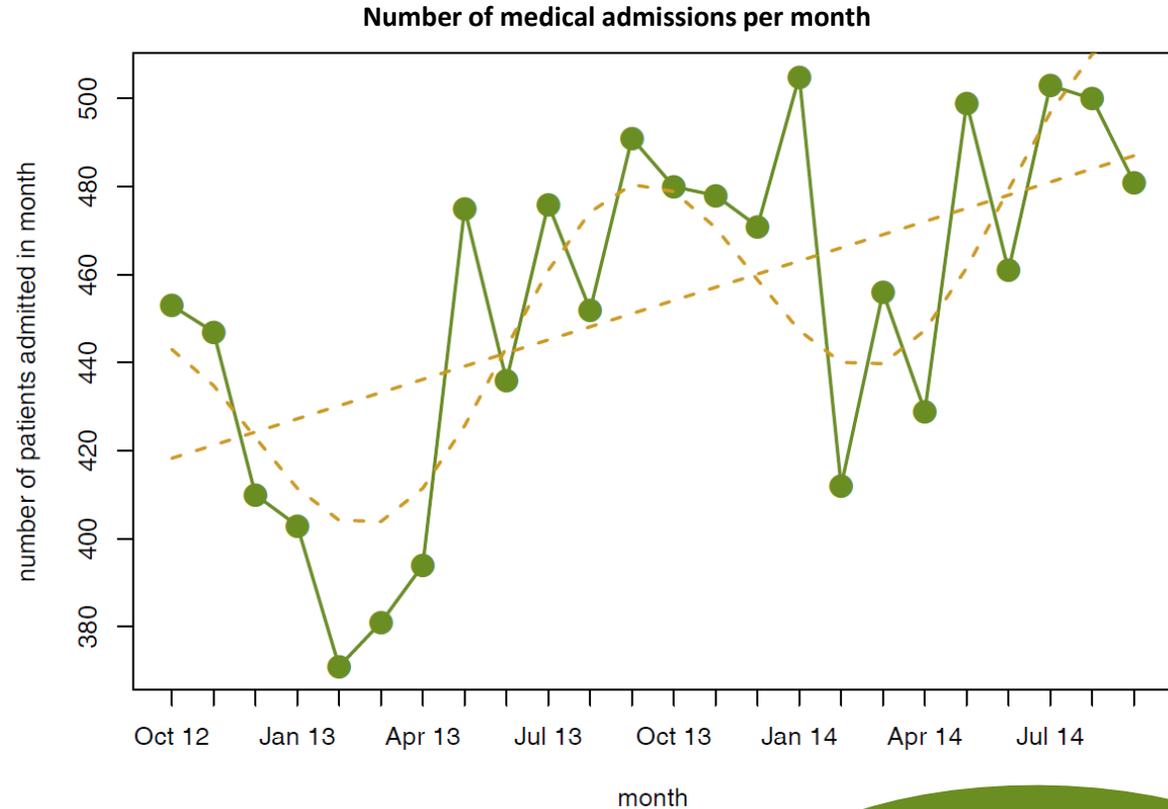
General Medicine footprint



Executive summary

Diagnostic phase - The case for change

- There has been a significant increase in the average number of medical admissions per month (**3.5 admissions/month**, $p=0.0009$).
- There is significant seasonal variation in admissions per month ($p=0.005$) with 30 extra admissions per month in Aug/Sep; 30 fewer admissions per month in Feb/Mar.



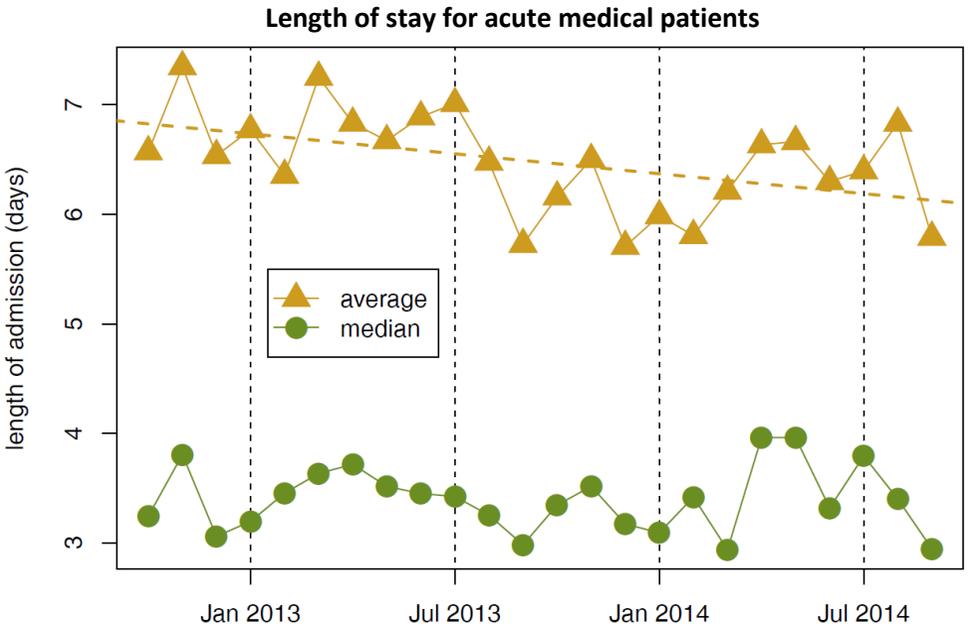
The way we manage the medical patient journey must change to meet increasing demand

Executive summary

Diagnostic phase - The case for change

- There has been a modest **reduction in average LOS** for acute medical inpatients over the last 2 years, but it needs to reduce further to meet increasing demand
- There exists significant opportunity to **increase medical capacity by reducing inpatient LOS**
- For example, there are a number of DRGs where LOS is above the national average
- Capacity could be created through significant bed day savings if LOS for these DRGs was reduced to the national average LOS

Average LOS is reducing by 0.36 days per year



DRG	number of patients	number of bed days	average LOS	national average LOS	relative stay index (RSI)*	bed day saving if RSI* --> 1
B70A: STROKE & OTH CEREB DIS +CCC	140	3336	23.8	13.6	1.75	1432.0
E62A: RESPIRATRY INFECTN/INFLAMM+CCC	211	2214	10.5	8.8	1.19	357.2
B70B: STROKE & OTH CEREB DIS +SCC	88	957	10.9	7.1	1.53	332.2
G67A: OESPHS, GASTR +CSCC	104	846	8.1	5.4	1.51	284.4
I75A: INJ SH,ARM,ELB,KN,LEG,ANKL +CC	37	586	15.8	8.6	1.84	267.8
B81A: OTHER DSRD OF NERVOUS SYS+CSCC	60	824	13.7	9.3	1.48	266.0
F60A: CRC DSRD+AMI-INVA INVE PR+CCC	36	455	12.6	5.7	2.22	249.8
801A: OR PR UNREL TO PDX+CCC	25	711	28.4	19.2	1.48	231.0
J64A: CELLULITIS +CSCC	88	941	10.7	8.2	1.30	219.4
F62A: HEART FAILURE & SHOCK + CCC	155	1761	11.4	10	1.14	211.0

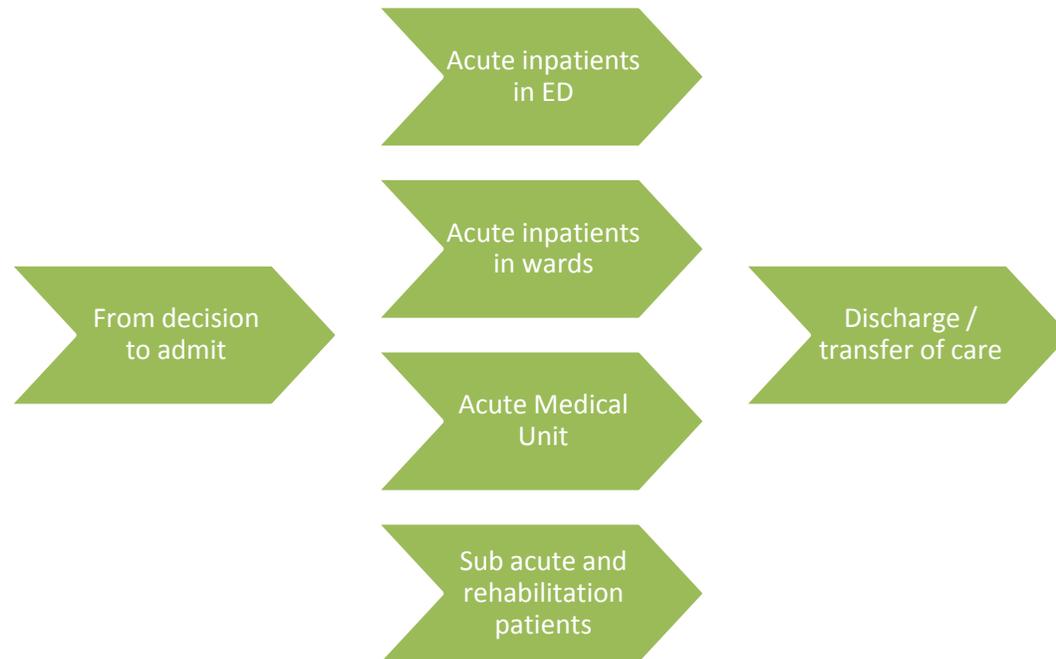
*Relative stay index (RSI) is a measure of LOS for admitted patients, adjusted for the national average LOS for a particular DRG or casemix. An RSI greater than 1.0 indicates that an average patient's length of stay is higher than expected. An RSI of less than 1.0 indicates that the length of stay is less than expected

Executive summary

High level observations and issues

Developing diagnostic findings - Analysis and summary of diagnostic phase information

For each of the patient flows identified for close attention as part of the diagnostic phase, the information on current processes was collated and analysed. This allowed the identification of a number of high level observations and issues. These are discussed in greater depth later in the report (in the 'Observations and issues identified' section) with further evidence provided for each of the high-level observations. A summary of these observations for all areas is set out at this point to provide an overview.



Executive summary

High level observations and issues (1)

Developing diagnostic findings - Analysis and summary of diagnostic information

From decision to admit	<p>The issues are...</p> <ul style="list-style-type: none">• Lack of standardisation across the medical admission process exists creating delays and uncertainty (page 23)• Stakeholders report current admission process is variable with difficulty finding inpatient teams to accept a patient creating delays (page 23)• The process of prioritising and allocating medical patients to ward beds lacks transparency (right patient, right place, first time) (page 24)• No pull of patients through the hospital, resulting in reactive bed management (page 24)• Medical roster changes and familiarity with the on-take team can lead to an inaccurate allocation of patients to medical teams (page 24)• Inconsistent communication with ward clerks at time of admission causes incorrect allocation of patients to particular medical teams (page 24)
Acute inpatients in ED (admit no bed)	<p>The issues are...</p> <ul style="list-style-type: none">• 10% of medical admitted patients will have an ED LOS of 70 hours or more (page 27)• Delays to full implementation of the plan of care exist for patients who fall are admitted but remain within ED (page 28)• Patient safety risks exist for patient with an extended ED LOS, pressure areas, medication reconciliation delays (page 29)• Medical patients within ED have limited access to Allied Health (AH) interventions including pharmacist (page 29)• Significant numbers of admitted medical patients are discharged directly from the ED (page 31)• Admitted medical inpatients in ED are cared for by ED nursing staff and inpatient medical teams (page 29)• Limited communication of the plan of care between ED nursing and medical staff (page 29)• Decompression of ED by transferring admitted medical patients to the DPU creates patient safety and continuity of care issues (page 30)

Executive summary

High level observations and issues (2)

Acute inpatients in medical wards including transition periods	<p>The issues are...</p> <ul style="list-style-type: none">• LOS is significantly affected by day and time of admission, ED LOS and discharge destination (pages 34-36)• 32% of all medical bed days are occupied with patients who have a LOS greater than 21 days, representing just 6.2% of patients (page 37)• Fragmented communication between disciplines is evident (page 38)• Multi-disciplinary meetings do not include medical staff (excluding AMU, SU and Rehabilitation) and are not standardised across medical wards (page 38)• Medical ward round timing, length, participation and communication varies with minimal input from and interaction with other health disciplines (page 38)• Consultant led ward rounds occur twice weekly but timing and pattern is unpredictable (page 39)• Registrars round in between consultant ward rounds, but are not always empowered to enact discharge decisions depending on the level of seniority and the working / communication relationship with the consultant (page 39)• There is no single cohesive plan of care between medical, nursing and AH with regard to progression of care (page 40)• There is limited and varying use of visual management to share the patient progression of care and key milestones (page 40)• Physicians report information management systems do not support decision making (page 40)• Frequent changes to medical registrars potentially impact on team operation and progression of care (page 41)• Clinical nursing key roles that support progression of care and discharge planning vary between wards/units (page 41)• Delays in consultations from other medical specialties delay decision making (page 41)• Delays in diagnostic tests delay decision making and discharge (page 41)
Acute Medical Unit	<p>The issues are...</p> <ul style="list-style-type: none">• There is variation in adherence to admission criteria, identification, selection and admission of patient to AMU meaning that the right patients are not being cared for in the right environment at the right time in a consistent manner (page 44)• AMU have little visibility of potential patients that meet their admission criteria within ED. Patients are not 'pulled' to the AMU (page 44)• Progression of care discussions at GOLD meetings (multi-disciplinary daily meeting) are poorly documented and relies on verbal handover. The meeting structure, agenda and attendance is variable (page 45)• AMU patients who need to be transitioned to a general medicine team/bed are frequently unable to be transferred to a medical ward bed (page 46)• Variation of care planning and progression exists for AMU medical patients and sub specialty patients within the AMU (page 46)

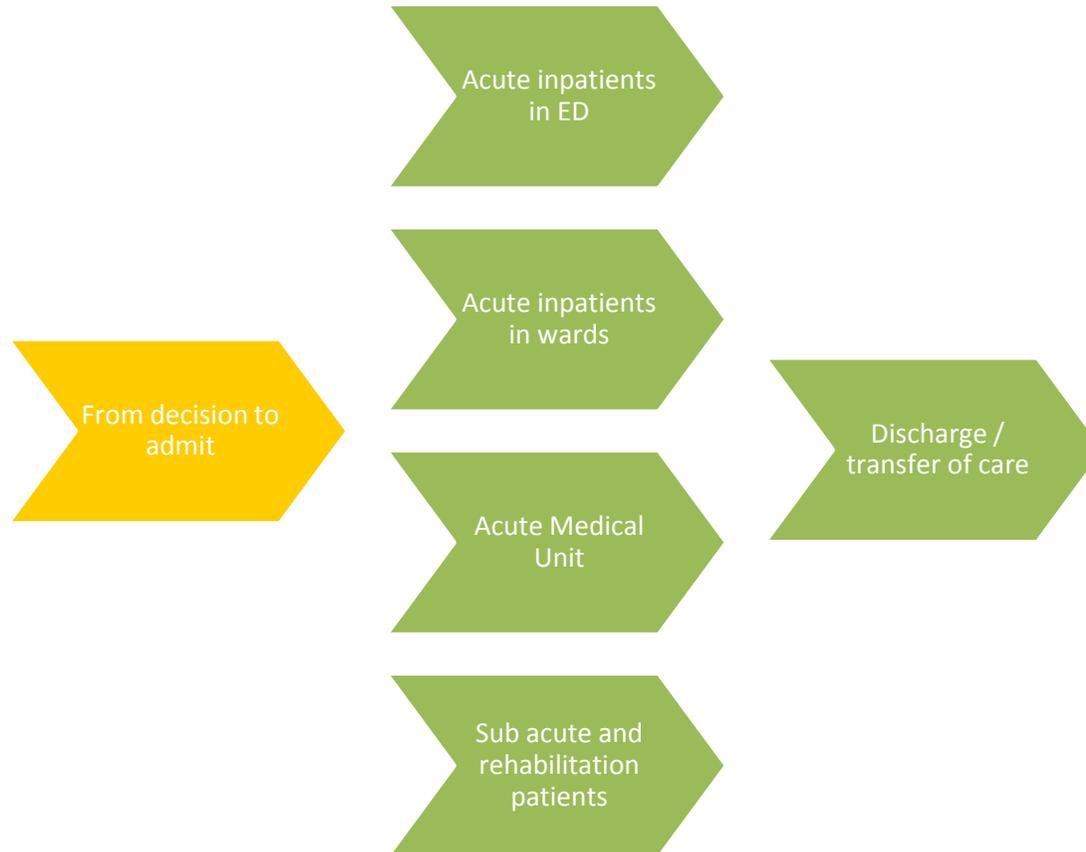
Executive summary

High level observations and issues (3)

Sub acute and Rehabilitation patients	<p>The issues are...</p> <ul style="list-style-type: none">• Length of stay for Z60A Rehabilitation with CCC – LOS is 12 days longer than national average LOS which is the equivalent to 6 extra beds per day (page 49)• 33% of patients stay in the ward 21 days or longer and occupy 69% of bed days (page 49)• 24% of all admissions to 3R are general medicine patients admitted directly from ED (page 50)• Timely response to referrals is inconsistent and timely feedback of decision is not apparent (page 51)• Decision making ward rounds are lengthy (up to six hours), occur once per week, and are preceded by lengthy multi-disciplinary meetings (page 51)• If rehabilitation fails, it is difficult to transfer patients to a general medical bed (page 50)
Discharge	<p>The issues are...</p> <ul style="list-style-type: none">• Discharge planning occurs late in the patient journey and is often poorly documented and communicated (page 54)• Only one third of patients who were discharged on average per day were confirmed and documented for discharge (page 54)• There is limited and varying use of visual management to share the patient progression to discharge (page 55)• Discharge occurs 9-5, Monday to Friday (page 55)• Discharge script processes are impacted by batching (page 56)• Transport delays result from unplanned or poorly communicated discharge planning (page 57)

Observations and issues

Observations and Issues



Key observations and issues

From decision to admit

The issues are...

- **Lack of standardisation** across the medical admission process exists creating delays and uncertainty
- Stakeholders report current admission process variable with difficulty in finding an inpatient team to accept a patient creating **delays**
- The process of **prioritising and allocating** medical patients to ward bed lacks transparency (right patient, right place, first time)
- **No pull** of patients through the hospital, resulting in reactive bed management
- **Medical roster changes** and unfamiliarity with the on-take team can lead to an inaccurate allocation of patients to medical teams

Key observations and issues

From decision to admit (1)

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none">• Lack of standardisation across the medical admission process exists creating delays and uncertainty	<ul style="list-style-type: none">• Stakeholder interviews and direct observation• HRC report• Process mapping session	<p>The evidence for 'Lack of standardisation' includes a yellow speech bubble stating: "Medical registrars don't always do things the same way" ED shift coordinator. Three pink sticky notes are also present: one says "Med Reg - 1/2 multiple responsibility", another says "Time of transfer of care from BD to medicine is unclear", and a third says "No single document confirming admission acceptance".</p>
<ul style="list-style-type: none">• Stakeholders report current admission process variable with difficulty in finding an inpatient team to accept a patient creating delays		<p>Bed request delays were evidence within HRC report if review by other sub specialty teams occurred</p> <ul style="list-style-type: none">• request for one review increased time to bed request to 3.28 hours,• request for two reviews increased time to bed request to 5.21 hours,• request for three reviews increased time to bed request to 6.50 hours (page 30)

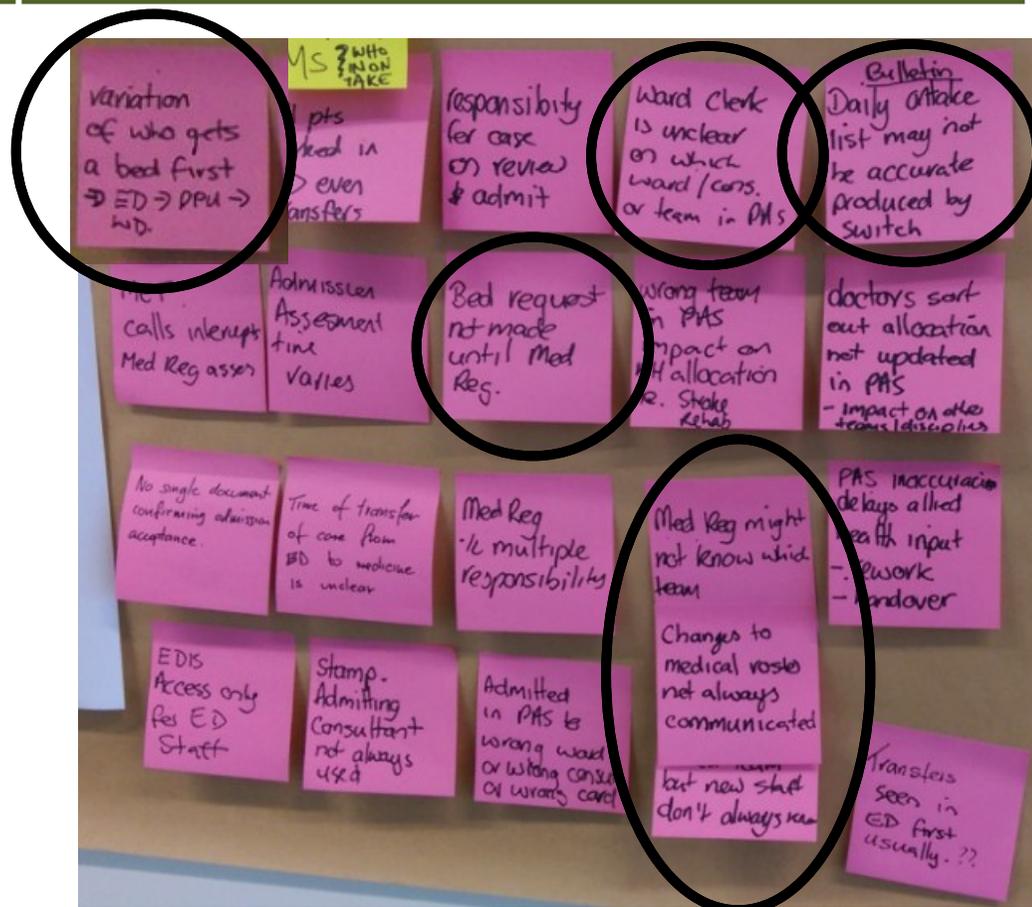
Key observations and issues

From decision to admit (2)

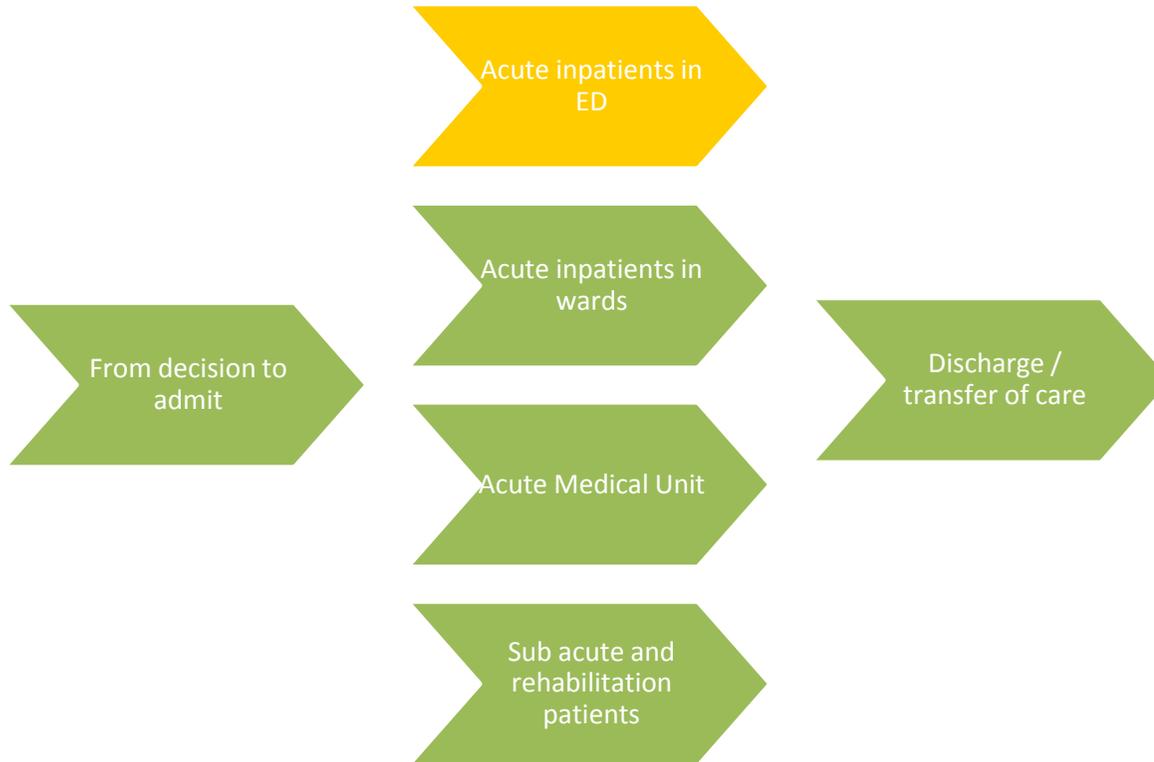
Observations and Issues	Source	Evidence/Supporting Analysis
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- The process of **prioritising and allocating** medical patients to ward beds lacks transparency (right patient, right place, first time)
- There is **no pull** of patients through the hospital, resulting in reactive bed management
- **Medical roster changes** and unfamiliarity with the on-take team can lead to an inaccurate allocation of patients to medical teams

- AMU big picture process mapping session
- Medicine patient big picture process mapping session
- AMU big picture process mapping session
- Medicine patient big picture process mapping session
- Discovery interviews with physicians



Observations and Issues



Key observations and issues

Acute inpatients in ED

The issues are...

- 10% of medical admitted patients will have an **ED LOS of 70 hours** or more
- **Delays** to full implementation of the plan of care exist with patients who fall into the cohort of admitted but who remain within ED
- **Patient safety** risks exist for patient with an extended ED LOS, pressure areas, medication reconciliation delays
- Medical patients within ED have **limited access to Allied Health (AH)** interventions including pharmacist
- Admitted medical inpatients in ED are cared for by **ED nursing staff** and **in patient medical teams**
- There is evidence of **limited communication** of the plan of care between ED nursing and inpatient medical staff
- Decompression of ED by transferring admitted medical patients to the DPU creates patient safety and continuity of care issues.
- **Significant numbers** of admitted medical patients are **discharged directly from the ED**

Key observations and issues

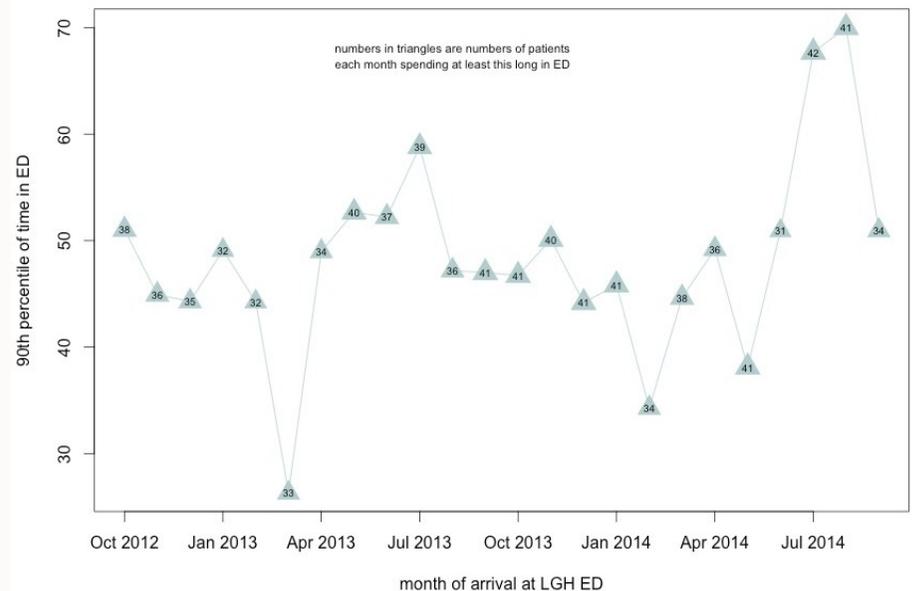
Acute inpatients in ED (1)

Observations and Issues	Source	Evidence/Supporting Analysis
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- 10% of medical admitted patients will have an **ED LOS of 70 hours** or more
- Between 32 to 41 patients per month at LGH have an ED LOS of 40 to 70 hours. The longest LOS are found within the most recent data, indicating that the situation is worsening rather than improving

- PAS data analytics
- Process mapping sessions

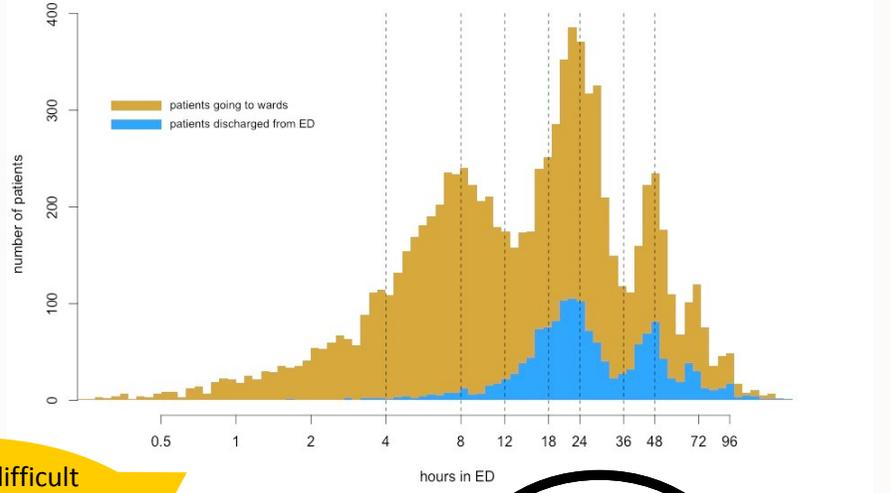
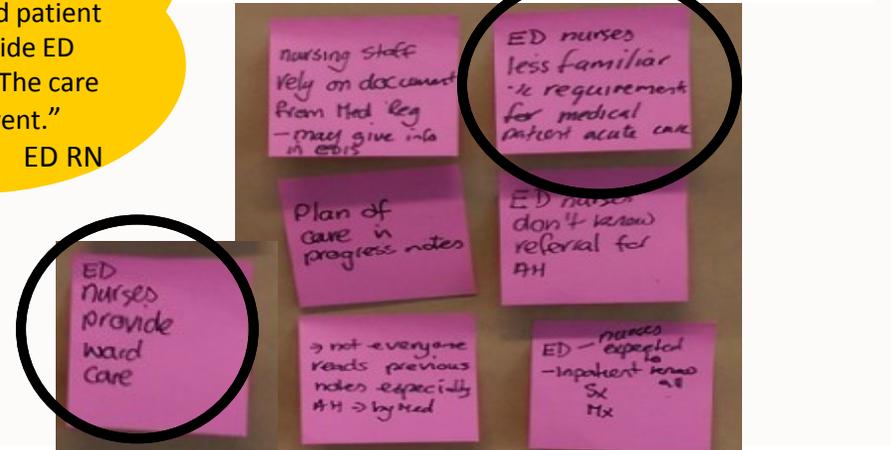
ED LOS for the 10% of patients who wait the longest for an inpatient bed



total time in ED	patients going to wards		Patients discharged from ED	
	number	%	number	%
< 4 hours	1095	14.5%	10	0.7%
4-8 hours	1572	20.8%	43	2.9%
8-12 hours	1052	13.9%	61	4.2%
12-18 hours	761	10.1%	240	16.4%
18-24 hours	902	11.9%	368	25.2%
24-36 hours	1044	13.8%	268	18.3%
36-48 hours	430	5.7%	208	14.2%
>48 hours	693	9.2%	264	18.1%
Total	7549	100.0%	1462	100.0%

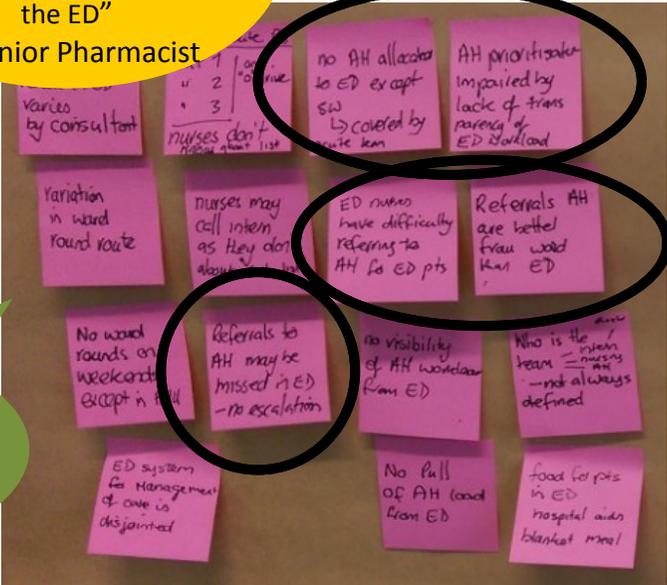
Key observations and issues

Acute inpatients in ED (2)

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none"> • Delays to full implementation of the plan of care exist with patients who fall into the cohort of admitted but who remain within ED <ul style="list-style-type: none"> • Admitted medical patients commence their inpatient care within the emergency department environment which delays implementation of the plan of care • ED nursing staff are less experienced in delivering a medical nursing model of care that incorporates the holistic approach that would be applied within a ward setting • Medical accountability sits with the admitted medical team, who are not based within the ED and are therefore less accessible to ED nursing staff • ED nursing staff have to differentiate between the ED patient and the admitted inpatient in managing the deterioration of the patient condition and activating medical input / support 	<ul style="list-style-type: none"> • PAS data analytics • Process mapping sessions 	 <p data-bbox="808 771 1243 1028">"It's really difficult providing med patient care alongside ED patient care. The care is so different." ED RN</p> 

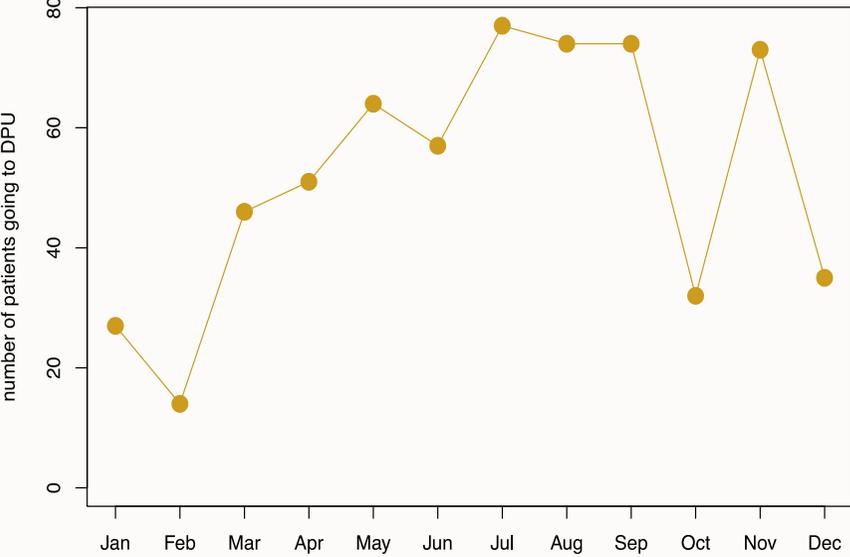
Key observations and issues

Acute inpatients in ED (3)

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none"> • Patient safety risks exist for patient with an extended ED LOS, pressure areas, medication reconciliation delays • Medical patients within ED have limited access to Allied Health (AH) interventions including pharmacy <ul style="list-style-type: none"> • No standard referral process for AH intervention within ED • No AH resources allocated to the medical patient located with ED • Referrals that do occur are frequently prompted by the presence of an AH professional who enters the ED environment, if a referral does occur it will not be prioritised • There is evidence of limited communication of the plan of care between ED nursing and medical staff <ul style="list-style-type: none"> • Stakeholders report and observation validates that there is limited communication of the plan of care between nursing and medical staff during post take ward rounds and routine ward rounds • Rounds occur without or with little nursing input 	<ul style="list-style-type: none"> • Observation • Stakeholder interviews • ED process mapping session • Medical process mapping session 	<div data-bbox="1038 268 1487 482" style="border: 1px solid green; border-radius: 50%; padding: 10px; background-color: #6aa84f; color: white; text-align: center;"> <p>‘ED inpatient are assessed later in their stay’ Senior AHP</p> </div> <div data-bbox="1520 268 1964 548" style="border: 1px solid lightgreen; border-radius: 50%; padding: 10px; background-color: #c6e0b4; text-align: center;"> <p>“Most referrals come from nursing staff in ED, but referrals tend to occur ad hoc” Senior AHP</p> </div> <div data-bbox="1079 491 1514 743" style="border: 1px solid yellow; border-radius: 50%; padding: 10px; background-color: #f1c232; text-align: center;"> <p>“I rarely have time to complete all admitted patients drug chart reconciliations within the ED” Senior Pharmacist</p> </div> <div data-bbox="824 958 1259 1210" style="border: 1px solid green; border-radius: 50%; padding: 10px; background-color: #6aa84f; color: white; text-align: center;"> <p>‘There is no ownership of the ‘admitted patient’ in ED’ Nursing director</p> </div> 

Key observations and issues

Acute inpatients in ED (4)

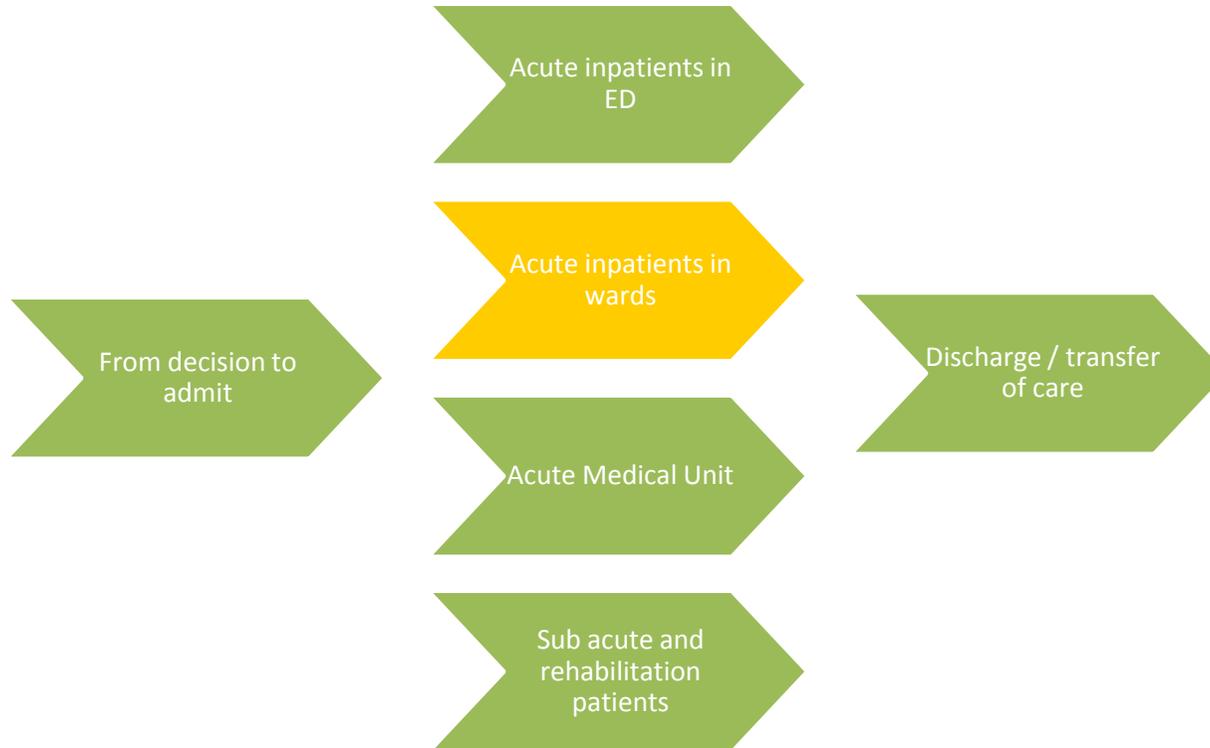
Observations and Issues	Source	Evidence/Supporting Analysis																										
<ul style="list-style-type: none"> Decompression of ED by transferring admitted medical patients to the DPU creates patient safety and continuity of care issues In the 2014 calendar year, 624 patients went to the DPU. This was 6.3% of the 9887 medical patients admitted from ED in 2014. It is likely at least some of these patients were transferred to DPU for clinical reasons and not to relieve ED overcrowding Of the 624 patients transferred to DPU in the 2014 calendar year, 317 were overnight admissions as a direct result of decanting admitted medical patients from the ED 	<ul style="list-style-type: none"> Observation Stakeholder interviews ED process mapping session Medical process mapping session PAS data analysis 	<p style="text-align: center;">Admitted medical patients in DPU</p>  <table border="1" data-bbox="1087 421 1937 978"> <caption>Admitted medical patients in DPU (2014)</caption> <thead> <tr> <th>Month</th> <th>Number of Patients</th> </tr> </thead> <tbody> <tr><td>Jan</td><td>28</td></tr> <tr><td>Feb</td><td>15</td></tr> <tr><td>Mar</td><td>46</td></tr> <tr><td>Apr</td><td>51</td></tr> <tr><td>May</td><td>64</td></tr> <tr><td>Jun</td><td>57</td></tr> <tr><td>Jul</td><td>77</td></tr> <tr><td>Aug</td><td>74</td></tr> <tr><td>Sep</td><td>74</td></tr> <tr><td>Oct</td><td>33</td></tr> <tr><td>Nov</td><td>73</td></tr> <tr><td>Dec</td><td>35</td></tr> </tbody> </table> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div data-bbox="1156 1025 1591 1282" style="background-color: yellow; border-radius: 50%; padding: 10px; text-align: center;"> <p>“There is no such place as ED overflow. Medically admitted patients in ED and DPU belong to medicine” ED physician</p> </div> <div data-bbox="1661 1025 1972 1282" style="border: 2px solid black; border-radius: 50%; padding: 10px; text-align: center;"> <p>DPU Medical patients have question of governance, geographic isolation</p> </div> </div>	Month	Number of Patients	Jan	28	Feb	15	Mar	46	Apr	51	May	64	Jun	57	Jul	77	Aug	74	Sep	74	Oct	33	Nov	73	Dec	35
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Nov	73																											
Dec	35																											

Key observations and issues

Acute inpatients in ED (5)

Observations and Issues	Source	Evidence/Supporting Analysis																																	
<ul style="list-style-type: none"> • Significant numbers of admitted medical patients are discharged directly from the ED <ul style="list-style-type: none"> • Discharge planning for patients discharging from ED is ad hoc • HALT staff are involved in discharging medically admitted patients 	<ul style="list-style-type: none"> • PAS data • Observation • Stakeholder interviews • ED process mapping session • Medical process mapping session 	<ul style="list-style-type: none"> • 1462 (16%) patients discharged directly from ED in the two years from October 2012 to September 2014 <div data-bbox="1452 429 1887 644" style="border: 1px solid green; border-radius: 50%; padding: 10px; text-align: center; margin: 10px 0;"> <p>“ I often assist with discharging medical patients from ED”</p> <p>HALT AHP</p> </div> <table border="1" data-bbox="1125 696 1846 1102"> <thead> <tr> <th colspan="3" style="background-color: #76923c; color: white;">Patients discharged from the ED</th> </tr> <tr> <th style="background-color: #d9ead3;">total time in ED</th> <th style="background-color: #d9ead3;">number</th> <th style="background-color: #d9ead3;">%</th> </tr> </thead> <tbody> <tr><td>< 4 hours</td><td>10</td><td>0.7%</td></tr> <tr><td>4-8 hours</td><td>43</td><td>2.9%</td></tr> <tr><td>8-12 hours</td><td>61</td><td>4.2%</td></tr> <tr><td>12-18 hours</td><td>240</td><td>16.4%</td></tr> <tr><td>18-24 hours</td><td>368</td><td>25.2%</td></tr> <tr><td>24-36 hours</td><td>268</td><td>18.3%</td></tr> <tr><td>36-48 hours</td><td>208</td><td>14.2%</td></tr> <tr><td>>48 hours</td><td>264</td><td>18.1%</td></tr> <tr><td>Total</td><td>1462</td><td>100.0%</td></tr> </tbody> </table>	Patients discharged from the ED			total time in ED	number	%	< 4 hours	10	0.7%	4-8 hours	43	2.9%	8-12 hours	61	4.2%	12-18 hours	240	16.4%	18-24 hours	368	25.2%	24-36 hours	268	18.3%	36-48 hours	208	14.2%	>48 hours	264	18.1%	Total	1462	100.0%
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Observations and Issues



Key observations and issues

Acute inpatients in wards

The issues are...

- **LOS** is significantly affected **by day and time of admission, ED LOS and discharge destination**
- **32% of all medical bed days** are occupied with patients who have a LOS greater than 21 days, representing just 6.2% of patients
- **Fragmented communication between disciplines** is evident
- Multi-disciplinary meetings **do not include medical** staff (excluding AMU, SU and Rehabilitation) and are **not standardized** across medical wards
- Medical ward round timing, length, participation and communication **varies** with minimal input and interaction with other health disciplines
- Consultant led ward rounds occur twice weekly but timing and pattern is **unpredictable**
- Registrars round in between consultant ward rounds, but are **not always empowered** to enact discharge decisions depending on the level of seniority and the working / communication relationship with the consultant
- There is **no single cohesive plan** of care between medical, nursing and AH with regard to progression of care
- There is **limited** and varying use of **visual management** to share the patient progression of care and key milestones
- Physicians report **information management** systems **do not support decision making**
- **Frequent changes** to medical registrars potentially impact on operation of team and progression of care.
- Clinical nursing **key roles** that support progression of care and discharge planning **vary** between wards / units
- Delays in **consultations** from other medical specialties delay decision making
- Delays in **diagnostic tests** delay decision making and discharge

“The most frustrating thing is not having a system that allows me to practice medicine to the best of my ability”

Physician

Key observations and issues

Acute inpatients in wards (1)

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none"> The average LOS for all patients in the LGH is 8.2 days. The average acute patient LOS is 6.5 days. Factors were tested for significant association with LOS. Those in bold below were found to be significantly associated with LOS. <p>Factors associated with LOS:</p> <ul style="list-style-type: none"> Where patient lives (North / NW / South / interstate) Index of socio-economic advantage and disadvantage by postcode (from ABS data) Admission source (ED, other hospital, statistical, etc.) Time (LOS is steadily decreasing) Season (LOS is longer in winter) Time of day of admission Day of week of admission Admitting consultant Whether patient is access blocked (spends > 8 hours in ED or > 24 hours in ED before going to a ward) First ward patients goes to (first ward after ED for patients whose first ward is ED) Whether patient changes specialty Discharge destination 	<ul style="list-style-type: none"> PAS data analysis For factors associated with LOS analysis a multivariate linear regression model for log(LOS), adjusted for age, sex, DRG and Charlson comorbidities was used. 	<p>LOS for acute and sub acute medical patients</p> <p>all patients LOS: average 8.2 days, median 3.8 days acute patients LOS: average 6.5 days, median 3.3 days rehabilitation and maintenance patients LOS: average 29.7 days, median 20.9 days</p> <p>The large difference between average and median LOS suggests there are a significant number of long stay patients</p>

Key observations and issues

Acute inpatients in wards (2)

Observations and Issues	Source	Evidence/Supporting Analysis										
<ul style="list-style-type: none"> Patients who are transferred to a nursing home have an average LOS 80% greater than patients who return to their usual residence. However, this represents only 219 patients over the two years to September 2014 If the LOS for patients being transferred to a nursing home and statistical separations were reduced to the LOS for patients who return to their usual residence, a saving of 11.7 beds per day could be made The table illustrates possible bed savings per day if the average LOS for specific cohorts of patients was reduced to the reference group. For example, if the variation by day of the week in LOS was removed and all patients had the same LOS as patients admitted on a Sunday, then a saving of 8.0 beds per day would be possible As altering one variable is likely to affect others, these bed savings are not cumulative 	<ul style="list-style-type: none"> PAS data analysis using a multivariate linear regression model for log (LOS), adjusted for age, sex, DRG and Charlson comorbidities The yellow vertical lines on the graph represent 95% confidence intervals while the size of the circle is proportional to the number of separations 	<p style="text-align: center;">Effect of discharge destination on LOS</p> <table border="1" style="margin-top: 10px;"> <thead> <tr> <th>Factor associated with variation in LOS</th> <th>Possible bed savings</th> </tr> </thead> <tbody> <tr> <td>Day of week of admission</td> <td>8.0</td> </tr> <tr> <td>Time of day of admission</td> <td>11.0</td> </tr> <tr> <td>Time in ED for patients transferred to wards</td> <td>11.4</td> </tr> <tr> <td>Mode of separation</td> <td>11.7</td> </tr> </tbody> </table>	Factor associated with variation in LOS	Possible bed savings	Day of week of admission	8.0	Time of day of admission	11.0	Time in ED for patients transferred to wards	11.4	Mode of separation	11.7
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Key observations and issues

Acute inpatients in wards (3)

Observations and Issues	Source	Evidence/Supporting Analysis										
<ul style="list-style-type: none">Patients from outside of the Northern region did not have significantly longer average LOS than local area patientsAverage LOS was found to be 0.014% shorter for patients from the North-West ($p = 0.996$) compared with patients from the Northern Local Government Area (that is, LOS for these two cohorts is almost identical)	<ul style="list-style-type: none">PAS data analysis using a multivariate linear regression model for $\log(\text{LOS})$, adjusted for age, sex, DRG and Charlson comorbiditiesRegions were analysed using Local Government Area and usual residence postcode	<table border="1"><thead><tr><th data-bbox="1183 412 1576 465">Region</th><th data-bbox="1583 412 1922 465">number of acute admissions</th></tr></thead><tbody><tr><td data-bbox="1183 469 1576 515">North</td><td data-bbox="1583 469 1922 515">9152</td></tr><tr><td data-bbox="1183 519 1576 565">North-West</td><td data-bbox="1583 519 1922 565">1212</td></tr><tr><td data-bbox="1183 569 1576 615">South</td><td data-bbox="1583 569 1922 615">98</td></tr><tr><td data-bbox="1183 619 1576 665">Interstate/overseas</td><td data-bbox="1583 619 1922 665">132</td></tr></tbody></table>	Region	number of acute admissions	North	9152	North-West	1212	South	98	Interstate/overseas	132
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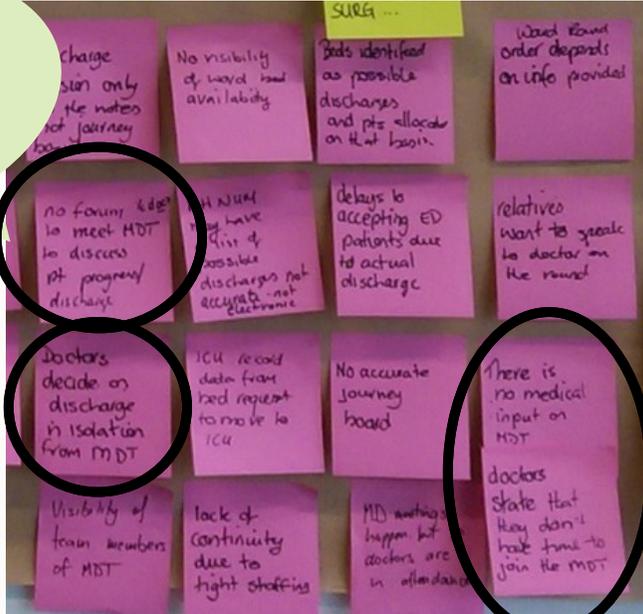
Key observations and issues

Acute inpatients in wards (4)

Observations and Issues	Source	Evidence/Supporting Analysis																																																																																													
<ul style="list-style-type: none"> • 32% of all medical bed days are occupied with patients who have a LOS greater than 21 days, representing just 6.2% of patients • There exists significant opportunity to save bed days by improving the management of long stay patients • 49.4% of patients who stay longer than 21 days return to their usual residence. These patients occupy 11,416 bed days • 19.5% are transferred to a nursing home facility and occupy 25.5% of bed days 	<ul style="list-style-type: none"> • PAS data analysis of acute and subacute medical admissions • Please note the small discrepancy between LOS and discharge destination totals which is due to missing discharge destination data for 14 patients 	<p style="text-align: center;">LOS and bed days for medical patients</p> <table border="1" data-bbox="1104 411 1958 728"> <thead> <tr> <th rowspan="2">LOS</th> <th colspan="2">Admissions</th> <th colspan="2">Bed days</th> </tr> <tr> <th>number</th> <th>%</th> <th>number</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>0-6 days</td> <td>6409</td> <td>71.1%</td> <td>17448</td> <td>29.4%</td> </tr> <tr> <td>7-13 days</td> <td>1526</td> <td>16.9%</td> <td>14109</td> <td>23.8%</td> </tr> <tr> <td>14-20 days</td> <td>553</td> <td>6.1%</td> <td>9278</td> <td>15.6%</td> </tr> <tr> <td>21+ days</td> <td>562</td> <td>6.2%</td> <td>19367</td> <td>32.6%</td> </tr> <tr> <td>Total</td> <td>9011</td> <td>100%</td> <td>59383</td> <td>100%</td> </tr> </tbody> </table> <p style="text-align: center;">Discharge destinations for patients with LOS >21 days</p> <table border="1" data-bbox="1062 811 2026 1278"> <thead> <tr> <th rowspan="2">Discharge destination</th> <th colspan="2">Admissions</th> <th colspan="2">Bed days</th> </tr> <tr> <th>number</th> <th>%</th> <th>number</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Usual residence/accommodation</td> <td>271</td> <td>49.5%</td> <td>11416</td> <td>46.0%</td> </tr> <tr> <td>Aged care residential facility</td> <td>107</td> <td>19.5%</td> <td>6322</td> <td>25.5%</td> </tr> <tr> <td>Died</td> <td>80</td> <td>14.6%</td> <td>3324</td> <td>13.4%</td> </tr> <tr> <td>Public Hospital</td> <td>40</td> <td>7.3%</td> <td>1582</td> <td>6.4%</td> </tr> <tr> <td>Private Hospital</td> <td>27</td> <td>4.9%</td> <td>958</td> <td>3.9%</td> </tr> <tr> <td>Rural Hospital</td> <td>15</td> <td>2.7%</td> <td>577</td> <td>2.3%</td> </tr> <tr> <td>Left against Medical Advice</td> <td>3</td> <td>0.5%</td> <td>78</td> <td>0.3%</td> </tr> <tr> <td>Other</td> <td>3</td> <td>0.5%</td> <td>460</td> <td>1.9%</td> </tr> <tr> <td>Mental Health Service</td> <td>2</td> <td>0.4%</td> <td>90</td> <td>0.4%</td> </tr> <tr> <td>Total</td> <td>548</td> <td>100.0%</td> <td>24806</td> <td>100.0%</td> </tr> </tbody> </table>	LOS	Admissions		Bed days		number	%	number	%	0-6 days	6409	71.1%	17448	29.4%	7-13 days	1526	16.9%	14109	23.8%	14-20 days	553	6.1%	9278	15.6%	21+ days	562	6.2%	19367	32.6%	Total	9011	100%	59383	100%	Discharge destination	Admissions		Bed days		number	%	number	%	Usual residence/accommodation	271	49.5%	11416	46.0%	Aged care residential facility	107	19.5%	6322	25.5%	Died	80	14.6%	3324	13.4%	Public Hospital	40	7.3%	1582	6.4%	Private Hospital	27	4.9%	958	3.9%	Rural Hospital	15	2.7%	577	2.3%	Left against Medical Advice	3	0.5%	78	0.3%	Other	3	0.5%	460	1.9%	Mental Health Service	2	0.4%	90	0.4%	Total	548	100.0%	24806	100.0%
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Key observations and issues

Acute inpatients in wards (5)

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none"> Fragmented communication between disciplines is evident 	<ul style="list-style-type: none"> Discovery interviews Ward round follows Big picture process mapping session 	<p>Across medical, allied health and nursing fragmented communication widespread.</p> <p>“Most people talk directly to me, not to the doctors or AHP’s” Senior Nurse</p> <p>“90% of doctors wouldn’t know what I’m doing with their patients” Senior AHP</p>
<ul style="list-style-type: none"> Multi-disciplinary meetings do not include medical staff (excluding AMU, SU and Rehabilitation) and are not standardized across medical wards 	<ul style="list-style-type: none"> Discovery interviews Big picture process mapping session 	<p>“Medical staff often have a different idea to the rest of us about what’s happening with patients” Senior nurse</p> 
<ul style="list-style-type: none"> Medical ward round timing, length, participation and communication varies with minimal input and interaction with other health disciplines 	<ul style="list-style-type: none"> Ward round follows Discovery interviews Big picture process mapping session 	

Key observations and issues

Acute inpatients in wards (6)

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none"> Consultant led ward rounds occur twice weekly but timing and pattern is unpredictable Registrars round in between consultant ward rounds, but are not always empowered to enact discharge decisions depending on the level of seniority and the working / communication relationship with consultant 	<ul style="list-style-type: none"> Ward round follows Discovery interview Big picture process mapping session Discovery interviews Big picture process mapping session 	

“Nursing staff are critical but are often not available for ward rounds”
Physician

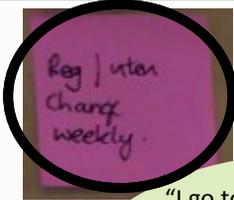
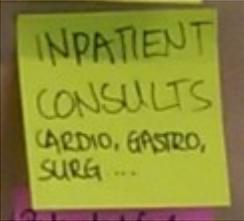
Key observations and issues

Acute inpatients in wards (7)

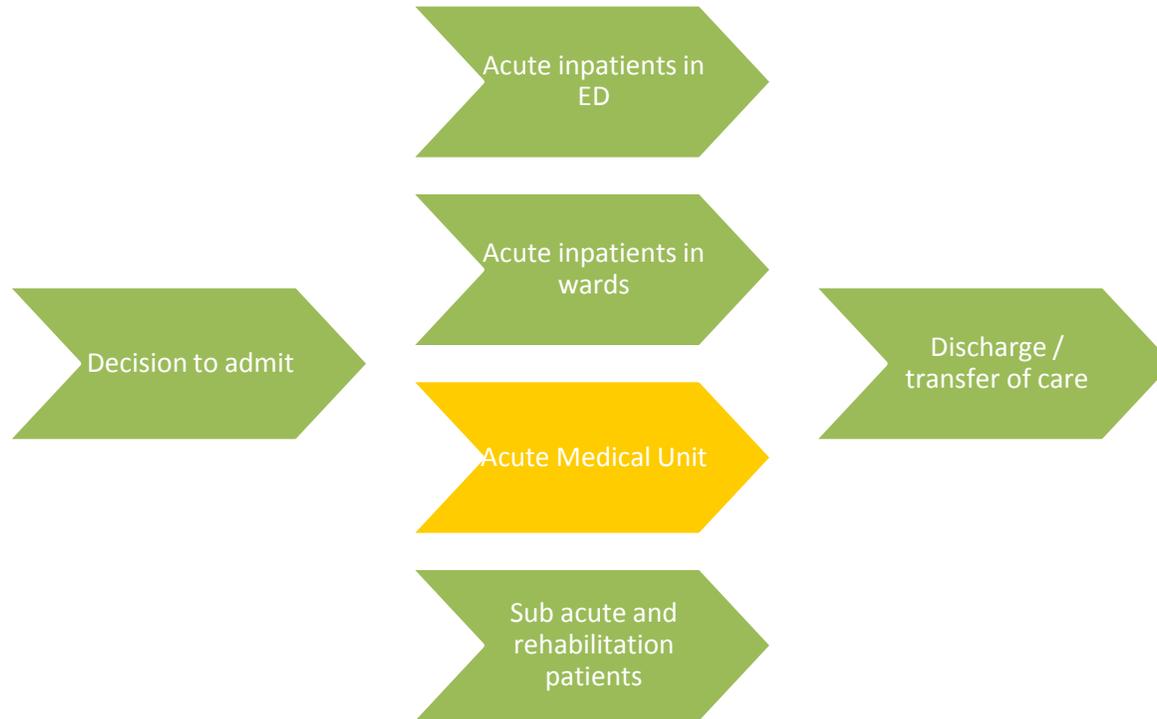
Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none"> There is no single cohesive plan of care between medical, nursing and AH with regard to progression of care 	<ul style="list-style-type: none"> Ward round follows Discovery interviews Big picture process mapping session 	<p>“Right now I have 7 medical patients here that I don’t know what the plan is as the medical staff don’t convey their plan.....CCM (continue current management) is often written in the notes” Senior nurse</p>
<ul style="list-style-type: none"> Stakeholders report that nursing home / complex clients’ care coordination is complicated and care progression / escalation processes are enacted variably 	<ul style="list-style-type: none"> Discovery interviews Big picture process mapping session 	<p>“There are no accurate journey boards” Senior AHP</p> <p>“I don’t know what the complex care group do or how anything gets progressed” Senior Nurse</p>
<ul style="list-style-type: none"> There is limited and varying use of visual management to share the patient progression of care and key milestones 	<ul style="list-style-type: none"> Discovery interviews Big picture process mapping session 	<ul style="list-style-type: none"> Dr Duncan Cooke interviewed six physicians with a number identifying that information management systems do not support decision making
<ul style="list-style-type: none"> Physicians report information management systems do not support decision making 	<ul style="list-style-type: none"> Discovery interviews Post take ward round follows 	<p>“There is poor visibility of the current status of discharge planning” Physician</p> <p>“I often check blood results after the ward round and change things if I need to as the results aren’t available and I cannot wait” Med A physician</p>

Key observations and issues

Acute inpatients in wards (8)

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none"> • Frequent changes to medical registrars potentially impact on operation of team and progression of care 	<ul style="list-style-type: none"> • Discovery interviews • Observations (ward rounds) 	 <p>"I go to the NUM on 6D or the CC on 5D to find out what is happening with complex clients or patients waiting for nursing homes. No-one else really knows!" Medical registrar</p> <p>"...dedicated discharge planner (clinical coordinator) on 5D is crucial. You really notice a difference when she is not there" Senior AHP</p>
<ul style="list-style-type: none"> • Clinical nursing key roles that support progression of care and discharge planning vary between wards / units 	<ul style="list-style-type: none"> • Discovery interviews • Observations (ward rounds) 	
<ul style="list-style-type: none"> • Delays in consultations from other medical specialties delay decision making 	<ul style="list-style-type: none"> • Discovery interviews • Big picture process mapping 	<p>Dr Duncan Cooke interviewed six physicians with consultation delays noted on a number of occasions</p> 
<ul style="list-style-type: none"> • Delays in diagnostic tests delay decision making and discharge 	<ul style="list-style-type: none"> • Medical ward round follows • Big picture process mapping • Discovery interviews 	<p>Dr Duncan Cooke interviewed six physicians with diagnostic tests delays noted on a number of occasions</p>

Observations and Issues



Key observations and issues

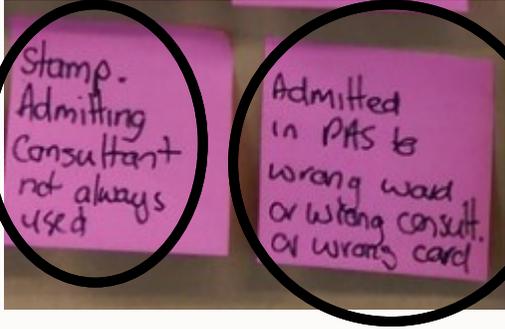
Acute Medical Unit

The issues are...

- There is **variation** in the **adherence** to admission **criteria**, identification, selection and admission of patient to AMU meaning that the right patients are not being cared for in the right environment at the right time in a consistent manner
- AMU have **little visibility** of potential patients that meet their admission criteria within ED. Patients are not 'pulled' to the AMU
- progression of care discussions at GOLD Meeting (multi- disciplinary daily meeting) are **poorly documented** and relies on verbal handover. The meeting structure, agenda and attendance is **variable**
- AMU patients who need to be transitioned to a general medicine team/bed are frequently unable to be transferred to a medical ward bed
- Variation of care planning and progression exists for AMU medical patients and sub specialty patients within the AMU

Key observations and issues

Acute Medical Unit (1)

Observations and Issues	Source	Evidence/Validation
<ul style="list-style-type: none"> There is variation in the adherence to admission criteria, identification, selection and admission of patient to AMU meaning that the right patients are not being cared for in the right environment at the right time in a consistent manner AMU have little visibility of potential patients that meet their admission criteria within ED. Patients are not 'pulled' to the AMU 	<ul style="list-style-type: none"> AMU process mapping session ED process mapping session AMU process mapping session ED process mapping session Discovery interviews 	 <p>Stamp. Admitting Consultant not always used</p> <p>Admitted in PAS to wrong ward or wrong consult. or wrong care</p> <p>“If there are already quite a few patients identified for AMU I sometimes don’t admit anymore to there. They become gen med admissions” Med Reg</p> <p>“There is no pull of patients to AMU! We are told who we are getting from ED without any input into if this the best patient to bring to AMU” Senior AMU Nurse</p>

Key observations and issues

Acute Medical Unit (2)

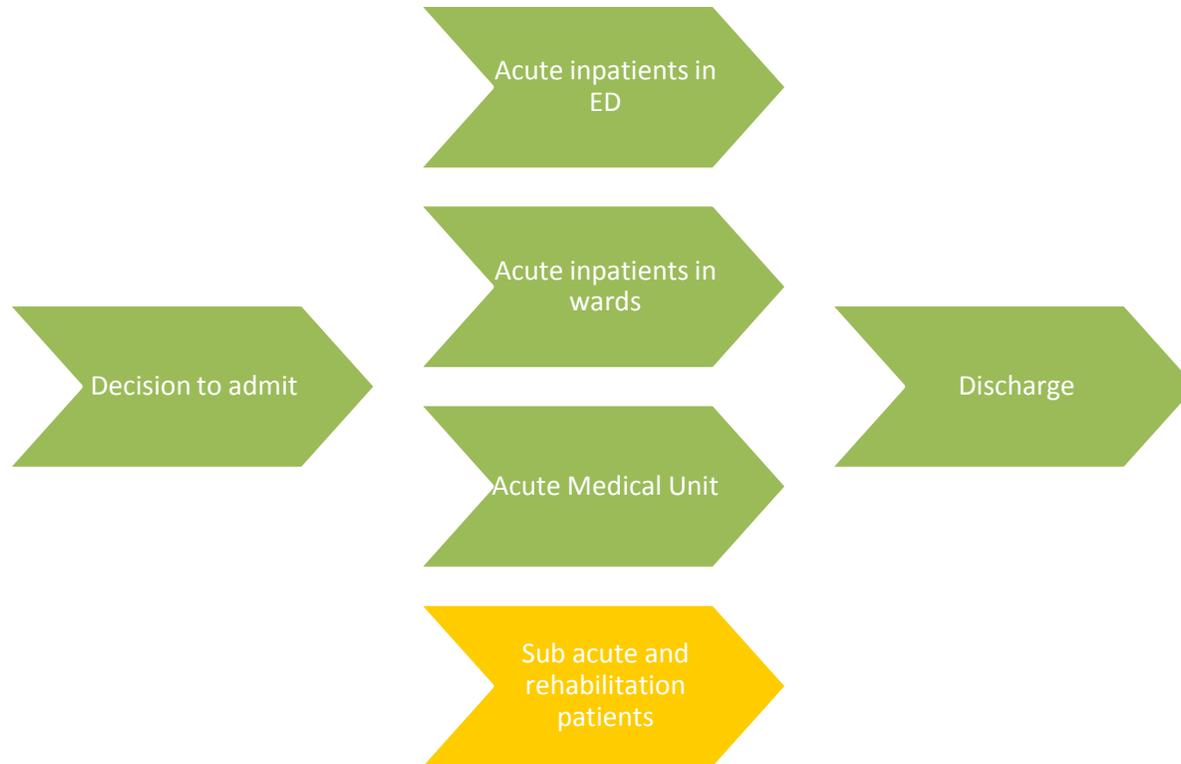
Observations and Issues	Source	Evidence/Validation
<ul style="list-style-type: none"> Progression of care discussions at GOLD meeting (multi-disciplinary daily meeting) are poorly documented and rely on verbal handover. The meeting structure, agenda and attendance is variable 	<ul style="list-style-type: none"> AMU process mapping session ED process mapping session Big picture process mapping session Observation of four GOLD meetings 	<div data-bbox="1052 364 1471 664"> <p>“Having the decision making doctor at the meeting makes an enormous difference to discharge planning” AHP</p> </div> <div data-bbox="1533 364 1993 706"> <p>“Speciality doctors don’t come to the GOLD meeting. Nurses try and find out what the plan is and bring it the meeting” Senior AMU Nurse</p> </div> <div data-bbox="1052 742 1512 1128"> <p>“Approximately 40% of patients discussed at the GOLD meeting did not have a specific discharge plan discussed” CRO-North</p> </div> <div data-bbox="1574 771 2020 1106"> <p>“Documentation and handover of the plan discussed in the GOLD meeting varies from day to day” AHP</p> </div>

Key observations and issues

Acute Medical Unit (3)

Observations and Issues	Source	Evidence/Validation
<ul style="list-style-type: none"> AMU patients who need to be transitioned to a general medicine team/bed are frequently unable to be transferred to a medical ward bed Variation of care planning and progression exists for AMU medical patients and sub specialty patients within the AMU 	<ul style="list-style-type: none"> PAS data Discovery interviews AMU process mapping session Observation of GOLD meeting Brown paper posters Discovery interviews AMU process mapping session 	<p>“We seem to have difficulty getting people out of here to a general medicine bed when we need one. It stops flow through the AMU.” Senior AMU Nurse</p> <p>“Speciality doctors don’t come to the GOLD meeting. Nurses try and find out what the plan is and bring it the meeting” Senior AMU Nurse</p> <p>“We have had a speciality patient here for 7 days now waiting for a decision on the plan after discharge” Senior AMU Nurse</p>

Observations and Issues



Key observations and issues

Sub acute and rehabilitation patients

The issues are...

- Length of stay **for rehabilitation with CCC is 12 days longer than national average LOS** which is the equivalent to ~ 6 extra beds days per day
- **33% of patients stay in the ward 21 days or longer** and occupy 69% of beds
- 24% of all admissions to 3R are general medicine patients admitted directly from ED
- If patient rehab treatment fails, patients have difficulty being transferred back to a general medical bed
- Inconsistency in timely response to referrals and timely feedback of decision is apparent
- Decision making **ward rounds are lengthy, up to six hours**, and occur once per week and are preceded by lengthy multi-disciplinary meetings

Key observations and issues

Sub Acute and Rehabilitation Unit (1)

Observations and Issues	Source	Evidence/Supporting Analysis																														
<ul style="list-style-type: none"> 33% of patients stay in the ward 21 days or longer and occupy 69% of all bed days Length of stay for Rehabilitation with CCC is 12 days longer than national average LOS which is the equivalent to ~ 6 extra beds per day <ul style="list-style-type: none"> National average LOS for Z60A: 19.1 days National average LOS for Z60B: 17.05 days 	<ul style="list-style-type: none"> PAS data analysis PAS data analysis 	<p>Number and LOS of sub acute admissions</p> <p>These patients occupy 69% of bed days</p> <p>33% of patients stay in the ward 21 days or longer</p> <p>— admissions — bed days</p> <p>LOS for rehabilitation DRGs</p> <table border="1"> <thead> <tr> <th>DRG</th> <th>number of admissions</th> <th>average LOS</th> <th># LOS >21 days</th> <th>% LOS >21 days</th> </tr> </thead> <tbody> <tr> <td>Z60A: REHABILITATION + CCC</td> <td>337</td> <td>31.8</td> <td>207</td> <td>61%</td> </tr> <tr> <td>Z60B: REHABILITATION - CCC</td> <td>304</td> <td>18.3</td> <td>92</td> <td>30%</td> </tr> <tr> <td>Z64A: OTH FACTOR INFL HEALTH STATUS</td> <td>13</td> <td>31.6</td> <td>7</td> <td>54%</td> </tr> <tr> <td>E62A: RESPIRATRY INFECTN/INFLAMM+CCC</td> <td>12</td> <td>17.4</td> <td>3</td> <td>25%</td> </tr> <tr> <td>other</td> <td>331</td> <td>14.3</td> <td>59</td> <td>18%</td> </tr> </tbody> </table>	DRG	number of admissions	average LOS	# LOS >21 days	% LOS >21 days	Z60A: REHABILITATION + CCC	337	31.8	207	61%	Z60B: REHABILITATION - CCC	304	18.3	92	30%	Z64A: OTH FACTOR INFL HEALTH STATUS	13	31.6	7	54%	E62A: RESPIRATRY INFECTN/INFLAMM+CCC	12	17.4	3	25%	other	331	14.3	59	18%
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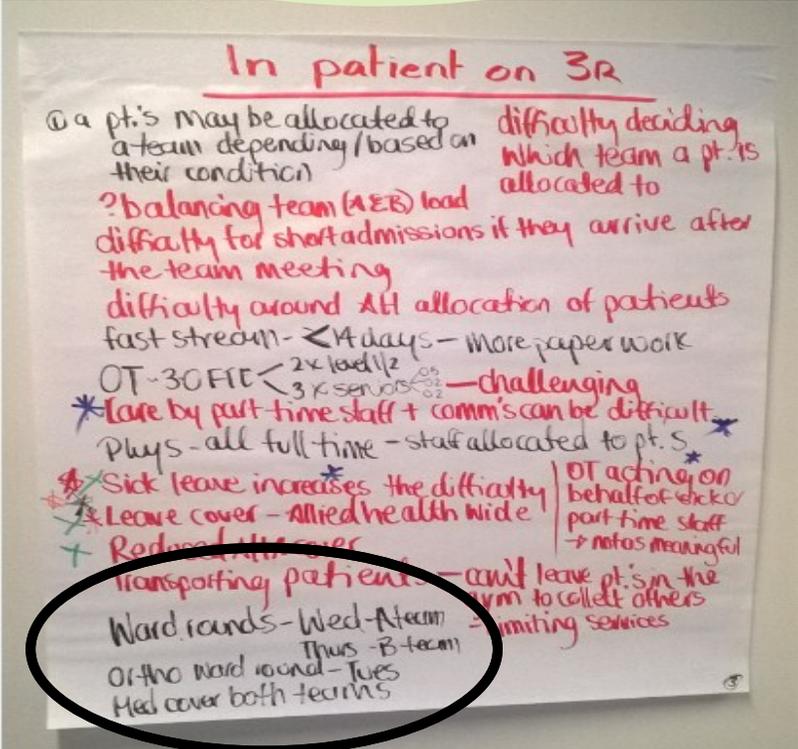
Key observations and issues

Sub Acute and Rehabilitation Unit (2)

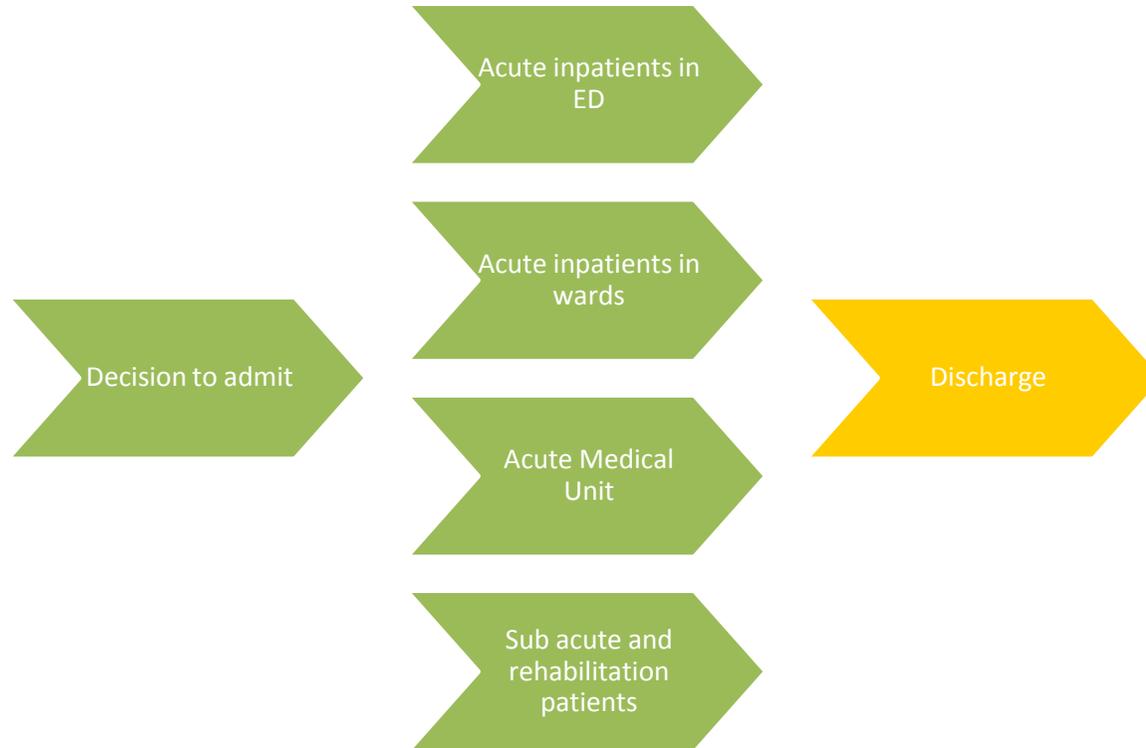
Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none"> 24% of all admissions to 3R are general medicine patients admitted directly from ED 	<ul style="list-style-type: none"> PAS data analysis 	<p style="text-align: center;">Admissions to 3R</p> <p>The chart displays monthly admission trends for three categories: rehab (orange circles), gen med (green triangles), and other (purple diamonds). The y-axis represents the number of patients admitted in a month, ranging from 0 to 30. The x-axis shows months from October 2012 to July 2014. Rehab admissions are consistently the highest, fluctuating between approximately 17 and 35. General medicine admissions are lower, ranging from about 4 to 20. Other admissions are the lowest, generally between 2 and 10.</p>
<ul style="list-style-type: none"> If patient rehab treatment fails, patients have difficulty being transferred back to a general medical bed 	<ul style="list-style-type: none"> Discovery interviews 3R process mapping session 	<p style="text-align: center;">“Invariably a patient who fails rehab and needs a medical bed is transferred under Andy’s Mac’s bed card and stays on 3R as a medical patient”</p> <p style="text-align: right;">Senior nurse</p>

Key observations and issues

Sub Acute and Rehabilitation Unit (3)

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none"> Inconsistency in timely response to referrals and timely feedback of decision is apparent Decision making ward rounds are lengthy, up to six hours, occur once per week and are preceded by lengthy multi-disciplinary meetings 	<ul style="list-style-type: none"> 3R mapping session Discovery interviews Brown paper posters Observation 3R mapping session Discovery interviews 	<p data-bbox="1162 305 1835 515"> “There’s often pressure out of hours to take patients onto 3R who are ‘for rehab according to other wards but haven’t been accepted to rehab yet.” Senior nurse (brown paper posters) </p> 

Observations and Issues



Key observations and issues

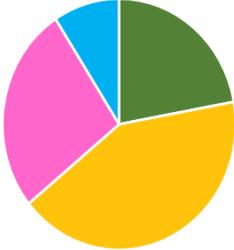
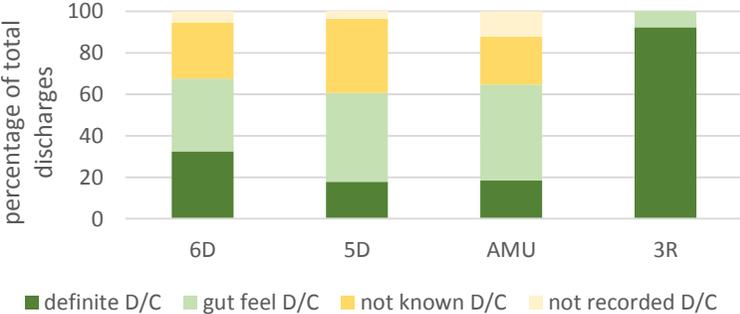
Discharge / transfer of care

The issues are...

- **Discharge planning** occurs late in the patient journey and is **poorly documented and communicated**
- Only one third of patients who were discharged on average per day were confirmed and documented for discharge
- There is **limited** and **varying** use of visual management to share the patient progression to discharge
- Discharge occurs 9-5, Monday to Friday
- Discharge script processes impacted by **batching**
- **Transport delays** result from unplanned or poorly communicated discharge planning

Key observations and issues

Discharge / transfer of care (1)

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none"> Discharge planning occurs late in the patient journey and is poorly documented and communicated <ul style="list-style-type: none"> Issues with safe discharge due to lack of interdisciplinary planning / discussion involving allied health, medicine and nursing causing delays Only one third of patients who were discharged on average per day were confirmed and documented for discharge <ul style="list-style-type: none"> 27% of discharges on 6D became identified for discharge on that day 35% of discharges on 5D became identified for discharge on that day <p>NB: Discharge study asked three questions</p> <ol style="list-style-type: none"> Documented (known for discharge) at 0800? Senior nurse 'gut feel' for discharge that day? Not known for discharge that day? 	<ul style="list-style-type: none"> Discovery interviews with AHPs, nursing medicine Big picture process mapping session Discharge study January 2015 	<div style="display: flex; justify-content: space-around;"> <div style="background-color: #FFD700; border-radius: 50%; padding: 10px; text-align: center;"> <p>“There is no forum for communication and discussion with MDT members” Physician</p> </div> <div style="background-color: #90EE90; border-radius: 50%; padding: 10px; text-align: center;"> <p>“Too much energy is put into the end of the journey ... the last six hours because of poor communication and planning” Senior Nurse</p> </div> </div> <div style="background-color: #6495ED; border-radius: 50%; padding: 10px; text-align: center; margin-top: 20px;"> <p>“As a consultant I sometimes feel bypassed as team leader in decision making” Physician</p> </div> <div style="margin-top: 20px;"> <p>Communication of discharges across medical wards AMU, 5D and 6D</p>  <p>■ definite D/C ■ gut feel D/C ■ not known D/C ■ not recorded D/C</p> </div> <div style="margin-top: 20px;"> <p>Discharges by ward as a percentage of total</p>  <p>■ definite D/C ■ gut feel D/C ■ not known D/C ■ not recorded D/C</p> </div>

Key observations and issues

Discharge / transfer of care (2)

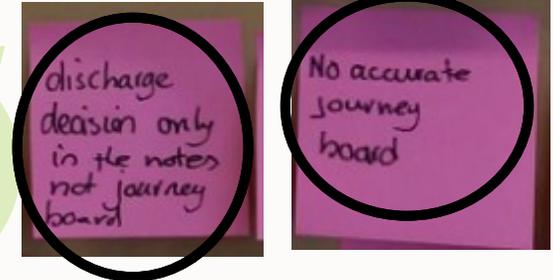
Observations and Issues	Source	Evidence/Supporting Analysis
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- There is **limited** and **varying** use of visual management to share the patient progression to discharge

- Discovery interviews with nurses and AHPs
- Big picture process mapping session

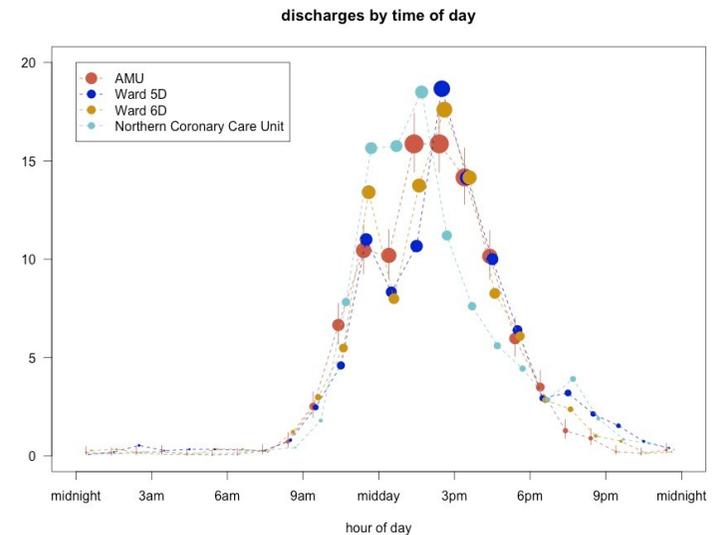
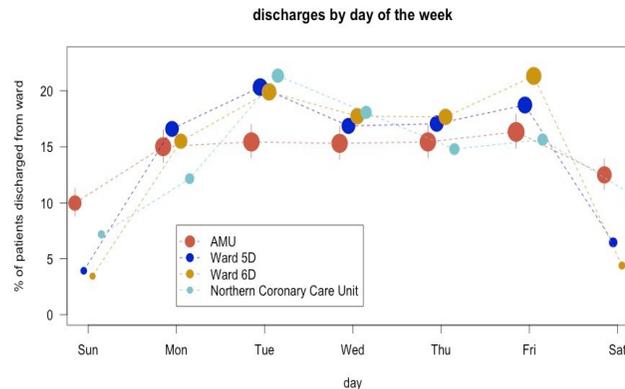
“I don’t understand why we do not use journey boards as I have worked in places where they work really well”

Senior AHP



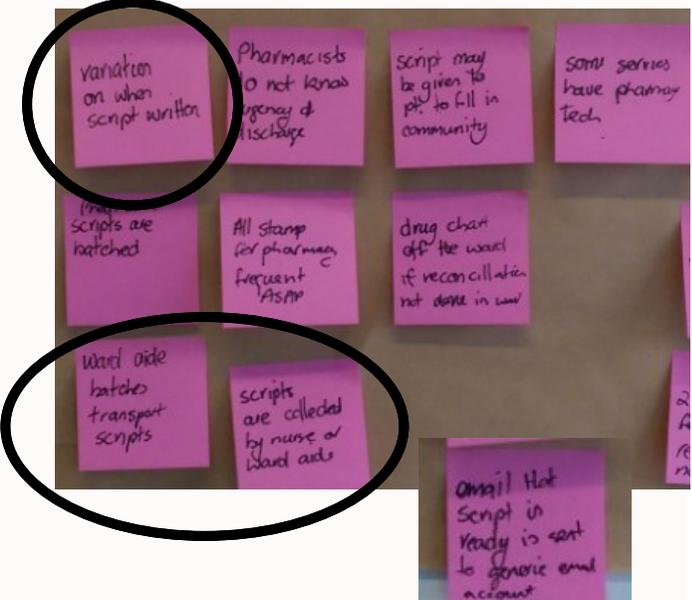
- Discharge occurs **9-5, Monday to Friday**, with peaks on Tuesdays and Fridays

“Discharges occur at the right time of day to meet demand but just two days too late”
Physician



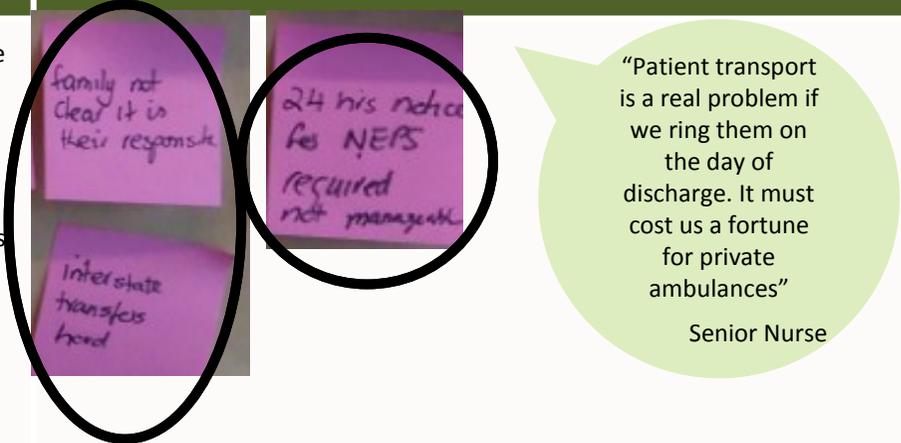
Key observations and issues

Discharge / transfer of care (3)

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none">Discharge script processes are impacted by batching	<ul style="list-style-type: none">Discovery interviewsBig picture process mapping sessionMedical ward round follows	<p>Observation “discharge script for in-patient in ED left until the end of the post take ward round (3 hours) as the intern could not leave the ward round in case they missed something”</p> <p>Observation “intern called away from ward round in ED to go to ward to write script for a patient being transferred out of LGH later that morning”</p> <p>Reported batching of writing discharge scripts occurs frequently</p> 

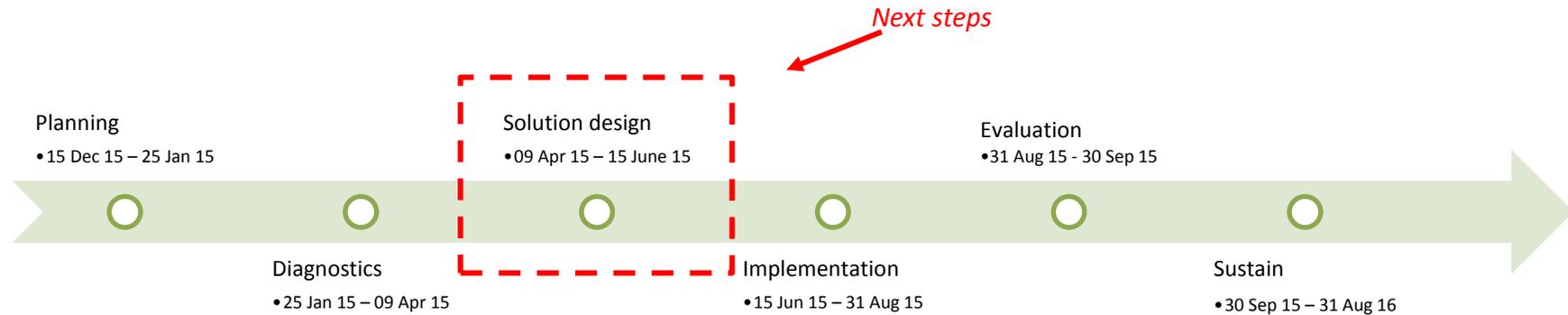
Key observations and issues

Discharge / transfer of care (4)

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none">• Transport delays result from unplanned or poorly communicated discharge planning	<ul style="list-style-type: none">• Medicine big picture process mapping session• AMU process mapping session• Discovery interviews	 <p>The evidence section contains three handwritten notes on sticky notes and a speech bubble. The first note says "family not clear it is their responsib", the second says "interstate transfers hand", and the third says "24 hrs notice for NERS required not managed". The speech bubble contains the text: "Patient transport is a real problem if we ring them on the day of discharge. It must cost us a fortune for private ambulances" Senior Nurse.</p>

Next Steps

Next steps



- **Next Steps** - This report will be considered by the Hospital Executive and the Executive Sponsor. Subsequent to this, a solutions design workshop will be held to commence the process of identifying, agreeing and developing a prioritised set initiatives to address the issues identified in this report and their underlying causes. These workshops will aim to engage a wide cross-section of staff.
- The solutions timeframe and plan will be tabled with the steering committee to ensure alignment with organisation priorities and direction.

Contact information

Should you have any questions or comments regarding this report, or our broader program of clinical redesign at the LGH, please contact don't hesitate to contact us.

Clinical Redesign Office - North

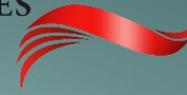
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Medical Patient Journey

including the Older Person Journey

Diagnostic Report

May 2015



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This report is the culmination of many months of hard work however it would not have been remotely possible without the cooperation, support and invaluable contributions from a large number of people across the Royal Hobart Hospital. We would like to thank our Executive Sponsor, Coral Paton and members of the Hospital Executive for their support of both the Medical Patient and Older Persons Clinical Redesign projects and of our broader program of Clinical Redesign.

Thanks to the many nurses in their various roles, physicians, registrars, consultants, interns, allied health professionals, managers and administrators and who gave their time and contributed to big picture mapping sessions, meetings and corridor conversations. Your willingness to participate and share quality information is crucial to the success of this project. Thanks to those who helped with data collection particularly for the multiple tracking studies and interviews.

Much of the work undertaken within the CRO-S would not have been possible without the help of a wide array of skilled individuals. Thanks must go to HSI (Health Services Innovation) Tasmania, in particular Greg Peterson and Craig Quarmby (Co-Directors), Lauri O'Brien, Tim Saunder & Jim Stankovich (data wizards) for sharing their skills and expertise. A big thank you must also go to Wilf Williams from KPMG who has provided invaluable assistance, vision and experience to these projects. CRO-NW and CRO-N have also generously shared their experiences (and templates!) and have been an amazing support group.

This report marks the end of the of the diagnostic phase of the Medical Patient Journey & Older Persons Journey, and the beginning of the solutions design phase. We are looking forward to continuing our work with you all and would like to invite everyone involved in these areas to contribute to the solutions design and implementation phases.

Warm Regards,

The Medical Patient Journey CRO-S Team

Nicole Hancock - Clinical Lead

Blair Adamczewski - Clinical Champion (Older Person Journey)

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Sue Hughes - Program Officer

Erin Gee - Research Assistant

HSI Support

Jim Stankovich - Statistician

Wilf Williams – Consultant KPMG

Acronyms

ACAT	Aged Care Assessment Team
ADON	Assistant Director of Nursing
AH	Allied Health
AHP	Allied Health Professional
ALOS	Average Length of Stay
AOPU	Acute Older Persons Unit
APU	Assessment and Planning Unit
ASSAT	Aged Service Southern Area Team
Av	Average
BIU	Business Intelligence Unit
CNC	Clinical Nurse Consultant
CRO-S	Clinical Redesign Office
DCCM	Department of Critical Care Medicine
DHHS	Department of Health and Human Services
DILO	Day in the Life of
DRG	Diagnosis-related group
ED	Emergency Department
EPA	Enduring Power of Attorney
Gen Med	General Medicine

GEM	Geriatric Evaluation & Management
HSI Tasmania	Health Services Innovation Tasmania
HRC	Healthcare Reform Consulting
LOS	Length of Stay
MDM	Multi Disciplinary Meetings
NUM	Nurse Unit Manager
PAS	Patient Administration System
PFM	Patient Flow Management
P3	Peacock 3
1BN	1B North
RACF	Residential Aged Care Facilities
RHH	Royal Hobart Hospital
RSI	Relative Stay Index*
TCP	Transition Care Program
THO-S	Tasmanian Health Organisation- South

**Relative Stay Index (RSI) is a measure for comparing the LOS of admitted acute patients with national averages, adjusted for DRG mix. RSI greater than 1.0 indicates that the average LOS is above the national average for patients of similar complexity, and an RSI less than 1.0 indicates that the average LOS is below the national average for patients of similar condition and complexity.*

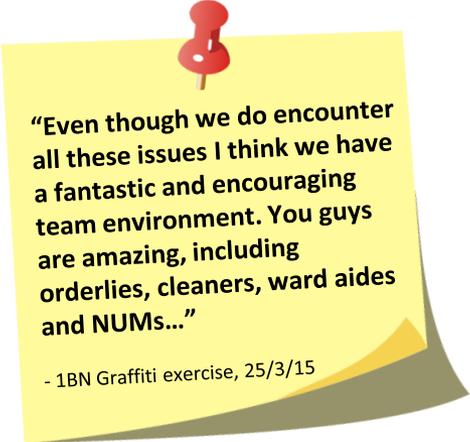
Setting the Scene

Feedback

This program of work has been focussed on the areas where there is identified scope for improvement – the aim of this report is not meant to be a balanced assessment of how good or poor services are.

However during the course of gathering the data for this report it has become evident in the current climate where there is uncertainty during RHH redevelopment, the merger of the Tasmanian Health Organisations and budgetary constraints there were some positive common messages coming from the staff:

- Staff are very focussed on the providing quality patient care during their inpatient experience
- Even though there were very common messages around deficiencies in communication and team work, people consistently spoke about how well people got on and supported each other – the issue is the systems and processes that either don't support or get in the way of effective working.
- There is recognition of the need to identify and address the challenges people and services face – there is no value in ducking the important issues.
- People were very positive in feeling that change is possible and would be welcomed by themselves and their colleagues both within their own profession and in other groups



“Even though we do encounter all these issues I think we have a fantastic and encouraging team environment. You guys are amazing, including orderlies, cleaners, ward aides and NUMs...”

- 1BN Graffiti exercise, 25/3/15

Service Descriptions

APU – Assessment & Planning Unit

The **Assessment and Planning Unit (APU)** is currently an 18 bed unit located in close proximity to the Emergency Department. This close proximity allows rapid admit and assessment of general medical patients without a home ward pathway. Early review and multi-disciplinary assessment allows the APU team to rapidly assess and commence discharge planning for all patients from the day of admission. It also gives the opportunity to assess and pull patients from the Emergency Department.



Admission criteria for APU are any patients requiring admission under a general physician who do not require specialist care, such as intensive care or sub-speciality medicine (e.g stroke, renal or endocrinology). APU registrars are the first point of referral, and make all decisions to accept a patient into the unit in conjunction with the nursing flow coordinator.

Once a patient is transferred to APU they are reviewed by a consultant by 10am daily and are discussed at the daily multi-disciplinary meeting. This enables all patients requiring allied health services to be referred in a timely manner.



Patients from this unit are either discharged (to various destinations) or transferred to other units within the Royal Hobart Hospital, with the main referral destinations being either 1BNorth (1BN) or the Acute Older Persons Unit (AOPU).

Service Descriptions

1BN – General Medical Unit, RHH

1B North (1BN) is a 27-bed acute medical unit which is the home ward for Respiratory, Acute Medicine and Infectious Diseases. General Medicine delivers much of the acute medical services across the hospital. It is a dynamic environment with a nursing team who have specialised nursing skills to care for patients with complex co- morbidities.

The ward delivers specialist care for patients with Respiratory illness, including those requiring non-invasive ventilation, tracheostomies and chest drains. 1BN is also home to the Royal's bariatric facility. This is a 3 bed room with overhead hoists. The hoists are weight rated to 250 and 500 kg. There is a 10 bed section which can be 'closed down' in the event of an outbreak of infection.

The Unit is supported by Enrolled Nurses and Registered Nurses with various medical teams and allied health services (Occupational Therapist, Physiotherapist and Social Worker) working together as a multidisciplinary team. Other allied health staff are consulted as required for patients requiring Speech Pathology, Dietetics, Podiatry, Liaison Psychiatry, diabetes education and wound care



Service Descriptions

AOPU (Acute Older Persons Unit)

The **Acute Older Persons Unit (AOPU)** is a 16 bed unit located on Level 6, A Block. It is a medical unit that provides acute care based on an interdisciplinary team model specializing in geriatric care. The AOPU focuses on treatment of acute medical problems and restoration of the patient's physical and cognitive function. The AOPU delivers specialist care for the treatment of conditions common in older people. There is also a focus on integrated discharge planning to ensure the patient has the supports necessary at their discharge destination.

Admission Criteria

The AOPU will accept patients with age related conditions who are admitted for acute care, who do not require specialized treatment best provided in other specialist units, e.g. DCCM or surgical wards. Including patients who:

- have a geriatric syndrome such as delirium, dementia and falls
- have complex conditions such as Parkinson's disease and multiple co-morbidities

Medical, nursing and allied health professional staff all make up the AOPU team that supports the development of individually tailored programs of treatment and therapy for the patient.

Families and Carers are integral to a patients wellbeing and ability to function and will remain involved in the care plan for patients. Family members are invited to participate in case conferences with health professional staff. General practitioners are also acknowledged as an integral part of patients support mechanisms and are involved in all levels of decision making.



Service Descriptions

P3 – Transitional Care

Peacock 3 (P3) is located at the Repat Centre, Davey St Hobart and has 20 beds allocated for patients accessing the **Transition Care Program (TCP)**.

The TCP is goal oriented and targets older Australians at the conclusion of an acute hospital episode who require more time and support in a non-acute setting to complete their restorative process and optimise their functional capacity.

The TCP aims to:

- Provide older people with a range of support and Rehabilitation services tailored to their individual requirements over a period of up to 12 weeks.
- Optimise potential functional capacity so that decisions about the level of care requirements in the longer term are based on appropriate information
- Delay admission to residential care where there is a capacity for functional gains or entry into care at a lower level of dependency.



Service Descriptions

Aged Service Team

Aged Service Southern Area Team (ASSAT) is a specialist nursing team that receives referral for older people with complex needs who would benefit from specialised consultation, advice and continuing care.

Within the RHH, ASSAT are responsible for the facilitation and coordination of off-site transfers to Peacock 3, Jasmine Unit and to Interim Care Beds. They work in liaison with medical teams and off-site facilities to promote timely discharges. ASSAT complete all RHH and off-site ACAT assessments and facilitate transfers for patients into permanent residential care. They also review all patients admitted to the RHH from Residential Aged Care Facilities (RACF) and assist in their facilitation back to the aged care facility following their acute event. ASSAT complete all Transitional Care Program assessments for patients who transfer to Peacock 3. ASSAT assists in the identification, management and support of patients within the RHH who have delirium, dementia and complex aged care issues and provide in-services.



Problem Statement

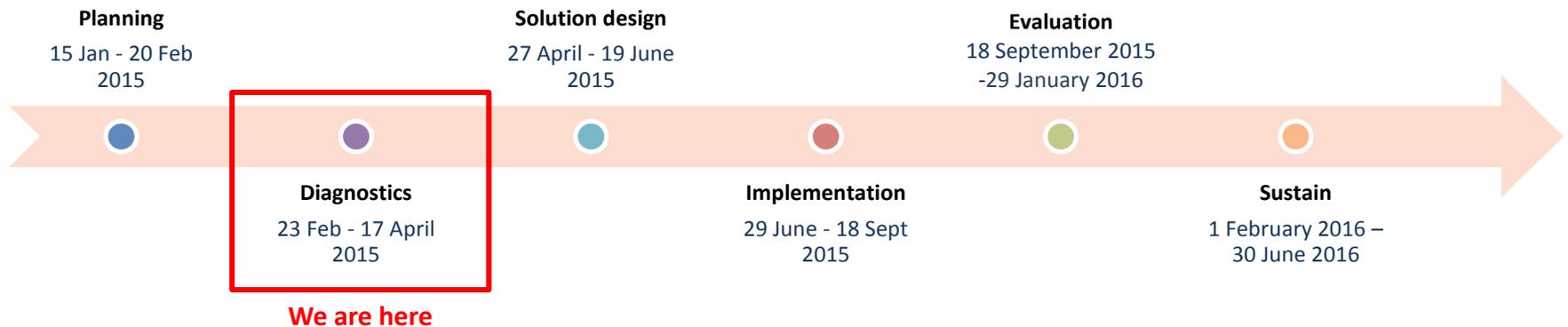
Medical Patient Journey

The available activity and performance data confirms that patients experience long delays in admission to an inpatient bed. Furthermore discharge planning and management processes are seen to be in need of improvement with a lack of focus on timely discharge, multidisciplinary approaches, variable practices and poorly coordinated activities at the point of discharge.

Older Person Journey

Tasmania has the largest ageing population in Australia per capita with 16% of people over 65 years of age. This is rising each year. Following the high level hospital data review conducted at the RHH in August 2014 a patient summary by speciality group showed that these patients took up 14% of bed days in the hospital. There is a disproportionate number of bed day usage against a small patient volume of 5% of the total RHH inpatient beds. Evidence supports that older people are at risk of deconditioning and irreversible functional decline as a result of immobility and bed rest while in hospital.

Project timeline



Executive Summary

Diagnostic phase - overview and scope

Overview

The Medical Patient Journey program is being led by the Clinical Redesign Office - South in THO-S with support from HSI-Tasmania and KPMG and is part of a larger program of clinical redesign that also includes emergency access, patient flow, outpatient clinics and access to elective surgery and operating theatre utilisation. This report is a summary of the diagnostic phase of the medical patient journey which incorporates the general medicine and older persons journey clinical redesign project and aims to both highlight opportunities for improvement and to make the case for change. It is intended that the evidence from this report will be used by working parties to prioritise areas for improvement and inform solutions design.

The number of patients admitted or discharged under general medicine has increased at a rate of 1.4 admissions per month over the last two years. Even though average LOS for general medical patients is substantially below the national average adjusted for casemix (RSI = 0.92 and falling), the beds required for these patients (60–70) are increasing at a rate of 3.6 beds per year and exceed the currently allocated bed stock (35 beds). The shortage of medical ward beds leads to many patients being placed on outlier wards and access block, both of which have a negative impact on patients quality of care and LOS. There are also significant external reforms occurring that are likely to affect how healthcare is delivered in the future. This program of clinical redesign is an opportunity to not only improve the timeliness and quality of care we provide to patients but to make our institution more responsive and adaptive to change.

Project scope

The Royal Hospital (RHH) medical patient journey project focuses on the following areas:

General Medical Patient

- **Journey start** - from the time of accepting a patient as either an admission or transfer of care type as an acute general medical patient
- **Journey end** - to discharge of that patient from the hospital/their care type changes to non acute/referred and accepted by another specialty
- General medical patients over 16 years of age
- General medical patients on APU, 1BN and those general medical patients that are placed as outliers on other wards

Executive Summary

Diagnostic phase - overview (2) & approach

Older Person Patient

- **Journey start** – acceptance of patient by the geriatric team (from any source) for admission to AOPU (Acute Older Person Unit or P3 (Peacock 3))
- **Journey end** – patient leaves AOPU either to the community or via P3 or from P3 into the community
- The older patient is classed as anyone who fits the criteria for admission to the AOPU at the RHH or P3
- Patients who are under the Geriatric Medical Team providing end of life care in AOPU

The defined project scope led to the following patient flows becoming the main focus of attention:

- **Inflow – admission & transfers**
- **Inpatient management**
- **Discharge processes**

Diagnostic phase approach

A multi-faceted quantitative and qualitative approach was taken to investigate the medical patient journey at the RHH. High level data analysis was used to provide an overview of the patient journey including demand, capacity, and LOS. High level data analysis was supplemented with qualitative and semi-quantitative studies aimed at providing greater detail of specific areas such as discharge practices or multi-disciplinary meetings. These studies included ward round follows, big picture mapping sessions, observations identifying waste in our systems and practices, and staff interviews.

The “voice of the patient” has **not** been included in this report. The voice of the patient will be captured through patient interviews and experience survey data. The information gathered from these evaluative tools will be incorporated into this document at a further time. It is also intended that working parties will include patients to help develop patient-focused solutions. The studies undertaken for this report have examined the medical patient journey from the perspective of staff and the organisation to provide both a comprehensive understanding of the current state of the medical patient journey, and a substantial evidence base on which improvements can be made.

Executive Summary

Diagnostic phase - activities

- **‘Big Picture Mapping’ sessions**

Two big picture process mapping sessions were conducted to explore the patient journey for both the general medical and the older patients admitted to the RHH. The scope for the mapping sessions were:

- The Medical Patient Journey – ‘acceptance of the patient to a General Medical team through to discharge/ transfer of care. This session’ was conducted on the 27th of February 2015 at the University of Tasmania’s School of Nursing and Midwifery (Domain Campus). 116 issues were identified in this session.
- Older Person Journey – ‘acceptance of the older person to AOPU/P3 to discharge from AOPU/P3/transfer of care’. The session was conducted on the 3rd of December 2015 at the University of Tasmania’s School of Nursing and Midwifery (Domain Campus). Approximately 37 issues were identified from this session.



- **Delays in Discharge Audit**

This study was conducted over a one-week period (25th March to 31st March inclusive) across two wards – AOPU and P3. This involved a researcher attending the ward twice daily (1000 and 1500) and running through the patient list with the relevant nurse-in-charge. A form was used (appendix) to audit where each patient was on their journey and to identify those patients suitable for discharge. Out of those suitable, the reasons behind their discharge delays were identified (such as waiting for medication)*.

* Credit: The Delays in Discharge Audit template is a site- and user-specific modification of Healthcare Reform Consulting’s “Why Am I Still Here?” template.

Executive Summary

Diagnostic phase - activities

- **Graffiti Exercise**

Butcher's paper posing the question "In the Medical Patient Journey, what drives you crazy?" were displayed within staff areas of APU, 1BN, AOPU and P3. Staff were invited to anonymously add their thoughts in order to build a broad understanding of the views of staff regarding the medical patient journey. **274** responses were gathered across the 4 wards between the 10th of March and the 10th of April, 2015.

- **Waste Tools**

Hard copies of two waste-identifying tools using the DOWNTIME acronym (see Appendices 3,4 & 5) were distributed across APU, 1BN, AOPU and P3 for a month leading up to the 10th of April, 2015. Staff were invited to take these tools and identify waste and opportunities for improvement within their workplace, or during processes such as handover, Multi-Disciplinary meetings or ward rounds. **312** sources of waste were documented across the four wards. 4 multi disciplinary meetings were observed using the DILO tool.

- **Table top exercise - ACAT referral processes**

Sue Hughes and RHH staff (social worker, ACAT assessor, NUM ASSAT & RN ASSAT) conducted an ACAT process table-top exercise on the 16th of March 2015. Utilising the Big Picture Mapping methodology The ACAT process was investigated; from when the medical officer makes a referral to the ACAT team, to when the older person is admitted to a nursing home.

- **Staff Interviews**

Wilf Williams from KPMG conducted 40 staff interviews between the 4th of March and the 2nd of April 2015. Staff came from all disciplines, including Medical (10), Nursing (15), Allied Health (12) and Support (3). Despite common messages around deficiencies in communication and team work, staff consistently spoke of how well people worked together and supported each other – often the issues raised were related to systems and processes that either don't support or do not promote effective work.

- **Patient Interviews**

General Medical patients from across APU, 1BN, AOPU and P3 have been recruited to partake in a short interview about their healthcare experiences. A wide range of staff from the Royal Hobart Hospital kindly donated their time to interview these patients, which is greatly appreciated. The Picker Institute 8 dimensions of patient-centred care was used to theme the views of the patient or their carer (see Appendix 2).

Older Person ACAT Process Desk Top Exercise 16 March 2015
Scope: Decision of medical officer to refer to the ACAT team to older person being admitted to a Nursing Home

How do we get the older person into the ACAT/ASSAT process		
Process	ASSAT	ACAT
Are there criteria for an older person to be referred to ACAT/ASSAT		
	ISSUES	ISSUES
Who knows about it and how? When is referral made? How is it made? Who refers? How long does it take?		

ACAT referral processes table-top exercise template

Executive Summary

Diagnostic phase – data analysis

Medical Patient Journey

High level data analysis was conducted using the complete medical patient data set extracted from PAS for the two years from 1 October 2012 until 30 September 2014 unless indicated otherwise. The data was kindly provided by the Business Intelligence Unit (BIU) at RHH to the HSI-Tasmania data team. The data set contained **9363 'GENMED' admissions**, or an average of 11.4 admissions per day. The definitions for the data throughout this report are as follows:

GENMED patient

- A patient admitted under GENMED sub-specialty

OR

- A patient discharged by GENMED sub-specialty

Outlier

- A GENMED patient who had part of their inpatient episode NOT in APU or 1BN

Exclusions

- Paediatric patients (age <= 16)
- Patients admitted to 1BN and APU who come under all other specialities other than acute general medicine

Older Persons Journey

Practices concerning this subset of patients changed substantially at the RHH in early 2014. Hence, most older patient analyses within this report use 11 months of discharges under Geriatric Medicine between 1 February 2014 and 31 December 2014, with a total of **949 admissions** (average of 2.8 admissions per day) **and 486 patients**. Data was provided by the BIU. The 949 admissions comprise:

- 484 patients discharged from AOPU (average 1.4 per day)
- 453 patients discharged from P3 (average 1.4 per day)
- 12 patients discharged from other wards

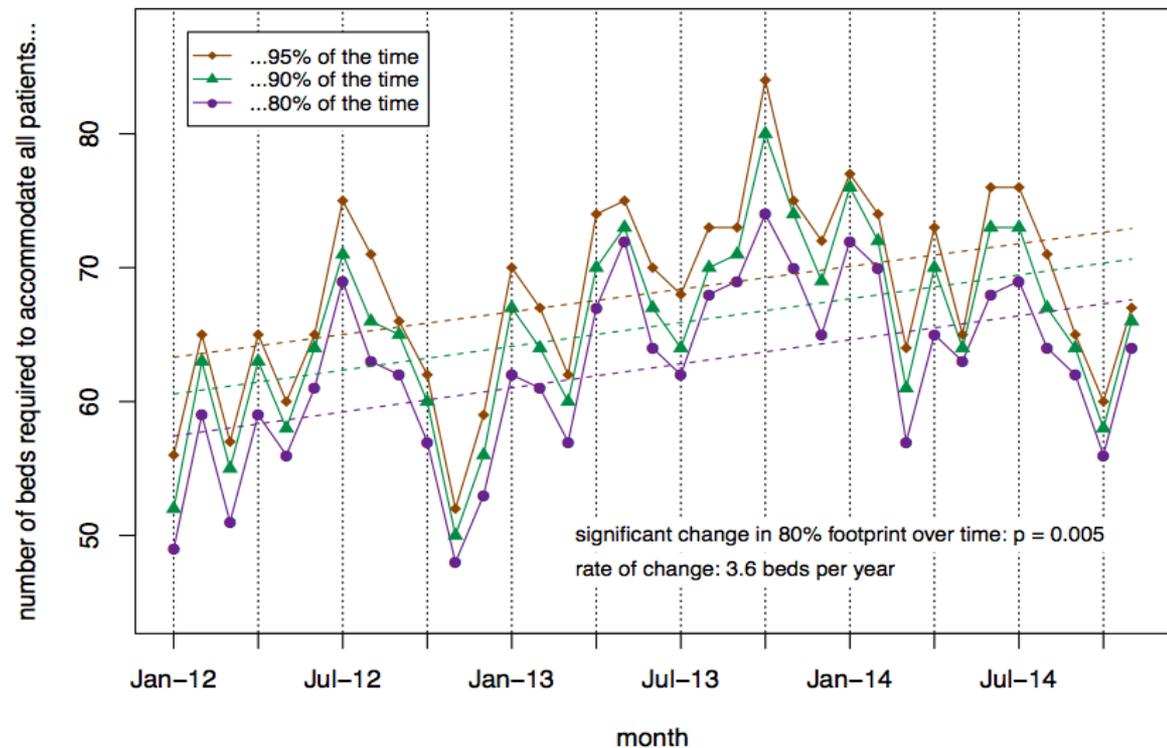
** Please note that some admissions are present in both datasets - patients admitted under GENMED and discharged under Geriatric Medicine.*

Executive Summary

The Case for Change

- The average number of patients admitted or discharged under general medicine has increased at a rate of **1.4 patients per month** over the last two years.
- Even though ALOS for patients admitted under general medicine is substantially below the national average adjusted for casemix (RSI = 0.92 and falling), the beds (60–70) required to accommodate these patients are increasing at a rate of 3.6 beds per year and exceed currently-allocated bed stock (35 beds).
- The shortage of medical ward beds leads to many patients on outlier wards and access block, both of which have a negative impact on quality of care and LOS for these patients.

Beds required to accommodate patients admitted under general medicine



Executive Summary

The Case for Change - Sources of variation in LOS

- Many factors are associated with variation in length of stay (LOS), after adjustment for age, sex, DRG and Charlson comorbidities
- In particular, many medical patients spend time in **outlier wards**. Of 7246 patients who were both admitted and discharged under GENMED/EMERGE, 2734 of them (**38%**) spent time on wards other than ED, APU, 1BN and ICU.
 - After adjustment for other factors, LOS for these outlier patients is on average **48%** longer.
 - Eliminating this excess LOS would save **2410 bed days** over a year.
 - That is, on average an extra **6.6 beds made available per day** (2410 bed days/ 365days in year).
- Other factors associated with variation in LOS were:
 - admitting consultant
 - mode of separation
 - time of day of admission
 - day of week of admission
 - access block (*i.e. spending more than 8 hours in ED after admission*)
 - day of week for post-take discharges

Executive Summary

The Case for Change - Sources of variation in LOS, and possible bed savings

Source of variation in LOS	Potential savings (bed days per year)*	Number of potential extra beds available
Patients on outlier wards	2410	6.6
Admitting team/consultant	1789	4.9
Mode of separation	1753	4.8
Time of day of admission	2020	4.5
Day of week of admission	1226	3.4
Access block (patients spending more than 8 hours in ED after admission)	767	2.1
Post-take discharges by day of week	215	0.6

*These potential savings are not cumulative, because removing one source of variation is likely to affect others

Executive Summary

The Case for Change – From high level WAISH* data collected in August 2014

From the high level data there were a number of areas identified that impacted on discharge times:

- Waiting for ACAT process
- Waiting for rehab referral process
- Discharge plan requires rework by doctor/other
- Awaiting discharge decision by doctor
- Awaiting review by consultant
- No discharge plan- staff awaiting direction
- Destination not ready- other (private hospitals, intra and inter state hospitals)
- Waiting for a hospital test

If we reviewed and changed some of these processes could this improve discharge timing?

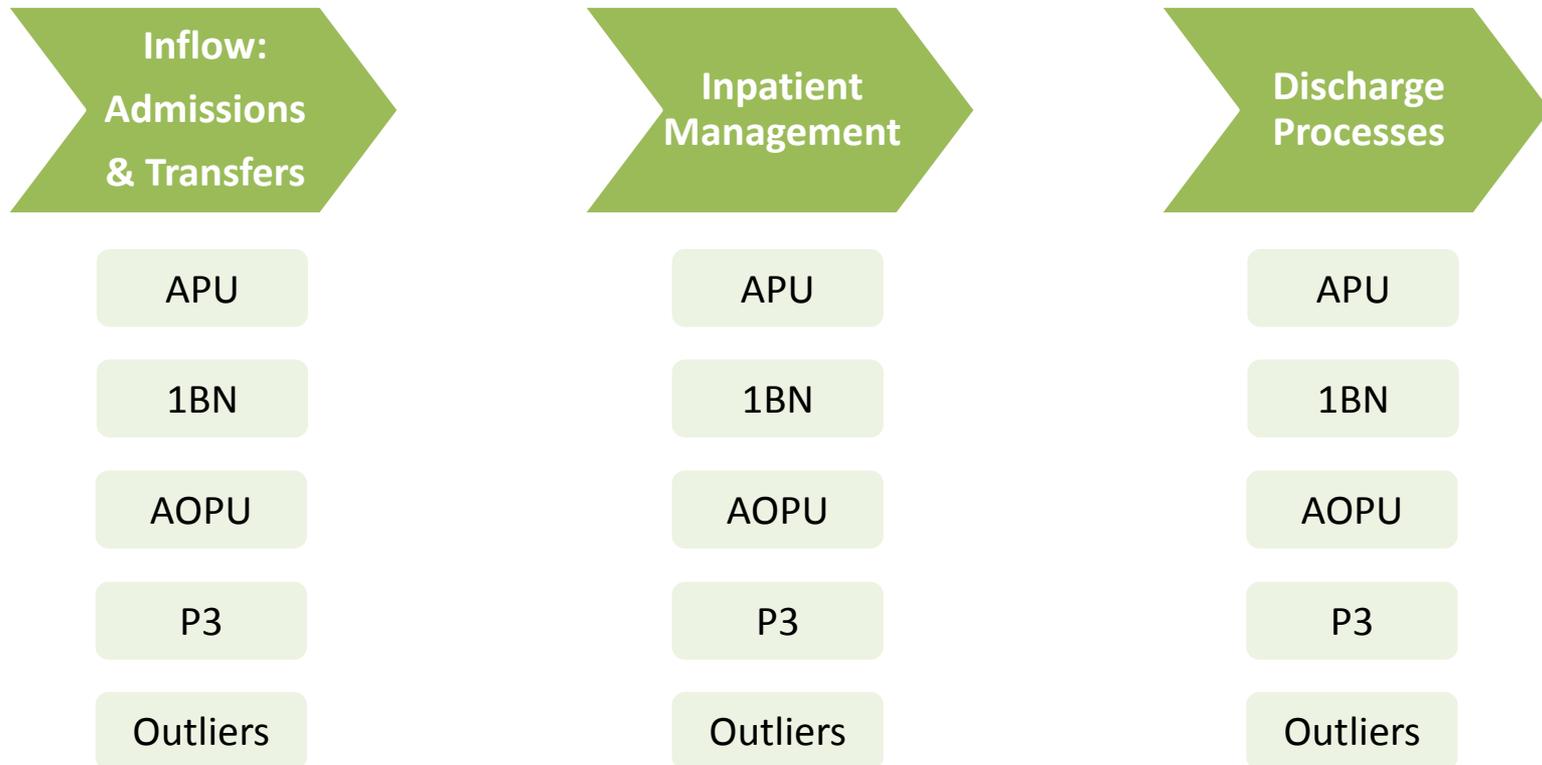
- Ward Round timing?
- Senior Decision making capacity?
- Multidisciplinary team communication/decision making?

*WAISH (bed occupancy audit tool), Healthcare Reform Consulting (HRC)

Executive Summary

High level observations and issues

For each of the patient flows identified for close attention as part of the diagnostic phase. The information on current processes was collated and analysed. This allowed the identification of some important themes for each area which have been summarised as a number of high level observations and issues. These are discussed in greater depth later in the report (in the 'Observations and issues identified' section) with further detail provided for each of the high-level observations. A summary of these observations for all areas is set out at this point to provide an overview.



Executive Summary

High level observations and issues (1)

Inflow: Admissions & Transfers

The issues are...

- **Variation and a lack of process definition** across the medical admission process causes delays and inefficiencies
- There is variable and limited pull from ED and transferring of patients between wards
- There is limited synergy and flexibility in using resources across EMU and APU
- Lack of standardisation in forms and processes for admissions and transfers
- There is limited access to **alternatives to admission** for medical patients

Executive Summary

High level observations and issues (2)

Inpatient Management

The issues are...

- Multidisciplinary team processes do not consistently lead to **focused decision-making** – there is a perception that the plans for patients are too often unclear with a ‘wait and see’ approach commonplace
 - Can lack structure, focus and clear decisions and actions
- **Medical round has no defined, clear and consistent structure** and process is variable depending on the team
 - Variability and unpredictability in the timing, duration and conduct
 - Systematic processes are not in place to support the timely flow of information and decisions from the ward rounds
- **Weekend discharge rates are low.**
- **Allied health disciplines do not have arrangements in place to facilitate a unified process** to triage, screen, prioritise and initially assess patients when clinically appropriate.
 - Referrals to allied health are often not appropriate or the reasons for referral are unclear.
- As a result of the absence of effective processes for information flow **considerable time and effort is spent in attempting to communicate** and liaise across teams and disciplines.

Executive Summary

High level observations and issues (3)

Discharge Processes

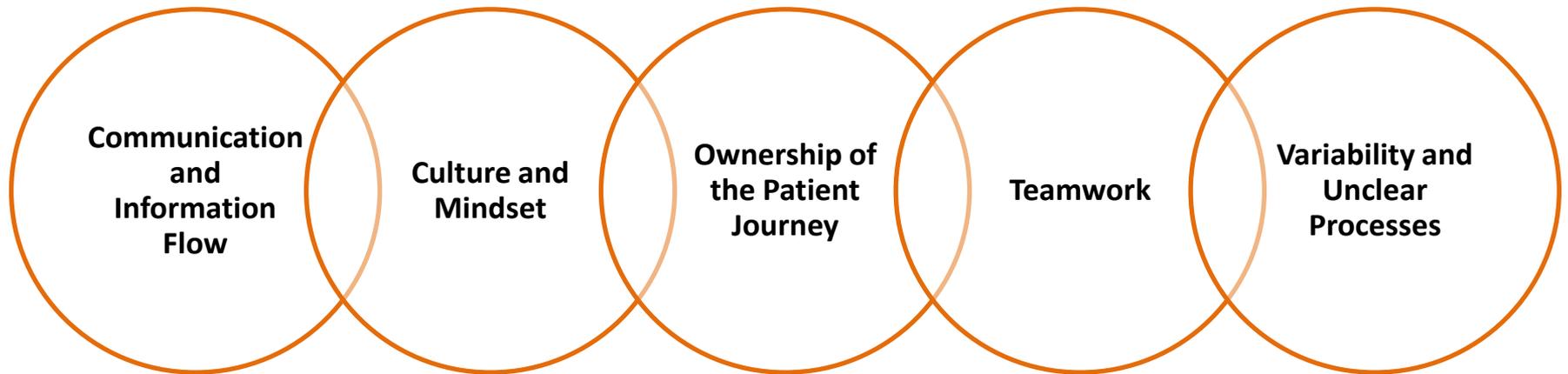
The issues are...

- Discharge is managed on a **single-discipline basis** and then brought together rather than being multidisciplinary throughout.
- There is **significant batching** of actions arising from the weekend round which delays potential discharge decisions
- The **transit lounge** is not used in a targeted and consistent way
- Discharge medications can cause delays at the point of discharge itself
- The use of **rural facilities** is patchy and variable
- Limited processes to address the needs and issues faced by patients with **very extended LOS** (“stranded patients”)
- **Delays in moving patients to RACF** (even when everything is in place for discharge)
- Delays in family decisions on placement into residential care

Overarching Cross-Organisational Themes

5 Themes

A number of overarching themes have emerged suggesting that there may be some organisation-wide opportunities for change and improvement which should be considered as part of the process of identifying and developing solutions in the next phase of the project. The themes identified below are not applicable in all parts of the hospital but have been identified in a number of areas – the examples provided are for illustrative purposes and are spread across the range of areas covered by the project.



Emerging Cross-Organisational Themes

Communication and Information Flow

Flow of information in key care processes

- Information does not flow seamlessly, quickly, consistently or reliably from medical rounds.
- Information does not flow comprehensively on admission or transfer between units – the processes are not clearly defined or understood and are variable.

Referral processes

- Referral processes vary between disciplines and services.
- Referral information and the reasons for referral are not always clearly specified
- Referral to allied health (AH) tends to be across all streams of AH rather than targeted to inpatient need, leading to overload across all AH Disciplines
- There are variable processes and systems used to transmit information
- There is limited and variable use of the available electronic systems

Delays in decision making and actions

- Variable and delayed communication from key processes such as medical rounding leads to delays in assessment and treatment processes and on decision-making to progress care
- Variable communication flow means that key actions (e.g. assessments, investigations) are delayed causing extended LOS.

Variable practices in use of available information systems

- Electronic systems are not used systematically to inform, drive and monitor operational performance either in real time or after the event
- Information management systems as currently used do not support decision making
- Information systems are not used to ensure visibility and transparency in processes and to hold people and teams to account

Emerging Cross-Organisational Themes

Culture and Mindset

Custom and practice – the power of history

- A number of processes are utilised and performed in their current form as they are long-established methods of practice; a classic example is medical rounding.
- Processes tend not to be the subject of scrutiny, review and reflection and, as a result, may not be fit-for-purpose.
- There is a lack of clearly defined goals for some processes as a result.

Deferential behaviours and practices

- Working relationships between professions are constructive and positive – however, in some areas deferential behaviours are apparent.
- Junior allied health and nursing staff do not feel confident, empowered or explicitly invited to offer their views and perspectives.
- There is a tendency for practices to revolve around the focus of the medical discipline with the contributions of others given less attention; this is perceived to occur, for example, in relation to discharge.

A secondary focus on discharge and throughput

- Clinical professionals are, appropriately and reassuringly, focused primarily on patient care, safety and outcomes. However, there is a variable and limited focus on discharge and the value of effective flow.
- Actions and decisions focused on discharge and flow tend to be given insufficient priority, e.g. batching of actions following medical rounds, sub-optimal communication of key follow-up actions.
- Discharge and flow are, fundamentally, not consistently viewed as key priority areas across all professions and teams.

Emerging Cross-Organisational Themes

Ownership of the Patient Journey

Staff and teams not aware of their impact on the patient journey

- Teams and units are generally internally focused on their core roles and responsibilities.
- There is limited transparency and visibility of issues and pressures elsewhere in the care system/patient journey – information systems are not used systematically to drive 'end to end' process understanding and ownership.
- The focus is on the “patient in the bed” rather than the potential admission/transfer.

Shortcomings in handover and transfer arrangements

- Communication and information flow is particularly problematic at 'hand over' points.
- Processes are not well defined and the responsibilities of different professionals are unclear.
- Ownership of patient flow does not reflect the needs and demands of different services or units at each stage: ED to inpatient, internal transfers, consultation and communication across teams and at discharge.

Insufficient co-ordination and sequenced scheduling of activities across professions and teams

- Processes are not systematically planned to support effective coordination, integration and sequencing of activities to support patient flow.
- Communication, information flows, follow-up actions and decision-making are not efficiently linked.
- Scheduling of activities is not consistently driven by the needs of the overall system – the focus is more on the requirements and drivers for the particular team or professional group.

Emerging Cross-Organisational Themes

Teamwork

Professional and team silos

- The organising principle is around teams and professional groups – this is effective in building synergy at that level but does not support the multi-disciplinary, multi-team approach required for optimal delivery of services.
- Staff work well across professional disciplines but each discipline tends to focus internally upon itself rather than organising services and activities explicitly around patients and flow.

Ineffective multidisciplinary processes

- The frequency and effectiveness of multidisciplinary processes is inconsistent across areas. Generally, arrangements have evolved rather than being carefully designed.
- Multi-disciplinary processes do not comprehensively and consistently lead to focused action and decision-making.
- Decision making is often based around single discipline approaches rather than a truly multidisciplinary approach.
- The goals of multi-disciplinary processes are not well-defined and articulated – the outputs and outcomes from the processes are unclear and not tracked or reviewed.

Variable commitment to team processes

- Participation in formal multidisciplinary processes is variable with the lack of seniority of attendees reducing the effectiveness of the process in some instances.
- Multidisciplinary meetings are often characterised by delay waiting for professionals to arrive – this is illustrative of the relatively low priority placed on these events.

Emerging Cross-Organisational Themes

Variability and Unclear Processes

Unclear, insufficiently defined and poorly understood processes

- There is a lack of clearly defined processes and practice within all aspects of care through referral, communication, information flow, documentation, handover and staff roles and responsibilities.
- The lack of definition means that professionals do not understand the requirements placed upon them (beyond direct patient care delivery) in relation to patient flow.

Variation

- Variability rather than consistency and standardisation are the hallmarks of the processes and systems supporting medical and older person patient flow.
- Referral processes vary between disciplines and services.
- The processes for admission and transfer are variable.
- Discharge processes are variable.
- Multidisciplinary processes are variable.

Limited definition of the goals and outputs of key processes

- The goals for particular processes are not defined and unclear to those participants leading inevitably to variable outputs and outcomes.
- There are limited means to measure and track the effectiveness of key processes.



Observations and Issues

Observations and Issues



APU

1BN

AOPU

P3

Outlier
Wards

Inflow: Admissions & Transfers

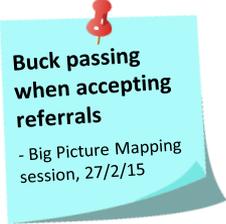
Key Observations and Issues

The issues are...

- **Variation and a lack of process definition** across the medical admission process causes delay and inefficiency
- There is variable and limited pull from ED and transferring of patients between wards
- There is limited synergy and flexibility in using resources across EMU and APU
- Lack of standardisation in forms and processes for admission and transfers
- There is limited access to **alternatives to admission** for medical patients

Inflow: Admissions & Transfers

APU

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none">• Variation and a lack of process definition across the medical admission process causes delays and inefficiencies<ul style="list-style-type: none">• The process is insufficiently defined and understood by all relevant staff and is not standardised.• There are multiple means of communicating and passing information between ED and APU.• There is no clear flag or information transparency to clearly identify a patient can be moved from ED.• The process is heavily role dependent and practice is variable and person-dependent – this variation is not easily visible and is not systematically monitored.• There is a tendency for patients to be ‘fully packaged’ by ED even though APU is willing to accept the patient earlier.• Patient movement is not as fast as possible even when beds are available in APU – the exact process and responsibilities for the transfer process are unclear and practice is variable.	<ul style="list-style-type: none">• Stakeholder interviews and direct observation• Process mapping session• Waste tools• Graffiti exercises	 <ul style="list-style-type: none">• 2410 out of 8972 GenMed patients (27%) spent more than 8 hours in ED before going to a ward, once they were admitted under the inpatient team.• After adjusting for other factors in a multivariate regression model,* the entire hospital LOS for these access-blocked patients was on average 13% longer than for patients who spent less than 8 hours in ED before going to a ward• Eliminating access block and excess LOS would make available on average 2.1 beds.• This analysis is for <i>all</i> medical patients, not just for patients going to APU. <p><i>* See Appendix 10 for further details of the regression model.</i></p>

Inflow: Admissions & Transfers

APU

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none">• There is variable and limited pull from ED and for transferring of patients to/between wards<ul style="list-style-type: none">• Likely admissions from ED are flagged but there is a time lag before being referred for review – there is variable scope for direct pull before the referral is made.• The process of ‘pulling’ is very dependent on the co-ordinator role in APU – other staff are not able to actively pull.• Pull is less evident when there is lower pressure on beds meaning flow is not optimised at all times.	<ul style="list-style-type: none">• Stakeholder interviews and direct observation• Process mapping session• Waste tools• Graffiti exercises	 <p>Staff stated a willingness to direct pull but are unclear if they should do this.</p>

Inflow: Admissions & Transfers

APU

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none">• There is limited synergy and flexibility in using resources across EMU and APU.<ul style="list-style-type: none">• There is unnecessary physical movement of patients between EMU and APU when care transfers between the two units.• While the units work in a collaborative and cooperative fashion there is limited flexible use of clerical resources in out-of-hours periods meaning that clinical staff spend unnecessary time on administrative tasks.• Bed capacity and availability is not visible or transparent.<ul style="list-style-type: none">• Multiple methods are used to varying extents including verbal communication, physical checking and PFM.• Data is not always input in a timely manner meaning electronic systems are not as reliable or useful as they should be.• Lack of standardisation in forms and processes for admissions and transfers creates unnecessary complexity and scope for inefficiency and error.	<ul style="list-style-type: none">• Stakeholder interviews and direct observation• Process mapping session• Waste tools• Graffiti exercises	<p>There has been no discussion on how staffing resources could be used flexibly – there may not be resistance to this.</p> <p>Stakeholders across the hospital reported confusion and unnecessary complexity through a lack of standard forms.</p>

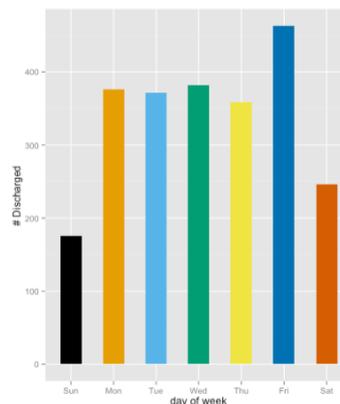
Inflow: Admissions & Transfers

APU

Observations and Issues	Source	Evidence/Supporting Analysis
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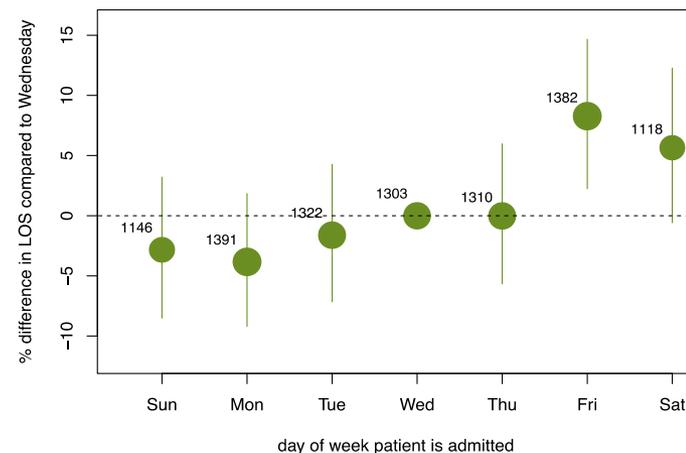
- There is limited access to **alternatives to admission** for medical patients.
 - There is limited access to 'hospital in the home' type services
 - Limited access to ambulatory services (outpatient and day investigations) for prompt assessment and investigation of patients as an alternative to admission.
- Weekend discharges are low compared to the Monday to Friday period.
 - There are variable processes to support clinically safe and appropriate discharge at the weekend in the absence of the physical presence of senior decision makers.
 - There is no systematic processes to support discharge of patients, with unclear and objective clinical parameters.

- Stakeholder interviews and direct observation
- Process mapping session
- Waste tools
- Graffiti exercises



Discharges from APU by day of the week: while there are less weekend discharges than weekday discharges, the percentage of weekend discharges from APU is higher than for other wards.

A lack of weekend discharges means that average LOS is substantially longer for patients admitted on Fridays and Saturdays. (These data are for *all* medical patients, not just patients in APU.) If the distribution of LOS for patients admitted on each day of the week was the same as for patients admitted on Mondays, this would make available an average of **3.4 beds**.



Inflow: Admissions & Transfers

1BN

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none">• Limited direct pull from APU to 1BN.<ul style="list-style-type: none">• All transfers occur through the bed management process.• The process is viewed as opaque and cumbersome with unclear processes and responsibilities.• There is high dependence on the 1BN NUM to manage flow and transfers placing significant burden on the position – there is no standard process for other staff to support flow.• The clinical handover process from APU to 1BN is not clearly defined.<ul style="list-style-type: none">• The process is variable and exact responsibilities in the process are not clearly defined or understood.• The process is person-dependent and person-variable.• Lack of clarity on what can/should be verbally communicated and/or recorded in the chart.	<ul style="list-style-type: none">• Stakeholder interviews and direct observation• Process mapping session• Waste tools• Graffiti exercises	<p>Confirmed through stakeholder interviews and consistently reflected across professional disciplines.</p> <p>Staff were unclear if there is a formalised procedure to manage the transfer process and responsibilities between teams.</p> 

Inflow: Admissions & Transfers

AOPU

Observations and Issues	Source	Evidence/Supporting Analysis
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- **Delays in moving patients into available beds.**
 - The process of transfer is time-consuming and cumbersome and often delayed until into the afternoon
 - Transfer delays occur even when all reviews and assessments are complete and the patient is cleared to move – this applies across medicine and surgery.
 - Workload has an impact but the process is not well-defined and person- and role-dependent.
 - The process relies heavily on ‘badgering’ to make the transfer occur.
- **Active management and discharge planning slows once a patient is identified for transfer to AOPU.**
 - Teams effectively pass on responsibility before transfer occurs potentially extending LOS as appropriate planning and decision-making does not occur until transfer to AOPU.
- **Delays in bed availability when infection control cleans are required.**

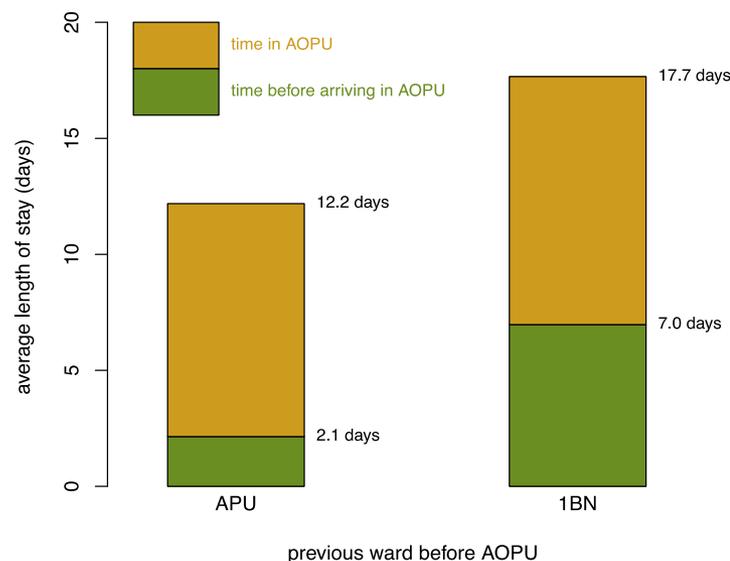
- Stakeholder interviews and direct observation
- Big Picture Process mapping session
- Waste tools
- Data analysis

No clarity in bed allocation
- Older Person Big Picture Session, 3/12/14

Admission paperwork is often left incomplete
- Waste tool, 13/3/15

Incorrect information being communicated in handover
- Waste tool, 13/3/15

Patients that are admitted from other wards often come without medications (i.e. meds ordered from previous ward). Patient then misses their dose
- Waste tool, 13/3/15



The admission of a patient to AOPU depends on the patient mix on the ward
- Big Picture Mapping, 3/12/14

Inflow: Admissions & Transfers

P3

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none"> Some referrals and transfer to P3 can be too early. <ul style="list-style-type: none"> Patients do not have rehabilitation goals or are not able to participate in rehabilitation. Review, assessment and investigations not always completed before transfer away from acute site causing later inconvenience and delay including some unnecessary patient movement. Referrals before the weekend sometimes cannot be accepted as the required review and clearance cannot be completed in time. Limited understanding of service and staff infrastructure availability on P3 meaning referrals and transfers can be inappropriate. Transport from RHH to P3 causes delay. 	<ul style="list-style-type: none"> Stakeholder interviews and direct observation Process mapping session Graffiti exercises Waste tools 	<div data-bbox="1136 348 1503 588"> <p>"We need clear admission criteria – is P3 gen rehab, GEM or TCP? Difficult to provide consistent service to multiple care types..."</p> <p>- Graffiti exercise, 23/3/15</p> </div> <div data-bbox="1547 339 1843 622"> <p>Patients arriving too late after 1500, after being told transport confirmed 1300-1330</p> <p>- Graffiti exercise, 13/3/15</p> </div> <div data-bbox="1205 634 1450 908"> <p>Lack of detailed clinical handover from wards when patients transferred to P3</p> <p>- Graffiti exercise, 13/3/15</p> </div> <div data-bbox="1476 654 1850 976"> <p>Patient going to RHH and back for scans and appointments, sometimes even the day after they are admitted...</p> <p>- Waste tools, 23/3/15</p> </div> <div data-bbox="852 491 1103 739"> <p>Non-rehab patients coming up to P3</p> <p>- Graffiti exercise, 13/3/15</p> </div> <div data-bbox="813 796 1108 1095"> <p>Patients are a whole new admission when arriving from RHH – repeating a lot of paperwork (e.g. PARIS) is a waste!</p> <p>- Waste tools, 23/3/15</p> </div>

Inflow: Admissions & Transfers

Outlier Wards

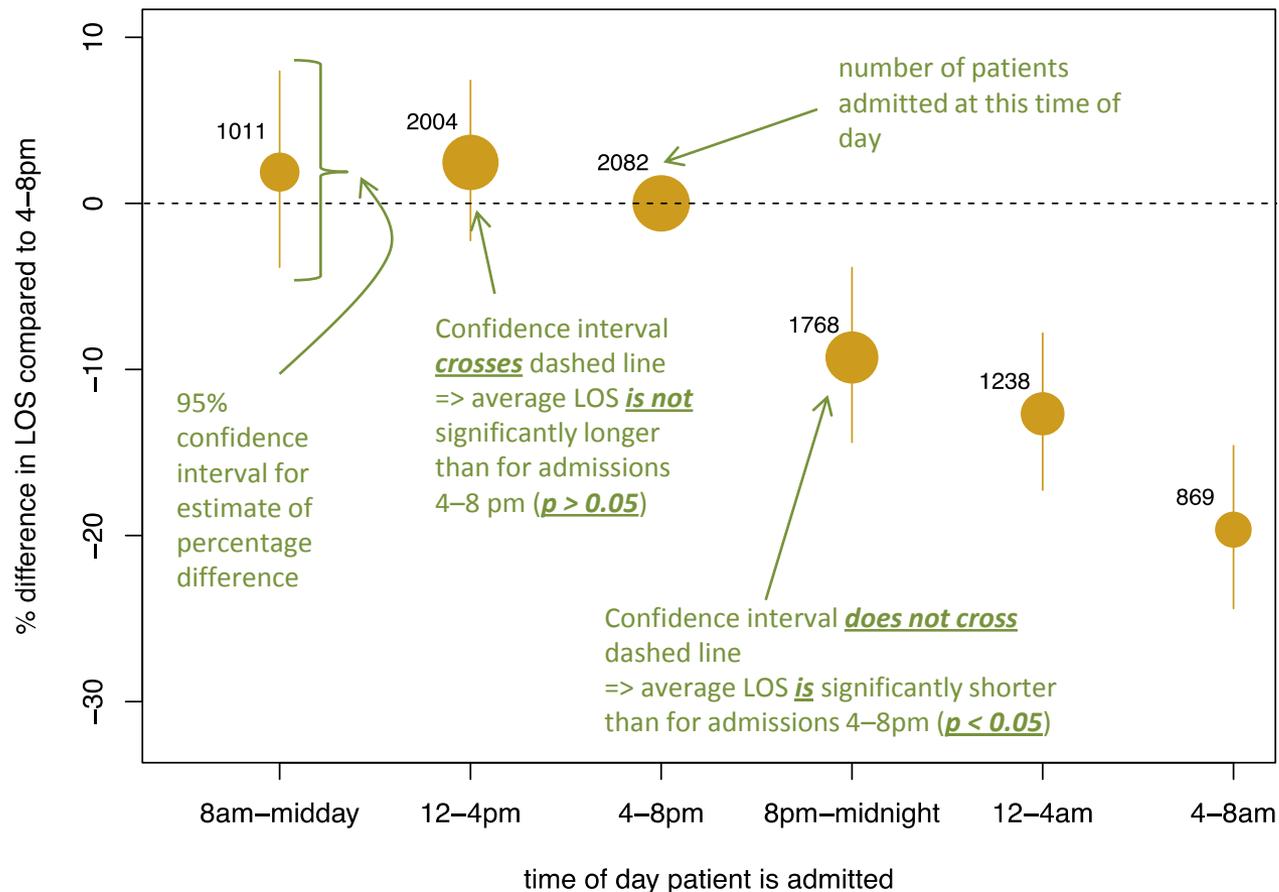
Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none">• There is not a clear process or set of decision rules to determine the best location or the type of patients that are most suitable for outlying medical patients<ul style="list-style-type: none">• Bed management practices are variable especially out of hours• The bed co-ordination process is variable with a lack of clarity on contact and liaison with the coordinator – various systems and practices are used with no clear rationale as to the best approach e.g. phone, PFM or face-to-face.• There is variability and insufficient transparency in the process for prioritising and allocating medical patients to outlier beds (right patient, right place, first time).	<ul style="list-style-type: none">• Stakeholder interviews and direct observation• Process mapping session• Graffiti exercises• Waste tools	<p>Interviewees were unaware of the existence of a formal process and procedure to determine which patients should move to which beds.</p>  <p>Stakeholders expressed frustration at not having access to information allow them to understand the status of the bed capacity of the hospital.</p>

Inflow: Admissions & Transfers

LOS versus time of day of admission

The graph on the right shows percentage variations in average LOS, depending on what time of day patients are admitted. The 2082 patients admitted between 4 and 8pm are treated as a reference group (3rd yellow circle from the left). Compared to this group, for the 1768 patients admitted between 8pm and midnight (4th circle from the left), LOS is on average 9% shorter, after adjustment for other significant factors (all the factors listed on page 18). There is some statistical uncertainty in this estimate of 9%: it has a 95% confidence interval of 5%–14% (indicated by the yellow bars sticking out from the circle).

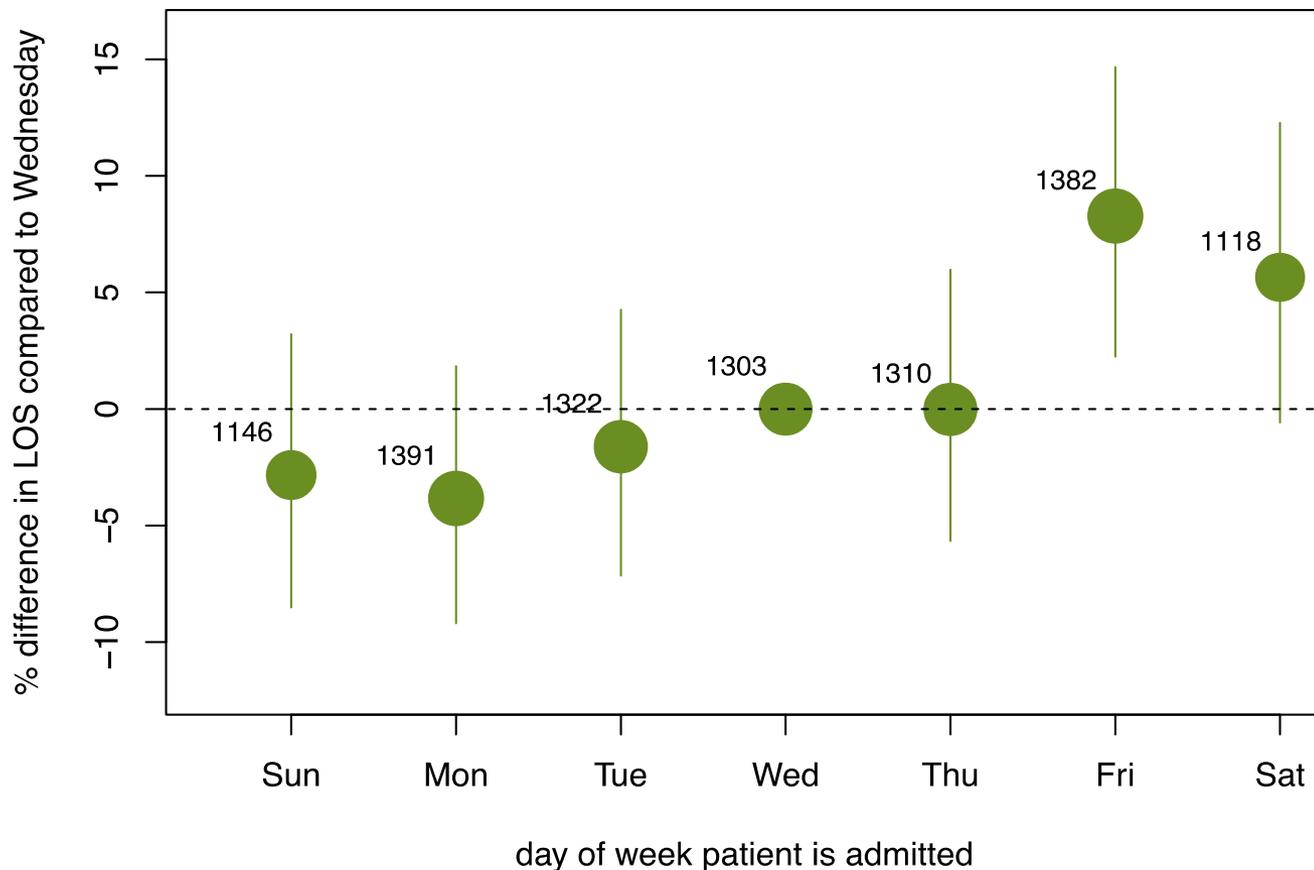
Consider for example cellulitis patients (DRG J64B), who have an average LOS of around 3.5 days. Then, all other factors being equal, we can estimate that LOS is around $9\% \times 3.5 \text{ days} = 8 \text{ hours}$ shorter for cellulitis patients admitted between 8pm and midnight, than for cellulitis patients admitted between 4pm and 8pm.



Inflow: Admissions & Transfers

LOS versus day of admission

If this distribution of LOS for patients admitted on each day of the week was the same as for patients admitted on Mondays, this would make available on average **3.4 beds**.



Observations and Issues



Inpatient Management

Key Observations and Issues

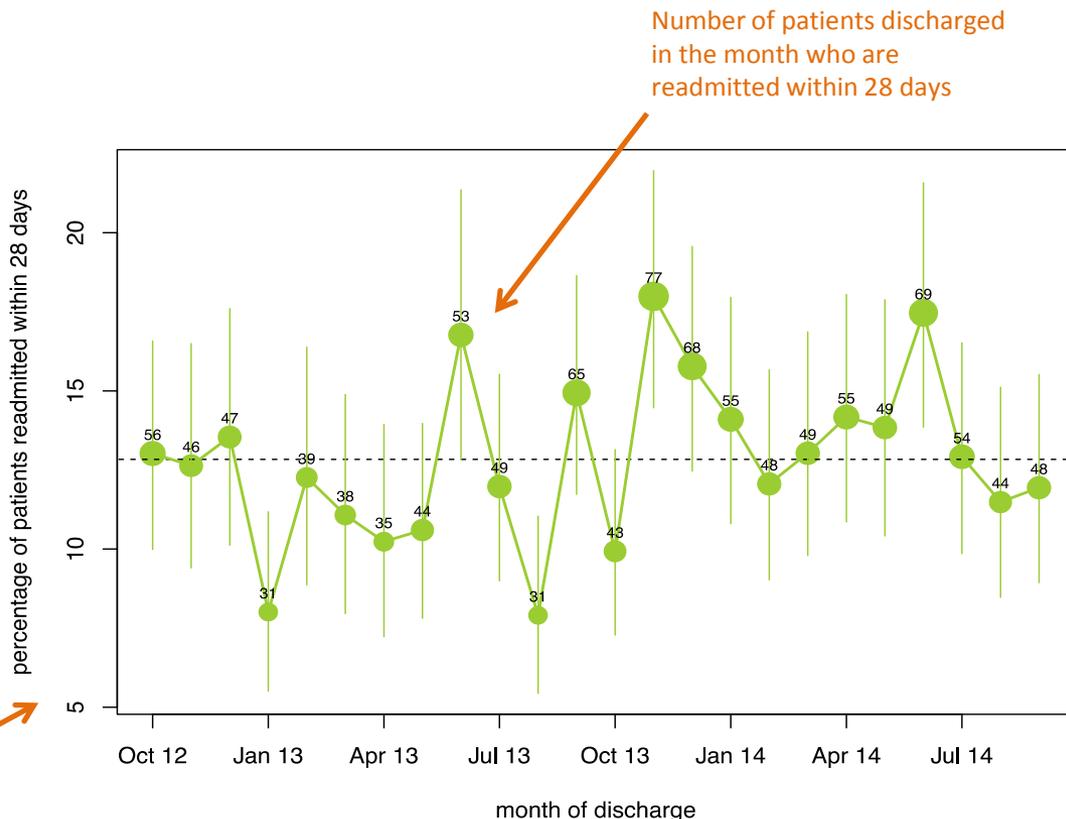
The issues are...

- Multidisciplinary team processes do not consistently lead to **focused decision-making** – there is a perception that the plans for patients are too often unclear with a ‘wait and see’ approach commonplace
 - Can lack structure, focus and clear decisions and actions
- **Medical round has no defined, clear and consistent structure** and process is variable depending on the team
 - Variability and unpredictability in the timing, duration and conduct
 - Systematic processes are not in place to support the timely flow of information and decisions from the medical ward rounds.
- **Weekend discharge rates are low.**
- **Allied health disciplines do not have arrangements in place to facilitate a unified process** to triage, screening, prioritisation and initial assessment where clinically appropriate.
 - Referrals to allied health are often not appropriate or the reasons for referral are unclear.
- As a result of the absence of effective processes for information flow **considerable time and effort is spent in attempting to communicate** and liaise across teams and disciplines

Inpatient Management

A measure of quality of care for medical patients: emergency readmissions within 28 days

- Out of the 9294 admitted GenMed patients that were discharged over 2 years (including multi-admissions for a single individual), **1193 (12.8%) were readmitted within 28 days** via an ED at a Tasmanian hospital.*
- There were some associations between particular DRGs, comorbidities and readmission rates. In particular readmission rates were **higher** for patients with peripheral vascular disease or a history of myocardial infarction and **almost 50% lower** for patients with dementia after adjustment for DRG mix.#
- Apart from these, there were no significant associations with 28-day emergency readmission rates
- In particular there has not been any significant trend in readmission rates over time



* Readmissions were determined from ED activity data provided by DHHS.
Multivariate logistic regression was used to model probability of readmission for GenMed patients. See Appendix 10 for further details.

Inpatient Management

Apart from DRG's and co-morbidities, there are no strong associations with 28-day emergency readmission rates*

- Charlson comorbidities: significant differences in readmission rates for patients with:
 - Myocardial infarction (**higher** readmission rate)
 - Peripheral vascular disease (**higher**)
 - Dementia (**lower**)
- Marginally **lower** readmission rate ($p=0.05$) for patients who go to an aged care residential facility for the first time
- Modest variation in readmission rate by day of discharge, with a hint of a **lower** readmission rate for patients discharged on Saturdays

** See Appendix 9 for details of the model to test for associations with 28-day readmission rates*

Inpatient Management

APU

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none"> Duplication of junior medical staffing resources across APU and medical units <ul style="list-style-type: none"> APU has dedicated registrar and intern resources but their colleagues from 'home' medical units also take part in the daily round and multi-disciplinary meetings The number of staff present can affect the speed and efficiency of the round Medical round has no defined, clear and consistent structure and process and is variable depending on the team <ul style="list-style-type: none"> Outputs and decisions and timeliness of actions can vary as a result Daily multidisciplinary team meetings can lack structure, focus and clear decisions and actions <ul style="list-style-type: none"> No clear statement of core purpose and outcomes from the process No clear 'script' of issues to cover Variable process and outcomes depending on who is running the meeting Lack of drive towards clear target discharge date 	<ul style="list-style-type: none"> Stakeholder interviews and direct observation Process mapping session Waste tools 	<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div data-bbox="923 382 1180 606" style="background-color: #f0e6ff; padding: 10px; border-radius: 10px; width: 150px;"> <p>HANDOVER! Repeated 3x is a waste of time</p> <p>- Waste tools, 23/2/15</p> </div> <div data-bbox="1205 325 1474 586" style="background-color: #e0ffe0; padding: 10px; border-radius: 10px; width: 150px;"> <p>Often confusion between tasks of the APU team and the Gen Med team of the day</p> <p>- Waste tools, 13/3/15</p> </div> </div> <p>LOS varies between admitting teams</p> <ul style="list-style-type: none"> Most medical patients in the 2-year dataset were admitted under the care of 8 teams / consultants Among these 8 "high-volume" teams, LOS varied by $\pm 16\%$ from the average LOS, after adjustment for all other factors in the LOS model (age, sex, DRG, 17 Charlson comorbidities, mode of separation, time of day of admission, day of week of admission, access block, whether patient was discharged directly from ED, and discharging specialty).* Of the 8 teams, the team whose patients had the second shortest adjusted average LOS was used as a benchmark. If average adjusted LOS for all other patients were reduced to this level, there would be a saving of 4.9 beds. <p>*See Appendix 10 for further details of the LOS model</p>

Inpatient Management

APU

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none">• APU coordinator attends round and then attends multi-disciplinary meeting<ul style="list-style-type: none">• Degree of duplication as multi-disciplinary meeting is main focus for communication• Prevents person in the role from driving other processes in this important part of the day• Active assessment and care processes by allied health sometimes await discussion at multi-disciplinary meeting<ul style="list-style-type: none">• Cause unnecessary delays in commencing planning and intervention• Separate assessment and review processes by each allied health discipline<ul style="list-style-type: none">• Possible duplication of process especially in collection of base information.• Potential for core initial assessment (and onward referral) by a single professional not exploited.• Tendency to blanket refer to Allied Health.	<ul style="list-style-type: none">• Stakeholder interviews and direct observation• Process mapping session• Waste tools• DILO	 <p>No documentation of MDM on APU therefore agreed plan, timeframes and responsibilities for Allied Health are not clearly understood. - Waste tools</p> <p>Having to walk to medical imaging to hand them the request is time-consuming - Waste tools, 13/3/15</p> <p>Poor referral quality to Allied Health on PFM leads to searching for referrer or trawling through notes for indicators to specific discipline. - Waste tools</p> <p>Referral to geriatrics services is too complex - Waste tools, 13/3/15</p> <p>Multi-D Meetings Review</p> <ul style="list-style-type: none">• Timing• Process/structure• Common purpose• Focus• Membership• Commitment• Promotion of team work 

Inpatient Management

1BN

Observations and Issues	Source	Evidence/Supporting Analysis																					
<ul style="list-style-type: none"> • Involvement with multiple medical units in the same ward creates fundamental challenges for effective multidisciplinary practice, team work and communication. • There is variability and unpredictability in the timing and duration of medical rounds. <ul style="list-style-type: none"> • The timing of rounds is not scheduled consistently for specific times making communication and engagement across the multidisciplinary team difficult • Activities across professional disciplines are not actively and specifically coordinated to support interaction, smooth communication and effective flow of information. • There is variability in the conduct of rounds <ul style="list-style-type: none"> • There is no clear process and defined outcomes for rounds. Actions from the round tend to be batched meaning delays in referral and follow-up actions. • The order in which patients are seen is variable and does not support a focus on discharge and throughput. • There are unclear expectations of junior doctors with variable preparation by them in advance of the round. 	<ul style="list-style-type: none"> • Stakeholder interviews and direct observation • Process mapping session • Waste Tools • Graffiti Exercise 	<div data-bbox="877 321 1226 678" style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>Registrar and Intern rounds often coincide with consultant/ registrar/ intern rounds or even a consultant round separately, so the registrar and intern then have to follow up on the plans of all the patients by reading the notes...</p> <p>- Waste tools, 25/3/15</p> </div> <div data-bbox="1226 321 1574 664" style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>Information from Multi-Disciplinary Meetings is often 12 hours old once it reaches Allied Health professionals, so quality of information is often dependent on personal attendance.</p> <p>- Waste tools</p> </div> <div data-bbox="1574 321 1906 635" style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>"At 0800, no medical teams or their members had arrived... did not arrive to start rounds until at least 15 minutes later, and not all arrived together. The consultant then had to wait for their team to arrive to start rounds."</p> <p>- Waste tools, 25/3/15</p> </div> <div data-bbox="877 728 1226 1249"> <ul style="list-style-type: none"> • LOS varies substantially by time of admission • If the distribution of LOS for patients admitted 8am–8pm was the same as for patients admitted 8pm–8am, 4.5 beds would be made available • These data are for <i>all</i> medical patients, not just patients on 1BN </div> <div data-bbox="1226 728 1906 1249"> <table border="1"> <caption>% difference in LOS compared to 4-8pm</caption> <thead> <tr> <th>time of day patient is admitted</th> <th>Sample Size</th> <th>% difference in LOS</th> </tr> </thead> <tbody> <tr> <td>8am-midday</td> <td>1011</td> <td>~2</td> </tr> <tr> <td>12-4pm</td> <td>2004</td> <td>~2</td> </tr> <tr> <td>4-8pm</td> <td>2082</td> <td>0</td> </tr> <tr> <td>8pm-midnight</td> <td>1768</td> <td>~-10</td> </tr> <tr> <td>12-4am</td> <td>1238</td> <td>~-13</td> </tr> <tr> <td>4-8am</td> <td>869</td> <td>~-20</td> </tr> </tbody> </table> </div>	time of day patient is admitted	Sample Size	% difference in LOS	8am-midday	1011	~2	12-4pm	2004	~2	4-8pm	2082	0	8pm-midnight	1768	~-10	12-4am	1238	~-13	4-8am	869	~-20
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Inpatient Management

1BN

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none"> There is no defined process or expectations for communication of the outcomes and actions arising from medical rounds <ul style="list-style-type: none"> There is no defined process or system for communication following the round. Junior medical staff are often unable to link easily with the appropriate member of the nursing team to communicate outcomes and follow-up actions. Outcomes and actions may only be recorded in the chart with delays in this being identified and acted upon causing unnecessary delays in the care process and extended LOS. The pick-up of referrals to allied health may be delayed as a result of unclear communication practices. As a result of the absence of effective processes for information flow considerable time and effort is spent in attempting to communicate and liaise across teams and disciplines <ul style="list-style-type: none"> Communication difficulties are compounded by the use of pager systems and a lack of a single easily accessible electronic database of key contact numbers. 	<ul style="list-style-type: none"> Stakeholder interviews and direct observation Process mapping session Waste tools Graffiti exercises 	<div data-bbox="875 308 1188 606"> <p>Unclear documentation on ward rounds wastes time as the team has to look back through and decipher the notes</p> <p>- Waste tools, 25/3/15</p> </div> <div data-bbox="1188 308 1574 685"> <p>Nursing staff spend time post rounds reading the notes to get medication plans for patients - would be more concise and accurate with verbal handover compounded by written info</p> <p>- Waste tools, 25/3/15</p> </div> <div data-bbox="1574 308 1903 621"> <p>A lot of time is wasted in the movement of patients to 'home' wards, and difficulty getting the 'home' team to review patients</p> <p>- Graffiti exercise, 25/3/15</p> </div> <div data-bbox="875 621 1188 935"> <p>Documentation is particularly important for long-stay patients... issues can potentially be forgotten or fall to the wayside</p> <p>- Waste tools, 25/3/15</p> </div> <div data-bbox="801 935 1130 1228"> <p>Waiting for medical review delays patient discharge or ongoing care</p> <p>- Waste tools, 25/3/15</p> </div> <div data-bbox="1130 935 1439 1235"> <p>Miscommunication - Interns that fail to follow through with a consultant's request delays time to discharge</p> <p>- Waste tools, 25/3/15</p> </div> <div data-bbox="1439 935 1922 1249"> <p>"I constantly have to search for things – kylies (bedding protection), towels, sheets, pillow etc. Some days I feel like I do more km's searching for stuff than I do caring for patients"</p> <p>- Graffiti exercise, 10/4/15</p> </div>

Inpatient Management

1BN

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none"> Weekend discharge rates are low (see comments for APU above). Referrals to allied health are often not appropriate or the reasons for referral are unclear. <ul style="list-style-type: none"> The tendency for referral to all streams of Allied Health in the one referral means considerable time is spent prioritising as opposed to assessing, treating and reviewing patients. There is a perceived lack of understanding of the role and contribution of the different allied health disciplines. Referral reasons and details are often absent requiring further communication to seek clarification. There are no formal mechanisms to provide feedback on referral quality. There is no standard and agreed system for referrals to allied health with variable and inconsistent use of PFM. Referral criteria, processes and requirements across Allied Health disciplines differ and are not understood sufficiently. The process is perceived as complex by referrers. 	<ul style="list-style-type: none"> Stakeholder interviews and direct observation Process mapping session Waste Tools DILO Graffiti exercises 	<div data-bbox="1373 362 1734 591" data-label="Image"> </div> <div data-bbox="884 591 1257 915" data-label="Text"> <p>Referrals come to Allied Health through fax; patient flow; email and recorded on outlook calendar... would save time if referrals came through the same channel.</p> <p>- Waste tools</p> </div> <div data-bbox="1425 619 1773 939" data-label="Text"> <p>Multi-D Meetings Review</p> <ul style="list-style-type: none"> Timing Process/structure Common purpose Focus Membership Commitment Promotion of team work </div>

Inpatient Management

1BN

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none">• Allied health disciplines do not have arrangements in place to facilitate a unified process to triage, screen, prioritise and initially assess patients when clinically appropriate.<ul style="list-style-type: none">• This adds to the complexity faced by referrers and is perceived to increase the tendency towards blanket referral.• For some patients this leads to a degree of duplication in assessment and information capture.• Allied health staff tend to work in disciplinary silos rather than maximise the scope for team work across professions.• The scope for the use of allied health assistants across disciplines to deliver efficient and patient-centric care is underdeveloped.• Mobility is too often seen as the responsibility of physiotherapists alone.<ul style="list-style-type: none">• Nursing staff may delay initial mobilisation due to lack of confidence.• Mobilisation may be delayed at weekends due to lack of physiotherapy cover.	<ul style="list-style-type: none">• Stakeholder interviews and direct observation• Process mapping session• Waste tools• Graffiti exercises	<p>Staff across allied health disciplines reported good but disconnected working practices.</p> <p>Allied health staff identified opportunities for greater efficiency in initial review processes across disciplines.</p> <div data-bbox="884 586 1151 839"><p>“We are busy but spend too much time prioritising rather than doing”</p><p>- Staff Interviews</p></div> <p>Professionals across disciplines were unclear on the expectations and appropriate practices for initial mobilisation – they stated that this had not been formally discussed.</p>

Inpatient Management

1BN

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none">Formal multidisciplinary team processes are insufficiently frequent and ineffective.<ul style="list-style-type: none">Formal engagement occurs only once a week for each general medical unit, significantly affecting teamwork and communication.Attendance is variable with a lack of senior medical input a significant issue which affects decision-making.There is a lack of clear process, structure and outcomes – sessions can be discursive and insufficiently focused on discharge and throughput.Junior staff members often lack the confidence to contribute and challenge as appropriate – the primary focus tends to be on the medical profession’s issues meaning a lost opportunity for true multidisciplinary decision-making.Multidisciplinary meetings are often viewed as an extension of the medical round thereby limiting the capacity to truly bring the differing and unique perspectives of each discipline.	<ul style="list-style-type: none">Stakeholder interviews and direct observationProcess mapping sessionWaste toolsGraffiti exercises	<p>Staff reported wasted time waiting for people to arrive for MDT sessions.</p>  <p>Some processes were felt to be more about training and development for junior staff rather than assisting patient flow.</p>  <p>Nobody could refer to clear documentation of how processes should work.</p>

Inpatient Management

1BN

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none">• There are limited structured opportunities for communication across disciplines outside of the infrequent multidisciplinary sessions.<ul style="list-style-type: none">• Staff reported that the two-way flow of information is sub-optimal as a result.• Available information systems are not used systematically to assist in communication of information – there is accordingly generally a lack of transparency and visibility and of visual management approaches to drive and monitor inpatient care processes as they affect flow.	<ul style="list-style-type: none">• Stakeholder interviews and direct observation• Process mapping session• Waste tools• Graffiti exercises	<p>The use of systems such as PFM is unclear to many people and is not mandated.</p>  <p>The image shows two sticky notes pinned to a surface. The left note is yellow and contains the text: "We don't know what is the best or preferred way to communicate with each other" followed by "- Staff Interviews". The right note is orange and contains the text: "I spend a lot of my day chasing and returning calls... it's frustrating and very inefficient" followed by "- Staff Interviews".</p>

Inpatient Management

AOPU

Observations and Issues	Source	Evidence/Supporting Analysis
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Introductory comment - the arrangements for multi-disciplinary teamwork in AOPU are generally viewed positively and mean that the challenges faced by 1BN are less prevalent in this area – similar issues do prevail in AOPU as well, but to a lesser extent. The issues described below are directly identified in AOPU.

- Systematic processes are not in place to support the timely flow of information and decisions from the medical ward rounds.
 - Delays in follow-up actions often result
 - Actions often picked up from charts after a period of time
 - Timetables and activities of staff not co-ordinated to support communication
- Multidisciplinary team processes do not consistently lead to focused decision-making – there is a perception that the plans for patients are too often unclear with a ‘wait and see’ approach commonplace
 - Nursing staff don’t feel sufficiently confident to provide their perspectives
 - This can lead to delays in developing and actioning clear plans
 - Members have input on an adhoc basis

- Stakeholder interviews and direct observation
- Process mapping session
- Graffiti Exercise
- Waste Tools
- DILO

Who is meant to process patient transport forms?
- Waste tools, 13/3/15

ADDS charts should be better utilised – they cut out so many other forms like weight charts, stool charts etc.
- Waste tool, 13/3/15

I often don’t know which nurse is looking after which patient
- Graffiti exercise, 30/3/15

FRAT, PARIS and VTE need to be a one-on-one chat – they aren’t done for all patients in a timely manner
- Graffiti exercise, 30/3/15

Drugs often aren’t ordered to cover weekends and after hours
- Waste tools, 13/3/15



Multi-D Meetings Review

- Timing
- Process/structure
- Common purpose
- Focus
- Membership
- Commitment
- Promotion of team work

Inpatient Management

AOPU

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none"> The process for medical rounding is not clearly defined. <ul style="list-style-type: none"> The order of the round is not based on any clearly identified rationale Actions arising from the round are batched and may not be followed through until later in the day leading to delays in patient management by other professionals. Tendency for junior doctors coming to get prepared rather than being prepared for the round. There is an absence of explicit objectives and agreed goals across professional disciplines as regards the processes and systems used in the ward. <ul style="list-style-type: none"> There has been no formal process to support clarity in this area. There is a lack of clarity and potential overlap between the Hospital Assistant and AIN roles. <ul style="list-style-type: none"> There may be inconsistency and some loss of effectiveness and efficiency as a result. Medication <ul style="list-style-type: none"> Multiple drug charts cause confusion 	<ul style="list-style-type: none"> Stakeholder interviews and direct observation Big Picture Process mapping session Waste Tools Graffiti Exercises 	<p>“Asking for patients to be reviewed by Dr when it is required NOW, and then they continue to work around the wards starting from bed 1 – a prioritisation process is needed” - Waste tools, 13/3/15</p> <p>There are problems with contacting Geriatricians - Big Picture Mapping, 3/12/14</p> <p>No clear direction for the activities to be carried out (such as wound dressing) - Waste tools, 13/3/15</p> <p>Someone needs to track and watch supplies... there's too much running around to obtain materials - Waste tools, 13/3/15</p> <p>Room checks could be done by HA's/AINs - Waste tools, 13/3/15</p> <p>Why are nurses expected to leave clinical duties to deliver meal trays? - Waste tools, 13/3/15</p> <p>Staff not informed of changes in drug charts, then patient miss medication doses - Waste tools, 13/3/15</p> <p>...need to be more careful in writing drug orders, exact dosage, correct drug names... - Waste tools, 13/3/15</p> <p>Not being able to order drugs in a timely manner - Waste tools, 13/3/15</p>

Inpatient Management

P3

Observations and Issues	Source	Evidence/Supporting Analysis
<p>Introductory comment - the arrangements for multi-disciplinary teamwork in P3 are generally viewed positively and mean that the challenges faced by 1BN are less prevalent in this area – similar issues do prevail in AOPU as well, but to a lesser extent. The issues described below were directly identified in P3.</p> <ul style="list-style-type: none">Objectives, structure and focus of ward rounds is not clearly defined.Variable duration of rounds affects other activities and the ability to effectively communicate outcomes.	<ul style="list-style-type: none">Stakeholder interviews and direct observationProcess mapping sessionGraffiti exercisesWaste tools	 <p>Need realistic rehab goals - Graffiti exercise, 16/3/15</p> <p>Rounds often interfere with meal times... causes delays and impairs rehab when meal trays are used (rather than walking to the dining room) - Waste tools, 23/3/15</p> <p>Multi-D Meetings Review</p> <ul style="list-style-type: none">TimingProcess/structureCommon purposeFocusMembershipCommitmentPromotion of team work <p>Patient acuity drives problems with transport – often too sick to be here and need tests back down at RHH - Waste tools, 23/3/15</p>

Inpatient Management

P3

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none"> The lack of clearly defined processes and systems across the ward affects multidisciplinary approaches <ul style="list-style-type: none"> This has impacts when there is staff turnover and new team members have limited defined structure to work in Part-time staff are challenged in their effectiveness as processes to support effective communication and handover are not in place. 	<ul style="list-style-type: none"> Stakeholder interviews and direct observation Process mapping session Graffiti exercise Waste Tools 	<div data-bbox="877 321 1207 621"> <p>We need to review our nursing staff mix – the acuity has changed while our nursing profile has remained the same</p> <p>- Graffiti exercise, 16/3/15</p> </div> <div data-bbox="1207 364 1526 692"> <p>We need more consistency with allied health staff – especially Physiotherapists!</p> <p>- Graffiti exercise, 10/4/15</p> </div> <div data-bbox="1526 328 1906 606"> <p>“Patients need access to therapy to progress and discharge in a timely manner. Current allied health staff levels are not supporting, or delivering, the therapy the P3 patients should be receiving...”</p> <p>- Graffiti exercise, 10/4/15</p> </div> <div data-bbox="1613 649 1906 963"> <p>Patient medication drawers are messy, often not restocked, and sometimes have 2 bottles/packets open at once.</p> <p>- Waste tools, 23/3/15</p> </div> <div data-bbox="966 935 1255 1220"> <p>Please closer storage room for HA staff to store items needed urgently, especially after hours</p> <p>- Graffiti exercise, 16/3/15</p> </div> <div data-bbox="1255 892 1613 1156"> <p>The imprest is inadequately stocked – we often run out of Abs, Vit D, Panadol etc.</p> <p>- Waste tools, 23/3/15</p> </div> <div data-bbox="1651 978 1906 1232"> <p>Store room is too far away from the ward</p> <p>- Waste tools, 30/3/15</p> </div>

Inpatient Management

Some aspects of the complexity of older patient journeys (1)

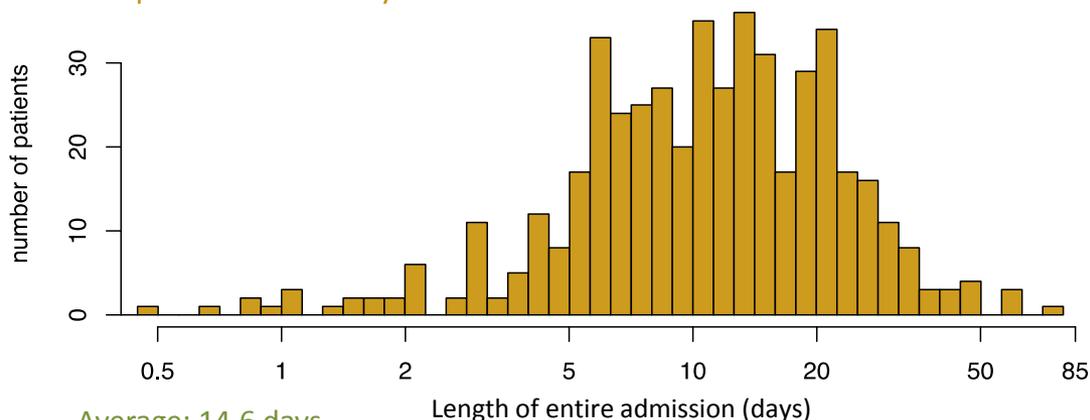
Because of their complexity, many older patient admissions are fairly long.

Most AOPU patients discharged from the care of geriatric medicine have been transferred from other specialties:

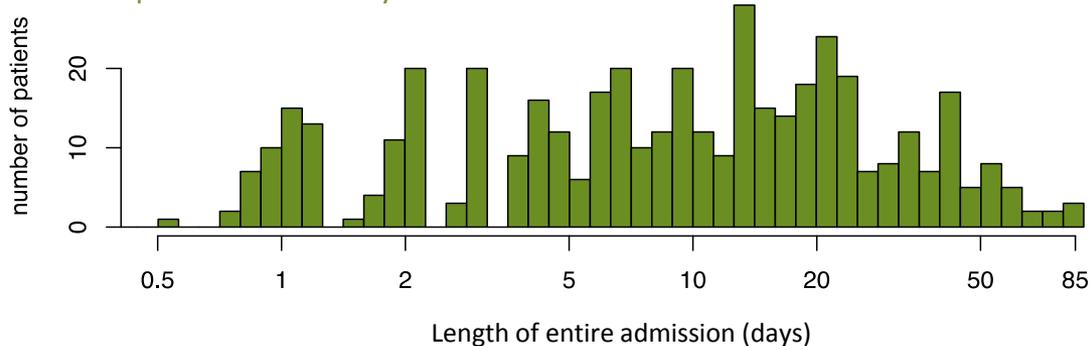
Admitting Specialty	484 patients discharged from AOPU	453 patients discharged from P3
GERIAT	158	447
GENMED	210	4
ORTHOP	42	0
EMERGE	19	0
GENSUR	15	0
other	40	2

In general, LOS is considerably longer for patients who are transferred from one specialty to another, not just patients transferred to geriatric medicine

Average: 13.5 days
 Median: 11.4 days
 80th percentile: 20.1 days



Average: 14.6 days
 Median: 9.8 days
 80th percentile: 22.9 days



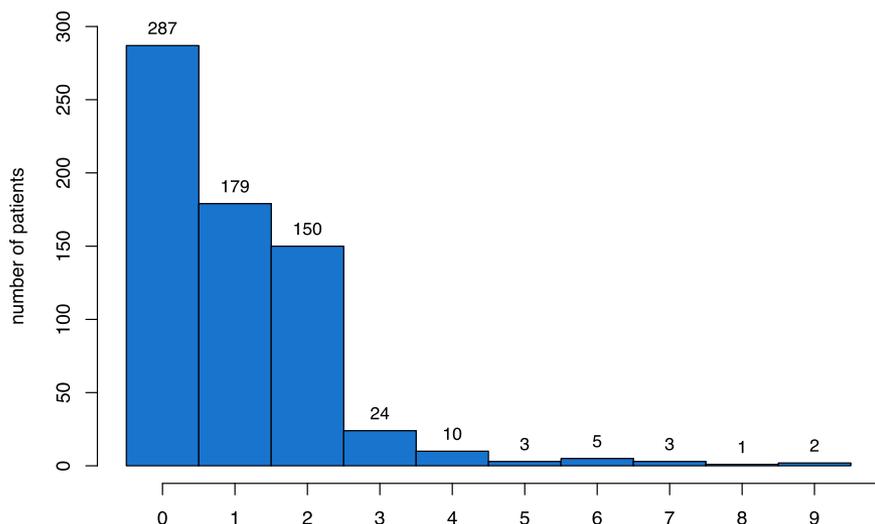
Inpatient Management

Some aspects of the complexity of older patient journeys (2)

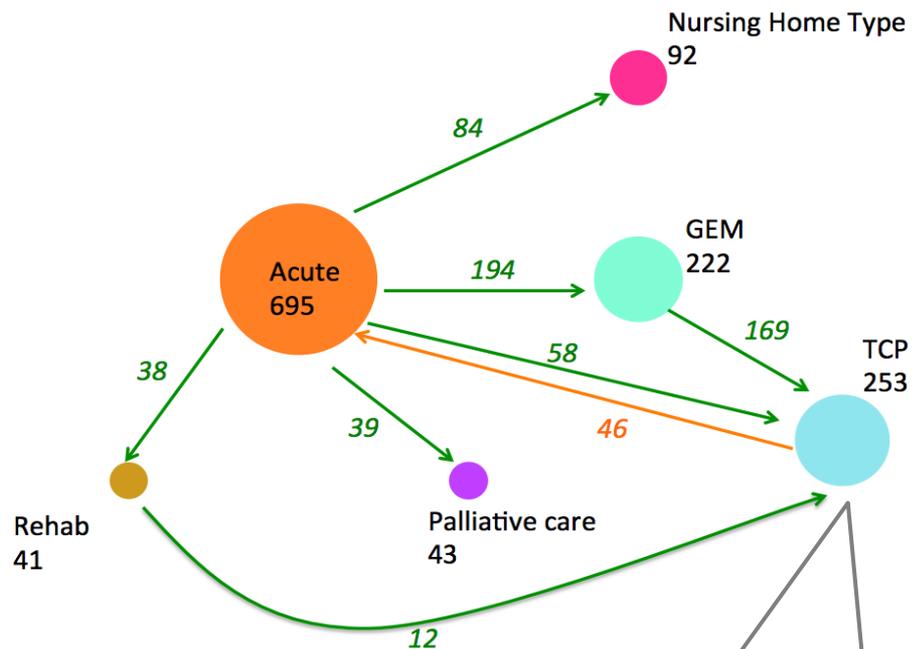
Many older patients have multiple “statistical” admissions in RHH straight after one another: they are statistically “readmitted” when they require a change of care type.

The main care type changes for these patients are shown below. Only care type changes that had 10 or more occurrences are included. This includes acute, sub acute and non acute.

683 care type changes for 664 patients who spent time in AOPU or P3 and whose hospital stays finished during 2014



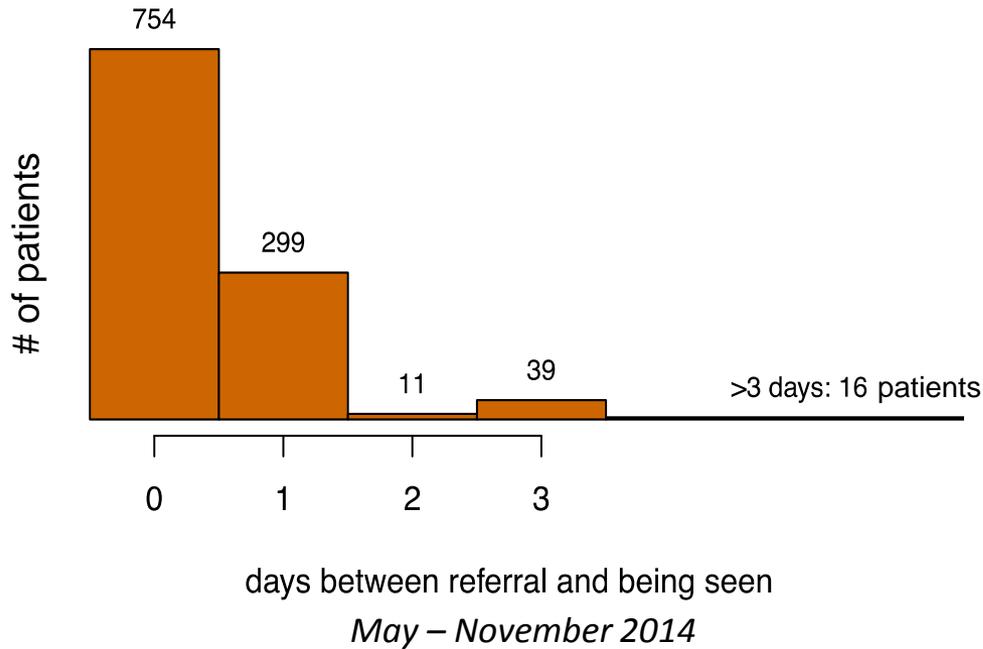
number of care type changes *Data provided by BIU*



The TCP is achieving its goal of delaying admission to residential care: 60% of these 253 patients returned to their usual residence after leaving TCP

Inpatient Management

ASSAT referral response is timely... however, batching occurs

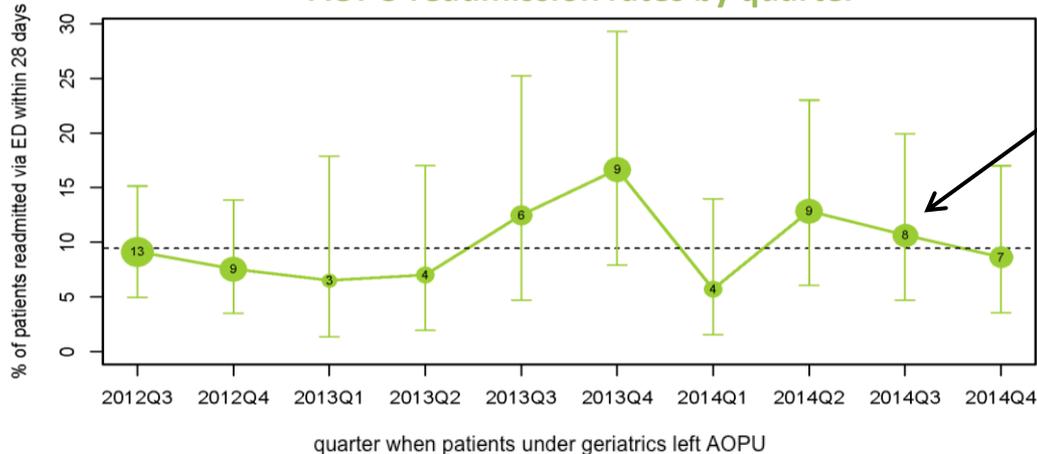


Day of the week	Number of referrals
Sunday	14
Monday	309
Tuesday	231
Wednesday	239
Thursday	214
Friday	142
Saturday	7

Inpatient Management

A measure of quality of care for older patients: 28-day emergency readmission rates for patients discharged from AOPU and P3

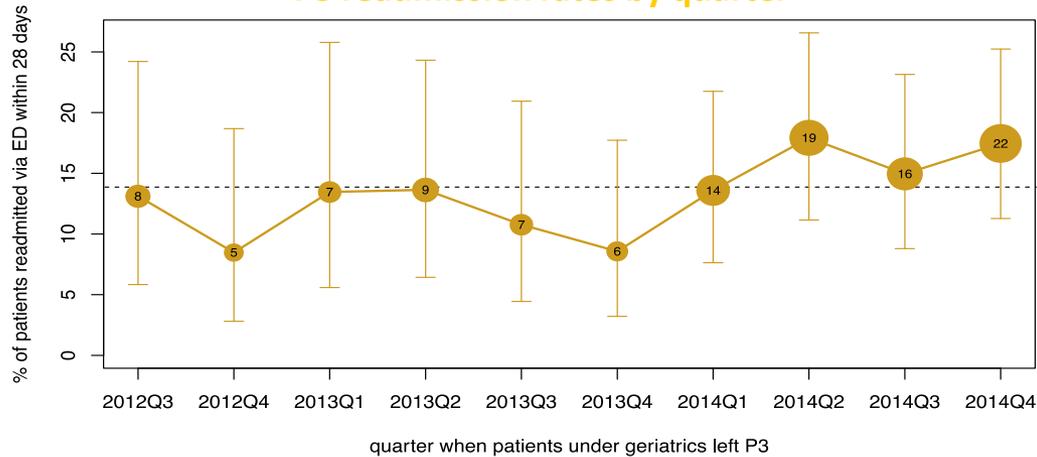
AOPU readmission rates by quarter



Number of patients discharged in the quarter who are readmitted within 28 days

Excluded: admissions which commenced a new care type (statistical admissions) and admissions where patients died.

P3 readmission rates by quarter



There is no significant time trend in readmission rates for either ward – i.e. it has neither worsened or improved over time.

Data sources:

- BIU for AOPU and P3 admissions data between July 2012 and December 2014
- DHHS ED activity data for readmissions via ED within 28 days at Tasmanian hospitals

Inpatient Management

Outlier Wards

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none">• Patients who spend time as an outlier have a demonstrably and significantly longer LOS than patients who are admitted and discharged as 'inliers'.• Multi-disciplinary working and communication is significantly challenged away from home wards.<ul style="list-style-type: none">• Working with nursing teams whose primary focus and skill-set is not targeted to general medical patients creates major challenges to effective practice.• There is considerable motion waste as staff move around the hospital to attend to their patients.	<ul style="list-style-type: none">• Stakeholder interviews and direct observation• Process mapping session• Waste tools• Graffiti exercise	<p>“Outliers are seen last in any teams’ ward round, which if discharge is planned, delays time of discharge and opportunity for a bed to be taken by a Gen Med patient. Movement of these patients, and movement of the teams involved needs to be considered...”</p> <p>- Waste tools, 24/3/15</p> <p>Difficult for nursing staff to contact outlier teams for medical care/questions when required</p> <p>- Waste tools, 25/3/15</p>

Inpatient Management

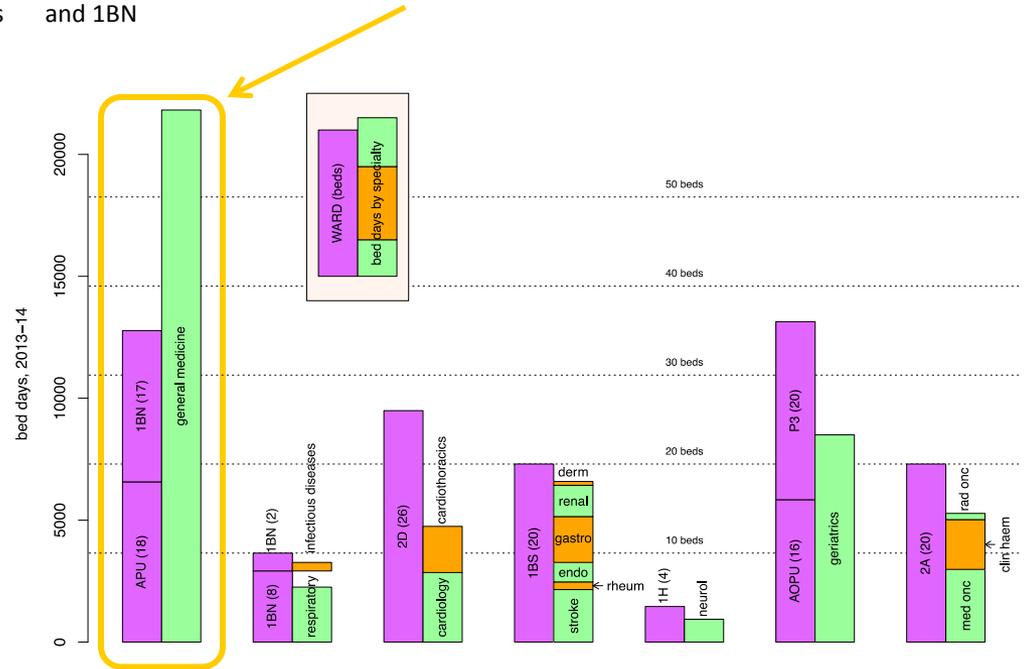
Outlier Wards

Observations and Issues	Source	Evidence/Supporting Analysis
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- The configuration of beds for general medical patients is not supportive of cohorting patients and allowing “home warding”.
 - The allocation of bed stock appears to be based on history and team preference rather than fundamental service requirements.
 - The allocation of beds is not patient centric in so much as it directly leads to the high prevalence of outlier patients.

- High level data analysis

General medical patients occupy many more beds than the 35 dedicated beds on APU and 1BN



As a result, many medical patients are outliers: of 7246 patients who were both admitted and discharged under GENMED/EMERGE, 2734 of them (38%) spent time on wards other than ED, APU, 1BN and ICU. After adjustment for other factors, LOS for these outlier patients is on average 48% longer. Eliminating this excess LOS would make available 2410 bed days over a year.

Inpatient Management

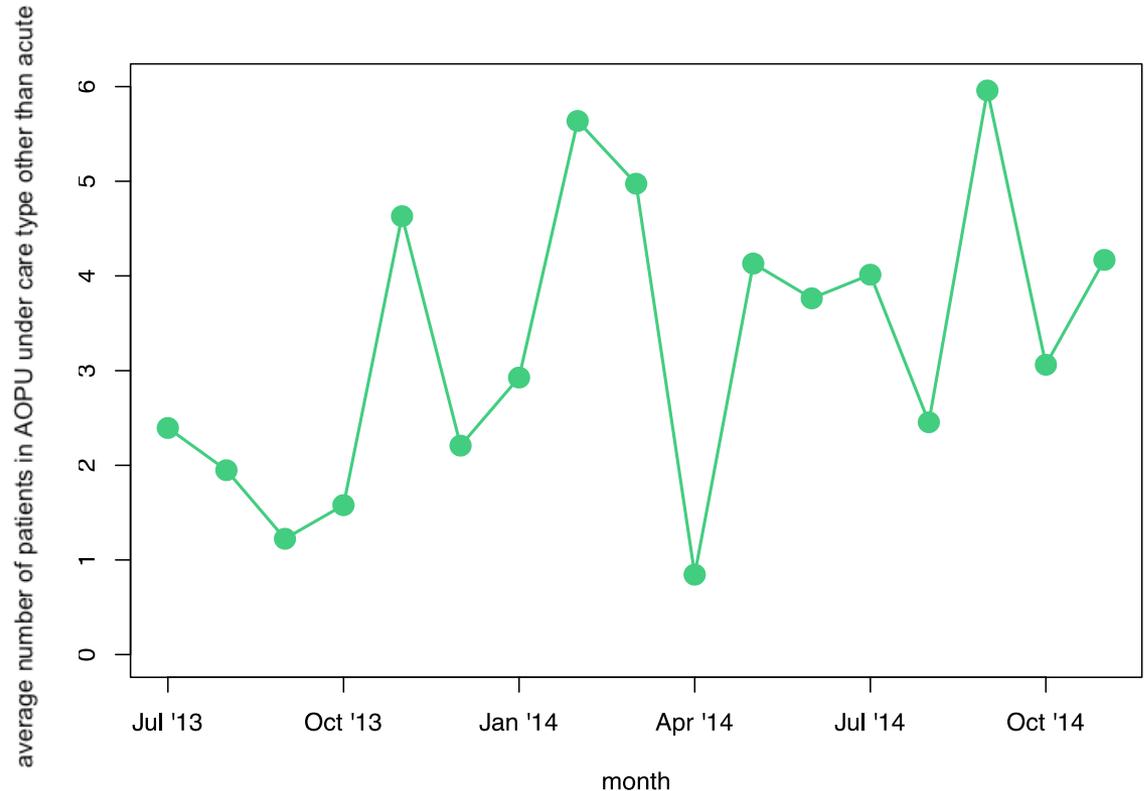
Care Type - Supporting Data

Patients in the Acute Older Person Unit (AOPU) under a care type other than acute

- This chart shows the patients with a designated sub acute or non acute care type occupying acute care type bed in AOPUs.
- From July '13 – April'14 care types were not changed and all patient were designated acute care when this was not the case. Since April '14 to present care type changes are made on the inpatients which means they are designated the correct DRG and funding stream.

ISSUE:

Care type changes are not made consistently, timely and accurately with this cohort of patients that are on outlier wards across the hospital.



Observations and Issues

Discharge Processes

APU

1BN

AOPU

P3

Outlier
Wards

Discharge Process

Key Observations and Issues

The issues are...

- Discharge is managed on a **single-discipline basis** and then brought together rather than being multidisciplinary throughout.
- There is **significant batching** of actions arising from the weekend round which delays potential discharge decisions
- The **transit lounge** is not used in a targeted and consistent way
- Discharge medications can cause delays at the point of discharge itself
- The use of **rural facilities** is patchy and variable
- Limited processes to address the needs and issues faced by patients with **very extended LOS** (“stranded patients”)
- **Delays in moving patients to RACF** (even when everything is in place for discharge)
- Delays in family decisions on placement into residential care

Discharge Process

Time between ASSAT visit and discharge varies by destination

statistical discharges (changes of care type)

Destination	Number of patients	25 th percentile (days)	50 th percentile (days)	75 th percentile (days)
Home	243	1.00	4	6.00
Other	141	0.00	3	8.00
Repat Peacock 3	140	4.00	7	15.00
Deceased	49	1.00	3	9.00
Nursing Home - Barossa	33	2.00	9	23.00
Roy Fagan Jasmine Unit	30	0.00	3	14.00
Nursing Home Freemasons	26	0.00	3	10.00
Private St Johns	26	4.00	7	12.25
TCP Community	26	2.00	6	9.00
Nursing Home Lillian Martin	21	1.00	2	5.00
Nursing Home Rosary Gardens	21	4.00	6	8.00
Nursing Home Compton Downs	20	1.75	6	10.00
Nursing Home Bishop Davies Court	18	3.00	5	14.75
Nursing Home Ningana	18	0.00	2	8.00
Nursing Home St Anns	18	0.00	1	4.00
Nursing Home Strathglen	18	1.00	8	15.00
Hospital NNDH	15	1.00	3	7.00
Nursing Home Glenview	15	0.00	1	8.00
Nursing Home Mary's Grange	15	0.00	1	4.50
Nursing Home Strathaven	15	1.50	5	12.00

Explanation of percentile
 Example:
 Looking at Barossa. The Number is 33 patients. Of these a quarter of them will take 2 days from the visit from ASSAT to discharge to this Age Care Facility, half the number will take 9 days and the last 25% will take 23 days.

Discharge Process

APU (including statistical discharges/care type changes)

Observations and Issues	Source	Evidence/Supporting Analysis
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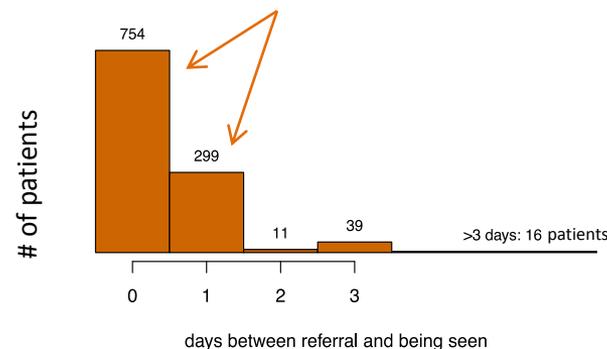
- The timing of phlebotomy can adversely affect discharge time as this prevents early receipt of pathology results - is often a key aspect of the discharge decision
- No formal mechanism to support discharge based on clear and objective criteria.
- There is significant **batching** of actions arising from the weekend round which delays potential discharge decisions
- Transit lounge not used systematically.
- Addressing the non-medical aspects of discharge can cause delay
 - Due to access to services/packages
 - Because of waiting for reviews (often related to late referrals)
- There is not a consistent focus on minimising the time for discharge practicalities across the team.
- Discharge and flow can be a distant consideration after clinical care needs.
- Estimated Date of Discharge not set at outset or used as a driver for action – not clear who is responsible for setting a date: role, team, who?

- Stakeholder interviews and direct observation
- Process mapping session
- Waste Tools
- Graffiti exercises

- Batching** of referrals to ASSAT*: more on Mondays, less on Fridays

Day of the week	Number of referrals
Sunday	14
Monday	309
Tuesday	231
Wednesday	239
Thursday	214
Friday	142
Saturday	7

- These numbers are referrals from all specialties (not just general medicine, not just from APU). However a large percentage (48%) of ASSAT referrals come from general medicine.
- In spite of this batching, ASSAT see **94%** of patients **within one day of referral**



*ASSAT referral data for May to November 2014 provided by Heather Nichols

Discharge Process

1BN

Observations and Issues	Source	Evidence/Supporting Analysis
-------------------------	--------	------------------------------

- A meaningful target date for discharge is not set at admission
 - There is not a team focus on this key issue
 - Standard expected stays for common presenting conditions are not used
 - No clear process to determine target
- Disjointed multidisciplinary processes do not support a focus on discharge
 - Meetings are infrequent
 - Communication is time-consuming and inefficient
 - A lot of time spent chasing and confirming approvals for discharge
- There is not a clear and determined discharge mindset across the multidisciplinary team
 - There are not clear plans for discharge
 - There is no regular coordinated review of discharge status and actions
 - Discharge targets and actions are not readily visible or transparent
- The transit lounge is not used in a targeted and consistent way - there is a lack of clarity or clear definition on which patients are suitable

- Stakeholder interviews and direct observation
- Process mapping session
- Waste Tools
- Graffiti Exercise

Not performing or putting up 6am bloods for patients when they are relevant to discharge

- Waste tools, 25/3/15

Non-acute patients who do not require a bed for medical purposes have lengthy stays on the ward while the discharge destination is being determined

- Graffiti exercise, 25/3/15

“Allied Health is often waiting for family meetings to be scheduled... the Consultant may only be available twice a week, and decisions regarding discharge can’t be made until this happens”

- Waste tools

Discharge Process

1BN

Observations and Issues	Source	Evidence/Supporting Analysis																																																																
<ul style="list-style-type: none"> The focus of discharge is primarily on medical stability <ul style="list-style-type: none"> Other discharge factors are not managed in a coordinated way or to the same timeline Late referrals to allied health (and Care Point) are commonplace often leading to delay in discharge Referral to allied health often viewed as part of discharge sign-off rather than a key part of a planned process Medical staff sometimes see allied health processes as a delay to discharge rather than an enabler – this may be related to late referral practices Discharge is managed on a single-discipline basis and then brought together rather than being multidisciplinary throughout. <ul style="list-style-type: none"> Within this approach there is a narrow view taken on the contribution of different allied health disciplines rather than a holistic approach Discharges happen rather than being systematically planned – there is no daily focus on discharge status across the area. Too many discharges are “all of a sudden discharges”. 	<ul style="list-style-type: none"> Stakeholder interviews and direct observation Process mapping session 	<p>“All of a sudden discharges” on Fridays? There is significant variation in post-take discharges by day of the week (all medical patients, not just 1BN patients)...</p> <table border="1"> <thead> <tr> <th>Day of post-take ward round</th> <th>Number of patients admitted in 24 hours before ward round</th> <th>Number of patients discharged in 24 hours after ward round</th> <th>% discharged in 24 hours after ward round</th> </tr> </thead> <tbody> <tr><td>Sunday</td><td>1104</td><td>208</td><td>18.8%</td></tr> <tr><td>Monday</td><td>1201</td><td>286</td><td>23.8%</td></tr> <tr><td>Tuesday</td><td>1481</td><td>363</td><td>24.5%</td></tr> <tr><td>Wednesday</td><td>1375</td><td>316</td><td>23.0%</td></tr> <tr><td>Thursday</td><td>1389</td><td>337</td><td>24.3%</td></tr> <tr><td>Friday</td><td>1371</td><td>382</td><td>27.9%</td></tr> <tr><td>Saturday</td><td>1448</td><td>289</td><td>20.0%</td></tr> </tbody> </table> <p>... but there is no significant variation in readmission rates:</p> <table border="1"> <thead> <tr> <th>Day of post-take ward round</th> <th>Number of patients discharged in 24 hours after ward round</th> <th>Number of patients readmitted within 28 days</th> <th>% of patients readmitted within 28 days</th> </tr> </thead> <tbody> <tr><td>Sunday</td><td>208</td><td>26</td><td>12.5%</td></tr> <tr><td>Monday</td><td>286</td><td>34</td><td>11.9%</td></tr> <tr><td>Tuesday</td><td>363</td><td>41</td><td>11.3%</td></tr> <tr><td>Wednesday</td><td>316</td><td>24</td><td>7.6%</td></tr> <tr><td>Thursday</td><td>337</td><td>32</td><td>9.5%</td></tr> <tr><td>Friday</td><td>382</td><td>41</td><td>10.7%</td></tr> <tr><td>Saturday</td><td>289</td><td>30</td><td>10.4%</td></tr> </tbody> </table> <p>Discharging all post-take patients at the Friday rate (27.9%) would make available 215 bed days per year. There are no major differences between the DRG mixes of post-take patients discharged on Mondays to Thursdays, Fridays and weekends.</p>	Day of post-take ward round	Number of patients admitted in 24 hours before ward round	Number of patients discharged in 24 hours after ward round	% discharged in 24 hours after ward round	Sunday	1104	208	18.8%	Monday	1201	286	23.8%	Tuesday	1481	363	24.5%	Wednesday	1375	316	23.0%	Thursday	1389	337	24.3%	Friday	1371	382	27.9%	Saturday	1448	289	20.0%	Day of post-take ward round	Number of patients discharged in 24 hours after ward round	Number of patients readmitted within 28 days	% of patients readmitted within 28 days	Sunday	208	26	12.5%	Monday	286	34	11.9%	Tuesday	363	41	11.3%	Wednesday	316	24	7.6%	Thursday	337	32	9.5%	Friday	382	41	10.7%	Saturday	289	30	10.4%
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Discharge Process

1BN

Observations and Issues	Source	Evidence/Supporting Analysis																				
<ul style="list-style-type: none"> Discharge medications can cause delays at the point of discharge itself <ul style="list-style-type: none"> Medication ordering not always well-synchronised with pharmacist and dispensary capacity and workload Variable communication of relative urgency of discharge medications by medical staff – tend to be batched and not prioritised. No clear and consistent process for determination and communication of urgency Advance ordering of medications (where appropriate and possible) not optimal Discharge medications come from main pharmacy rather than from imprest supplies Information systems (e.g. PFM) and linked processes supported by ICT are not used systematically to plan, manage and monitor discharge status and practices. Lack of formal processes to manage arrangements for complex discharges. Responsibility for discharge is not defined –it is nobody and everybody’s responsibility. 	<ul style="list-style-type: none"> Stakeholder interviews and direct observation Process mapping session 	<p>After adjustment for other factors, LOS is substantially longer for complex discharges: patients whose admission ends with a transfer to an aged care residential facility for the first time or a care type change (statistical separation or discharge). These data are for <i>all</i> medical patients, not just patients discharged from 1BN.</p> <table border="1"> <caption>Data from Discharge Type Chart</caption> <thead> <tr> <th>Discharge Type</th> <th>% difference in LOS compared to usual residence</th> </tr> </thead> <tbody> <tr> <td>usual residence/accommodation</td> <td>6478</td> </tr> <tr> <td>aged care residential facility</td> <td>232</td> </tr> <tr> <td>died</td> <td>359</td> </tr> <tr> <td>left against medical advice</td> <td>100</td> </tr> <tr> <td>mental health service</td> <td>210</td> </tr> <tr> <td>other health care accommodation</td> <td>52</td> </tr> <tr> <td>another hospital</td> <td>440</td> </tr> <tr> <td>statistical separation</td> <td>858</td> </tr> <tr> <td>other</td> <td>243</td> </tr> </tbody> </table>	Discharge Type	% difference in LOS compared to usual residence	usual residence/accommodation	6478	aged care residential facility	232	died	359	left against medical advice	100	mental health service	210	other health care accommodation	52	another hospital	440	statistical separation	858	other	243
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other	243																					

Discharge Process

Older person – AOPU and P3

Observations and Issues	Source	Evidence/Supporting Analysis
-------------------------	--------	------------------------------

- Delays in family decisions on placement into residential care
 - Variation in engagement with family, not always initiated at earliest appropriate opportunity – delay in effective engagement then delays later decision-making
- Delays in establishing necessary services in the home
 - Sometimes further delays occur when contact for referral and assessment is not expedited.
- Recent administrative and funding changes (external to the THO) have elongated timelines for securing places in RACFs – access to beds not currently seen as the constraint.
- Establishing EPAs can add significant time to the process of decision-making and then accessing care.
- Accessing Community TCP can be problematic
- Timeliness of decisions to access Community TCP is important – failure to do this can mean losing time as there is no capacity to access from late Friday until the following Monday.

- Stakeholder interviews and direct observation
- Process mapping session
- Waste tools
- High level data analysis

There is great variation in the time (in days) between when a patient is seen by the ASSAT team, and when a patient is transferred to a nursing home:

Destination	Number of patients	25 th percentile (days)	50 th percentile (days)	75 th percentile (days)
Home	243	1.00	4	6.00
Other	141	0.00	3	8.00
Repat Peacock 3	140	4.00	7	15.00
Deceased	49	1.00	3	9.00
Nursing Home – Barossa	33	2.00	9	23.00
Roy Fagan Jasmine Unit	30	0.00	3	14.00
Nursing Home Freemasons	26	0.00	3	10.00
Private St Johns	26	4.00	7	12.25
TCP Community	26	2.00	6	9.00
Nursing Home Lillian Martin	21	1.00	2	5.00
Nursing Home Rosary Gardens	21	4.00	6	8.00
Nursing Home Compton Downs	20	1.75	6	10.00
Nursing Home Bishop Davies Court	18	3.00	5	14.75
Nursing Home Ningana	18	0.00	2	8.00
Nursing Home St Anns	18	0.00	1	4.00
Nursing Home Strathglen	18	1.00	8	15.00
Hospital NNDH	15	1.00	3	7.00
Nursing Home Glenview	15	0.00	1	8.00
Nursing Home Mary's Grange	15	0.00	1	4.50
Nursing Home Strathaven	15	1.50	5	12.00

“There is appalling communication between visiting teams, which leads to frustrated relatives who don’t understand the process and delays”

- Waste tools, 13/3/15

ASSAT referral data for May to November 2014 provided by Heather Nichols

Discharge Process

Delays in Discharge Audit – AOPU

The **Delays in Discharge Audit** was a 7-day tracking study across AOPU and P3 wards between the 25 March and 31 March. Researchers attended the ward twice daily (1000 and 1500) to record where each patient was on their journey. Out of those who were eligible for discharge, the main delay was indicated.

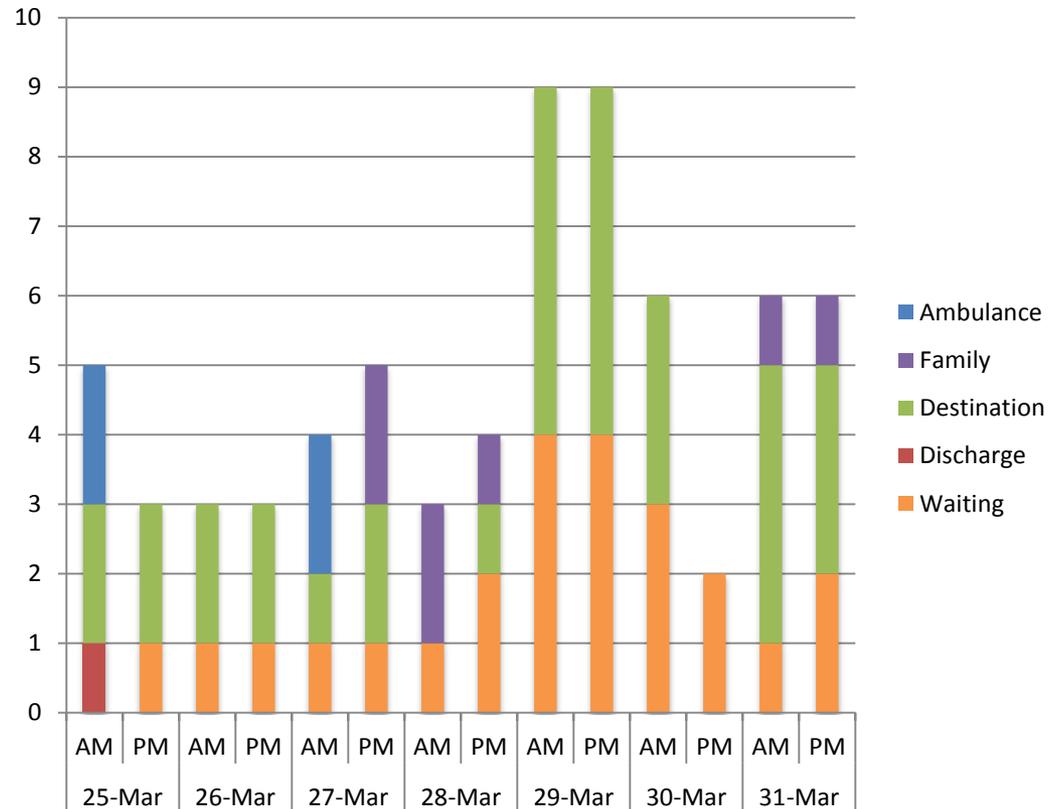
Main causes of discharge delays were issues with destination (i.e. Destination not ready)

- Caused delays most days

Waiting

- ACAT assessment from central ACAT Team
- Medication management

4/7 days has an outlier in AOPU



* Credit: The Delays in Discharge Audit template is a site- and user-specific modification of Healthcare Reform Consulting's "Why Am I Still Here?" template.

Discharge Process

Delays in Discharge Audit – P3

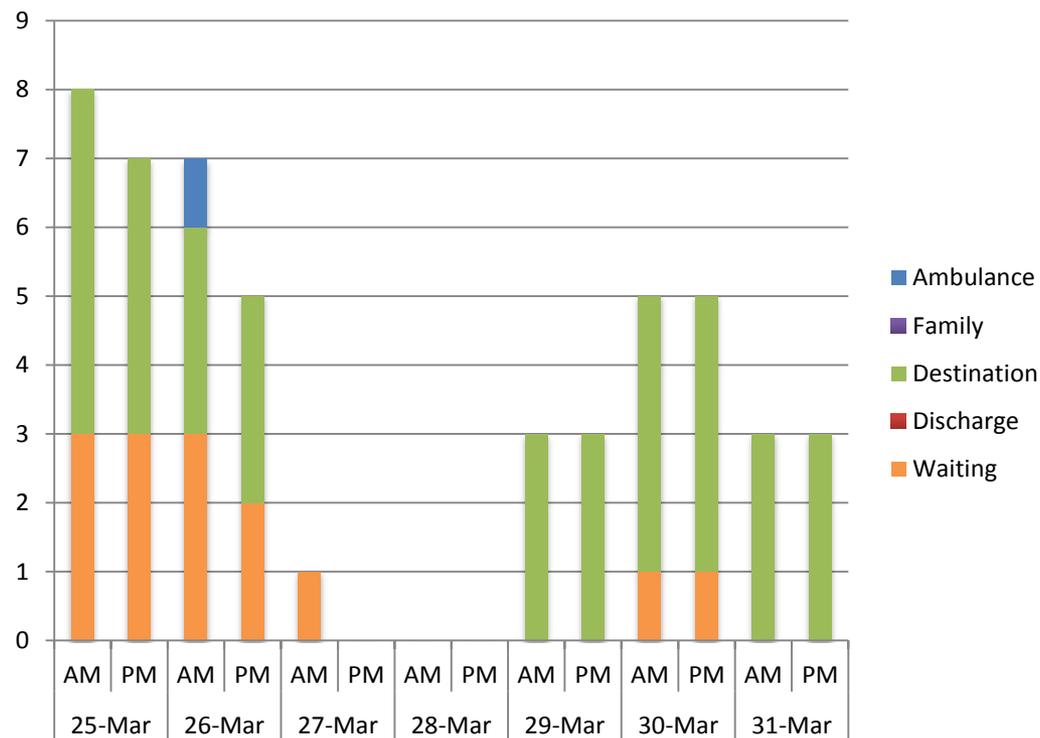
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Main causes of discharge delays were issues with destination (i.e. Destination not ready)

- Aged Care
- Home modifications

Waiting

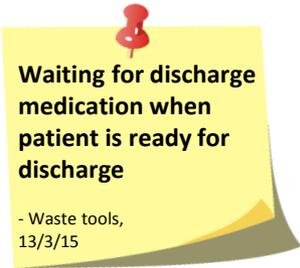
- Skewed by one patient on over night leave
- ACAT assessment-Decision from central ACAT



* Credit: The Delays in Discharge Audit template is a site- and user-specific modification of Healthcare Reform Consulting's "Why Am I Still Here?" template.

Discharge Process

Older person – AOPU and P3

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none">• The use of rural facilities is patchy and variable<ul style="list-style-type: none">• There are no clear rules on the type of patients who could/should be transferred to rural centres• There are issues in relation to service availability and capacity, travel, family and patient choice but the absence of a clear position and process makes the process more difficult and less used.• Lack of real dialogue and understanding of issues and blocks to increased use.• Limited processes to address the needs and issues faced by patients with very extended LOS (“stranded patients”)• Variable practices and drive to discharge across medical units<ul style="list-style-type: none">• Limited focus on identifying and working towards target discharge dates.• Insufficiently focussed throughput mindset• Delays in access to Neuropsychiatry to assess competence for decision-making affects downstream processes, actions and timelines.	<ul style="list-style-type: none">• Stakeholder interviews and direct observation• Process mapping session• Waste tools	<p>Stakeholders reported a lack of understanding of what is possible making it “too hard” to pursue this option.</p>  

Discharge Process

Older person – AOPU and P3

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none">• There is a limited focus on the hospital component of LOS for TCP to allow/ensure appropriate and effective use of Community TCP• Delays in moving patients to RACF (even when everything is in place for discharge)<ul style="list-style-type: none">• Poorly developed relationships and communication with providers• Lack of structured engagement with key providers in the RACF sector to understand and manage the speed of access and other blockages to flow	<ul style="list-style-type: none">• Stakeholder interviews and direct observation• Process mapping session• Waste tools• Graffiti exercise	 <p>ASSAT team needs a P3 staff member</p> <p>- Graffiti exercise, 16/3/15</p>  <p>We (AOPU) need to utilise the transit lounge more... rooms get cleaned quicker, and can accept patients earlier!</p> <p>- Graffiti exercise, 13/3/15</p>
		 <p>Allied Health walking to and from the RHH for meetings takes away from patient therapy time</p> <p>- Waste tools</p>

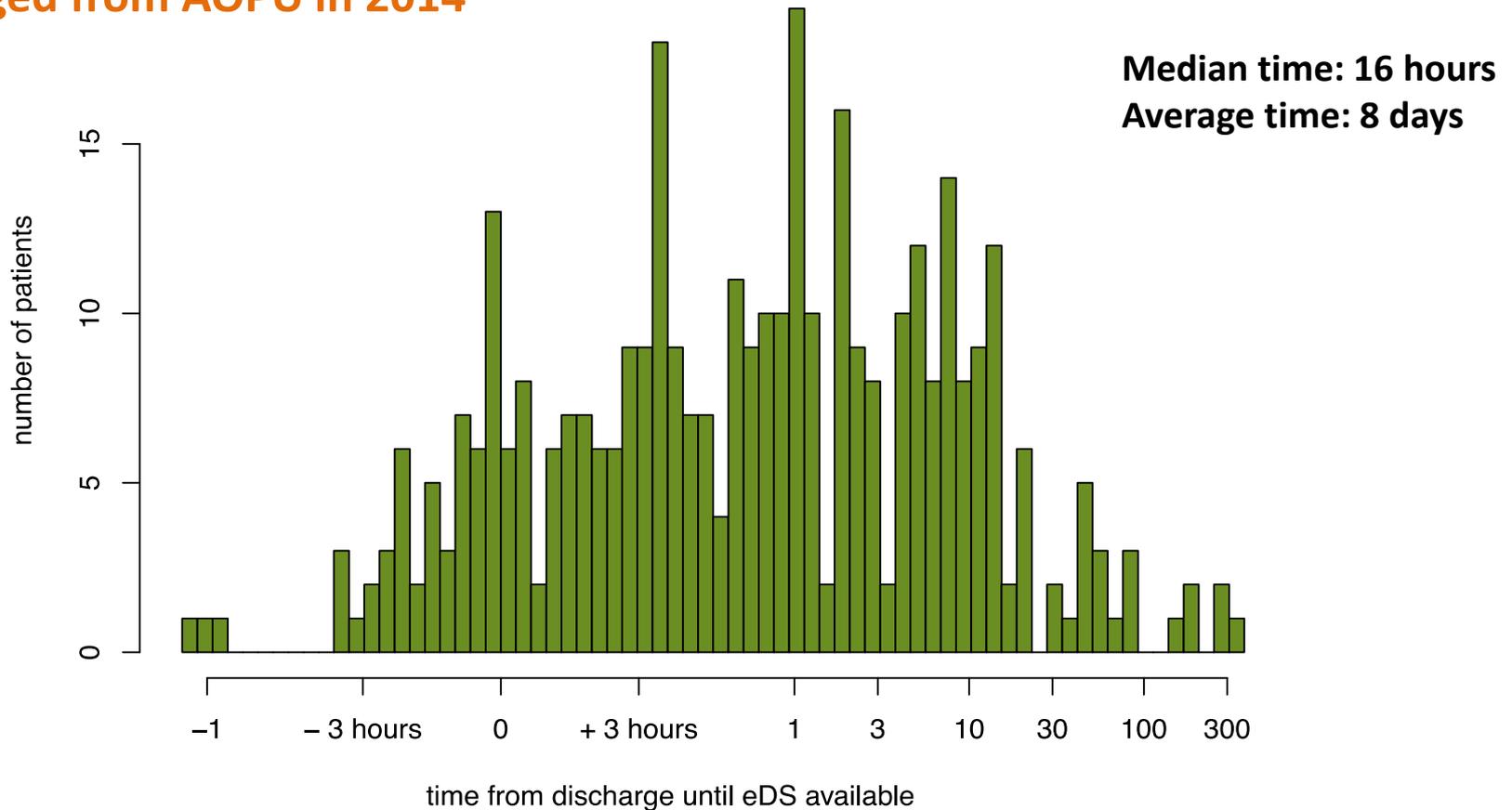
Discharge Process

Outlier Wards

Observations and Issues	Source	Evidence/Supporting Analysis
<ul style="list-style-type: none">The same set of issues apply for outlied wards as described for inpatient management and the discharge process for patients on 1BN which are further compounded and overlaid by a patient's status as an outlier.	<ul style="list-style-type: none">Stakeholder interviews and direct observationProcess mapping session	<p>Outlied patients are viewed as the end of the line in a long list of priorities – this inevitably leads to delay.</p> <p>Staff in the outlier wards do not have the knowledge of general medical patients to allow effective discharge processes.</p>

Transition of Care

Some delays in availability of electronic discharge summaries (eDS):
time between discharge and availability of eDS, for patients
discharged from AOPU in 2014





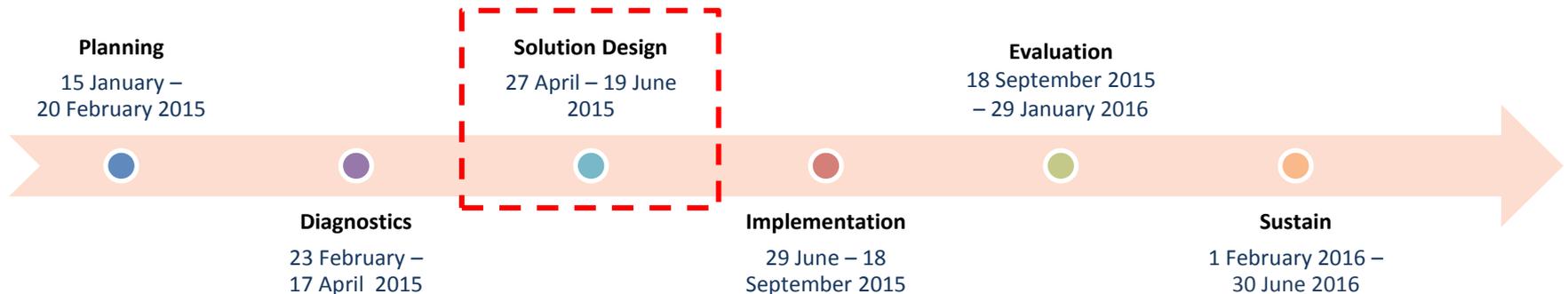
Next Steps

Next Steps

Solution Design

The Solution Design phase will commence the week of 27 April 2015 with a workshop combining the Gen Med and Older Person Working Groups on 1 May. This workshop will be facilitated by Sue Hughes (CRO-South) and conducted by Wilf Williams (Consultant from KPMG). The workshop will provide staff the opportunity to review the diagnostic report and prioritise the issues identified during the Diagnostic Phase. Once priorities are identified, agreement will be reached on exploring suggested solutions to solve the issues over the next few months.

Project timeline





Appendices

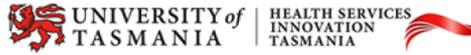
Appendix #1

Picker Institute 8 Dimensions of Patient-Centred Care

Theming tool (page 1)



Picker Institute 8



Dimensions of patient-centred care

For use in theming One-on-one and focus group interviews

Name of Interviewer Patient Details: Gender Male or Female (Circle) DOB..... Interviewee: Patient or Carer (Circle)

Pickering Dimension	Description of journey that fits dimension
Access to care	
Co-ordination of care	
Patients' preferences	

Appendix #1

Picker Institute 8 Dimensions of Patient-Centred Care

Theming tool (page 2)

Pickering Dimension	Description of journey that fits dimension
Information and education	
Physical Comfort	
Emotional Support	

Appendix #1

Picker Institute 8 Dimensions of Patient-Centred Care

Theming tool (page 3)

Pickering Dimension	Description of journey that fits dimension
Family and friends	
Continuity and transition	

Appendix #2

Waste Tool - APU, 1BN, AOPU & P3

Identifying Waste in the Workplace – for use in general observation, tracking or shadowing

Waste	Identified Examples of waste
Defects	
Over Processing	
Waiting	
Non Utilised people: Skills	
Transportation	
Inventory	
Motion	
Extra Processing	

Appendix #3

Waste Tool definitions - APU, 1BN, AOPU & P3

Downtime acronym– “Learning to see” waste

Waste	Definition	Examples	Causes
Defects	Work that contains errors or lacks value	Rework, outcome variation, medication errors	Lack of specification of required quality; lack of understanding of standards
Over-processing	Non value adding activities	Clarifying orders/instructions; missing medications or documentation; redundant information, unnecessary process steps	Complex flows Work layout/structure that doesn't promote continuous flow
Waiting	Idle time when people, information or materials/tools not at hand	Waiting for other workers or processes, e.g. registrar reviews, diagnostic results Patients waiting for a bed or discharge	Systems unresponsive to demand patterns; poor understanding of time required; poor accountability for delivery
Non Utilised people: Skills	Inappropriate or inefficient use of scarce skills	Limited application of skill mix within and across professional groups	History; professional boundaries
Transportation	Transporting parts and materials (patients) around the plant (hospital)	Moving patients to their home ward	High % of outliers, requiring multiple moves for Right place
Inventory	More materials on hand than required to do the job	Overstocked supplies or storage, e.g. medication, dressings	Supply/demand not understood
Motion	Non-value adding or unnecessary movement	Looking for materials; materials or 'tools' located away from work	Workarounds Imbalance of supply and demand Inconsistent info systems
Extra Processing	Redundant work	Duplicate charts or information collection Multiple forms/processes for same info Unnecessary or repeat diagnostics	Poor communication Records/IT systems not linked

Appendix #4

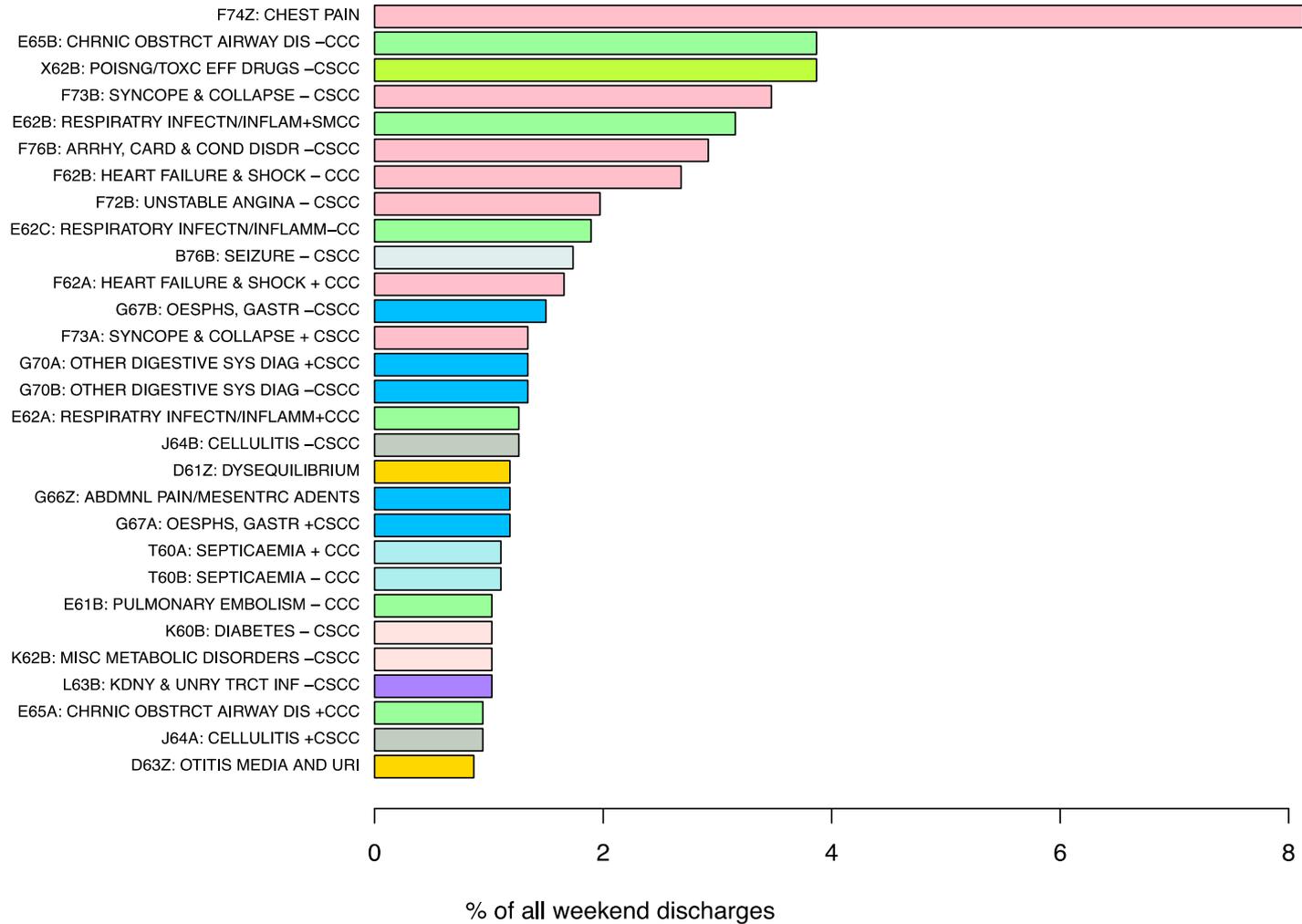
Waste Tool (process observations) - APU, 1BN, AOPU & P3

Waste Observation Tool – for use in observing a specific process or flow

Process Observed		Tally	Category of Waste							Impact				
Start point and time		Tally how often this issue occurs	Defects	Over Processing	Waiting	Non Utilised people : skills	Transport	Inventory	Motion	Extra processing	High	Medium	Low	
End Point and time														
Observation Date														
Observer														
Participants														
Location														
Process Step	Description of waste													

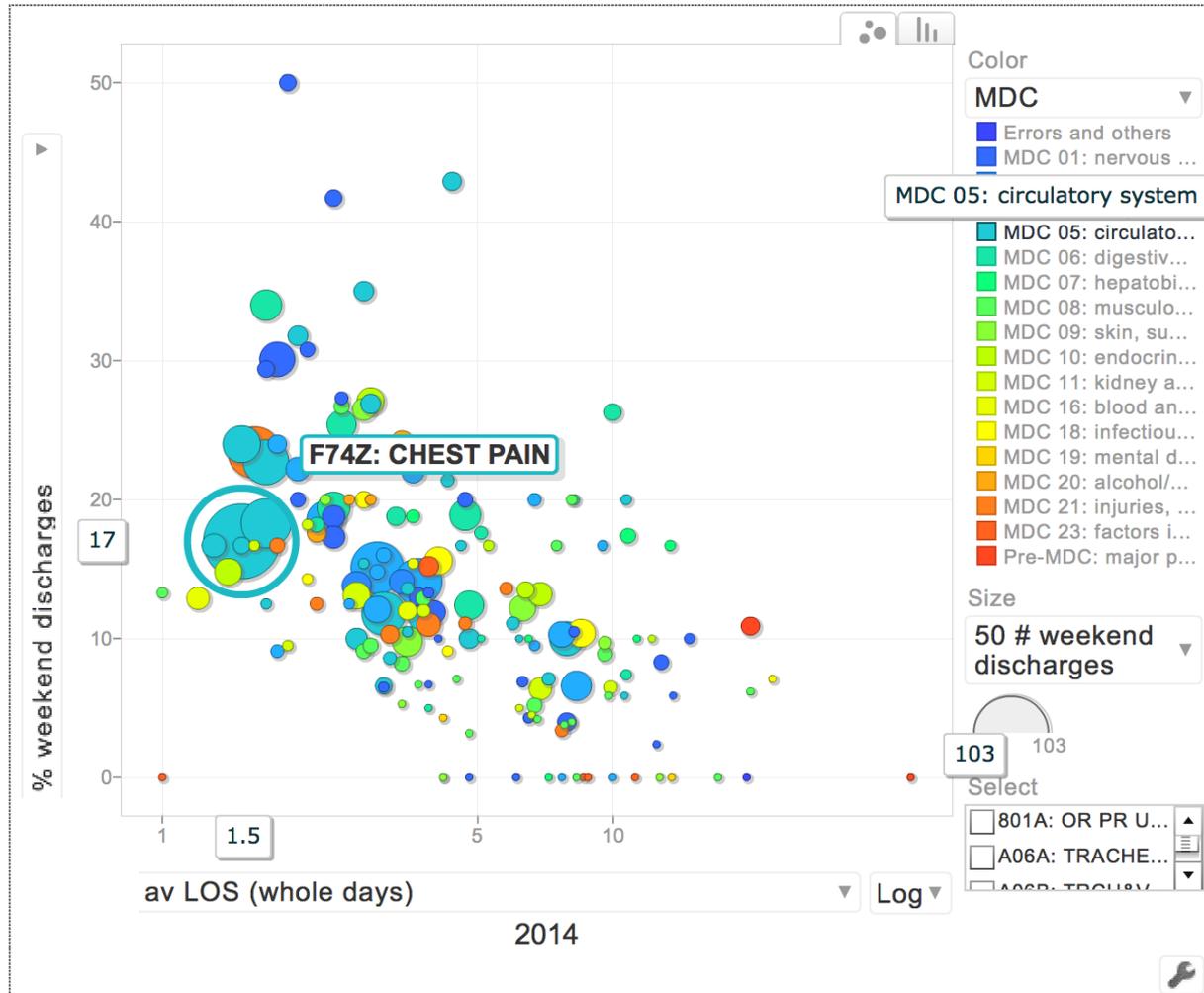
Appendix #5

DRGs with >10 weekend discharges over the past 2 years



Appendix #6

DRGs with a high percentage of weekend discharges (y-axis) tend to be those with a short average LOS (x-axis)



Appendix #7

Top 20 DRGs: Highest readmission rates

DRG	discharges	readmissions	readmission rate (%)
I12A: INFC/INFM BONE/JNT+MISC PR+CCC	9	5	55.6
L60C: RENAL FAILURE -CSCC	21	8	38.1
Z60A: REHABILITATION + CCC	16	6	37.5
U66Z: EATING & OBSESSV-COMPULSV DSRD	17	6	35.3
K62B: MISC METABOLIC DISORDERS -CSCC	54	15	27.8
F41B: CRC DSRD+AMI+INVA INVE PR-CSCC	19	5	26.3
I68B: NON-SURG SPINAL DISORDERS -CC	49	11	22.4
X64A: OTH INJ, POIS & TOX EF DX+CSCC	27	6	22.2
F62A: HEART FAILURE & SHOCK + CCC	208	46	22.1
E65B: CHRNIC OBSTRCT AIRWAY DIS -CCC	323	70	21.7
V60A: ALCOHOL INTOXICATN&WITHDRWL+CC	33	7	21.2
G66Z: ABDMNL PAIN/MESENTRC ADENTS	59	12	20.3
I68A: NON-SURG SPINAL DISORDERS +CC	76	15	19.7
Z61A: SIGNS AND SYMPTOMS	46	9	19.6
F60A: CRC DSRD+AMI-INVA INVE PR+CCC	42	8	19.0
G70A: OTHER DIGESTIVE SYS DIAG +CSCC	90	17	18.9
F76A: ARRHY, CARD & COND DISDR +CSCC	69	13	18.8
E69A: BRONCHITIS & ASTHMA +CC	27	5	18.5
F62B: HEART FAILURE & SHOCK - CCC	289	53	18.3
G70B: OTHER DIGESTIVE SYS DIAG -CSCC	50	9	18.0

Appendix #8

Top 20 DRGs: Number of readmissions

DRG	discharges	readmissions	readmission rate (%)
E65B: CHRNIC OBSTRCT AIRWAY DIS -CCC	323	70	21.7
F62B: HEART FAILURE & SHOCK - CCC	289	53	18.3
F74Z: CHEST PAIN	603	51	8.5
F62A: HEART FAILURE & SHOCK + CCC	208	46	22.1
E62B: RESPIRATRY INFECTN/INFLAM+SMCC	283	40	14.1
X62B: POISNG/TOXC EFF DRUGS -CSCC	201	32	15.9
E62A: RESPIRATRY INFECTN/INFLAMM+CCC	242	28	11.6
J64B: CELLULITIS -CSCC	163	22	13.5
E65A: CHRNIC OBSTRCT AIRWAY DIS +CCC	117	21	17.9
F76B: ARRHY, CARD & COND DISDR -CSCC	163	21	12.9
G67A: OESPHS, GASTR +CSCC	121	21	17.4
G70A: OTHER DIGESTIVE SYS DIAG +CSCC	90	17	18.9
F72B: UNSTABLE ANGINA - CSCC	103	16	15.5
J64A: CELLULITIS +CSCC	97	16	16.5
F73B: SYNCOPE & COLLAPSE - CSCC	241	15	6.2
I68A: NON-SURG SPINAL DISORDERS +CC	76	15	19.7
K62B: MISC METABOLIC DISORDERS -CSCC	54	15	27.8
B63Z: DMNTIA&CHRNIC DISTURB CRBRL FN	148	14	9.5
B64B: DELIRIUM-CCC	83	14	16.9
T60A: SEPTICAEMIA + CCC	131	14	10.7

Appendix #9

Details of the models for LOS and probability of readmission for general medical patients

- Multivariate linear regression was used to model $\log(\text{LOS})$ for medical patients as a function of age, sex, DRG, 17 Charlson comorbidities, admitting consultant, mode of separation, time of day of admission, day of week of admission, access block, whether patient was discharged from ED, and discharging specialty. Each of these factors was significantly associated with LOS after adjustment for all other factors in the model. Three other factors were tested for association with LOS, but were not significantly associated and were removed from the model: region of residence (South / North / NW / interstate), time since 1 October 2012 and season. All data came from a table provided by BIU, except for comorbidity information which came from ICD-10 codes provided by DHHS. The model was fitted to a dataset of 8972 admissions, not the full dataset of 9363 admissions (see slide 16). The number was reduced after eliminating a few admissions which could not be matched with the DHHS data, and a few admissions where LOS was less than 4 hours (which are outliers on the log scale).
- Multivariate logistic regression was used model probability of readmission of medical patients via a Tasmanian ED within 28 days. The model was fitted to 6411 of the 8972 admissions in the LOS regression model above: each patient's first general medical admission within the 2-year period. Admissions where patients died were excluded. All of the variables tested in the LOS regression model were tested for association with readmission, but no associations were significant apart from DRG and comorbidities.