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INTRODUCTION

This review, conducted over four days, involved site visits and interviews with numerous stakeholders in SA Health.

Our intent was to determine where possible the systemic issues that had culminated in the difficult situation currently existing between the Flinders Medical Centre’s Emergency Department, SAAS, the Unions and SA Health.

This review was initially intended to make comment and recommendations on the lack of significant improvement in the National Emergency Access Target (NEAT) performance despite three years of investment in reform by South Australia (SA) Health.

Following a very public issue with ambulance ramping at the Flinders Medical Centre (FMC), the terms of reference were revised to assess and recommend on the work practices as regards acute presentations at the FMC.

It is very clear to the review team that ambulance ramping is multifactorial, with ambulance distribution, Emergency Department (ED) processes and most significantly access block out of the ED being the major issues.

As a consequence, during the four days of the review, the review team interviewed staff from the South Australian Ambulance Service (SAAS), FMC, Royal Adelaide Hospital (RAH) and Noarlunga Hospital (NH) Emergency Departments, relevant unions (SASMOA, AEA, ANMF), the AMA and many of the inpatient departments of the FMC, including management.

From this work, the review team has been able to identify areas that require review by SA Health, and has made recommendations accordingly.

The caveat to these recommendations is that these observations have been made over a short period of time, are generally high level observations, and several are based on weight of opinion from staff and will require further confirmation by data collection and analysis.

There are two additional observations the review team wish to make.

The first is that throughout virtually all the interviews, the vast majority of staff, whether they be hospital based or part of the ambulance service were dedicated to and motivated by best patient care, which bodes well for future reform.

The second is that while we are focusing on issues related to FMC in this review, the review team gained the strong impression that the systemic issues identified were representative of broader issues that could be found at any of the SA tertiary sites.

The review consists of an executive summary with key recommendations, followed by a more detailed analysis of the issues and their associated recommendations.

It is our hope that the findings of this review help the situation move forward for all concerned, most importantly the patients of South Australia.

I would like to thank my colleagues on the review team for their dedication and expertise, and the staff of SA Health for their support.

Dr Mark Monaghan
EXECUTIVE SUMMARY: Major Observations and Recommendations

1. Recent investment in health reform to improve access to emergency care.

SA Health has invested approximately $AUS 111 million in recurrent and non-recurrent funding over three years to support improvement in this area. Despite this significant investment, very little improvement has been seen in measured performance. Current NEAT performance for FMC as of YTD April 2011-12 was 49.79%.

It is the understanding of the review team that the strategies around how and where to invest these resources were largely formed by an acute care task force led by the previous Chief Executive of SA Health. From this work, hospitals were provided with funded models of care, such as acute medical units, to implement at their site.

It is the review team’s view that the strategy to apply models of care that were not locally generated based on sound clinical service redesign (CSR) principles, not locally owned nor based on specific local issues was a significant strategic error that to a large extent accounts for the lack of demonstrated improvement.

This principle, that models of care must be generated and therefore owned locally, guides many of the recommendations throughout this review.

It also appears that there was little in the way of Key Performance Indicators (KPIs) or accountability for performance linked to this investment. The combination of these factors resulted in reforms such as acute units underperforming, even if they were reasonable for a site to implement.

There were also anecdotal but frequent comments that money had been redirected into alternative reforms.

The perception also seems to be that ambulance ramping and four hour targets are predominately an ED issue, when in fact it is a whole of hospital issue, and indeed more broadly still, a whole of system issue, including community based care and inter-hospital systems.

Interviews with staff at FMC, the RAH, AMA and several unions AEA, ANMF and SASMOA, allowed the review team a high level insight into access to emergency care issues as they applied to other sites.

The review team came away from these discussions convinced that the challenges faced at FMC are consistent across the spine hospitals.

Lyell McEwin Hospital stands out as being most challenged from a capacity perspective, with a disproportionately small bed stock for their ED presentations 245 multiday beds (excluding mental health), for approximately 60,000 presentations.

In terms of engagement in the NEAT and inpatient willingness to move where needed from traditional models of service, all sites are facing the same challenges. The fact that there has already been three years of investment and discussion around emergency access redesign with little objective improvement in many areas makes the case for a new approach to redesigning access to emergency care across SA Health.

The engagement issues with the NEAT are by no means isolated to inpatient clinical staff. A large proportion of ED staff remain suspicious of the motivation for the targets and the potential for adverse clinical impact.
There is a great need to construct a communication strategy that makes it very clear that the NEAT is about providing best patient care, which encompasses access to care, and will never be implemented to the detriment of that care. Significant work will be required in this area, which again emphasizes the need for clinical leaders across the sites to drive this reform.

There has been a low level of annual increase in ED demand in South Australia. Despite this, the tertiary sites run at very high bed occupancy, which does not provide any capacity to cope with fluctuations in demand.

There is however a consistently large latent bed capacity identified in Australian tertiary hospitals associated with inefficiencies in discharge practice, delayed referrals, investigations and access to sub-acute beds. Focused work on enhancing capacity utilization in the tertiary hospitals in particular is essential.

**RECOMMENDATIONS**

1. That SA Health establishes a centrally driven program in which all three Local Health Networks simultaneously embark on a time limited period (eg three to six months) of centrally driven but locally based CSR to determine models of care that best fit their local environment. The aim of this work would be to address the major areas that are demonstrated by mapping and data to be barriers to patient flow. This work should be led and owned by senior clinicians of all relevant disciplines at each site and actively supported by their Executives.

2. That a senior clinical lead is appointed for the statewide program, and a clinical and facility lead at each site to drive appropriate patient care focused reform. This would be essential to success.

3. It is the review team’s recommendation that a major area of work is current utilisation of hospital capacity. This will require focused work, based on bed capacity audits.

4. In terms of investment in ongoing redesign, the review team would recommend redirecting current funding to local solutions based on robust redesign. It is vital that there remains a commitment to investing in local redesign, without which it is unlikely that there will be significant clinical engagement.

5. While not within the TOR of this review, concerns were expressed multiple times to the review team, that the patient flow/clinical pathways being developed for the new RAH were being applied without adequate local clinical consultation. Clarification is required as to whether this is the case or not, as this is the same issue that the review team has identified as one of the principle reasons for failure of improvement in emergency access and hospital performance, despite the last three years of investment across SA Health.

6. Despite the current difficulties, there exist many areas of excellent process redesign work, and several senior clinical leaders at different sites spoke of a sense that their hospitals were on the cusp of seeing real reform. A well constructed communication strategy, encompassing the ideals of patient focused changes with safety and quality at the core, coming from a respected clinical lead (or leaders), could harness this energy.
2. Flinders Medical Centre Ambulance ramping

There has been a very visual and increasingly controversial situation at FMC Emergency Department, during and since the ED re-development.

The fundamental issue has been the decision to not allow patients arriving by ambulance entry into the department if there is no capacity to accept them.

This ‘external ramping’ has caused conflict between the SAAS, the Ambulance Employee Association (AEA) and the FMC. The consequence of this has been significant media attention, strained relations between some ambulance crews and the staff of the FMC ED, and the resignation of a very senior and well respected Emergency physician and ED Director.

There were several points that were very clear to the review team regarding this situation.

The first was that the people involved were motivated by what they saw as best patient care, although the means to achieve this differed.

The FMC ED had made a very conscious decision to design the ‘front door’ of its new department to be physically incapable of ramping ambulance trolleys. The department had committed to no internal ramping, based partly on a history of coronial cases connected to overcrowding, as well as a belief that overloading an already full ED with undifferentiated patients is poor patient care.

Understandably, SAAS and the AEA saw this situation as unacceptable from the perspective of lack of crew availability to respond to new cases in the community.

From the FMC ED staff perspective, while there are significant process reforms required in the ED, the lack of improvement in access to inpatient beds over many years appears to have been the major driver for the ED to make this very definite attempt to control overcrowding at the front door.

It was the review team’s sense that the ED staff had become fatigued trying to push reform at the ED/inpatient interface, and had instead focused their energy on controlling entry into the department, over which they have more direct influence.

The review team does not support ramping of the un-assessed, newly arrived patient in any form, but recognises that this occurs as a symptom of a dysfunctional or overburdened system.

Despite our unanimous view re ramping, the review team considers it inappropriate and unreasonable to recommend that the FMC ED cease their current practice. The ED staff clearly and truly believe that this was the best way the department could safely manage patients under their care.

We therefore offer an alternative solution that focuses on already assessed and stabilised patients as an interim measure while the work of improving ED and hospital wide processes, with the aim of increasing access to inpatient beds, is undertaken. This work is what is required for a sustainable, patient centred health service.

The intention of this interim solution is to meet the needs of patients whilst they are in the care of SAAS, FMC ED and those waiting in the community for ambulance attendance.

Paradoxically, this heavily criticised decision by FMC ED which has resulted in a very highly publicised external ramping issue, may well lead to significantly more access to patient care reform than if they had continued to allow ongoing ED overcrowding and
“internal ramping” as is seen in many of other EDs across the country, including other Adelaide tertiary facilities.

RECOMMENDATIONS

7. That the FMC ED refines their front door processes to receive ambulance crews, including providing a dedicated Patient Support Assistant whose primary responsibility is to assist SAAS officers, and a review of the expectations of the triage nurse role.

8. That ED processes be reviewed using CSR methodology to enhance efficiencies.

9. That CSR methodology is employed to improve access to inpatient services, which appears less than adequate across most disciplines.

10. That as a strictly interim measure, while the above work is being carried out, an ‘internal ramping’ model be instituted. This would involve stable, assessed patients awaiting ward beds being transferred to an internal holding area, either as part of an escalation policy response to ED overcrowding, or as a regular process between certain times of the day when peak demand is to be expected. This area would be under inpatient team governance, nurse supervised, and subject to the hospital MET response. There would need to be operational guidelines around this model that limited its availability to peak periods of demand each day, and specified how the area would decant should the wards not be able to create capacity.

The review team believes the philosophy of ‘ramping’ stable, assessed patients rather than un-triaged, potentially unstable patients is sound and the best of these ‘bad options’.

3. SALHN/FMC Executive

The last five years has seen a significant period of repeated change in organisational structure of SA Health with significant ramifications for FMC. From a stand alone entity it became part of the Southern Adelaide Health Service with Noarlunga Hospital. In 2010 this was dissolved and FMC became part of the Adelaide Health Service and then in 2011, in line with Federal Government health reform, the SALHN comprising FMC, RGH and NH was formed. Each of these organisational restructures has been accompanied by changes in leadership to various degrees, which by nature are disruptive. There has been little time for consolidation and cultural change and undoubtedly this has had a part to play in the issues discussed in this report.

The impression gained by the review team was that FMC Executive believed that there was good buy in from inpatient units as regards the problems faced by the hospital with respect to access block. The review team found little evidence of this.

It is also reasonable to say that while the rationale behind the ED position on ramping was understood, it was not supported by the FMC Executive. Specific issues pertaining to the ED-management relationship are commented on later in this report.

Both ED and inpatient unit clinicians also commented on a perceived lack of effectiveness of Divisional Meetings and a lack of voice at the “executive table”. Thus there appears to be a disconnect between clinical staff of the ED and the greater hospital, and members of SALHN/FMC Executive.
RECOMMENDATIONS

11. CSR principles are applied to Divisional and Executive structures to engage senior clinicians in leading reform and to enhance performance accountability.

12. Investment in leadership development of clinicians and team building with Executive.

4. Flinders Medical Centre, Greater Hospital issues

The FMC commonly runs at greater than 100% capacity. This is incompatible with efficient patient flow from the ED to the wards.

The most common statement made by representatives of the various groups interviewed, was that the main cause of access block into the hospital was lack of bed numbers. Considering the FMC bed stock (505 multi day beds), the number of ED presentations and the hospital admission rate, the review team found this difficult to reconcile. A very strong and consistent high level observation is that there appear to be fundamental process issues rather than an overall deficit of available bed stock.

The hospital staff appears to have become resigned to a daily lack of available beds, and as a result many of its processes have become inefficient which further compounds the problem.

The high occupancy rates and daily lack of available beds are well documented by patient flow and the bed management team, but there is very little in the way of proactive and effective responses to impending overcapacity states currently available to them.

The review team was also strongly of the opinion that the greater hospital has failed to engage in moving away from traditional practice to enhance access to care. There is very little interest displayed from clinical staff in target driven reform such as the NEAT.

While there is a reasonable patient flow pathway to the Acute Medical Unit (AMU), this is a relatively low acuity area, where the principles of 24/7 registrar staffing, 7 day a week consultant presence and front led decision making do not apply.

From a surgical perspective, there is effectively no model of care that allows for 24/7 surgical opinion, senior decision making, access to theatre or 7/7 discharge practice. While there has been high quality work done in standardising clinical pathways, this energy has not been applied to access to care.

FMC in essence does not currently have an inpatient structure to provide timely access to care or to meet the NEAT requirements.

RECOMMENDATIONS

13. While more detailed recommendations are made below, there is a compelling need to engage the greater hospital in improved access to care. This will require greater drive from management to take on these difficult issues and the identification of senior clinicians who have the capacity and will to create these changes.

14. A bed capacity audit, providing focus on where work to enhance capacity utilisation should be done. The review team is aware a capacity audit was undertaken across the then Adelaide Health Service in November 2010 with a report and recommendations distributed March 2011. It is unclear whether there
was any action or response to the recommendations. The review team recommends reviewing the recommendations or alternatively undertaking another capacity audit to identify FMC specific discharge barriers.

5. SAAS

SAAS management and crews were interviewed as part of this review. Once again we found dedicated staff who were ultimately concerned with best patient care.

The major issues identified from these discussions rested on the current process of patient distribution, diversion processes and transfers between feeder hospitals, in particular NH to FMC.

The current patient distribution process generally involves transporting patients to the nearest hospital, ie catchment distribution. This model does not allow for a coordinated systemic attempt to load distribute. One obstacle to any change in this process has been the lack of acceptance by EDs that patients should come to their site from outside their catchment postcodes.

It is the review teams understanding that from July 2012 there will be the introduction of a centrally coordinated SAAS load distribution system.

This would be fully supported by the review team, and we would further encourage ED staff to consider the benefits of load distribution in patient access to care over their concerns regarding appropriate postcodes.

With regard to diversion practice, the current practice of one hospital calling another to request diversion is in our view an unsustainable and inefficient model.

The alternative model, that again we understand is being considered for implementation, relies on an on call ambulance diversion coordinator. The option exists to manage this through SAAS or a rotation through senior positions from each tertiary site.

Both have their merits, though the latter allows for a balance of input into decision making from SAAS and hospital representatives.

Finally in terms of transfers, either primary or secondary between NH and FMC, the ramping and overcrowding in FMC ED has resulted in a dysfunctional relationship in terms of transfers between the two sites. These complex issues are discussed in more detail below.

RECOMMENDATIONS

15. That the central load distribution coordinator and diversion coordinator roles be actively developed in the upcoming months.

16. That there be a concerted SAAS/SA Health strategy to inform and update ED staff on what is going to be a significant cultural change in patient distribution.
6. Union Involvement

The review team had the opportunity to meet with the AEA, the Australian Nursing and Midwifery Federation (SA Branch), The Australian Medical Association (AMA) and the South Australian Salaried Medical Officers Association (SASMOA).

All these organisations had particular positions on the FMC ramping issue, and all made comments on the approach from SA Health to managing access to emergency care.

The review team felt strongly that there were three observations that were worth making as regards the information provided during these meetings.

The first was to caution all organisations against recommending that particular solutions be adopted by FMC. The reason we emphasise this is that as mentioned above, the application of solutions from outside a department onto the workings of that department is unlikely to have buy in and may not be appropriate, even if it seems very sensible.

The second observation was the review team’s disappointment that the representatives of SASMOA seemed to reject the potential of process reform over a pursuit of investment in beds and resources. This is a difficult position to hold when there is consistent evidence across the country that 25% of acute tertiary hospital beds are occupied by patients not receiving acute care. There is however good evidence that increasing beds alone does not improve hospital performance in terms of access to care.

Finally, the review team understood from discussion with SASMOA that they have adopted a position to resist attempts to change the award to allow consultant staff to work beyond Monday to Friday normal working hours. It would be our observation that the SA hospital system will be greatly hampered in its attempts to improve access to care if it continues to work within such a limited staffing award model. Acute surgical or medical units do not require 24 hour consultant presence, but they do need to be consultant lead and to function seven days a week to be effective. Many jurisdictions have created these models of care without unreasonable impact on the quality of life of clinicians.
THE REVIEW IN DETAIL

The findings of the review will now be examined in more detail, following the patient journey from ambulance arrival through to inpatient issues.

Recommendations will be listed at the end of each section.

Ambulance Issues

Patients Transported

Increasing demand for ambulance services is a key challenge facing every Australian ambulance jurisdiction. The SA Ambulance Service Annual Report 2010-11 reports that: “This year SAAS crews transported over 192,000 patients to hospital. This is up one per cent from the 2009-10 figures. When considering that the number of ambulance responses increased by 5.2 per cent, this indicates SAAS is working well towards achieving a more tailored health service response for patients. Instead of transporting all patients to hospital emergency departments, SAAS is able to provide increased choices for patients based on their unique needs” (page 31).

Based on the above data, SAAS would appear to be making good progress shifting from ‘always treat and transport’ to ‘treat and leave’, ‘treat and refer’ and ‘treat and transfer’ initiatives outlined in their strategic plan Service Delivery Model for 2008-2015: Defining the road ahead.

Patient Destination

The review team was advised that during normal business the destination of patients transported by SAAS is governed by ambulance transport policy, principally guided by:

- Shortest travel time to the nearest public hospital ED with the specialist facilities to manage a specific health problem; or
- Where the patient has a ‘significant history’ at a particular facility; or
- Patient choice in specific circumstances (e.g., Private ED), where this is reasonable in terms of time and appropriate facilities to manage a specific health problem.

SA Health policy describes diversion as “the management of patients when a hospital has reached or is near to, capacity and a decision has been made that there is a need to divert or transfer patients to another facility that has the capacity to manage the diverted patients”.

As described by several stakeholders, diversion involves point-to-point contact between two hospitals and the agreement of the receiving hospital. Diversion often results in increased travel times for ambulance patients, but depending on circumstance, may improve ambulance availability compared to the alternative of becoming ramped at a facility and therefore unavailable for emergency response.

The challenge of one or more diversions being enacted is the ripple effect across the whole system. SA Health appears to be well served by ICT infrastructure to report hospital and ED status, although an increase in update frequency would improve the ability to use the information to inform “real-time” or “near-real-time” decision making as opposed to snapshot reporting.
The review team was provided with a copy of a Project Report titled “Pre-Hospital Flow Coordination by SA Ambulance Service (May 2012)” and understand that funding will be available from July 2012. Noting general agreement with the recommendations in the report, it is important to note that this initiative provides a great example of locally developed and locally owned solution to local service delivery challenges.

The review team considers that there is a strong case that the patient flow journey commences at the time of the Emergency 000 call to SAAS. Strengthening “whole-of-system” patient flow as well as internal hospital patient flow will be key to improving the timeliness and quality and safety of patient care.

This principal also applies to inter-facility transfers, most notably in terms of this review from NH to FMC ED. Several staff made comment to the frustration for all involved of moving a patient from one hospital to another and becoming ramped or adding further patient load to an ED already under pressure.

Another issue to receive comment from a range of staff, although to a lesser extent, was the transfer of patients from the South Coast hospital and RDFS aircraft, to FMC ED.

The theme of views expressed from a range of staff perspectives was that the current process was generally inefficient and often poorly communicated. NH ED staff reported instances of delays to transfer patients whilst an appropriate SAAS crew was identified and allocated to the transfer. SAAS staff reported frustration at arriving at FMC ED to find no apparent knowledge of the patient transfer with subsequent delays.

In principal, no patient should be transferred without a clearly documented transfer and acceptance authority/reference. Given the patient has already been assessed at NH ED, and in the care of a SAAS crew during transit, the inevitable question is if some form of fast-track or direct admission pathway is appropriate. This issue would benefit from a review of data on the frequency and clinical drivers for transfer between NH and FMC and a small working group to benchmark current performance and consider opportunities for process improvement. This issue also serves to reinforce the benefits of a single point of truth (SPOT) about system capacity and to coordinate patient movements.

Ambulance Arrivals

Patients with life threatening conditions are normally notified to FMC ED in advance by SAAS crews via the government radio network (GRN). On arrival the patient is unloaded from the ambulance and transferred directly to the resuscitation area of the department. There was no suggestion from SAAS or FMC staff that patients with life threatening conditions are delayed entry to the ED.

The majority of patients arriving by ambulance enter the airlock and are transferred to a barouche by the ambulance crew and a Patient Support Assistant (PSA).

Several staff indicated to the review team that PSA’s had a range of other duties and are therefore not always immediately available to assist with patient transfer. This is the first point of potential delay for ambulance arrivals. Further delay was reported to occur when there is no option for transferring a patient from the ambulance stretcher to a wheelchair, despite in their opinion this being an appropriate option for selected patients.

Several FMC staff made comment to the sudden unavailability of a screen showing pending ambulance arrivals to the ED. SAAS management acknowledged unexpected technical challenges associated with the introduction of a new computer aided dispatch
The system that interrupted this data feed and advised the review team that SAAS is working on restoring this functionality as quickly as practical.

The establishment of a SAAS Liaison Officer role at the FMC ED received positive comment from both nursing staff and ambulance paramedics. Both professional groups acknowledged that this was a short-term solution however the benefit of an appropriate Liaison Officer being deployed “on the ground” was generally positive. The SAAS Liaison Officer role would benefit from a level of managerial responsibility and authority.

It is clear to the review team that the relationship between nursing staff at the FMC ED and ambulance paramedics is currently strained. Both groups separately expressed concern at the decline and a desire to restore previous positive working relationships. Whilst responsibility rests with both groups to work towards restoring a positive working relationship, this cannot be left to chance.

There is some merit in considering the establishment of regular meetings between frontline nursing staff and ambulance paramedics to focus specifically on this issue and advancing their common interest in high quality and safe patient care.

**Hospital turnaround times**

Hospital turnaround time is the time from the ambulance arriving at the hospital to the time the ambulance has completed the current case and is ready to respond to the next case. It includes patient unloading, triage and handover, completion of patient care documentation and cleaning and restocking the ambulance.

Targets for hospital turnaround time have been set at 25 minutes in Victoria; 15-30 minutes in Queensland and less than 20 minutes on 50% of occasions and less than 40 minutes on 90% of occasions in the ACT.

Extended hospital turnaround times decrease the availability of ambulance resources to respond and therefore potentially delay ambulance response to other cases. SAAS management and crews were much focussed on their responsibilities not only to the patient(s) they were currently caring for, but also to the next emergency call to a patient in the community with no emergency medical support.

Data supplied by SAAS indicates that average hospital turnaround times for the 364 days to 20 May 2012 are remarkably similar for the FMC and the RAH:

<table>
<thead>
<tr>
<th>SAAS Case Priority</th>
<th>FMC (hours:minutes:secs)</th>
<th>RAH (hours:minutes:secs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Emergency</td>
<td>00:33:27</td>
<td>00:34:07</td>
</tr>
<tr>
<td>2 Emergency</td>
<td>00:29:08</td>
<td>00:30:00</td>
</tr>
<tr>
<td>4 Urgent</td>
<td>00:23:26</td>
<td>00:23:45</td>
</tr>
<tr>
<td>5 Urgent</td>
<td>00:18:32</td>
<td>00:18:41</td>
</tr>
<tr>
<td>6 Routine</td>
<td>00:21:51</td>
<td>00:22:50</td>
</tr>
</tbody>
</table>

Longer hospital turnaround times are to be expected for higher acuity cases as the clinical handover and documentation is likely to be more complex and restoration of the ambulance equipment may take longer.

The key difference between FMC and RAH is the decision to ramp ambulance patients outside the front door as opposed to receiving ambulance patients in the ED and “internally ramping” other patients who have had a level of assessment and treatment.
All hospitals will face surge periods where arrivals (via ambulance or the waiting room) will temporarily exceed capacity. The key point of differentiation is the hospital response to these circumstances.

Ambulance Departures

Patient discharge is often missed as an opportunity for improving the ambulance and hospital interface. Efficient patient flow for a hospital involves monitoring and managing the relationship between input, through-put and output. Proactive management of patient discharge, including transport planning, provides an important contribution to whole-of-hospital efficiency. Most Australian jurisdictions, including SA, have developed non-emergency patient transport tiers to handle routine patient transport, thereby freeing up emergency ambulance resources.

Whilst traditional approaches to patient discharge have often centred on ward beds being emptied by a designated time (eg 11am), this is likely to result in a peak demand that will exceed available transport resource and lead to predictable delays.

Discharge lounges may offer a temporary buffer, but mapping and prioritising known and anticipated patient movement requirements with transport capacity will offer the greatest patient flow efficiencies.

RECOMMENDATIONS

17. SAAS continue to develop a centrally coordinated patient distribution and patient flow system.

18. SAAS continue work to restore pending ambulance arrival information boards at Emergency Departments as a high priority.

19. SAAS continue the Liaison Officer Role at the FMC ED whilst the hospital clinical service redesign is undertaken, noting that the role could be further enhanced if it held a level of managerial responsibility and authority.

20. SAAS continue to work with hospitals and LHN’s to identify opportunities to maximise efficiencies for known and anticipated patient movements requiring ambulance transport.

21. A task group comprising NH ED, SAAS and FMC ED convene to review data on inter-facility activity and performance and consider opportunities for process improvement.
FMC Emergency Department

General Observations

The observations and recommendations made by the review team as they pertain to the FMC ED were based on several visits to the department, during which ED processes were observed in action and interviews with staff from various clinical disciplines within the department were conducted.

Background information was also provided which helped inform the review teams observations and recommendations.

The FMC has engaged in an external ramping process during the recent FMC ED rebuild and continues to promote ramping as a safer alternative to an overcrowded ED.

The impetus for this decision has been an ongoing significant inpatient burden within the ED, with the consequent increased risk of adverse patient outcomes.

Ramping itself occurs in the setting of ED overcrowding when the processes to deal with acute demand surges are not in place. The newly re-developed ED is clearly and intentionally designed not to provide internal surge capacity.

In the review team’s view, the responsibility for this chronic situation of ED overcrowding is shared between the ED and the inpatient teams.

While there are good examples of work to enhance flow in both ED and the inpatient areas, (the newly developed ED see and treat area being a promising example of this), neither in the review teams opinion are maximising opportunity to improve flow across their system.

Despite these comments, it was clear to the review team that FMC ED physicians and nursing staff are currently working on improvement strategies that are intended to provide safe sustainable solutions for emergency access. There is however still much to be done within the department to maximise process.

ED triage structure, processes and utilisation

The ED triage area spans the waiting room and the ambulance entrance, and the triage nurse moves between the two. There are generally 2 triage nurses on duty during day and evening shifts, and one overnight.

On arrival, ambulance patients proceed through an air lock area, and are then met by the triage nurse. If the triage area is full, the patients wait in the airlock area, untriaged, until capacity is available. If this area is occupied, the patients remain in the ambulance.

Newly arrived patients are triaged as per the Australasian College for Emergency Medicine triage categories.

The department further classifies patients as ‘time critical’ or not. Time critical patients are generally moved through to the appropriate area of the department in a timely manner, with the department continually aware of maintaining free bed capacity in this area when possible. Patients who are not ‘time critical’ and are unable to wait in the waiting room stay at triage until a bed is available.
Once the Triage Nurse has determined the stream the patient belongs in they flag this on ATS (Admission Transfer System) a DOS-based IT program. This is visible to all area coordinators. The triage nurse is able to determine cubicle availability in the ED via ATS. At this point the ‘pull’ principle applies where the area coordinators are required to maintain a watching brief for new patients and to declare vacant cubicles as soon as possible.

A recent change has been to relocate the ED Shift Coordinator (SCO) position adjacent to the triage area.

This is seen by the department as a potentially significant improvement. From the review teams perspective this is still significantly limited by its isolation from the main department.

Presenting patients who are unable to use the waiting room utilise the three ‘flex beds’ that were originally designed for ‘patient expects’ on arrival if no cubicle space available. The triage nurse is then required to request/provide a more comprehensive patient assessment and care for undifferentiated patients until a bed becomes available.

Comment was made by SAAS crews that the triage nurse often seems to have multiple roles distracting him/her from their availability to deal promptly with the processing and movement of newly arrived ambulance patients. This seemed a reasonable observation from the review team’s perspective.

As mentioned above, the other observation made by SAAS crews was the lack of consistent Patient Support Assistant (PSA) presence at triage to assist SAAS transfers to barouches. There is a PSA staff member allocated to this area, but that person is also responsible for tasks elsewhere.

Comparison was often made between the responsiveness of the RAH triage area compared to FMC. This appeared to be largely around the dedicated PSA presence, and the philosophy of the RAH that undifferentiated patients would not be ramped.

The practical consequence of the RAH philosophy is that all ambulance patients requiring a barouche are brought quickly into the main department and assessed. Patients in cubicles who have already been assessed are moved out into corridor spaces to accommodate the new patients.

Whilst this basic philosophy is applauded by the review team, the consequence of an ED coping with a large corridor inpatient load is not considered the ideal outcome to promote improved flow into the hospital.

In terms of appropriate utilisation of the ED, it was noted that apart from cardiac presentations, patients wanting to access Flinders Private Hospital are currently required to transit through FMC ED rather than direct to wards. The FMC ED remains the ‘front door’ for many direct admissions requiring a ‘safety check’ prior to ward transfer.

Furthermore, it was observed that mental health patients, who are not acutely unwell, present to FMC for access to services available in the community and for medical clearance. There is no dedicated mental health triage area besides the ED on the FMC site, and as it is with most tertiary sites, the length of stay and bed utilisation of mental health patients in the ED is disproportionately large.

From most recent data, only 30% of Mental Health patients are admitted or discharged within four hours, and a significant proportion, 5.7%, stay greater than 24 hours. They were also identified by staff as being a significant cause of bed block within the short stay unit.
Internal ED structure and processes (nursing)

The FMC ED has a capacity of 54 beds plus 4 treatment rooms, laid out in a pod design that may well be more pleasant from a patient perspective, but does not allow for easy overview and coordination of the department.

In terms of nursing staffing within the department, this report provides an overview of the organisational and operational structure. The FMC ED has 5 level 3 nursing roles. One is a Management Facilitator who is responsible for human and material resources including rosters, recruitment and annual leave management amongst other responsibilities.

The remaining four are Clinical Service Coordinators (CSC) linked to the following pods/portfolios:

- Area A (admission stream and Flow Coordinator)
- Area D (discharge and Paediatric stream)
- Triage/Time Critical/Resuscitation
- EECU/Mental Health

Each of the four CSCs is allocated a team of nurses and is responsible for the performance management and development of the nurses in their team. ED has a head count of 170 nursing staff.

Monday to Friday one of the above CSCs are rostered as the Duty CSC to manage the operational issues that require level 3 input limiting confusion on which CSC to go to.

Supporting the education and quality work are another two level 3 nurses that are funded by COAG funding until June 2013. Both positions work over FMC and NHS. Over 7 days each shift has a SCO responsible for staffing, skill mix, allocation, flow and is generally the ‘go to’ person. This role is allocated to a senior, experienced level 1 RN and has an overview of the entire department. Each pod or area has a Coordinator. This applies to Area A, Area D, Paeds, EECU and the Time Critical Team. This role may be allocated to a junior member of staff and takes the lead in ensuring staff in the areas take meal breaks and maintains flow and cubicle capacity / allocation. These roles are included in the 1:3 ratio Enterprise Agreement staffing levels.

With a very reasonable level of senior nursing leadership for the department the ED is well placed to undertake a review of processes and role interaction.

The review team acknowledges the ED Nursing Director has commenced a review of both operational and organisational nursing roles within ED and support the need for such a review.

In an attempt to improve the management of ED capacity, the department is trialing a process whereby the ED SCO documents ED capacity on a 2 hourly basis. This ED Demand Management Tool is linked to departmental and hospital escalation processes. The latter involves the submission of a form to the Central flow coordinator, from which strategies such as diversion, additional staff and skill mix requests, and enhanced movement of patients to the wards will be considered.

It is too early in this process to assess the effectiveness of this escalation strategy, but it involves a significant time investment from the ED shift coordinator, which seems disproportionate to the potential benefits to the department. The principle of the greater
hospital being aware of ED overcrowding is however a good one, but perhaps would be better served by an IT solution. In practice, the lack of available inpatient beds will be an ongoing barrier to any escalation policy.

To address identified delays in transfer of patients to inpatient beds once they are ‘green to go’, the department is trialing a newly revised ‘Emergency Department Transfer Checklist’ and implementation of action cards to clearly define and standardise the roles and responsibilities of nursing staff.

**Internal ED structure and processes (medical)**

From a FMC ED medical perspective, the review team met with the acting Clinical Director several times, the consultant group formally on one occasion and individual consultants over several days. Several hours were spent within the department observing processes and staff in action, and staff from inpatient units provided their perception of patient flow within the ED during interviews.

From a consultant perspective, staffing at FMC ED is reasonable when benchmarked across other Australian Tertiary Centres, with current numbers sitting at 13.6 clinical FTE FMC, 2.5 Noarlunga, and 2 non clinical positions.

Registrar/RMO numbers currently sit at approx 55 across both sites. It is difficult to comment on the adequacy of these junior staff numbers in terms of this streaming structure, but it appeared that currently there were 8-10 junior doctors per shift, spread across the admission, discharge and paediatric areas.

On an average day there will be a consultant covering admissions and time critical, and a second consultant covering discharge, EECU and paediatrics, morning and evening. There will be a registrar rostered to time critical, but not one for the admissions area. There will usually be around 3 junior doctors for each area.

Medical staff numbers were not raised as a significant barrier to performance during the review teams visit, although the comment was made that the model struggles when the junior doctor pool is particularly inexperienced.

In terms of the current difficult situation, it is clear the department is still coming to terms with the resignation of its long term Director. This has clearly been a tumultuous time for the department, and there is freely expressed resentment regarding this incident, which is seen to have been precipitated by hospital management.

The implications of this change from a departmental performance perspective are significant. The new leadership needs time to come to terms with managing and maintaining performance with current processes, let alone considering any significant process redesign.

There is a significant ongoing need to invest in and improve the strained relationship between hospital management and the ED. A poignant example of this is the installing of CCTV cameras in the ramp area by management without any consultation with the department. Although not intended by management, the interpretation of this action by the ED from a trust perspective is self explanatory.

Unfortunately, as a consequence, the triage nurse is receiving calls from bed management informing them that there are ramped patients outside their department, something they are well aware of and are trying to address while being interrupted by these calls. The review team raised this with management during the review and is strongly of the opinion that as a show of goodwill, this initiative be reconsidered.
What is clearly a long term issue at FMC from an ED staff perspective is the lack of progress in inpatient bed access, and management’s willingness and ability to engage the inpatient units in improving the access to their services. While this is considered in more depth elsewhere in this review, unless there is clear progress in this area, there will remain great challenges in maximising ED processes and engagement in improvement.

Another cause of delay identified by ED medical staff was access to radiology. No data was provided to support this, but delays in ultrasound and CT in particular were identified as being problematic.

One new but very promising initiative by the department is the creation of the see and treat area, which appears to be well thought out and to have strong consultant investment in its development.

ED process issues

The above being said, the review team had concerns regarding a number of current ED processes.

While the ED staff commonly identifies the inpatient access block as “the” major issue they face, data presented by the ED staff demonstrates a mean time of approximately 4 hours to have a patient referred and ready for inpatient acceptance.

Four hours as a median time is excessively long, and infers that there are significant delays in current patient flow within the department.

What concerned the review team was that this data was presented in the atmosphere that there was primarily an inpatient issue, in that the ED were only responsible for half the delay, rather than this being a concerning level of performance from an ED perspective.

It was clear from our time spent in the department that there is currently a lack of rigor around important ED processes apart from patient flow.

For example, there is a standing rule that junior doctors should discuss a case with a senior within 30 minutes.

This concept of early senior lead review and decision making is essential to best care. This is one of the perceived benefits of a streaming (admissions, discharge, paediatric) structure that has been established within the ED.

In fact, this is poorly applied, and observational data collected within the department suggests this time period is more like 2 hours than 30 minutes. There were also several observations made that admissions are often batched around medical handover times, again suggesting that early senior decision making was not regularly occurring.

Furthermore, inpatient teams also consistently reported that approximately 50% of the time the referral to them has had no senior doctor involvement. We have no data to support this view however it was raised separately by several different inpatient specialty groups.

ED staff reported difficulty in identifying the medical or nursing staff member allocated to a particular patient and the inefficiencies that occur as a result. A team based structure where medical and nursing teams align or work together as a team on any given day was raised as one way of addressing this issue.
The current DOS based IT system used by the ED did not, in the review teams opinion, lend itself well to identifying flow issues such as prolonged times to medical review, decision making, admission request and so on.

There was no sense of concern or urgency around these time points demonstrated during our visit. It is unlikely the department will perform well from a NEAT perspective without attention to these time points, which the current discharge stream performance of 62.7% discharged within four hours supports. Experience from Western Australia suggests this will need to be consistently in the high 90’s to meet expected NEAT targets.

Another example of lack of rigor around processes was the departmental response to an expected priority 1 arrival. The review teams understanding of the FMC ED departmental response were that the resuscitation nurses prepared the cubicle, and the time critical registrar position was notified. What was expected by the review team but not seen was a rostered medical resuscitation team response, which we would have considered a basic system in a tertiary centre.

The delay in specialty review and decision making described by the ED staff is an interesting observation in a hospital that has an existing admissions policy that allows the ED to admit patients to the wards prior to specialty review.

When this was raised with the ED senior medical staff, they were of the opinion that utilisation of this policy was uncommon due to conflict generated with their specialty colleagues. The decision of the ED to be very firm about their front door, but less willing to push processes at their back door interface with the greater hospital, spoke volumes about the difficulty the ED has faced engaging their inpatient colleagues.

The review team felt very strongly that the ED need to turn their energies to improving their in house flow, and challenge the obstacles faced at the ED/inpatient interface.

There are exceptions to these interface difficulties, particularly with the AMU and the vascular service. Unfortunately however, most of the inpatient services still provide a traditional model of specialty registrar availability for managing acute presentations.

In terms of utilisation of the Emergency Extended Care Unit (EECU), which is the ED’s short stay area of 9 beds, significant problems were identified. Ideally this area accommodates overnight ‘ED observation’ type patients, and ED patients that are likely discharges but is needing a longer period of work up or therapy. The latter allows freeing up of the acute assessment cubicles in the ED for newly arrived patients and is a significant strategy in optimising NEAT performance.

The EECU is currently used primarily as an overflow area for admitted patients, and until very recently mental health patients.

This process is resulting in the EECU being chronically congested and unable to fulfill its ED role. It is understood by the review team that this issue is currently being reviewed and an alternate model developed, which will be an important step forward.

**RECOMMENDATIONS**

22. That FMC ED review and simplify the role of the triage nurse to allow for greater focus on their core business, and that the tasks associated with dealing with patient movement into the ED be assigned elsewhere.

23. That a consistent PSA presence be created in the triage area.
24. That the ED considers enforcing a maximum time period for a patient occupancy of a triage flex bed to promote timely patient movement into the department.

25. That the communication between the ED and the SAAS crews be made a focus. This “client focus” would be very worthwhile in improving the recently strained relations between the groups. Regular information on likely wait times, efforts being made to accommodate patients, reasons for delays, would all be of significant benefit. The ongoing presence of a SAAS liaison officer would also help address this issue.

26. That FMC ED considers adopting a similar philosophy to RAH of not ramping undifferentiated patients. The alternative to the RAH model of moving stable assessed patients into the ED corridors is to decant the patients awaiting admission into a holding area under inpatient governance as described in the executive summary above. The ED and the greater hospital will need to develop process guidelines around this model, with a policy in place to ensure inpatient pulling of these ‘internally ramped’ patients. The consequence of lack of accommodation of these patients at a ward level will need to be considered, with over-census on the wards being a potential solution to this.

27. That the development of pathways to avoid ED triage utilisation for stable transfers to the inpatient units or Flinders Private Hospital be developed wherever possible.

28. That the department continues to work towards vigilance in its processes, particularly around unnecessary delays and early senior medical involvement in the patient journey.

29. That the department monitors and responds to internal performance indicators that would support the NEAT. There is a palpable lack of engagement in the NEAT that needs to be addressed. It must be acknowledged however that this is unlikely to occur with the daily access block issues. If however the internal decanting solution is adopted as recommended and inpatient units work on their access and capacity utilisation, there would be a clear impetus for this ED work to occur.

30. That the current DOS based ED patient information system be replaced as soon as is practical to a system that provides better visual cues of ED patient timelines, and allows for real time tracking of time points that will aid compliance with NEAT performance.

31. That the admission guidelines into the EECU preclude admitted inpatients, and that the unit is used for ED patients likely to be discharged but requiring further assessment or therapy than that which can be done within four hours. KPIs such as number of patients on-admitted from the EECU into the inpatient units would have to be developed, with a reasonable figure being between 15-20%.

32. That mapping and data collection be done around delays in provision of radiological investigations to the ED, and if needed redesign of current processes.

33. Certain interest groups have suggested that initiatives such as the introduction of Nurse Practitioners be considered by the department. The review team did not feel it appropriate to dogmatically recommend these potential solutions, but instead would encourage the ED to continue to explore alternative models of care that may produce efficiencies.

34. That in light of the observed deficiencies in regular early senior review, that the department review its medical staffing model to determine whether there would be benefit in rostering a registrar position in the admissions area to add to senior review capacity.
Flinders Medical Centre, the ED-inpatient Team Interface and Inpatient Models of Care

The review team met with consultant medical staff from the Acute Medical Unit, consultant surgeons, and junior medical officers from both medical and surgical teams. Junior medical officers from the medical teams had also worked at Noarlunga Hospital.

With regard to patients admitted to the inpatient wards from the ED, 25.5% of ED visits were completed within 4 hours as of YTD April 2011-12. Thus there is clearly a problem with timely movement of the patient from ED to the inpatient wards, explanations for which may be found within the areas of:

1. ED processes – ED owns the “decision to admit” part of the timeline (discussed in the previous section).
2. Inpatient admission processes – discussed in this section.
3. Bed availability – which is determined by bed numbers, inpatient processes and discharge processes. Discharge processes are discussed briefly below and in the section on patient flow.

The ED-Inpatient Team Interface

The review team formed the view that the ED seemed to be quite culturally segregated from the inpatient units and that there was no sense of shared responsibility of the unplanned medical admission patient pathway into the hospital and access block.

An exception to this is the relationship between the ED and the Acute Medical Unit which has been actively worked on by clinicians in both departments with some improvements. This is to be commended, however is still a work in progress and much remains to be done to streamline care in the best interests of the patient.

Clinical staff across various disciplines also commented that there was a silo mentality between hospital departments and disciplines. It was also commented by a senior clinician that this applies across the SALHN, with the three hospital sites (NH, FMC and RGH) still tending to behave as separate entities.

The quality of clinical information communicated to inpatient teams by ED doctors was reported to be very variable and as mentioned above it was felt that only approximately 50% of the time a senior ED physician had been involved directly in the patients care prior to referral.

The work up of patients by ED was also often felt to be inadequate (both over and under-investigation, and over and under-treatment) and late referral to inpatient teams common. The medical unit in particular are keen for early referral of patients.

These comments are hearsay and need to be verified, but were reported in separate conversations by different physicians.

Whether justified or not, these comments point to a need for greater collaboration between ED and ward based physicians to ensure best practice care is provided to patients.

There needs to be discussion between ED and the inpatient units as to what ED value add to the unplanned admitted patient journey and what the inpatient team value add.
The General Surgical Unit have been proactive in preparing standard procedures for common conditions that are used particularly by junior medical staff. This may be work that can be drawn upon to improve patient pathways for common ED presentations.

Inpatient Unit Models of Care

With the exception of the Acute Medical Unit, the majority of the inpatient teams work according to a very traditional medical model.

This inevitably leads to an inbuilt delay to senior review with a disproportionate burden for the early decision-making borne by junior medical staff.

This also results in a situation where, apart from ICU/CCU, the only part of the hospital with the “lights on” 24/7 is the Emergency Department, and hence the burden for care after hours defaults to the ED.

As a general comment, the review team did not feel that there was ownership of the access block problem by the inpatient units.

Whilst there was clear focus on quality and safety as it applied to patients already admitted to inpatient wards, this same degree of responsibility and concern was not as apparent for patients in the ED who were pending either referral or transfer to the same inpatient teams.

Regarding general surgery, the on-call registrar has limited availability to the ED, with competing duties such as theatre lists and clinics potentially consuming much of their time.

It is usual for the RMO to carry the on-call pager and take initial responsibility for reviewing patients referred from the Emergency Department. Whilst the perception was that this did not delay movement of the patient from the ED it was commented that “a lot of trust was placed with the RMO”.

It was reported that there were insufficient dedicated Emergency Theatre lists and that there was often competition between elective and emergency cases, particularly later in the day. This has been potentially exacerbated by the redevelopment of theatres which has seen a reduction in the number of available theatres in the public hospital, and purchase of theatre space from the private hospital.

It is the understanding of the review team that the theatre redevelopment is due for completion in July 2012 and this will result in increased in the number of available theatres from 8 pre-redevelopment to 10.

There is a great risk that unless process changes are put in place this will not automatically result in improved access to emergency surgery for patients.

There was a perception of junior medical staff was that it was not uncommon for patients requiring emergency surgery to be waiting unacceptably long periods for their surgery. This needs to be audited more thoroughly and if found to be true addressed using a rigorous clinical service redesign methodology.

It was reported by the surgical registrars and RMO that discharge planning was the responsibility of the intern, and that quality was variable and depended on workload.

One positive initiative that has been well received by FMC management and clinic staff is the Emergency Surgery Pathway (ESP) which was introduced in 2010.
The ESP aims to provide a streamlined and safe entry point to FMC for patients referred from another regional ED or service, without the need for ED assessment. There is a dedicated four bedded unit within ward 5D which operates from 0700 hours to 1900 hours.

Analysis of a 12 week pilot in 2010 demonstrated that this initiative was well accepted by staff and patients and reduced length of stay for surgical patients in the ED.

The comment that is now being made by clinicians is that the four beds are insufficient to cope with demand and that there is now also a problem with exit block out of the ESP. The review team has not seen any data to confirm or refute these assertions.

Certainly the effectiveness of initiatives such as these will be significantly limited by bed block in the main inpatient wards and review of discharge processes is essential in this context.

The General Medicine unit has been redesigning aspects of the service since about 2004 with, over time, the development of an Acute Assessment Unit (AAU), Short Stay Unit and two long stay General Medical Units.

There is now a 30 bed Acute Medical Unit located adjacent to the ED with 7 day junior medical officer cover from 0800 to 2400 and Monday to Friday in hours cover by two consultant physicians.

There are two long stay General Medical Units sited at FMC and one long stay General Medical Unit at RGH.

It is the understanding of the review team that these General Medical beds were moved offsite in order to create capacity for vascular surgery beds on site at FMC as part of the implementation of the State Health Care Plan.

Whilst this is the one inpatient unit that has started the process of improving flow of ED admitted patients into the hospital, and is actively building the relationship with ED, the following observations need to be made.

Firstly, the acuity of patients admitted to the AMU is relatively low when compared to the commonly used criteria for AMU admission. This does limit the impact that the AMU can have on improving flow out of ED. The physicians are aware of this and have discussed the need to refresh the skills of consultant physician staff to manage more acutely ill patients. Acceptance of more acutely unwell patients will have a flow on effect to other clinical staff in the AMU, particularly nursing staff.

Secondly, with regard to the consultant physician staffing of the AMU, there is not a uniform model applied 24/7, but a definite Monday-Friday/Weekends roster. The AMU has a junior after hours staffing profile with RMO coverage for this period, and in the review team’s is not truly senior led with up-front senior decision making. To have true uniformity of processes and in the interests of best patient care, the review team believe that further progress needs to be made in these two areas.

Thirdly, with regards discharge from AMU – a significant proportion of patients admitted to the AMU are transferred to long stay medical wards, either on site at FMC or at RGH. The movement of a general medical long stay ward offsite to RGH seems counterintuitive to reducing length of stay, early discharge and reduced duplication/waste. An analysis of this would be prudent. Because of the high occupancy rates in the general hospital exit block from the AMU is of concern and would limit the effectiveness of the AMU model.
Direct admissions pathways are being developed, which are similar in intent to the ESP and are promising in reducing wasteful passage through the ED. This is discussed more in the following section on patient flow.

The physician trainees interviewed by the panel stated strongly that they believed the discharge processes throughout the hospital could be improved. As expanded on in the following section they believe lack of capacity of the H@H programme often results in patients being kept in hospital longer than the acute medical condition dictates.

The comment was made on several occasions that phlebotomy rounds do not provide a service on some wards until late morning, which means blood results are not available until mid afternoon, which can delay discharge. These comments need validation by analysis of relevant data.

Noarlunga Hospital - FMC Interface

There was universal frustration expressed by staff from the ambulance service, FMC ED and inpatient units, as well as medical officers from NH ED regarding the transfer of patients between NH and FMC.

Because of the lack of available inpatient beds at FMC for direct admission, it is understandable that dysfunctional referral practices will develop. Issues such as the up-triaging of patients to ensure acceptance, and patients being sent from NH ED without prior consultation with an inpatient team were identified.

When inpatient teams are contacted, this information is not always passed to patient flow/bed management and it would seem that patients are often referred by the doctors straight to ED without considering alternatives.

NH ED medical officers expressed great frustration at having to make multiple phone calls to FMC to try to get a patient accepted by an inpatient team. Gains have been made with the ESP and AMU accepting direct admissions, but these pathways have limited hours of function.

Medical and surgical unit junior medical staff was of the opinion that some of the transfers from NH ED and ward were “soft” and were often transferred back the next day. There is for example a standard admission/transfer policy at NH that states a patient with a partial pressure of oxygen of <60mmHg on room air is precluded from admission to Noarlunga and therefore mandates transfer to FMC.

The medical trainees stated a belief that this was applied at times irrationally, for example patients with COPD on long term oxygen therapy who by definition do not meet these criteria when well and could be safely managed at NH are transferred to FMC. These are all hearsay statements, but were made often enough and consistently enough that they bear greater scrutiny using a CSR methodology.

RECOMMENDATIONS

35. CSR methodology is applied to ALL inpatient unit models of care with the underlying principles of: early senior review, same 24 hour model of care applied across the seven days of the week.

36. ED and inpatient teams build relationships and look at what each discipline value adds to the patient journey according to patient need rather than professional pride. Consideration should be given to the development of standardised clinical pathways for common, high volume presentations.
37. AMU be further developed to provide a more consistent 24/7 model and that there be a shift to higher acuity care.

38. Priority given to refreshing skills of all categories of clinical staff on the AMU in the management of higher acuity patients. This particularly applies to General Medical Consultants and nursing staff.

39. Access to emergency theatre is specifically reviewed.

40. Discharge practices are subject to a rigorous redesign approach.

41. Review use of allocation of bed stock to clinical disciplines across the SALHN Hospitals.

42. Review admission and transfer policy at Noarlunga Hospital to ensure the most appropriate patient groups are transferred.
Flinders Medical Centre, the Greater Hospital Patient Flow

The review team was provided a broad overview of the hospital wide bed management and patient flow practices including how they were coordinated, their relationships with the FMC ED and other sites within and outside of SALHN.

Bed management practices and systems

FMC have a centralised bed management system that is nurse led. The Central Flow Coordinator (CFC) role is a Level 3 Registered Nurse who works between the hours of 0800 and 1700 over five days. This role is assumed by a Stream Nurse (SN) between the hours of 1300 and 2130 with responsibility after hours delegated to the Hospital Coordinator. The SN assumes the role of CFC on the weekends.

Monday to Friday there is a bed management meeting at 0900 attended by ward Clinical Services Coordinators (CSC) and an ED senior nurse. The Nursing Director Corporate Services routinely attends. The CFC leads the meeting. Mental Health and Division of Women’s and Children do not attend and instead send data to the CFC separately.

The meeting identifies:
- patients in ED requiring inpatient beds and current outlies in wards with each CSC identifying the most appropriate ward their outlies should transfer to. This follows the principle of right patient, right place, first time.
- Elective surgery patients requiring beds.
- Confirmed and potential discharges for the day.
- Divisional and hospital wide escalation status.
- Flexi beds in use.
- Wards over census (use of ward treatment rooms).

The information provided is manually entered into an excel spreadsheet that is projected onto a large screen.

Confidence was expressed by bed management staff in the accuracy of the information. That is, the conversion from the morning information to actual discharge numbers by the afternoon is consistently accurate. This has not been tested by an audit. There was acknowledgement however that the numbers may remain the same but the actual patients may change.

The information is collated into a condensed report that is sent to key staff including the Executive Team, Nursing and Medical Directors. The report highlights the current escalation status of each of the divisions (ED, Surgery, Operating Theatres, Medicine and Women’s & Children) and the Hospital status as per OBI.

It was noted for the day the review panel observed the Hospital was on Grey at 9.30 and was predicted to be Grey at 1230. Grey is defined as over 100% capacity. On the weekend the SN conducts a ward round, collects the required information and produces and distributes the report.

At 1100 there is a Daily Staffing Meeting where Nursing and Midwifery Directors meet to discuss hospital capacity, the need to flex beds and nurse staffing requirements.

At 1130 the CFC commences a round of the hospital to determine progress with discharges and admissions.

At 1300 there is a regional teleconference involving FMC, Noarlunga Hospital, Repatriation General Hospital and Mental Health. This meeting is also nurse led but
Social Workers attend Thursdays to discuss ‘blue dot’ patients. ‘Blue dot’ patients are those that are medically clear for discharge but are waiting for alternative care.

The intent of this meeting is to predict the required bed numbers for the next day and to determine demand and if this can be met. It was again observed the Hospital was Grey, yet that was considered to be common place and accepted by the staff as such. At that point it would appear there was no capacity in the hospital for ED admissions generated over the next 18 hours, leading to the inevitable conclusion that ED would have a number of admitted inpatients by 0800 the next day.

The Patient Streaming Nurse (level 2 RN) commences at 1300 and is responsible for providing “both practical assistance and advice to the wards to enable them to receive patients in the timeliest manner. This may include but is not limited to, providing initial nursing care, settling and orientation of their ward environment” (ACSC Patient Streaming Nurse Job & Person Specification 13/10/11). The Patient Streaming Nurse will take an active role in “pushing” patients from ED to the allocated ward beds if there are delays.

**Escalation processes and effectiveness**

Each division has an escalation plan that dovetails into the central FMC Escalation Document. The divisional plans reflect the principle of right patient, right place and provide advice on how to maintain this principle. Many wards have flex bed capacity and these may be used on a short term basis to ensure the right patient is in the right place. The use of flex beds can be authorised the General Manager via the Divisional Nursing/Medical Directors.

Both the divisional and FMC escalation documents are comprehensive with multiple actions covering many scenarios. It is based on triggers with the intent to prevent any deterioration, however, there is a general consensus that the hospital only takes any real action when the ED reaches a crisis point: it is reactive and not proactive.

It is the review team’s observation that FMC have multiple opportunities to review the status of the Hospital, but despite this comprehensive structure, fail to take any real action before reaching a crisis point. There is a sense of fatigue and fatalism: that it is just another day when the hospital status is red or grey. This is understandable when if as reported the hospital’s average occupancy is often over 100%. To a large extent it appeared that this daily bed management activity was inevitably more about information collating than proactive bed creation.

FMC use a ‘ward pull’ model, which is a decentralised patient flow model where wards take responsibility for identifying and coordinating patient transfers to their units. As previously noted the underlying principle is to get the right patient, to the right place, at the right time.

‘Green to go’ identifies a patient ready to be transferred. ‘Green to receive’ identifies the unit is ready to accept the patient. This is visualised on a patient information system used by the wards and ED. The intent of the ‘ward pull’ model is to encourage ownership at the local level and to reduce phone calls and conflict between ED and the wards. The wards like it; ED does not. This is primarily due to the perceived delays in reaching ‘green to receive’.

The system relies on trust and that ward nursing and medical staff are affecting discharges quickly and efficiently. ED perceives lengthy delays between ‘green to go’ and ‘green to receive’. Delays in discharging patients are discussed in more detail below, however there was a clear perception that there is not a ward culture that promotes enthusiastic bed creation and pulling of new patients.
As a counter to this, the wards anecdotally report delays in patient arrival from ED when the wards are ‘green to receive’. The review team’s impression was that these processes are falling down on all these fronts.

It was the review team’s observation that the IT system used for tracking patients does not meet the needs of a dynamic tertiary hospital. The review team acknowledges the current work at a state level with the implementation of EPAS which may be a future solution for this issue.

The review team also observed that whilst the ‘ward pull’ model and the principle of right patient, right place, first time has merit in an ideal world, it may in fact be contributing to lengthy delays in ED patients accessing inpatient beds.

The review team recommends measuring and identifying delays incumbent in the current process, and considering whether the benefits of this principle are potentially outweighed by its impact on access block and its associated mortality.

**Patient flow pathways across SALHN**

FMC receive multiple transfers from other SALHN sites and Country Health every day. The review team could not confirm absolute numbers, however SAAS suggested 20 transfers a day from NH alone. It is apparent to the review team there has historically been a lack of clearly documented patient flow pathways across SALHN, which is only recently being addressed.

Medical staff at the referring site contacts a medical colleague at FMC and request acceptance. Once the FMC medical officer accepted what happened thereafter was variable. The CFC or SN (depending on time of day) were not routinely contacted to determine if there was a bed, and the ED is inconsistently informed.

The majority of patients transferred into FMC go via ED. This is for two reasons.

One is due to the lack of any other ambulance drop off zone except for the Discharge Transit Lounge which is perceived to be inadequate in space and privacy by many.

The second is the practice of inpatient medical teams accepting patients from other sites with instructions to send to ED. This is a combination of traditional culture, expected lack of beds, and a perception that it is the safest model of care.

It was reported to the review team that there are many times when an inpatient medical officer will ‘accept and run’. That is, accept the patient from another site late in the day and then leave work for the day. This effectively leaves the work to ED and an inpatient medical workforce that is diminished and more junior after hours.

The review team notes there is work in progress to develop agreed patient pathways. The Direct Admissions Pathway Register is a web based system that captures patient information and indicates when a bed is available. All sites will have access.

The process requires the referring medical officer to contact the relevant Pathway via a DECT phone which is held by specific nursing staff in the relevant areas. There are pathways for medicine, surgery, paediatrics, coronary care and fractured neck of femur. When a bed is available the system displays “green to receive”. This system is currently being trialed and looks encouraging.
Discharge planning

In terms of discharge practice, the review panel met with senior nursing staff and medical officers from inpatient units across FMC to discuss this issue. There were multiple barriers identified, which for the purposes of this report will be broken down into three stages.

The first stage is the lack of flexibility around the decision to discharge. Historically at FMC the decision to discharge a patient is made by medical staff and this practice remains largely unchanged. The implication of this is most significant in areas that lend themselves to protocol based discharge practice, such as elective and some emergency surgery. There are few protocol driven care pathways or nurse led discharge protocols in place.

The path leading to the decision to discharge may face delays due to limited availability of senior medical staff, with junior staff being unwilling to make the decision. This is of particular relevance on weekends. Delays in processes that inform the decision (eg pathology) and delays in referral uptake from other clinicians (Allied Health, subspecialties and Aged Care Assessment Team) are further evident issues. It was reported that bookings for the Aged Care Assessment Team are limited to two appointments three days a week, a total of six per week, and the average time between ACAT assessment to placement is 21 days for FMC.

The second stage of discharge planning for many patients will be the transference of care to other health professionals/service. Further delays are not uncommon if the patient requires out of hospital care and/or alternative accommodation including transfer to another site or residential care facility. Delays with service provision occur with FMC Hospital @ Home, Hospital Care in the Home, Transitional Care Packages and disability services.

The FMC Hospital at Home (H@H) service is capped due to funding constraints and ward nurses report it is not unusual to wait a few days for H@H to accept a patient.

The service accepts referrals from the three SALHN sites and the review team notes there has been limited growth in the service as per the data provided below. Note the 2011/2012 data provided was a projected estimate for June 2012.

Across SALHN H@H patient numbers dropped from 1,726 in 10/11 to 1,544 in 11/12. In contrast the number of visits increased in the same period by 374. The ALOS was not captured for NHS or RGH in the 10/11 period so cannot be commented on.

Looking at FMC in isolation between the two periods there were 163 less patients, 68 more visits and the ALOS increased by 1.22 days. The visit and ALOS increases may be due to higher acuity but cannot be confirmed without reviewing the DRGs. Of note, all main referral sources (medicine, surgery and ED) had decreased.

The third stage is the day of actual discharge and delays occur due to waiting for discharge drugs to be prescribed, SAAS transfers and other transport for the patients (friends/relatives). There are also delays for the beds to be cleaned following discharge. It was noted by the review team that in the majority of the wards the nursing staff are required to clean the beds. This practice would clearly contribute to the delays.

Further issues identified include the Estimated Date of Discharge (EDD), which is not used consistently by the inpatient units. The Discharge Transit Lounge is also not consistently well utilised. It was reported that due to the redevelopment access to the lounge has been more difficult with families unable to drive up resulting in patients walking
long distances. This situation is due to improve in the near future with the completion of the building works in the area.

**RECOMMENDATIONS**

43. That FMC bed management moves away from the emphasis on accurately reporting the daily impending available bed decline, and instead use their comprehensive meeting structure to encourage processes that actively create beds.

44. That the current escalation processes do not correspond to activity that creates capacity on a reliable basis, and this hospital response needs to be addressed.

45. That there is more transparency around the ward identification of ‘green to go’ beds and that this is regularly audited.

46. That CSR methodology is applied to the process delays in moving patients from ED once a bed is available, and that changes are made to these processes.

47. That investment in improvements such as the Direct Admissions Pathway register is strongly encouraged. The caveat to this is that without capacity generation and available beds, the end result will be unlikely to change from current practice. The review team recommends an evaluation of the trial within three months and a review of the direct admission process/pathway via ED.

48. That data be used more effectively to encourage accountability and healthy competition within the hospital to enhance current processes such as discharge practice.

49. That the laxity around current referral processes from SALHN sites as identified above be reviewed and corrected.

50. That protocol or nurse led discharge practice be established in areas that lend themselves safely to this, particularly elective and high volume emergency surgery.

51. Emphasis on discharge planning, championed by senior clinicians and ward nurse managers, is essential for capacity generation and needs to be improved and audited. There is potential here also for a culture of healthy competition between units or wards to encourage this process.

52. That SA Health supports an increase in capacity of H@H services to FMC. It was reported to the review panel there is a business case in progress to increase the capacity of H@H. The review team recommends FMC supports increasing H@H capacity and that the H@H service cease the practice of capping the patient numbers/visits. Capping will only serve to discourage routine referral practices. Rigorous triaging and daily assessment of patients are required to ensure length of stay on the H@H service is minimised and that H@H is not used as a substitute for an existing community service. Further it is recommended FMC review DRGs that have excess OBDs (above the benchmark) and consider where H@H could assist.
REFERENCES

SAAS
a. Hospital Clearance Delay 20 May 2012
b. Pre-Hospital Patient Flow Coordination by SA Ambulance Service Project Report May 2012
c. Response Times and Turnaround Times
d. Standard Operating Procedure (career)
e. Transfer of patients from SA Ambulance Service into FMC ED

FMC
f. Admissions from the ED by service related group 12 months to April 2012
g. Admissions from the ED by ward (on admission) 12 months to April 2012
h. AMU analysis
i. AMU Direct Admissions Pathway
j. AMU Profile Summary
k. AMU separations
l. 9 am Bed Summary – 7/6/2012
m. Division of Medicine, Cardiac and Critical Care Escalation Plan version 3
n. ED Demand Management Tool
o. FMC Escalation Document
p. ED Escalation Request based on ED Demand Management Tool
q. ED Escalation Plan for Stage 3 Redevelopment May to November 2011
r. FMC Patient Flow Principles June 2011
s. FMC Patient Access Presentation David Swan
t. Four Hour Target Four Hour Focus Day 1 Evaluation
u. Hospital @ Home Activity report 2010 – 2011
v. Hospital @ Home Activity Report 2011 – 2012
w. Job and Person Specification Central Flow Coordinator
x. Job and Person Specification Patient Streaming Nurse
y. Median Discharge Time
z. O&G Status Determination Tool
aa. SALHN Patient Flow Commitments
bb. Sorted Patient Pathway Trial December 2009
cc. Sorted Patient Pathway – Emergency Surgical Pathway Trial May 2010
dd. Strategies for Improving “Area” Communication within the ED June 2012
e. Surgical & Specialty Services Escalation Plan July 2011
ff. Time between Admission date/ time and first OT procedure (May 2011 to April 2012)
gg. Transit Lounge Utilisation

ED Performance Data
hh. 4 hour rule for Admitted and Discharged Patients metro Adelaide
ii. EATIG April 12
jj. ED SoT 4 Hour April 12
kk. ED Visit Time v3
ll. Monthly ED Status & 4 hour Trend reports March & April 2012 source OBI Systems
mm. NPA_KPI report April 12
nn. YTD May 2012 ED Presentations with visit time > 8 hours or > 12 hours metro Adelaide

SA Health Strategic Policies and Guidelines
oo. Criteria Led Discharge and Discharge Lounges
pp. Hospital Escalation
qq. Model of Care for Major Hospitals
rr. SA Health’s Response to the Every Patient Every Service Policy October 2011
ss. See and Treat/ Treatment Clinics
tt. South Australia’s Health Care Plan 2007-2016
uu. Walk-in Treatment Clinics
Appendix 1:

SA Health

Flinders Medical Centre and South Australian Ambulance Service
Review of Hospital Performance and Ambulance Ramping
Terms of Reference

Purpose & Scope
To conduct a review of the Flinders Medical Centre's (FMC) practices and processes to ensure effective emergency patient access to services including entry by South Australian Ambulance Services (SAAS). A specific focus of this review will include analysis of models of care and utilisation of Emergency Department (ED) hospital avoidance strategies that support patient access and patient flow throughout the ED and hospital inpatient clinical services.

Exploration with stakeholders will focus on current practice, including investigating the causes of access block in the FMC, and provide recommendations on concepts related to:

1. processes to receive ambulance presentations in a timely manner or processes to assist in ambulance redirection. Additionally review processes to ensure effective handover between SAAS and FMC Emergency Department staff;
2. models of care and their enablers; clinician work practices for the ED services; inpatient clinical services and advice on initiatives, such as see and treat clinics, event led discharge;
3. review the effectiveness of the acute medical unit and clinical work practices;
4. decision making related to entry and exit into these services, protocols/management plans and escalation strategies to address flow throughout clinical services including identification of surge capacity;
5. governance and leadership;
6. clarity regarding defined roles and responsibilities to ensure well coordinate patient care throughout clinical services in line within SA Health policy initiatives;
7. establishing the current effectiveness of escalation strategies to ensure there is a clearly defined management escalation process to raise patient flow issues with the FMC Executive (Medical, Nursing, General Manager) and Chief Executive Officer;
8. what policies and procedures support decision making, communication and escalation of issues through to the FMC Executive Directors and Chief Executive Officer; and
9. potential related barriers and enablers to patient flow.

Review Membership
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<tr>
<th>Name</th>
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Steering Committee Membership
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<tr>
<th>Name</th>
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<td>Jenny Richter</td>
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<td>Lyn Dean</td>
<td>A/Director Operational Strategy</td>
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Executive Lead

Jenny Richter, Executive Director Health System Performance

Reporting relationships

David Swan, Chief Executive, SA Health, through to Minister of Health and Ageing
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<th>Deliverables Terms of Reference</th>
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<tr>
<td>1. Analyse the current process of Ambulance presentation to the FMC Emergency Department, in particular the effectiveness of handover between SAAS and FMC Emergency Department staff. Identify the issues that lead to ambulance ramping and impacts on patient flow (street arrival through to ED bay).</td>
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<td>2. Analysis of total ambulance turn-around activities and times from arrival to being clear and available for tasking in order to identify causes of delay and areas for improvement.</td>
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<td>3. Undertake a comparative study regarding ambulance hand-over and turn-around between FMC and RAH.</td>
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<td>4. Analyse the effectiveness of patient triage and streaming of patients to existing models of care in the Emergency Department including Emergency Extended Care Unit (EECU) and “Time Critical”. Additionally identify if alternate MOC such as see and treat (S&amp;T) and Psychiatric Extended Care Unit (PECU) would be effective in improving decision making and patient flow.</td>
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<td>5. Analyse the effectiveness of patient allocation and care management within existing models of care external to ED such as Acute Medical Units, Acute Surgical Units and other short stay wards and inpatient wards/services in general. Identify what are the issues with current practice that contribute to delays in decision making for entry or discharge from these services, including options for direct admission.</td>
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<td>6. Review existing policies and procedures in the ED and inpatient wards / services regarding communication and escalation of patient flow issues to the management team and FMC Executive and Chief Executive Officer</td>
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<td>7. Review patient flow (ED layout, bed management systems and processes) and provide options for improving patient allocation.</td>
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<td>8. Review the impact of patients presenting with mental health conditions on the model of care in the Emergency Department and identify strategies to address the impact.</td>
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<td>9. Review the effectiveness of Patient Flow Coordinators and Discharge Liaison Officers in the Emergency Department to support the models of care and reduce the impact of delays.</td>
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