Review of Access to Emergency Care at the Launceston General Hospital and Royal Hobart Hospital

Dr Andrew Staib, MBBS, FACEM
Dr Clair Sullivan, MBBS (Hons), MD, FRACP
Ms Jo Timms, RN NP

•TRICSI•

Translational Research Institute
Clinical Service Improvement and Innovation

Clinical Excellence Division | Queensland Government

Metro South Health

CONTENTS

TRICSI – *Review of Access to Emergency Care at the Launceston General Hospital and Royal Hobart Hospital*
Dr Clair Sullivan, Dr Andrew Staib, Ms Jo Timms

EXECUTIVE SUMMARY

On 5 April 2016, the Minister for the Tasmanian Health Services directed that the Tasmanian Patient Access Initiative "Patients First" be implemented in Tasmanian public hospitals(1). Included in this direction was a requirement to conduct a review of the Launceston General Hospital (LGH) and the Royal Hobart Hospital (RHH) Emergency Departments (EDs). This is the initial report submitted 31 August 2016.

Methods

Data was collected from previous reports and staff interviews.

Results

Overall, staff were engaged and keen to improve care for their patients.

They perceived structural, process and cultural barriers to more effective healthcare provision. Adverse media attention, unclear organisational chart and the misalignment of accountability for outcomes and the authority to enact change were common themes. The main safety and quality issue evident to staff was the difficulty in providing high quality care in difficult circumstances precipitated by overcrowding and delays.

Performance data, where available showed RHH and LGH had close to median performance nationally for several measures although benchmarking at LGH was largely absent. Very long waits for inpatient beds were evident at both sites. Data has not been freely available to clinicians to give guidance and safety monitoring for clinical redesign and improvement activities.

RECOMMENDATIONS

1. *Process recommendations*

   a. define "timely" and have this definition agreed for each phase of care (ED, inpatient, discharge)
   b. performance is benchmarked and communicated and data is available to staff to monitor and guide clinical redesign
   c. patients first initiative is prioritised and progress against previous Monaghan report is measured
   d. the case for a short stay unit (SSU) at LGH be considered in the light of accurate data including the potential impact on inpatient admissions and NEAT performance, but most importantly, the current numbers of patients who would benefit from SSU care
   e. excellent clinical redesign already underway is encouraged
   f. that ED staff have admitting rights against bilaterally agreed (between inpatient and ED staff) admission guidelines

    g. that escalation policies are implemented in a timely manner in order to pre-empt access block.

2. *Structural recommendations*

    a. Effective clinical leadership is prioritised at both sites
    b. contemporaneous organisational charts for both sites are released
    c. a structure be considered for inpatient services, particularly Medicine and Surgery, that facilitates streamlining and consistency of the ED-inpatient interface
    d. accountability for metrics and the associated authority to undertake process and policy change are aligned.

3. *Cultural recommendations*

    a. staff culture survey is released and an operational plan is completed to address findings
    b. staff updated on evidence that improved flow improves outcomes. Such shared understanding that the ED-inpatient interface affects patient outcomes should enhance ED and inpatient team collaboration to focus on improved flow
    c. a focus on data sharing and patient outcomes rather than just process measures such as time in order to accelerate clinical engagement
    d. patient outcomes must remain at the centre of all care delivered

BACKGROUND

On 5 April 2016, the Minister for the Tasmanian Health Services directed that the Tasmanian Patient Access Initiative "Patients First" be implemented in Tasmanian public hospitals(1). Included in this direction was a requirement to conduct a review of the Launceston General Hospital (LGH) and the Royal Hobart Hospital (RHH) Emergency Departments (EDs). This is the initial report submitted August 2016.

The Patients First review was prompted by negative media attention such as the report of a 95 year old female patient on the floor of the RHH ED, and a patient who experienced prolonged delays in receiving operative management of a traumatic injury at LGH(2, 3). The wider context of these distressing anecdotes is documented systematic delays in accessing timely care in the EDs of RHH and LGH (Appendix A).

The review was to include a particular focus on impediments to the delivery of a timely response to patients attending the emergency department, timely transfer of admitted patients to the wards, timely discharge from hospital as clinically appropriate, as well as structural, cultural and process-related barriers to flow across the wider hospitals. The definition of "timely" is unclear and varies according to the setting of the care (i.e. emergency care, outpatient care, discharge from hospital wait times).

Although media attention is focussed on delays in accessing emergency care, these delays are often the manifestation of system issues, with reduced patient flow across the hospital and out into the community resulting in limited access to inpatient beds precipitating "access block" for patients requiring admission from the ED(4).

Further, broader issues such as poor access to primary health care and aged care facilities can also influence demand on acute hospital services and subsequent access block.

Therefore, it is important to consider the issues with access to emergency care as the end result of system wide issues rather than simply an "ED problem".

We would like to acknowledge that the staff at both hospitals, despite having recently been subject to considerable adverse media attention and reports, were very cooperative and supportive of this review.

We would also like to acknowledge that outstanding clinicians were evident at both hospitals and that world class innovation is occurring at both sites. Although we have been asked to focus on impediments to patient care, the excellent work already underway in Tasmanian hospitals to systematically improve this care should also be formally acknowledged.

Patient participation

Unfortunately, the terms of reference did not include direct patient engagement, however there were numerous adverse patient stories detailed in the media.

However, a recent inpatient phone survey reported the following reassuring results:

At the end of July 2016 a total of 2232 Tasmanian patients participated in this survey which is administered through the Safety and Quality Unit. The full report is attached (Appendix B) as an appendix however salient points which should be highlighted include:

• 95% of those interviewed rated care provided to be of a good standard or above
• 90% stated they were always treated with respect and dignity

PURPOSE AND SCOPE

The purpose of the review is to assess the existing strategy for operational management arrangements of the LGH and RHH, with particular reference to the systems, processes and accountabilities in place to support the efficiency, effectiveness and safety of emergency department care and flow through emergency departments. Out of scope was detailed de novo operational analysis or full review of operational discharge processes and community care.

The scope of this initial review is to examine the issues as specified in Terms of Reference 1-3 of the Engagement Document (Appendix C)

1. Context
2. Governance and accountability
3. Principles for service delivery

OUTLINE OF THIS REVIEW

This review will

1. Provide context by describing THS and the findings of previous reports
2. Summarise contemporary scientific evidence surrounding access to emergency care
3. Detail the methods of data collection and collation for this report
4. Present a thematic analysis of the primary data collected during recent staff interviews and media reports within the context of previous reports
5. Specifically address terms of reference 1-3.
6. Discuss these findings in detail with a particular focus on systems and processes of improving access to emergency care.
7. Provide evidence-based high-level recommendations made to improve the quality and efficacy of emergency care for all Tasmanians.

HOSPITAL HEALTH CARE DELIVERY IN TASMANIA

Geography and Demographics

Tasmania is a small island state with a population of 515 000. It has some unique geographical and demographic features relevant to health care delivery.

The Tasmanian population is older, and is ageing faster than the national average(5). It has the lowest average annual wages and salaries income in the country. The Tasmanian population has a higher than average rate of dependency on social welfare (approximately 33%). This presents obvious economic challenges for the state. Rates of health literacy in Tasmania are lower than average for Australia, and there is a significant burden of chronic disease. All these factors contribute to demand for public hospital care which has proven difficult to meet.

Public Healthcare Delivery in Tasmania

The Department of Health and Human Services is the state government department responsible for hospitals in Tasmania. On 1 July 2015, the Tasmanian Government established the Tasmanian Health Service (THS) by amalgamating three existing Tasmanian Health Organisations. The THS has responsibility and accountability for governing and delivering high quality, efficient and integrated healthcare services in Tasmania through the public hospital system and primary and community health services(6).

There are two major public hospitals in Tasmania; Royal Hobart Hospital (RHH) and Launceston General Hospital (LGH). In addition, there are two regional hospitals (North West Regional Hospital in Burnie, and Mersey Community Hospital in Latrobe) and a number of small rural and community facilities throughout the state. RHH and LGH were the subject of this review.

The Australian Institute of Health and Welfare (AIHW) reports 2.3 inpatient beds per 1000 population for the state of Tasmania(7). This is in line with the remainder of Australia, however a significant proportion of these beds are situated in rural facilities, and not readily available for acute, specialised medical care. There is a perceived paucity of bulk-billing General Practitioners in many areas.

Although the geographical isolation of Tasmania necessitates that almost all specialised medical services are supplied within the state, the small number and low socioeconomic status of a large proportion of the population make recruitment and retention of specialist staff challenging.

It is against this challenging geographic and economic backdrop that emergency medical care is provided in the state.

SUMMARY OF THE RELEVANT SCIENTIFIC LITERATURE

When providing unscheduled, emergency care, there is potentially inherent tension between the goal of an individual clinician (which is usually to provide high quality care to an individual patient) and the goal of a healthcare organisation (which is broadly to provide timely, efficient care to as many patients as possible).

It is rare that an organisation openly reports and comments upon measures of patient outcomes which are important to individual clinicians (such as mortality or the number of surgical complications), however the hospital efficiency measures (such as waiting times in the emergency department or surgical waiting list times) are often open to public scrutiny and comment.

This focus on process measures by the hospital is not aligned with the individual clinicians' goals of providing high quality care. Clinicians (and particularly inpatient clinicians) provide focussed care to an individual patient and have a limited system wide perspective and no easily accessed visibility of measures of overall quality of care for their patients such as mortality.

This "blindness" of individual clinicians to patient outcomes at a system level during clinical redesign can create anxiety about their patients' outcomes and gives clinicians no confidence to engage in system reform on a large scale. Individual adverse patient outcomes can often derail important and beneficial clinical redesign if isolated negative incidents are not placed in the broader context of improved patient outcomes at a system level(8).

Clinicians can block attempts to improve patient flow because of these concerns that more rapid or streamlined processing of patients could harm quality of care (as seen in the well-publicised Midstaffordshire incident where patient flow was prioritised over the quality of care resulting in excess patient deaths)(9).

Organisations which have undergone successful clinical redesign and improvement in the area of patient flow have managed to coalesce the two potentially opposed goals of increased efficiency and increased quality of care and align their system to focus all efforts on improving outcomes for patients.

There is recent evidence that shows that efficient care does result in better outcomes for patients, if patient outcomes rather than these time measures, are used to guide and monitor the reforms(10).

Richardson, Sprivulis, Geelhoed and others pioneered this work showing an association between the amount of time spent in an Emergency Department and patient outcomes (11-13).

We recently undertook a systematic review of the literature in this area commissioned by the Queensland Department of Health. Reducing the amount of time in EDs is associated
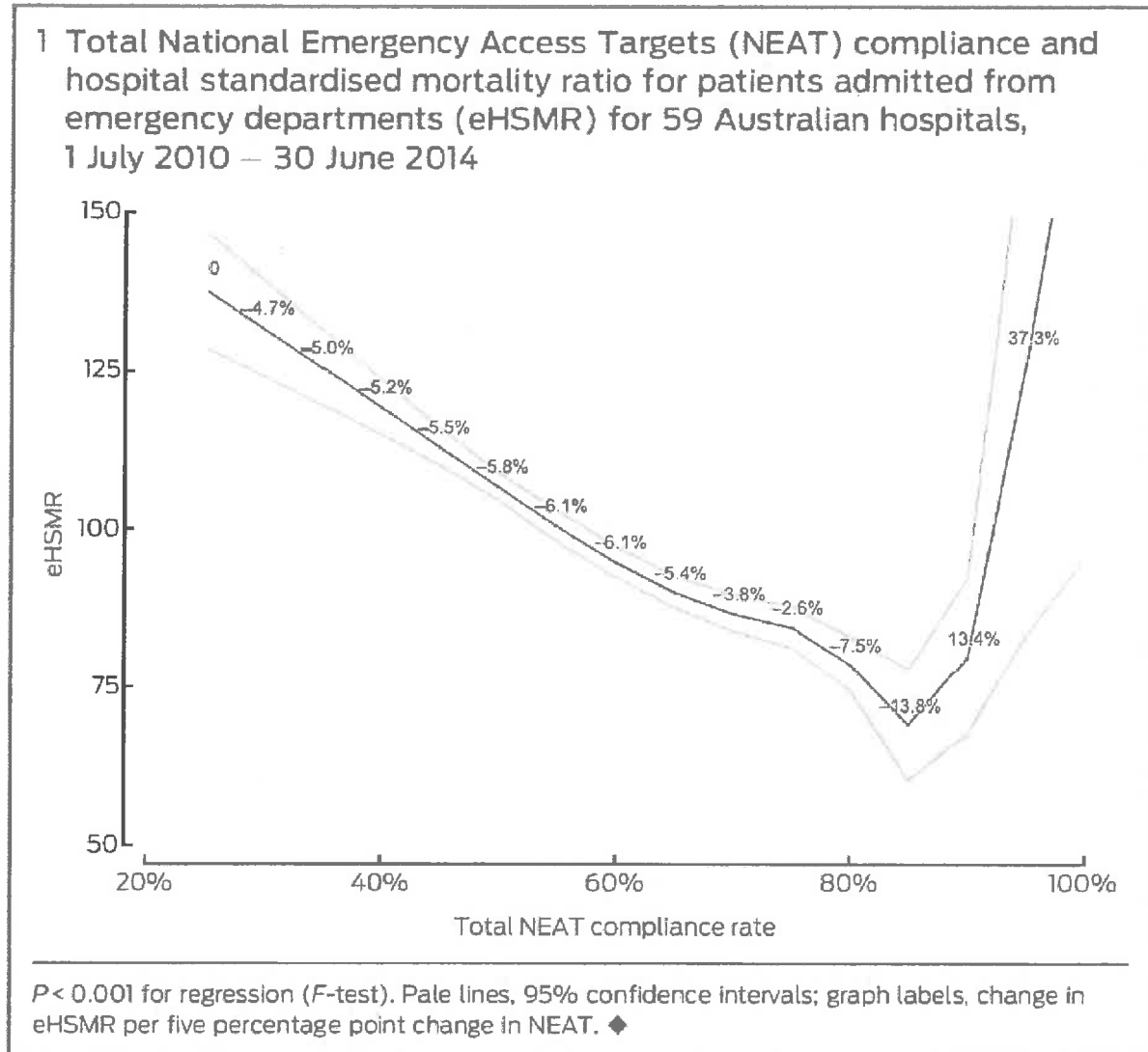
with better patient outcomes in the main, although it is critical to remember that monitoring the quality of care (as well as the timeliness) is essential to maintain safety during clinical redesign to improve patient flow (4).

It has been shown that halving the ED length of stay is associated with a halving of inpatient mortality(14). Detailed analysis of this cohort shows that elderly frail patients with cardiac and respiratory conditions are most likely to benefit from improved ED efficiency. This work has been reproduced at other sites (15, 16).

A recent big data analysis of 20 million episodes of care in Australian EDs showed improved four hour rule compliance was associated with an improved risk of inpatient mortality up to a threshold of 80-85% (Figure 1)(17).

Figure One(17)

1 Total National Emergency Access Targets (NEAT) compliance and hospital standardised mortality ratio for patients admitted from emergency departments (eHSMR) for 59 Australian hospitals, 1 July 2010 — 30 June 2014

$P < 0.001$ for regression (F-test). Pale lines, 95% confidence intervals; graph labels, change in eHSMR per five percentage point change in NEAT. ◆

In order to engage inpatient clinicians in improving patient flow, they must be able to see how alterations in flow affect the important clinical outcomes of their patients such as inpatient mortality. A recent Australian cloud-based dashboard has been developed which allows hospital executives, ED physicians and Inpatient clinicians to monitor patient flow measures such as NEAT and inpatient death rate in near real time(10) (Figure Two).

Figure Two. Dashboard for clinicians to monitor the ED-inpatient interface(10)
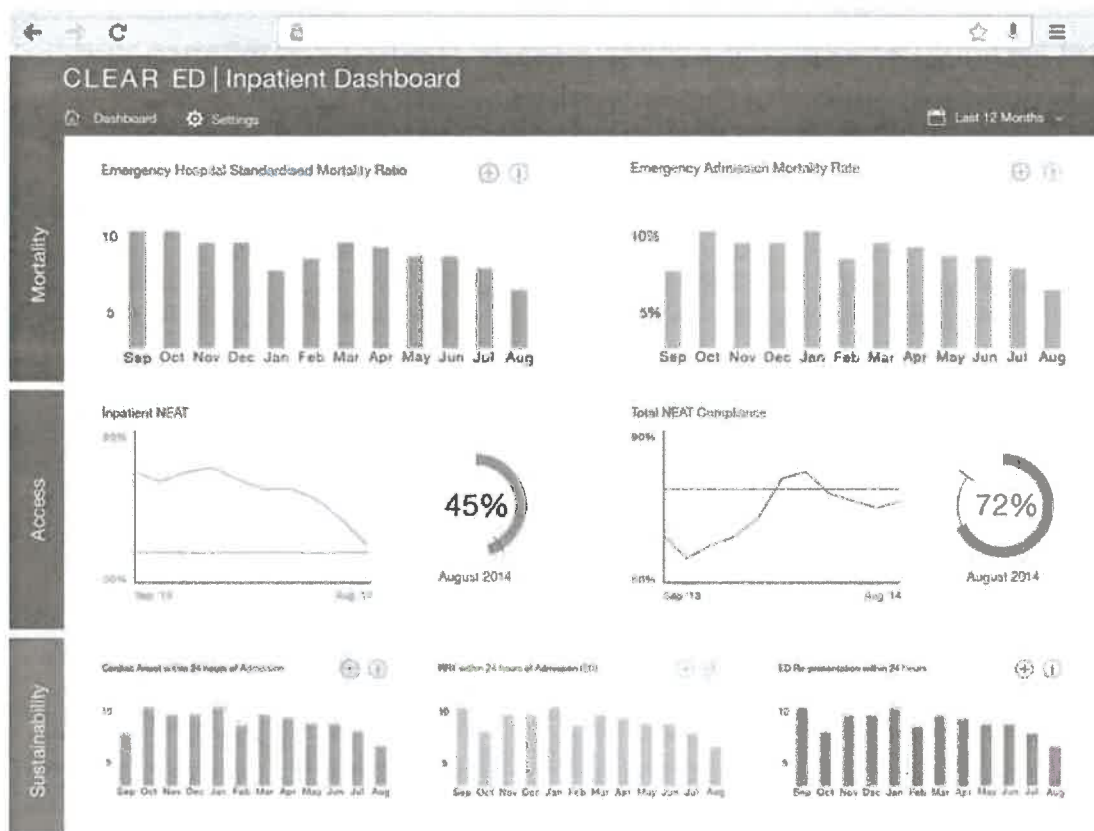
Such easy visibility of patient process measures and patient outcomes allows inpatient teams to engage in clinical redesign to improve flow while having the confidence to see that patient outcomes are satisfactory or potentially improving. A systems view of patient outcomes associated with clinical redesign allowed individual negative anecdotes to be contextualised with positive system outcomes and avoid derailment of clinical redesign by isolated (although potentially serious) anecdotes(10) .

METHODS

Governance, Roles and Responsibilities

- Relevant data was provided by the Department of Health and Human Services (DHHS) and included previous reports by, Health Services Innovation Tasmania (HIS) in 2014 and current operational and performance data.
- On site reviewing / interviews were undertaken by external reviewers.
- The DHHS provided previous reviews / reports for the review panel to comment / recommend on.
- The review panel included Dr Andrew Staib, Dr Clair Sullivan and Ms Jo Timms. This report was authored by Drs Staib and Sullivan and Ms Timms, and will be sent to the Secretary of the DHHS and Chief Executive Officer of the THS who are responsible for the commissioning of the report.

The background to this current review includes several previous reviews including the Monaghan Report from 2012 and reports generated by HSI in conjunction with Health Reform Consulting (2014-15) (Appendices D and E).

Background Data collection

Detailed review of existing reports, performance data, media coverage as provided by DHHS was undertaken.

Tasmanian Health Service Staff Participation

Interviews (formal and informal) were undertaken with key staff members (Appendix F) including THS CEO, Chief Operating Officer (COO), THS Group Director of Clinical Operations, Executive Director of Nursing RHH and the DHHS Principal Medical Advisor. The private interviews were unstructured and minuted.

Hospital Staff Participation

Open staff fora were held at RHH on 10/8/16 and LGH on 11/8/16. Staff fora were structured around several simple, open questions.

1. How is your hospital going?

2. How are you patients going?

3. What were the outcomes of previous reports?

4. How would you like to see things change?

5. Are there any safety and quality issues that keep you awake at night?

6. What are the good things about your hospital?

Staff fora were open to any available staff members and formally transcribed. Additional interviews were undertaken in person and via teleconference for RHH nursing staff and the LGH ED leadership group who were unable to attend the open fora. These meetings were reasonably well-attended and minuted (Appendix F).

Data Synthesis Methodology

Synthesis of the above information was undertaken by Drs Staib and Sullivan in the format of a narrative review including thematic analysis of collated data.

RESULTS

General

These will be presented as a thematic analysis of the raw data.

Previous reports and raw transcripts are attached (appendices D-I)

1. How is your hospital going?

RHH

Clinicians' views could be synthesised as:

1. Long waits in ED

2. Significant flow issues and ED crowding leading to concerns about care. The conditions that have resulted in this event are described below:

Comments from an ED physician:

"The ED is too small and RHH doesn't have enough inpatient beds to cope with periodic inevitable surges. I think we have become acclimatised to a standard of access (poor) and patient privacy (=very little) that most would not accept at any public hospital interstate.

Access block undoubtedly contributes to this problem and makes the department very unsafe, as we often have to function minus a large number of beds taken by admitted patients. But even without access block, we find it difficult to deal with presentation surges without resorting to public examinations in front of other patients, people being examined in chairs (when they should be in gowns in beds) etc etc.

There is no daily circulation of accurate data on occupancy, performance by national benchmarks etc. We seem to find out well after the fact if at all. We need a bit more transparency so all senior staff can see where we are "at" as an organisation (and by individual unit) on a daily basis. It needs to be graphical and easy to understand, with historical comparisons. The culture of secrecy, data hoarding and fear of The Mercury (our local newspaper) needs to stop. Let everyone see the pressure we are under. RHH is a public institution and such data should not be kept secret anyway. In fact, if it is out there every day it ceases to be news!

The hospital remains reactive rather than proactive. We focus on an "after the fact" escalation policy that inevitably allows preventable harm to be visited on our patients. We need a major cultural shift so that when, at 3 pm we identify that there will not be sufficient beds available the NEXT morning for the very predictable surge in admissions, urgent steps are taken at the highest level to make sure beds are going to be available."

The reporting of these events in the media is harming hospital morale and potentially demoralising staff who were attempting to improve flow.

3.   A lack of clear reporting lines in the organisational structure makes clinical redesign difficult

4.   The clinicians were frustrated as they feel they have lots of good ideas for improving flow but inadequate structure to rapidly facilitate translation of ideas into practice: they would like "permission to act "

Comments from an inpatient physician:

"I think our hospital is doing really well. I think that what we're lacking is a sense of admiration and a sense of vision and a sense of goals. That's what we lack. I think that as a result of our ever changing government structure, and the individuals within that structure, I think that's where we've lost that direction, and I'm very hopeful that we're perhaps turning that around, but that's still very – very jaded probably might be the right word, I don't know but still very – very – we're still very fragile and we're still at high risk of not gaining that vision and that kind of goal directed journey, and I think that for us as a health service, not just as a hospital, that is one of the key things we need to change. Because many of us who are in middle management, or at the coal face, really do desire that high level leadership – that higher level acknowledgement – that higher level permission to act in order to go forward, and we haven't had that as a solid entity for about – well as long as I've worked here which is 15 years now."

5.   Lack of clearly visible strategic plan: clinicians would like effective clinical leadership at all levels, striving towards clearly articulated, consistent goals

6.   Data use. Data is not readily available to inform and monitor clinical redesign

7.   There are concerns that accountability and authority are not aligned. This is hindering improvement efforts

LGH

Clinicians' views could be synthesised as:

1.   Reasonably happy but recent events in ED have been difficult
2.   Appointment of a new ED director is seen as a very positive step

3. Lots of improvement and clinical redesign work is currently underway

4. Conflicting views between ED and inpatient teams about the effectiveness of the Emergency Medical Unit (EMU)

5. There is no functioning ED short stay unit and the consensus was that this was required (potentially in addition to the EMU)

6. There was agreement with RHH concerns about unclear clinical leadership, particularly who to ask to effectively and rapidly facilitate clinical design

2. How are your patients going?

RHH

The consensus was overall reasonable but concerns about delayed access to care.

LGH

The consensus was overall reasonable but again concerns about delayed access to care. There were concerns that this poor access was affecting recruitment and potentially accreditation although the new ED director had dramatically improved the outlook.

3. What were the outcomes of previous reports?

RHH

Some positive outcomes but frustration at implementing change due to evolving clinical leadership structures.

LGH

Many clinicians were unaware of these reports. There was some frustration that LGH and RHH had not been considered separately.

4. How would you like to see things change?

RHH

Clinicians' views could be synthesised as:

1. Align accountability and authority with clear leadership and new organisational chart

2. Improve culture and staff morale
3. Better and more positive media coverage

4. Improve focus on the rest of the hospital and not just ED when it comes to accessing inpatient admission

5. More beds

6. Using open and transparent data to guide and monitor clinical redesign

LGH

Clinicians' views could be synthesised as:

Overall, similar to RHH and in addition:

1. Recruitment is an issue and human resources department is very slow to fill positions

2. Recruitment and retention of specialist emergency physicians is a major issue

3. Reduced allied health funding is impacting upon remaining staff

4. The interface with aged care and community sector is difficult and poorly coordinated.

5. Are there any safety and quality issues that keep you awake at night?

RHH

Overall no major safety issues concerning clinicians, however poor access to inpatient beds and delays in ED make maintaining quality of care very difficult for the dedicated staff members.

LGH

Overall no major safety issues concerning clinicians, however poor access to inpatient beds and delays in ED make maintaining quality of care very difficult for the dedicated staff members.

The lack of easily accessible patient outcome data to reassure staff and guide and monitor redesign and improvement is an issue.

6. What are the good things about your hospital?

RHH

1. Clinicians at RHH were overall very proud of their hospital and colleagues

2. World class innovation is occurring at RHH

3. Good teamwork could allow excellent redesign

LGH

1. Clinicians at LGH were overall very proud of their hospital and colleagues

2. Teamwork is excellent

3. Good infrastructure

4. Successful accreditation

5. World class innovation and clinical redesign is occurring at LGH

Results Specific to Terms of Reference

TOR 1 – Context

1.1. Historical and current performance in the domain of patient flow vs current capacity, in terms of:
1.1.1. Metrics under the control of the Emergency Department
1.1.2. Metrics under the control of inpatient services

TOR 1.1.1 and 1.1.2 are described together below because
- Documentation as to which metrics are considered under the control of the Emergency Department and which are under the control of inpatient services was not available. Governance structures and Key Performance Indicators (KPIs) at both sites do not delineate who is accountable and has the authority to impact specific metrics (Pers comm Bridget Jones, Director Strategy Planning and Performance, and the project team).
- There is a body of evidence detailing the impact of hospital access block on ED overcrowding and the care delivered to all emergency patients
- A consistent theme from the interviews and fora at both sites was that the ED staff were hampered in their efforts to provide timely and quality care to all ED patients because of lack of access to appropriate ED treatment areas due to overcrowding with inpatients.

RHH

RHH performance was assessed using data collated by Health Roundtable (HRT) for the calendar year of 2015, HSI report 2014, and April 2016 hospital performance data as supplied by the department. Relevant performance data is summarised in Table 1. Comparisons with peers are based on HRT peer groups.

Interpretation -
The majority of RHH performance metrics are in the "middle of the pack" when compared to peers. The area where RHH performs below the majority of its peers is in emergency access to inpatient beds for admission. This manifests as prolonged stays in the ED after emergency care is completed (access block). Although discharged patient NEAT, did not wait measures and triage performance measures are commonly considered to be under the control of the emergency department, there is evidence that ED overcrowding due to access block can contribute to adverse process and patient outcomes in these areas. The data and information provided by the clinicians at RHH would suggest a significant contribution to reduced ED performance in these areas is due to lack of access to treatment areas due to ED overcrowding.

LGH

LGH does not currently subscribe to the Health Roundtable. As such, comparative performance data is less available than for RHH. Performance for LGH was assessed using a state-wide high level performance report from August 2016 and data compiled by HSI Tasmania for Healthcare Reform Consulting in 2014 (Appendix E). Performance data is summarised in Table 1. Comparison comments are made based on the reviewers' experience with similar hospitals.

Interpretation -
Although available data is limited the most notable feature is the very long ED length of stay for admitted patients. The majority of this time seems to occur after the decision to admit has been made. The data records an average 6.04 hrs from bed request to bed allocated. Staff report lack of availability of acute treatment cubicles due to high numbers of admitted patients (sometimes over half of the available acute cubicle spaces) impacts on their ability to provide timely and appropriate care to new patients, and impacts on the ability of the ED to meet performance targets in areas generally considered to be under the "control" of the ED. They also report problems with providing inpatient care to admitted patients who are unable to leave ED due to lack of inpatient bed availability.

Table 1. Emergency Access Performance Metrics for RHH and LGH

Performance Metric	RHH (2015)	Comment (RHH)	LGH (2015)	Comment (LGH)
ED Attendances	57780		43946	
Admission Rate	33%	Lower than peers	23%	
Growth	4.5%		-2%	
Total NEAT	58%	Middle group in HRT peers. Had improved to 70% in April 2016	61%	
Admitted patient NEAT	29%	Bottom Quartile for peers for 2015. Improved to 37 in April 2016.	20%	
Discharged Patient NEAT	71%	Middle quartile for peers. Increase to 86% in May 2016 with additional staff and geographical team MOC	77%	
Average ED Length of Stay (All Patients)	3.3hrs	Middle quartile for HRT peers	6.4 hours	
Average ED Length of Stay (Admitted Patients)	7.6hrs	Bottom quartile for peers	14 hours	HSI report 2014. Abnormally long for any hospital
DNW/LATC Rate	6.1%	Middle of peer group	3.2%	
Time until 90% of patients depart	15.7 hours	Second last in peer group	37.8 hours	Reduced from 2014/15 FY(44.8), but significantly longer than comparable hospitals whose average is 9.5 hours.
Bed wait time (Time from bed request to arriving in bed)	3hrs45mins	Long for peers Target time in most hospitals is <1 hour, and most achieve 1-2 hours	6hr.04 mins	Significantly long. Target time in most hospitals is <1 hour, and most achieve 1-2 hours
Hospital Standardised Mortality Ratio	86.2	Middle of HRT hospitals	n/a	
Emergency Hospital Standardised Mortality Ratio	90.2	Middle of HRT hospitals	n/a	

1.2. Magnitude of the impact of "access block" (delay for admitted patients to be moved to an inpatient bed) on the hospitals' emergency department, including:

1.2.1. Quantification of access block, including benchmarking against comparable hospitals.

See Table 1 and section 1.1. Both hospitals report significant issues with access block. Staff and executive at both hospitals reported that it was common for their EDs to be more than 50% occupied by admitted patients awaiting inpatient beds. High levels of ED treatment space occupancy by admitted patients is strongly associated with decreased NEAT performance(18).

1.2.2. Effective resultant reduction in emergency department capacity including but not limited to an analysis of flow vs capacity by patient type by disposition (incl. wait times, treatment times and time spent in ED as "inpatient".

Measures have been undertaken at both hospitals to reduce the magnitude and extent of very long waits for inpatient beds for emergency admissions. These have been associated with some improvement in access block (Table 1). However ED overcrowding due to access block remains the number one issue at both sites, and performance in this area remains below the majority of peer hospitals.

1.2.3. Performance impact on access block, including but not limited to "Did Not Wait" rates, patients stays of longer than 24 hours, and notable adverse clinical events or near misses.

See Table 1. Data supplied in this area was limited, and staff reported lack of visibility or transparency of data particularly in the area of adverse clinical events and near misses.

1.3. Hospital- and service-wide structural, cultural and process-related issues that impact negatively on patient flow throughout the hospital, including:

1.3.1. An analysis of admission decision points and pathways, including the appropriateness of emergency physician rights on "decision to admit".

In both hospitals, there was no ability for ED physicians to have admission rights to the inpatient wards. Attempts had been made previously but there was opposition from inpatient teams. The reason for this reluctance remains unclear.

It is unlikely that unilateral provision of a "right to admit" for ED physicians will have significant impact in the absence of inpatient bed availability and bilateral agreement from ED and inpatient clinicians. Direct admission of suitable patients from ED to inpatient wards prior to inpatient team review is part of most contemporary emergency admission systems (4, 14). This is most effective with strong collaboration between ED and inpatient teams acting on contemporary evidence of processes that facilitate improved patient outcomes.

1.3.2. Implementation of recommendations from previous reviews of emergency department function.

Progress reports on Departmental Performance Improvement Plans addressing the time taken until 90% of admitted patients have left the ED were provided (Appendix A). The most recent performance recorded for LGH was for December 2015. This recorded a measure of 25.53 hours. Previous months had been between 40 and 50 hrs. The stated target is 8 hours.

Progress against recommendations is detailed in this report. Staff reported improvement in many areas, and a feeling of progress. However, they also stated that this progress was being overcome by growth in presentations and subsequent admissions, leading to little change in ED overcrowding.

The Director of LGH ED was in the first week in her position. In her four years as a staff specialist and director of training in the department, she had not been made aware of the findings or recommendations of previous reviews.

1.3.3. Incorporation of established and recent evidence guiding appropriate access targets

The specific target for access to emergency care in Tasmania is unclear. Recent evidence for emergency access targets is summarised above. A major target appears to be the time taken until 90% of admitted patients have left the ED. The evidence for this target is limited, and as it is a non-standard measure, makes benchmarking against interstate peers difficult. Clear and consistent articulation of the organizational target for emergency access is required.

The LGH ED does not have a short stay unit. The reasons for this are complicated and somewhat unclear, but appear to include difficulties with the ability to resource with emergency physicians, and the existence of an alternative acute medical team to care for admitted medical patients in the ED which utilises the space.

1.3.4. Incorporation of significant reforms and the extent to which they have transformed service delivery, particularly timely patient flow for emergency admissions.

Significant and innovative redesign activities have been undertaken in both hospitals in the past year (Appendices H-J). This has seen some improvements in access performance metrics (Table 1), and especially at the LGH, contribute to a sense of optimism amongst many of the clinical staff. However, staff at both sites report concerns that these changes will not see significant or sustained improvements in the context of growth in presentations and uncertain organisational structures. Staff at both sites report having to compromise the timeliness and quality of care that they give because of ED overcrowding and difficulty accessing appropriate ED treatment areas for new patients.

TOR 2 - Governance and Accountabilities

> *2.1 Clinical governance and leadership within the organisation, including but not limited to:*
>
>> *2.1.1 Regular, effective meetings with key stakeholders in the nursing, medical, allied health and administrative domains.*

There were no contemporaneous organisational charts available for either hospital. This is congruent with our thematic analysis which reports staff at both hospitals are experiencing some confusion over middle management structures. Themes that emerged at both sites include issues with

- Existence of contemporaneous leadership structures at the middle management level
- Lack of consistency at the senior clinician level, particularly with respect to medical leadership
- Alignment of roles with authority to make change-
  - many leaders reported frustration with a system that made implementing change difficult as it was unclear where the permission to act lay
- Illustrative comments include
  - *"We know what to do, we just need to be able to get on and do it"*
  - *"We need permission to act"*
  - *"It takes too long to get anything done because no-one knows who is responsible"*
  - *"We are happy to work with any governance structure. We just need to know what it is and stick to it"*
  - *"I don't know who to email about that anymore"*

>> *2.1.2 Cross divisional medical collaboration in order to identify opportunities for service improvement*

There did not seem to a clear divisional structure. Clinical stream structures exist to some extent at both RHH and LGH, however all are undergoing a current restructure.

>> *2.1.3 Demonstrable point accountability and leadership from medical and nursing leaders.*

See 2.1.2. Day to day leadership currently seems to be predominantly non-medical which can present problems when clinical decisions need to be made regarding prioritisation and clinical implementation of escalation measures. Strong "on the ground" clinical leadership was present at both sites. There was some lack of clarity regarding reporting lines with the organisational charts for middle management still in evolution

> *2.2 Accountability for transfer of patients within hospitals.*

Both hospitals have recently restructured patient flow units and escalation policies. Day to day accountabilities for individual process steps were not examined by this review.

2.3 Role of the hospitals' executives in managing occupancy, particularly at time of crisis.

Escalation plans had recently been redeveloped at both hospitals, and were implemented as part of the Patients First initiatives on 18/5/16.

At RHH, the escalation policy has been helpful although staff reported that the impact of the escalation policy was limited by its reactive nature (i.e. was only deployed after the problem existed) and required some refinement and increased presence of senior medical leadership and department heads in solution development. Ideally, the policy would not be necessary as more proactive efforts would reduce the chance of access escalations occurring. The existence of a more pre-emptive escalation strategy will be facilitated by enhanced access to accurate, timely relevant consistent ED and inpatient access and occupancy data.

TOR 3 - Principles for Service Delivery

3.1 Recommendation of suitable principles for care.

Several hospitals in Australia have developed their own principles or standards for care of patients requiring emergency admission to hospital. The Alfred's timely quality care system in Victoria is one such example. Tasmania has taken the first steps in this direction with some of the Patients First initiatives. The reviewers have been asked to comment on the principles of ED care published in the Patients First initiative.

It is noted that that Action 3 of the Patients First initiative attempts to address the goal of establishing transparent, published principles for ED care. Those involved should be commended for the work undertaken so far.

It is beyond the scope of this review to recommend specific standards or directives for care, however the THS Patients First Report dated 19/7/2016 calls for this review to consider and advise on the planned principles documented in Action 3.

The relevant section of the Patients First report is included below. Reviewers' comments and advice are included in italics.

Transparent, published principles for ED Care

Executive Sponsor – Executive Director for Patient Safety, Dr Annette Pantle

The objective of this action is:
  – To ensure that all staff across the THS have knowledge and understanding of the THS Principles for ED Care.

Reviewers' Comment:

Although it is impossible to enforce delivery of these principles 100% of the time, an objective to have awareness and understanding of the principles commendable. Successes in

achieving these principles should be monitored and promoted, with analysis and development of the successful underlying factors that contribute to achieving the principles.

Actions to date

A synopsis of guidelines of ACEM and the Australian College of Emergency Nursing has been completed. The ED Clinical Advisory Group (CAG) considered the Alfred Hospital's Six Principles of Timely Quality Care and other suggested principles and have proposed the following nine hospital-wide principles of care to enable optimal patient flow:

Reviewers' Comment:

The team should be commended on their work in this area to date. They provide an excellent starting point for discussion with the wider health system community. Successful consistent delivery of care that upholds these principles will require the enthusiastic agreement and participation of the wider hospital and healthcare community.

1. On arrival to ED, all patients will be seen within 30 minutes by a member of a consultant-led, interdisciplinary team who will initiate assessment, investigations and treatment.

Reviewers' Comment:

This is an admirable intention, and aligned with contemporary ED clinical management evidence. However, successful delivery is dependent on more than just an ED team. It requires patient access to appropriate treatment spaces, and support of the remainder of the system to aid delivery of the required investigations and treatment. Current metrics that assess ED treatment wait times by triage category are not aligned with this principle. Consideration should be given to the requirements of the ED to be able to deliver on this principle, and the development of data collection and reporting mechanisms that accurately measure the delivery of this aspect of care.

2. Patients will be discharged from the ED or admitted to the hospital as decided by the ED consultant staff.

Reviewers' Comment:

Direct admission of suitable patients from ED to inpatient wards prior to inpatient team review is part of most contemporary emergency admission systems (4, 14).

In both hospitals, there is currently no ability for ED physicians to have admission rights to the inpatient wards. Attempts had been made previously but there was opposition from inpatient teams. The reason for this reluctance remains unclear. It is unlikely that unilateral provision of a "right to admit" for ED physicians will have significant impact in the absence of inpatient bed availability and bilateral agreement from ED and inpatient clinicians. Updating some inpatient clinicians on recent publications and best practice elsewhere may be useful.

3. Patients will be reviewed by an inpatient team within two hours of arrival on a ward.

Reviewers' Comment:

This too is an admirable intention, aligned with principles of quality patient care, and the understanding that patients requiring emergency admission to hospital are at higher risk of adverse outcomes than most other patients(19).

Successful, sustained change in this area will require agreement and change by inpatient teams. In most hospitals, this involves the reallocation of medical staff priorities in their clinical duties. Reprioritization of emergency patients over elective and outpatient duties is commonly required. Many inpatient services will alter their arrangements to always have one appropriate medical staff member available for these emergency patients. For improvements in this area to be achieved and sustained, adequate reporting of data (including patient outcomes) must be available to clinical heads of units and senior medical leadership.

4. Patients will be admitted to a bed in the most appropriate clinical place, first time.

Reviewer's Comment:

The incidence of adverse clinical events is higher amongst patients outlied from the home ward of their treating team. Responsibility for delivery of this principle should be clearly aligned with the authority to make operational decisions to achieve this goal. These decisions are commonly clinical decisions of priority, and require high level medical involvement. To achieve this, the responsible unit (such as the patient flow unit) will require senior medical leadership or support.

5. Patients will have investigations, consultations and interventions completed as soon as possible, in order of request or clinical priority and where practical within 24/24.

Reviewer's Comment:

This may require re-prioritization of resource allocation. This will require bilateral co-operation between services, and a detailed understanding of current impediments to achieving this goal. The ability to record and analyse data in this area will help plan system redesign. Departments and inpatient teams responsible for providing these services should have the authority to make changes to their systems to achieve this goal.

6. Patients will be reviewed daily by a decision-making clinician in collaboration with the patient/carer.

Reviewers' Comment:

This is part of contemporary hospital flow management, and a component of quality patient care. Again, current impediments to deliver of this principle should be understood, and an agreed way forward developed.

7. Hospital resources, including human resources, will be allocated according to system priorities based upon accurate data.

Reviewers' Comment:

These system priorities should align with the stated principles. In a world of limited resources, lower priority endeavours need to be acknowledged and communicated. An accurate system for assessing the impacts of these allocations on patients, staff and hospital outcomes should be established.

8. Working hours and rosters for front line clinicians will be managed to ensure staff are available when required to ensure safe patient care.

Reviewers' Comment:

This needs to be aligned with competing organizational priorities so as to be practically possible. Areas of lower priority need to be articulated, and the impacts monitored and reported.

9. Patients will be cared for in the facility most appropriate to their current clinical need ensuring they are only in hospital for as long as clinically necessary.

Reviewers' Comment:

This will require the agreement and practical support of the other facilities. The physical capability of the rural and subacute sites may need to be matched by human resource capability to meet this demand.

Further stakeholder consultation and consumer engagement is being progressed. The principles will be considered and advice provided by the external reviewers engaged to complete the external review of the LGH and RHH EDs.

Next Steps

A mandatory training module will be developed for THS staff to ensure that the principles are embedded in the organisation. This will be incorporated into the mandatory training database to be completed by all acute care clinical staff, including SMP and VMPs)

Reviewers' Comment:

Mandatory training should occur after further stakeholder engagement, agreement and development of operational plans for delivery of these principles. These activities should be supported by a clear, stable organizational governance structure which aligns accountability for outcomes with the authority to make changes to achieve those outcomes.

Activities	Milestones	Status	Mitigating Strategies
Synopsis of Guidelines of Australasian College for Emergency Medicine and Australian College of Emergency Nursing.	1 May 2016		
ED CAG to discuss Alfred Hospital 6 Principles of Timely quality Care and other suggested principles.	3 May 2016		
Stakeholder consultation period	30 June 2016		Being progressed by Executive Director for Patient Safety.
Consumer engagement	30 June 2016		Being progressed by Executive Director for Patient Safety.
Recommendations by external reviewers	31 August 2016		

Review of the literature and the combined experience of the authors does permit discussion of the principles or themes that are likely to guide successful change in this area.

1) All aspects of the organisation must be aligned in delivering any individual principle for care.
   a. This includes executive, medical and non-medical clinical leadership in all relevant areas
   b. If all relevant areas are not able to agree on the way to deliver an outcome, then analysis if that disagreement should occur until a mutually acceptable way to achieve the best possible care for the target patient group is found
   c. Unilateral imposition of rules on clinicians is rarely successful, and can have significant negative impacts on culture and innovation
   d. Principles and standards should align with the organisational strategy and vision

2) Principles should be complementary and not at odds with each other.

3) Governance structures should be clearly articulated and support the delivery of the stated standards of care.
   a. Accountability for delivery should be matched with authority to undertake change to achieve the stated aims
   b. Stability of any given governance structure is important

4) Positive organisational culture is important for undertaking successful change. Reporting and management should have a significant focus on the positive, when things are done well and excellent care is delivered. The factors leading to success and positive outcomes should be analysed and communicated across the system and publicly. An isolated focus on negative outcomes and failure to meet expectations can contribute to a negative organisational culture.

5) Any standard for care delivery should be evidence based, measurable and patient focussed. Transparent systems for monitoring should be developed at the same time as development of the standard.

6) At all times, patient outcomes should be kept at the centre of decision making and development of system redesign interventions

DISCUSSION

The THS is to be commended for the focus on improving the access for patients requiring emergency care to hospital. The Patients First initiative has started a statewide discussion on optimising emergency care for this vulnerable group of patients.

This review has been asked to take a particular focus on impediments to the delivery of a timely response to patients attending the emergency department, timely transfer of admitted patients to the wards, timely discharge from hospital as clinically appropriate, as well as structural, cultural and process related barriers to flow across the wider hospitals.

The patient journey through a hospital is complex and requires several interfaces between different silos of care. The most prominent and problematic interfaces are between ED and the inpatient wards and between the inpatient teams and primary care. The ED-inpatient interface (EDii) has received much adverse attention within THS.

We have synthesised the results of our review for discussion at several levels.

Firstly, we will discuss impediments to timely care within the ED, inpatient wards and at discharge to the community.

The definition of "timely" is not clear in the TOR of this review. Where possible, the reviewers have benchmarked against accepted time measure such as NEAT. A statewide definition of this term for each of these phases of care is necessary to benchmark and monitor progress.

Secondly, we will look at barriers to flow across the wide hospital (structural, cultural and process-related).

1. Impediments to timely care

- *Impediments to the delivery of a timely response to patients attending the emergency department*

The performance of the Tasmanian hospitals against the NEAT is in the middle group when compared to other Australian hospitals. NEAT however is a blunt measure of ED timely care with prolonged stays not measured using this metric. The average ED LOS for all patients is middle quartile when compared to other Australian hospitals however; the average ED LOS for admitted patients is in the bottom quartile when compared to peer hospitals. These significant delays to care for emergency admissions are reflected in the adverse media reports.

The main impediments to timely care appear to be delays in accessing inpatient beds due to a difficult ED-inpatient interface and reduced flow.

— *Impediments to timely transfer of admitted patients to the wards*

There do appear to be significant delays in transfer of admitted patients to the inpatient wards from the ED. The average ED LOS at RHH is 7.6 hrs and at 14 hrs (although this is confounded by the EMU). The wait for beds in both departments is excessive. Reasons for this include reduced whole of hospital flow with delayed discharges reducing access to inpatient beds. Many inpatient physicians are very engaged in the ED-inpatient interface (notably general medicine at both sites).

— *Timely discharge from hospital as clinically appropriate*

Although no benchmarked data was available at the time of writing, inpatient LOS at LGH and RHH, the LOS appear reasonable (Appendix M). Good work is underway with patients first and criteria led discharge.

Problems with rehabilitation availability and patient transport home from hospital exist and the disparate funding sources between hospital and community care contribute to a lack of integrated care for Tasmanian patients as elsewhere in Australia.

2. Barriers to Flow across the Wider Hospital

— *Structural barriers to flow across the wider hospitals.*

The lack of a current organisational chart at both hospitals is creating some structural barriers to clinical redesign to facilitate improved patient flow. Staff describe wanting "permission to act" to carry out changes to process and policy, but are unclear who can facilitate these changes.

There is no current functional divisional structure so the ED may have to engage with several directors for medicine such as general medicine and subspecialty units such as cardiology rather than a single physician with governance over all medical areas,

A lack of patient outcome data is also hindering clinical redesign and means that inpatient teams many have little visibility or appreciation of access issues and the impact delays to care can have on patient outcomes.

— *Cultural barriers to flow across the wider hospitals.*

There are cultural barriers to improving flow, with ED clinicians quite frustrated and some inpatient teams relatively disengaged.

A survey of staff culture has been undertaken although the results are not available at the time of writing. Staff morale has been damaged by adverse media reporting. The excellent work underway at both sites receives scant positive media attention.

– *Process-related barriers to flow across the wider hospitals*

Process barriers to improved flow include:

1. Lack of a clear target (need an agreed statewide definition of "timely" for each phase of care)

2. An inability to monitor patient outcomes during clinical redesign which impairs clinical engagement

3. Accountability for performance and the authority to enact improvement are not aligned. Accountability for performance metrics currently resides with clinicians, however they currently feel they have little authority to facilitate system change

RECOMMENDATIONS

1. *Process recommendations*

   a. define "timely" and have this definition agreed for each phase of care (ED, inpatient, discharge)
   b. performance is benchmarked and communicated and data is available to staff to monitor and guide clinical redesign
   c. patients first initiative is prioritised and progress against previous Monaghan report is measured
   d. the case for a short stay unit (SSU) at LGH be considered in the light of accurate data including the potential impact on inpatient admissions and NEAT performance, but most importantly, the current numbers of patients who would benefit from SSU care
   e. excellent clinical redesign already underway is encouraged
   f. that ED staff have admitting rights against bilaterally agreed (between inpatient and ED staff) admission guidelines
   g. that escalation policies are implemented in a timely manner in order to pre-empt access block

2. *Structural recommendations*

   a. contemporaneous organisational charts for both sites are released
   b. a structure be considered for inpatient services, particularly Medicine and Surgery, that facilitates streamlining and consistency of the ED-inpatient interface
   c. accountability for metrics and the authority to undertake process and policy change are aligned
   d. Effective clinical leadership is prioritised at both sites

3. *Cultural recommendations*

   a. staff culture survey is released and an operational plan is completed to address findings
   b. staff updated on evidence that improved flow improves outcomes. Such shared understanding that the ED-inpatient interface affects patient outcomes should enhance ED and inpatient team collaboration to focus on improved flow
   c. a focus on data sharing and patient outcomes rather than just process measures such as time in order to accelerate clinical engagement
   d. patient outcomes must remain at the centre of all care delivered

CONCLUSION

THS has faced many recent challenges. Adverse media attention has highlighted several distressing patient events. Cultural, data and governance issues exist which are inhibiting clinician led clinical redesign. However, THS clinicians are genuinely proud of the care they deliver and hope to be given "permission to act" via reforms to data provision, governance and organisational culture. It is essential that patient outcomes and evidence-based measures such as mortality, adverse events and patient satisfaction drive further changes to ensure Tasmanians are the healthiest population by 2025.

LIST OF APPENDICES

Appendix A- RHH and LGH Recent Performance Reports
Appendix B- Patient Satisfaction Surveys
Appendix C- Patients First Review Engagement Document
Appendix D- Monaghan Report
Appendix E- HSI Reports
Appendix F- Interview Notes and Transcripts
Appendix G- Health Roundtable Data
Appendix H- PIP Reports
Appendix I- Monaghan Report Progress
Appendix J- Patients First Progress Report
Appendix K- ALOS Data