Review of the Mount Gambier and Districts Health Service Care of Emergency Patients

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1 Introduction

Mt Gambier and Districts Health Service (MGDHS) is an acute hospital of 96 public beds and several other patient care settings which has a consumer catchment extending from Bordertown in the Upper South East of South Australia to Kingston and to parts of South West Victoria.

The 17 bed Mount Gambier Private Hospital Incorporated is located within the Mount Gambier Public hospital.

Within the MGDHS there are 37 medical beds, 27 surgical beds, a 6 bed High Dependency unit, a 20 bed maternity-paediatric ward and a 6 bed mental health unit. Facilities are provided for chemotherapy, dialysis and day surgery. There are 4 operating theatres and 3 delivery suites.

While there are 37 medical beds the number of medical patients can expand markedly, with numbers of 60-70 medical patients being cared for during peak periods.

The Emergency Department (ED) has been significantly expanded from 10 to 22 treatment spaces. It has two resuscitation rooms, fast track treatment areas, multiple treatment bays, an infection isolation room, a separate paediatric area, enlarged waiting areas and a private family room. It also has a training room with videoconferencing facilities adjacent to the ED.

There is an on-site pharmacy; medical imaging is provided on-site by Benson Radiology and 24 hour pathology services are supplied by SA Pathology which has an on-site regional laboratory.

The MGDHS, with its physical infrastructure, its salaried medical and nursing workforce, its community care services is very much a regional hospital, one without peer in South Australia although there are similar hospitals, of differing sizes relatively nearby in Western Victoria. Contemplating how these hospitals are structured provides a useful guide for an optimal model for the MGDHS and how it relates to its community, to major Adelaide hospitals, to Country Health SA and to the SA Department of Health and Ageing.

The Mount Gambier community and its surrounding communities have taken a keen interest in their hospital and how it is functioning. From time to time this interest has been elevated into a heightened concern that all is not well. This is one such time.

On this occasion concerns have been expressed from within and outside the hospital regarding the safety of patient care, in particular in relation to the number, seniority (or lack of) and skill mix of Resident Medical Officers (RMOs) and the requirements to supervise them.

The Terms of Reference (Attachment 1) address these concerns.

This Review has been undertaken by Mr Andrew McGill, Nursing Director of Critical Care for the Northern Adelaide Local Health Network (NALHN) and by Professor Chris Baggoley, Executive Director of Medical Services for the Southern Adelaide Local Health Network (SALHN). Until July this year Professor Baggoley was the Chief Medical Officer for the Australian Government. He previously reviewed the Accident and Emergency Service of the MGDHS in February 1998. Andrew McGill has been Nursing Director of Critical Care for the past 3 years with his portfolio overseeing two emergency departments that see 100,000 presentations. Andrew has had recent experience in redesigning health care and has led an organisation wide program engaging in lean thinking principles.

The reviewers were briefed by Maree Geraghty, the Chief Executive Officer of Country Health SA Local Health Network, and senior executive members of the South East Region on 25 November 2016 and were provided a folder with data and other material to assist the review process.

The visit to Mount Gambier took place over four full days from Thursday 8 December to Sunday 11 December which included scheduled interviews as well as observations and discussions with emergency department and ward staff covering day, late and night shifts over the weekend.

All staff who spoke to the reviewers were most helpful. All care was taken not to impede their clinical work during this process.

2 Executive Summary & Recommendations

2.1 Executive Summary

The focus of this review was the safety of emergency patients at the MGDHS together with patient flow.

This review was not presented with data or other evidence (such as coronial findings) which demonstrated harm to patients. Nevertheless, this review does take very seriously concerns expressed by clinical staff that patient safety is at risk at certain times. To address this risk recommendations have been made regarding medical staff seniority and skill levels, and regarding nurse staffing in the ED.

Patient flow does require the attention and cooperation of all across the hospital which has some processes that inhibit flow. National Emergency Access Target (NEAT) data need to be viewed with some scepticism as the processes of collecting time based data in the ED depend on paper based methods and memory. This is not suited to an ED with 19,339 attendances per annum. In addition the category of admission into the emergency department needs explanation, review and, probably, elimination.

The review has noted, and not for the first time in a long history of reviews of the MGDHS, that while MGDHS may be unique in South Australia, its catchment, its services and its resident hospital staffing are not unique in regional Australia. The approach taken to these similar hospitals by other health systems is instructive.

The functioning of the MGDHS ED was probably at its peak in 2013/14. Its current status can be readily tracked to a discrete number of factors which are discussed in this report and which relate predominantly to medical staffing issues.

What has not changed is the presence of many skilled doctors, nurses and allied health staff at MGDHS. What also has not changed is their dedication to patient care and to each other. The same must be said for those charged with managing the Service.

The physical facility at the MGDHS continues to be enhanced with the recent refurbishment of the ED, the provision of the Mental Health Unit and the extra medical ward capacity all being excellent additions to this fine structure.

The population of Mount Gambier and of the catchment area of the MGDHS have much to be reassured about and proud of.

2.2 Recommendations to Country Health SA Local Health Network (CHSALHN)

1 Proceed to recruit a new ED Director as soon as possible – with preference to a Fellow of the Australasian College for Emergency Medicine (FACEM) or a senior advanced trainee of the ACEM. Consider a locum FACEM director in the interim

2 Task the new ED director with revitalizing the ED education program.

3 Review and restructure the recruitment process for Junior RMOs (JRMOs) with preference given to suitability to those working in an ED environment.
- Pursue the possibility of rotations from Adelaide teaching hospitals, this may be a medium to long term option.
- Consider adopting the RMO recruitment processes of these metropolitan hospitals.

4 Enhance after hours ward medical cover with a 1600 to 2400 RMO shift

5 Considering the ED work load which is particularly evident in the afternoon and evenings, create an additional ED RMO shift from 1300 to 2100 hours.

6 The introduction of an ED Nurse Educator (as described in EA Appendix 1) should be implemented to support the development of an ED education framework.
This role can be a Regional position and should sit outside of the function of the ED Clinical Services Coordinator.

7 Ensure that the MGDHS ED has a triage nurse allocated for 12 hours per day in addition to the base staffing as described in the 2016 Nursing / Midwifery (South Australian Public Sector) EA.

8 An electronic patient tracking system which suits the needs of the MGDHS ED should be introduced.

9 The implementation of a staffing escalation process for the ED during times of increased activity needs to be developed and implemented.

10 The removal of ED Nursing staff from supporting the Code Blue team at times of greater clinical need in the department.

11 The Clinical Initiative Nurse (CIN) role within the ED needs to be reviewed, not in isolation but in line with an ED/whole of hospital patient flow initiative.

12 The MGDHS ED Nurse Practitioner (NP) Model of Care (MOC) needs to be staffed above the ED base staffing ratio to gain full benefit of the skills and abilities these highly trained clinicians can provide.

13 Consideration should be given to provide the ED with clerical support for each late shift.

14 Ensure that the MGDHS ED has an Emergency Department Shift Coordinator (EDSC) (above base numbers) who is an emergency trained RN which can be the hospital shift coordinator. This role should be in addition to the base staffing.

15 A formal patient flow initiative be implemented at the MGDHS. This will require long term (approximately 6 months) facilitation and support.

16 The category of 'Admission within ED' be thoroughly reviewed and justified.

17 Recruit at least two medical registrars, ideally funded by the Specialist Training Program (STP), as approved by the RACP (noting the College has approved up to 4 registrars)

18 Proceed to recruit a full time physician as soon as possible. Proceed to recruit to the 3 FTE complement of physicians, ideally with two of these being full time

19 Re-invigorate discussions with paediatricians over their long term concerns re staffing and other issues with MGDHS. This may include

recruitment of an additional 0.5 FTE paediatrician and will include supporting of processes to accredit and recruit a paediatric registrar through the STP.

20 The MGDHS Director of Medical Services reviews the need for both the ward cover and the additional late shift to the ED once the recommended registrar positions and the restructured recruitment processes for RMOs are in place.

2.3 Recommendations to SA Department of Health and Ageing

21 That the Department of Health And Ageing convenes a planning meeting to describe a medium to long term sustained clinical staffing and service structure at MGDHS. Attendees should include those who have already developed sound working models (surgery, anaesthesia) and those who have provided formal reviews or opinions on staffing matters over the last decade. Consideration of further development of links with major metropolitan hospitals, including rotation of medical trainees, should be encouraged in this process.

22 That the Department of Health and Ageing assists the Country Health SA Local Health Network to plan for new models of staffing of other services, learning from the lessons and experiences of the MGDHS.

3 Findings

This chapter will describe the patient flow from community to discharge with a particular focus on the emergency department, transition to the wards and on the wards.

3.1 Pre-Hospital

Methods of arrival include self-presentation, transfer by the South Australia Ambulance Service (SAAS) and on occasions, by South Australian Police (SAPOL).

The relationship with the SAAS is exemplary. Ambulance paramedics advise the emergency department of all attendances in advance, which enables smooth handover to the ED.

3.2 Emergency Department

The ED has undergone a major refurbishment and expansion in recent years. It is an impressive facility with state of the art equipment. Whether its layout is optimal for patient flow is debatable but the layout is not a rate-limiting step for the timely care of patients.

19,339 presentations were managed by the MGDHS in 2015-16 compared to 15,804 in 2012-13, an increase of 22.4%. They come from Mount Gambier and nearby communities in the main but may be referred from anywhere in the region.

Attachment 2 demonstrates the rise in ED presentations from July 2012 to July 2016.

Attachment 3 demonstrates the percentage shift in triage levels from 2014/15 to 2015/16. This demonstrates a rise in acuity over this 12 month period.

Attachment 4 demonstrates ED presentations by triage level against nursing shift times for the period July to October 2016

3.2.1 Medical Staffing

There are a number of issues with medical staffing in the ED which lead to concerns regarding their impact on patient safety and patient flow.

The key issues are:

- medical leadership,
- registration status, relevant experience, skill level and supervision requirements of junior medical officers (JMOs), resident medical officers (RMOs) in particular,
- dependence on locum medical staff,
- the withdrawal of locum Fellows of the Australasian College for Emergency Medicine (FACEM) from the Melbourne locum agency,
- the lack of education provided to ED doctors, and
- rising number of presentations to ED.

The current medical roster is as follows:

Monday to Friday	
0800-1200	Supervisor or GP (except Wednesdays)
0800-1600	RMO, Intern
1200-2000	Intern
1200-2200	FACEM (locum, except Wednesday – ED Director)
1530-2330	RMO x2
2230-0830	RMO x2

Saturday, Sunday, Public Holiday	
0800-1600	RMO x2
1200-2200	RMO
1200-2200	FACEM (locum)
1530-2330	RMO x2
2230-0830	RMO x2

The ED RMO also covers ward calls from 2200-0800 Monday to Friday, 2200 – 1200 Saturday, Sunday and public holidays

The Director of the Emergency Department, Dr Trevor Burchall, has announced (subsequent to our visit to the MGDHS) his resignation from the post and his intention to work elsewhere. He has been in this position for almost 10 years during which time he built a reputation as an excellent clinician and educator.

That a range of circumstances have arisen, particularly in the last 12 months, where he could no longer find time to teach within the ED was of great concern to him and to his colleagues. That he found it increasingly difficult to provide clinical leadership was also of concern, as was the deterioration of his relationship with hospital administration.

His resignation paves the way for a re-setting of relationships and functions and this opportunity must be taken. The reviewers believe that a Fellow of the Australasian College for Emergency Medicine (FACEM) would be the most likely to be effective as Director of the MGDHS.

Recommendation 1.

Proceed to recruit a new ED Director as soon as possible – with preference to a Fellow of the Australasian College for Emergency Medicine (FACEM) or a senior advanced trainee of the ACEM. Consider a locum FACEM director in the interim

A presentation made by Dr Burchall in 2013 “Exorcising the 4 hour demon” outlined the processes and significant achievement of the MGDHS ED from September 2011, where it was the worst performing rural ED for the NEAT, to February 2013 where NEAT performance had risen from 67% to 89%. 2013-2014 was probably the high point of ED performance at the MGDHS. There were high levels of medical and nursing leadership, teamwork, cooperation, communication and strategic thinking and action.

NEAT has dropped back to 74% this year, having been at levels over 90% in 2013 and 2014. There are a number of reasons for this decline, the rise in patient attendances being a major factor, but restoration will not be possible without effective medical leadership.

Data provided to the reviewers regarding the 10 Resident Medical Officers (RMOs) complement on the ED roster showed that seven required “Level 2 supervision” as designated by the Australian Health Practitioner Registration Agency (AHPRA). That is they are required to

have responsibility for individual patients shared with their supervisor. Six of the 10 RMOs were in their second postgraduate year (PGY 2).

It is this level of supervision, accompanied by varying emergency experience and skill levels, which places a significant burden on the supervising staff, and on the hospital. To ensure the appropriate level of supervision, the RMO complement required for the ED roster also requires the hiring of locums.

The higher the number of locums required for the ED, the less likely a cohesive team approach to the issue of patient flow will occur. The lower the skill level of a group of doctors the more likely it is that patient safety could be impacted.

In this environment, the lack of specific ED education for doctors becomes a significant issue.

Recommendation 2.

Task the new ED director with revitalizing the ED education program.

That the locum agency which has provided the highly regarded FACEMs who have worked midday to 10pm shifts since 2013/14 no longer intends to renew its contract beyond 30 June 2017 is another factor to be considered when assessing issues of patient safety and patient flow.

The reviewers were advised that with the number of attendances to the ED rising markedly, their acuity increasing, the skill level of junior medical staff reducing, the demands on the skills of ED locums to attend ward calls, the lack of back up in the event of multiple resuscitations there had been increasing resignations from their locums, leading to a decision by the agency not to seek to renew its contract with MGDHS beyond June 2017.

The agency noted that the 5-6 week period during winter this year when a late shift medical registrar had been employed by the hospital had been most successful and, if restored, could sway their current resolution not to seek an extension of their contract.

The MGDHS also reported that during the 2013/14 period when ED functioning was at its highest in recent times (albeit with fewer patient attendances) a good proportion of its RMO complement was sourced from the UK. While these doctors required supervision at a level determined by AHPRA, their skill level was high.

Following instruction by the SA Department of Health and Ageing (who in turn were following instruction from the Commonwealth Department of Immigration and Border Protection) the MGDHS has ceased recruiting RMOs from the UK and is sourcing Australian resident International Medical Graduates (IMGs) instead. It is noted, however, that major metropolitan hospitals in Adelaide are still recruiting from the UK. The possibility of MGDHS doing the same should be explored.

Recommendation 3.

Review and restructure the recruitment process for Junior RMOs (JRMOs) with preference given to suitability to those working in an ED environment.

- *Pursue the possibility of rotations from Adelaide teaching hospitals, this may be a medium to long term option.*

- *Consider adopting the RMO recruitment processes of these metropolitan hospitals.*

The requirement of ED medical staff to cover the wards after hours has created a problem for both the ED and the wards, particularly during those times overnight (and to midday on weekends and public holidays) when RMOs are the only doctors in the hospital.

It is problematic to have an RMO (or a more senior doctor) leave the Department when there are patients requiring attention in the ED. The reviewers witnessed one set of circumstances around 2200 hours on Saturday 10 December when both the Locum FACEM and the senior RMO were called to separate patients on the wards, each of whom had difficulty breathing and who needed their skills, leaving the more junior RMO to manage the ED.

Conversely, ward nursing staff, understanding the implications for the ED if they call upon one of their doctors for help to a deteriorating patient, can be reluctant to make that call.

Recommendation 4.

Enhance after hours ward medical cover with a 1600 to 2400 RMO shift.

Recommendation 5.

Considering the ED work load which is particularly evident in the afternoon and evenings, create an additional ED RMO shift from 1300 to 2100 hours.

ED Medical staff also reported the requirements on them to fully "work up" patients, particularly medical patients, before they could be admitted to the ward. Given the absence of ward doctors after hours, or medical registrars at all, the reviewers could understand that medical consultants would want such a comprehensive picture of these patients before they assumed responsibility for them.

Nonetheless, such a requirement does impede patient flow and does impact on NEAT performance. It may also lead to ED doctors waiting until the short double cover period to complete their admission notes, thus apparently 'batching' patients for admission to the wards (see 3.3).

Similar restrictions also relate to admissions to the Private Hospital where there is no ward doctor presence. Patients admitted there are said to require full work up, including pathology and medical imaging (neither of which may be readily available) and the result of which may not have bearing on the decision to admit the patient. The degree of work up required of a patient prior to them leaving the ED will depend on the judgement and attitude of each admitting specialist.

3.2.2 Nursing Staffing

Emergency Department (ED) staffing is described within the Nursing / Midwifery (South Australian Public Sector) Enterprise Agreement 2016 (Appendix 1) as '1 nurse to every 3 patients' regardless of patient status. The ability to staff an ED as per appendix 1 of the EA provides the opportunity for an ED to increase its staff numbers as activity increases. This staffing methodology is applicable to the ED within MGDHS

The current nursing recruit to FTE for the MGDHS ED is 22.18 FTE with the following roster configuration in place:

Shift	Staffing requirement
Early:	4 staff commencing at 0800 to 1630
Late:	1 staff commencing at 1200 to 2030 3 staff commencing at 1430 to 2330 1 staff commencing at 1600 to 0030
Night:	2 staff commencing at 2200 to 0830

This roster configuration allows for a double staffing period from 1400-1630 hours across 7 days per week to assist with in-house education. During this 150 minute period, a maximum 9 nursing staff are available (noting 150 minute double staff period includes ½ hour handover time).

Nursing FTE for ED has not significantly increased over the past 3 financial periods however presentation numbers have increased (22.4% since 2012/13).

Recruit to FTE for ED (Nursing) for past 3 financial periods:

Date	TOTAL FTE
2013- 2014	21.20
2014 -2015	21.20
2015 -2016	22.18

Staffing an ED to support 1 nurse to every 3 patients ensures treatment is commenced early (at time of triage) and patients are pulled into the department to receive Medical Officer (MO) / Nurse Practitioner (NP) assessment and intervention with disposition being identified within 2 hours of arrival (based on 4 hours National Emergency Access Target). Sufficient nursing numbers within the ED will also ensure high acuity patients (category 1 and 2) can be supported at their greatest time of need.

It needs to be noted that the 2016 Nursing / Midwifery (South Australian Public Sector) Enterprise Agreement (EA) identifies that MGDHS ED will have a triage nurse (above 1 nurse to every 3 patients ratio) for 12 hours per day together with a shift coordinator (which can be hospital coordinator with emergency training). This is a great step forward for the MGDHS ED and needs to be implemented as soon as possible to support timely treatment and disposition of patients whilst ensuring deteriorating patients are identified and managed early within their period of emergency care.

The design of the ED, whilst supportive of streaming patients into designated treatment spaces (acute emergency vs. ambulatory/fast track) does in itself pose problems for a nursing workforce that is limited in numbers and has no clear processes in place for streaming ambulatory / fast track patients into the department to be seen, treated and discharged within a 4 hour time frame.

The absence of an electronic patient tracking system impacts the nursing (and ED workforce) as it requires manual paperwork processes / tasks to be in place which delays and impacts upon patient care and flow processes from occurring.

Priority 1 and 2 patients that require active resuscitation can deplete the ED nursing workforce significantly as the need to stabilise and manage

the patient continues post resuscitation until a clear disposition pathway is identified.

A coordinated hospital wide patient flow focus will support patients being moved out of ED (once disposition is determined) and reduce the impact on ED nursing numbers due to decreased ED occupancy.

Nursing staff within the ED discussed and identified a range of stressors and issues within their daily roles that they felt contributed to their inability to provide the level of care they wanted to provide to their patients (It needs to be acknowledged that the level of dedication and commitment the nursing team displayed towards their patients and each other was evident despite concerns that they discussed with the reviewers). The key issues are described below.

3.2.2.1 *Inability for nursing staff to access regular in-house education*

There is currently no structured in-house ED education program for the ED Nursing staff to access utilising double staff time (1400-1630). 9 nursing staff are on shift and available during the double staffing period across 7 days per week. Activity demands impact on the ability for staff to engage in adhoc teaching however there is no structured program aimed at developing or enhancing ED Nursing skills. Whilst the Nursing / Midwifery (South Australian Public Sector) EA identifies an ED Nurse Educator may be provided at local, regional or LHN level, this model currently does not exist within MGDHS ED. Skill maintenance and development of an ED nurse is paramount to ensuring patients are seen and treated appropriately during their acute emergency phase of illness and deterioration in status is identified and managed early.

Multidisciplinary ED Education was coordinated and provided in the ED until recently by the ED Medical Director of Unit. The was regarded by nursing staff as extremely valuable however that opportunity is not currently available due to a number of factors outside the nursing team's control. A structured education program for ED nurses focusing on ED skills is required to ensure patients receive the best care available from a skilled ED nursing workforce.

Recommendation 6.

The introduction of an ED Nurse Educator (as described in EA Appendix 1) should be implemented to support the development of an ED education framework.
This role can be a Regional position and should sit outside of the function of the ED Clinical Services Coordinator.

3.2.2.2 *Triage nurse working within the 1:3 staff/patient ratio*

The triage nurse working within the current 1 nurse to every 3 patient ratio places a significant risk on patients within the triage waiting area due to a limitation of ongoing observation or assessment being provided. The triage nurse within the ED is not located within triage (at all times) and can be pulled into other areas within ED to assist with patient care or to other duties depending upon activity within the department. The ability to have a triage nurse in place (and visible) within the waiting room can greatly improve patient outcomes whilst enabling escalation of priority status if patient deterioration occurs. The triage nurse is a highly skilled clinician and is the first point of contact for patients and family who present to ED seeking emergency intervention.

Recommendation 7.

Ensure that the MGDHS ED has a triage nurse allocated for 12 hours per day in addition to the base staffing as described in the 2016 Nursing / Midwifery (South Australian Public Sector) EA.

3.2.2.3 *The absence of an electronic patient tracking system*

The absence of an electronic patient tracking system within the ED significantly impacts work flow and patient care from both a nursing and whole of ED perspective. Currently the triage nurse hand writes information into the triage book (management record) and verbally communicates a new presentation to the ED Nursing Shift Coordinator and/or the ED Medical Officer (dependent upon urgency of presentation and availability of these staff). This information is then written on a white board and may or may not be handed over to a primary nurse. The ED treatment areas do not have visibility of the waiting room which places a significant risk to patient care. The lack of an integrated patient tracking system significantly affects the nursing workforce as they are required to undertake numerous manual data entry tasks which takes them away from patient observation, assessment and management of care.

Recommendation 8.

An electronic patient tracking system which suits the needs of the MGDHS ED should be introduced.

3.2.2.4 *The absence of a nursing escalation process for nursing resources*

The ability to staff an ED with the appropriate nursing resources is paramount to ensuring patients flow through the system both timely and safely. Acknowledging the difficulties in sourcing additional staff when the numbers in ED escalate, it is important that staff on the floor have a clear process to follow when escalating for additional nursing resources. Whilst a pool of casual nursing staff is available as an organisational resource, a review needs to be undertaken to identify if staff are available when required and a process implemented for ED staff and after hours managers to follow when requesting additional staff based on activity and/or acuity needs. Nursing resources within an ED can be impacted due to a number of factors including but not limited to:

- activity surges,
- patient acuity, and
- access / exit block.

Access block from ED to the wards cannot be underestimated as significantly impacting on the need for additional nursing resources. The inability for patients to leave ED increases ED length of stay (LOS), increases patient numbers waiting to access treatment spaces and increases the need for additional nursing resources to meet 1 nurse to every 3 patients.

Recommendation 9.

The implementation of a staffing escalation process for the ED during times of increased activity needs to be developed and implemented.

3.2.2.5 *Medical issues with ED workforce*

The ED Nursing team acknowledged the great working relationships they have with their ED medical colleagues however they feel that at times the medical roster is not well supported in terms of resources (numbers) and skilled staff.

The nursing team identified concerns regarding:

- timely patient assessment (due to activity),
- skills of locum staff to support high acuity patients (priority 1 patients),
- high turnover of medical staff which affects patient flow into and out of the department,
- the need for nursing staff to educate and orientate medical staff to ED and hospital processes, and
- ED Medical staff supporting the Code Blue team after hours.

A Code Blue is called by ward staff when they judge that a deteriorating patient needs urgent medical and clinical care. Pulling ED medical resources to support hospital wide Code Blues reduces the ability to see and treat ED patients in a timely and safe manner and places a significant burden on both patients and nursing staff.

Staff also identified that in recent months the whole of the ED multidisciplinary education focus has ceased which has impacted the nursing team in ensuring a Team STEPPS approach (so effective in 2013 and 2014) to supporting patients is maintained. The education provided and led by the ED Medical Director of Unit was highly regarded amongst the nursing team however that has since ceased.

3.2.2.6 *ED Nursing support for Code Blue medical emergency team (MET) activation across the organisation*

Whilst the Code Blue team is based in the High Dependency Unit (HDU), the ED currently provides a nursing resource to assist the Code Blue team across 24/7. With the increase in ED presentations over the past 3 years an ED nurse attending a Code Blue MET call across 24/7 needs to be reviewed to ensure skilled staff remain in ED at those times of greater clinical need.

Recommendation 10.

The removal of ED Nursing staff from supporting the Code Blue team at times of greater clinical need in the department. An alternative source will need to be found.

3.2.2.7 *Advanced practice skills not being utilised*

The Nursing and Midwifery Board of Australia defines Advanced Nursing Practice as a continuum along which nurses develop their professional knowledge, clinical reasoning and judgement, skills and behaviours to higher levels of capability (that is recognisable). The Clinical Initiative Nurse (CIN) model has been developed within MGDHS ED however is not utilised by staff on a regular basis.

The main reason identified is due to activity in the department together with access block. The CIN model allows nursing staff identified as competent (determined by the Clinical Services Coordinator (CSC) and Medical Director) to follow defined clinical pathways to support investigations and treatment commencing earlier in the patient journey, either within the waiting room or in the ambulatory / fast track space. The CIN model will support patient flow and enable ED disposition to be identified earlier in the patient journey. Investing in developing staff's advanced practice skills will also ensure ED skills are monitored and maintained whilst supporting their retention.

Recommendation 11.

The Clinical Initiative Nurse (CIN) role within the ED needs to be reviewed, not in isolation but in line with an ED/whole of hospital patient flow initiative.

3.2.2.8 *Emergency Nurse Practitioner (ENP)*

The ENP model of care (MOC) allows the ENP to see, treat and discharge patients (within a defined scope of practice). The current model of having the ENP working within the 1:3 numbers impacts on the ability for this to occur and is a wasted resource within its current format (as per EA Appendix 1, ENP is included in the base staffing ratio). The ED has sufficient space to support an ENP model of care, focusing on ambulatory / fast track patients which will allow medical resources to support other acute flow pathways within the department. The design of the ED has great potential to support the ENP and other practitioners in fast tracking care for lower categories patients that can be seen, treated and discharged within 4 hours.

Recommendation 12.

The MGDHS ED Nurse Practitioner (NP) Model of Care (MOC) needs to be staffed above the ED base staffing ratio to gain full benefit of the skills and abilities these highly trained clinicians can provideClerical support in ED

An admissions clerk is located within ED triage across 24/7 whose role is to support many organisational wide functions including (but not limited to):

- clerking ED presentations (but not admissions),
- accessing case notes,
- switch board duties, and
- responding to 333 emergency phone across 24/7.

This limited role impacts on nursing staff who are required to undertake multiple clerical duties.

Recommendation 13.

Consideration should be given to provide the ED with clerical support for each late shift.

3.2.2.9 *ED Shift Coordinator (EDSC)*

The current staffing model within ED utilises the EDSC within its base numbers and places significant burden and increased risk on patient care. The EDSC provides on the floor assistance to all staff whilst providing a supervision and liaison role with multidisciplinary staff regarding the coordination of patient care. The EDSC is pivotal in ensuring patient safety and flow is maintained within the ED and is the conduit between ED and inpatient units.

Recommendation 14.

Ensure that the MGDHS ED has an Emergency Department Shift Coordinator (EDSC) (above base numbers) who is an emergency trained RN which can be the hospital shift coordinator. This role should be in addition to the base staffing.

3.2.3 Discharge to the community

The reviewers met with community health staff, headed by Sue Thompson, now Regional Nurse Manager for Community Health. Sue has

given decades of service to the South East Community in a variety of senior roles within health care.

Services such as community nursing, palliative care, social work, rehabilitation physiotherapy, diabetes services, mental health, better care in the community, sexual assault support are available for patients in the ED, when they are admitted to the wards or discharged home are very valuable to the MGDHS patients.

Most of the services are available from Monday to Friday only and some report they are extremely under-resourced for the work they do and the out-of-hospital benefit they could provide (eg the diabetes service), nonetheless what is provided is highly regarded and clearly beneficial.

3.3 Admission flow processes

The reviewers met with a variety of key stakeholders from across the hospital. The reviewers were provided with sufficient time to observe how patient flow was managed and put into operation in order to gain a better understanding of the systems and processes that are currently in place to support patients moving out of the ED.

The first observation that stood out when looking at organisational flow was the lack of urgency to process and pull patients through the system. This was evident from the point of triage to the patient leaving the ED and across a range of disciplines and units.

Across MGDHS, ED flow and NEAT was communicated to the reviewers as an ED problem to manage. The consistent theme that came across from a range of stakeholders was the *'us versus them'* mentality and '*working within silos'* i.e. no clear focus on moving the patients through the system to ensure they get to the right place, first time, in time to receive the care they require. ED believed that inpatient teams and wards delayed the movement of patients out of ED whilst staff within the wards felt that ED was holding onto patients for too long and only moving them out of ED at the end of a shift in a batch.

The need for the ED to complete all investigations prior to the patient being transferred out of ED into a ward may be a factor in this apparent batching.

It was evident through the reviewers' observations that no clear bed management process was in place to support 24/7 flow of patients out of ED. The after-hours management team believed that delays in patient movement was the responsibility of the ED and that ED held onto patients for too long. The staff in the inpatient wards that the reviewers spoke to believed that it was not appropriate to send patients to the ward from ED when they had tea breaks, if handover was occurring or a ward round was underway. These views were consistently shared across a range of nursing staff with whom the reviewers spoke.

3.3.1 Observations of Emergency Department processes

- The processing of patients and flow into and out of the ED is hampered by the lack of an electronic patient tracking system. Multiple forms / documentation requirements are currently in place and/or required from point of triage to disposition (and discharge) which impacts on clinician ability to care for the patients and supporting continuous flow.
- Multiple phone calls are made both internal and external to ED due to no electronic patient tracking system being in place which leads to duplication and delays in movement.

- Large numbers of patients are categorised as 'Admission within ED' without any clarification or understanding by those in the ED as to why this occurs. It is conceivable that such admissions may have the effect of artificially improving NEAT performance.
- Manual collection of patient information (due to the lack of a patient tracking system) impacts on the collection and validity of patient tracking information to support NEAT and other key indicators. A paper based ED triage and management record system relies on clinicians manually entering information and is open to risk of non-compliance and poor integrity of data entry.
- Patients are expected to be fully worked up with all investigations commenced and reported upon before a decision to admit is made or supported by the referring team. This leads to prolonged delays of patients in ED, contributes to access block and increases ED occupancy at times of highest activity within the ED.
- There is no sense of urgency to move patients out of the ED when their disposition is identified.
- Multiple calls occur to transfer a patient into a ward bed (ED to after hour's manager / ED to ward).
- Medical and nursing staff requirements to support the Code Blue team removes ED clinicians from the department at times of greatest need and impacts patient flow.

3.3.2 Observations of ward flow processes

- Wards cannot see patients in the ED that belong to their unit and rely on multiple phone calls to accept patients – this impacts on clinician time and leads to frustration.
- No pull process is in place to receive the patient from ED – wards rely on a push function from ED and the after-hours managers to facilitate this process.
- Wards will not accept a patient if staff are not available due to tea breaks / handover or ward rounds. This is partially justified by the observation that wards believe the ED are batching patients.
- There is no documented process in place to support a bed management model.
- The belief that NEAT is an ED problem which doesn't affect the inpatient wards.
- The 0930 bed meeting identifies patients ready for transfer out of ED however patients identified at this time are delayed significantly without any reason provided. The bed meeting involves nursing only and there is no documented process or business rules in place to support this model.

Recommendation 15.

A formal patient flow initiative be implemented at the MGDHS. This will require long term (approximately 6 months) facilitation and support.

Recommendation 16.

The category of 'Admission within ED' be thoroughly reviewed and justified.

3.4 Ward Services

3.4.1 Medicine

Barbie Sawyer, Nurse Practitioner Diabetes for the SA Region, wrote the following regarding the diabetes inpatient project (sic):

"The huge difference having Dr Krishnan Varikara on board has made already to the type of care in the inpatient and outpatient setting with his high risk diabetes clinic and high risk foot clinic, the fact that he is reporting that he is under resourced and already saying he is struggling, his enthusiastic input into ideas of improvements to the BBI chart and correctional insulin sticker"

The reviewers met with Dr Varikara, the only full time physician working with the MGDHS (he commenced in November 2015) and Ms Shelli Eccles-Smith, Nurse Manager for Medicine.

The reviewers were advised that the physician complement serves a catchment area of 110,000 people from Casterton in Victoria to Kingston.

MGDHS has given permission for 3 physicians to service the medical workload which, if fully available, would allow two to be covering the ward work and one to cover the outpatient clinics.

Dr Varikara observed that currently there were 2 FTE consultants, 1 FTE (himself) and 2 x 0.5 FTE. The MGDHS provided 2 interns who covered the medical wards 0800 – 1600 Monday to Friday and at times a PGY2. The provision of a medical registrar for 5 weeks in the middle of 2016, covering midday – 2000 Wednesday – Friday and 0800 – 1700 on weekends was very helpful.

Dr Varikara had applied to the Royal Australasian College of Physicians (RACP) for their accreditation for trainees of that College to work at Mount Gambier. This accreditation, for 4 Registrars, was provided. If not activated within 12 months (by August 2017) this accreditation will lapse. MGDHS has applied for funding for two registrar posts through the Commonwealth's Specialist Training Program (STP), the result of which is currently unknown.

Recommendation 17.

Recruit at least two medical registrars, ideally funded by the Specialist Training Program (STP), as approved by the RACP (noting the College has approved up to 4 registrars).

Dr Varikara noted the network relationships which regional hospitals had with city hospitals interstate and not in South Australia is a deficiency.

He described how 22 physicians, including locums covering leave, had worked in the MGDHS over the last 5 years. Being a physician in Mount Gambier, particularly full time is clinically challenging, a Herculean task, he advised.

The reviewers received a lot of feedback on the very high esteem in which Dr Varikara was held.

He announced his resignation in late December. MGDHS is currently seeking a replacement but the retention of essential clinical assets such as Dr Varikara must be a focus. Time will tell if his departure has a negative effect on the RACP accreditation of trainees at MGDHS. Dr Varikara will be missed.

Recommendation 18.

Proceed to recruit a full time physician as soon as possible. Proceed to recruit to the 3 FTE complement of physicians, ideally with two of these being full time.

3.4.2 Paediatrics

The reviewers were left in no doubt that the paediatricians were under considerable stress and have been for some time. They have been voicing their concerns to MGDHS Executive during this period. It would be fair to state that a joint perspective on their situation is yet to be reached.

The issues raised by the paediatricians included:

- a broad range of tasks encompassed in their role (acute ED, inpatient, HDU management of paediatrics and neonates; 4 outpatient sessions per doctor per week; child protection; child development; teaching of medical students, nurses and junior medical staff; telephone advice to GPs across the South East),
- first on call 1 in 2, 90% of the time (2.5 FTE),
- an external review in 2007 recommended there to be at least 3.0 FTE paediatricians,
- lack of adequately trained paediatric and nursery nurses,
- concern about skill level and constant turnover of ED staff,
- lack of any ward medical staff for paediatrics, and
- no standalone paediatric ward.

In the main, these matters were beyond the immediate scope of this review, except as they may fall under ToR 5: 'Recommendation of any further actions required to support patient safety and clinical effectiveness". In this context, the appointment of at least one paediatric registrar to the paediatric unit is supported in this review. This will require the paediatricians to apply to the RACP for accreditation and for funding (perhaps through the STP, although it has passed the deadline for STP funding for 2017) to be found.

Burnout of these paediatricians remains a high possibility.

Recommendation 19.

Re-invigorate discussions with paediatricians over their long term concerns re staffing and other issues with MGDHS. This may include recruitment of an additional 0.5 FTE paediatrician and will include supporting of processes to accredit and recruit a paediatric registrar through the STP.

3.4.3 Surgery

The surgical service is established via an MOU with the Central Adelaide Local Health Network (CALHN). Three general surgeons and a surgical registrar are provided through this arrangement. It has been stable and productive. The role of Professor Guy Madden in establishing and sustaining this surgical service, particularly via TQEH, has been pivotal.

Of particular interest in our discussions was the surgeons' view of the functioning of the ED. They noted variation in the quality of surgical referrals in recent years, reflecting variation in the quality of the junior medical officers and the supervision being able to be afforded to them. They noted that eight FACEM locums will no longer work with MGDHS indicating something more than disgruntlement.

They also noted that there needed to be a bigger corps of junior and medium level staff for the ED and for internal medicine, a service they felt to be in big trouble.

Finally they believed that if leadership from Adelaide for ED and internal medicine was implemented it could have the same effect for these services as it has had for surgery.

3.4.4 Anaesthesia

The anaesthesia service comprises 5.5 FTE anaesthetists, a specialist registrar and a GP anaesthesia registrar. They cover the MGDHS and the Millicent Hospital.

They are also on call to support the ED, HDU and Obstetrics. Their role in the ED is to assist in resuscitation and stabilization of major trauma and of cardiac arrests, with a focus on airway control and intravenous access.

The anaesthetists noted the lack of seniority and skill in the ED (and therefore the whole of the hospital) overnight and from 2200 – midday on weekends and public holidays.

The circumstance, which has become public, of an intern being team leader in a cardiac arrest resuscitation was explained by the anaesthetist who was present throughout. The on call anaesthetist was in the operating theatre preparing a patient for surgery when he was called to the ED. He arrived in the resuscitation room along with the two ED RMOs prior to the patient's presentation. Neither RMO felt confident to be the team leader for that resuscitation. The surgical intern, who had refreshed his training in cardiac resuscitation the previous day, also arrived and took on the team leader role, under the watchful eye and at the request of the anaesthetist who attended to the airway. This version of events was corroborated by the intern himself. It highlighted the uncertainty of the ED RMO staff in that situation, the oversight of an experienced specialist anaesthetist and the effective training of an intern (albeit one with considerate clinical expertise in another field before he became a doctor).

3.4.5 Mental Health

The provision of the inpatient Mental Health Unit at the MGDHS has been a feature of its recent development. That there has been no permanent psychiatrist available in Mount Gambier since it opened is a disappointment, hopefully to be rectified within six months by an appointment of a psychiatrist who has been sourced in the UK. In the meantime oversight is provided by locum psychiatrists usually residing in Mount Gambier on a Monday to Friday basis.

Amongst the impressive mental health practitioners who met the reviewers was the nurse practitioner who works in the ED from midday to 6pm Monday to Friday. Pathways for acute psychosis and delirium have been formally adopted as have complex care plans for frequent presenters to the ED. All of these initiatives improve patient flow.

Unfortunately, flow for mental health patients on weekends can be the slowest of all disciplines with ED medical staff needing to source psychiatric advice from Adelaide and, if necessary, arrange transport to Adelaide, all of which can consume hours of one doctor's time.

3.5 Medical Staffing – a comparison of regional health services

Attachment 5 provides a comparison of MGDHS with four western Victorian regional hospitals. What is strikingly different from the MGDHS is the complement of registrars in Wimmera Base, Warrnambool and Mildura Hospitals, compared to the three (none of whom are in the ED, internal medicine or paediatrics) at MGDHS. What is in common with these three hospitals is their training function.

The following table shows the status of clinical specialities within the MGDHS in regard to their potential to have registrars. Their presence requires accreditation by the relevant College and a regular source for rotation of registrars to be on site at Mount Gambier.

Step	Surgery	Anaesthesia	Medicine	Paediatrics	Emergency Medicine
Accreditation	✓	✓	✓	×	×
Source	✓	✓	×	×	×
On-Site	✓	✓	×	×	×

It is the opinion of the reviewers that the MGDHS would be well served by having a complement of registrar staff to cover those three listed disciplines who have none. This would enhance patient safety and reduce consultant burnout and subsequent departure from Mount Gambier.

In summary the specific recruitment processes that have been listed in this report for medical staffing are:

- ED Director (Rec 1),
- specialist physician (Rec 18),
- 2 medical registrars (Rec 17),
- 0.5 FTE paediatrician (Rec 19),
- paediatric registrar (Rec 19),
- additional late shift to the ED (Rec 5),
- evening ward call cover (Rec 4),
- restructured recruitment process for the hospital (Rec 3)

It is understood that recruitment to these posts will take different times to achieve. College accreditation is just the first step in the process of recruiting a paediatric registrar. For this post, and for medical registrars, funding through the Commonwealth STP is the next step. If this is unsuccessful other sources of funds will have to be considered and found.

It is more likely that the additional late shift to the ED and the evening ward cover will be more quickly achieved than the registrar posts. It may be that if and when all these positions are appointed the experience and skill levels of the registrars, along with the restructured RMO recruitment processes, may obviate the need for both RMO posts.

The presence of a fully functional ENP Model of Care could well also have an impact on the medical staffing requirements of the ED.

Recommendation 20

The MGDHS Director of Medical Services reviews the need for both the ward cover and the additional late shift to the ED once the recommended registrar positions and the restructured recruitment process for RMOs is in place.

4 Observations

The reviewers were tasked to provide advice on the safety of emergency patients. Is the ED safe? Is the hospital safe?

The reviewers were advised that over the last three years, the Safety Learning System (SLS) reports have shown no increase. The nature of these reports predominantly related to medications not written up or not given or procedures that have been delayed, rather than incidents where patient harm has clearly occurred.

SLS reporting is voluntary. Some staff advised they were hesitant to lodge an SLS report as they were concerned it could lead to negative repercussions for them or their colleagues.

Those concerns aside, but they must be addressed, it appears that there is understandable belief within the MGDHS in the integrity of the number, the trend and the type of SLS reports as they judge whether the hospital is safe. Some have a belief that concerns about patient safety are exaggerated. They therefore believe the service is safe.

The reviewers were not so convinced. The testimony of medical staff of all grades that they are concerned for patient safety and of ED and ward nursing staff in the same vein is testimony that must be carefully heeded.

The rise in ED attendances and acuity, the reported reduced skill level of the RMO staff upon whom the day to day running of the hospital depends (and on whom it profoundly rests overnight and on weekends and public holidays), the reliance on locum staff in the ED who will not be familiar with other staff, hospital processes or support services are all factors that would give rise to concern about patient safety. The turnover of physicians and the resignation of a significant number of FACEM locums have a number of underlying factors. Two of these factors are their concerns about patient safety and working long hours to prevent patient harm. These are believed by the reviewers to be valid.

The recommendations made should address these concerns.

Finally, there are observations that the reviewers wish to address to the Department of Health and Ageing.

The MGDHS is undoubtedly a teaching hospital yet receives no grant from the SA Department for Health and Ageing for this purpose. The allocation of cost weights for services provided compared to major hospitals is significantly lower but the salary for each medical and nursing staff providing these services is the same. The implication of these factors is that MGDHS, if it is to achieve budget prudence, has a lower financial base from which to employ additional clinical staff to achieve patient safety.

Of more relevance to this review is the knowledge that rarely a year goes by without one (or more) external review of some aspect of the MGDHS. The approach to this, the largest regional hospital in South Australia, has been predominantly reactive to a real, or perceived, crisis; it appears to have rarely been planned and proactive. This may be because the presence of staff medical officers in rural and regional hospitals in South Australia is a rarity (while in all other states it is common place). It is time to move to a proactive phase.

Recommendation 21

That the Department of Health and Ageing convenes a planning meeting to describe a medium to long term sustained clinical staffing and service structure at MGDHS. Attendees should include those who have already developed sound working models (surgery, anaesthesia) and those who have provided formal reviews or opinions on staffing matters over the last decade. Consideration of further development of links with major metropolitan hospitals, including rotation of medical trainees, should be encouraged in this process.

The MGDHS has been slowly transitioning to a fully staffed service for almost eighteen years. It is quite probably that the other large regional hospitals in South Australia may begin a similar transition in the not too distant future. This is most likely when their cohort of GPs with the skills, experience and desire to be heavily involved in providing direct hospital patient care retire.

Much can be learnt from the MGDHS experience.

Recommendation 22

That the Department of Health and Ageing assists the Country Health SA Local Health Network to plan for new models of staffing of other services, learning from the lessons and experiences of the MGDHS.

It is acknowledged that this recommendation is beyond the ToR for this review but the work of this, and previous, reviews makes such a recommendation logical.

5 Attachments

5.1 Attachment 1 – Terms of Reference

COUNTRY HEALTH SA LOCAL HEALTH NETWORK (CHSALHN)

TERMS OF REFERENCE

Review of the Mount Gambier and Districts Health Service Care of Emergency Patients

28 November 2016

Background

Local concerns have been raised about emergency care and medical workforce capacity and rostering at Mount Gambier and Districts Health Service.

MGDHS ED presentations have increased from 15,804 in 2012-13 to 19,339 in 2015-16. This is an increase of 3535 presentations (22.37%) per annum. Presentations currently average 1600 per month, and 52 per day. Presentations in triage levels 1-4 have increased from 2014-15 to 2015-16 and triage 5 has reduced by 21.7% to 4%. The National Emergency Access Target (NEAT) is not being met, averaging 74% in the last six months.

An independent review will further explore these concerns, commencing on 8 December 2016.

Review team

Professor Christopher Baggoley
Executive Director of Medical Services Southern Adelaide Local Health Network

Mr Andrew McGill
Nursing Director Critical Care Emergency Department Northern Adelaide Local Health Network

Purpose of the review

1. External review:
   1.1. Clinical approaches to triage, assessment, investigation, diagnosis, treatment and discharge.
   1.2. ED workforce model
   1.3. Rostering practices
   1.4. Supervision models and practices
   1.5. Patient flow management
   1.6. Patient safety

2. Identification of actions required to achieve National Emergency Access Target (NEAT)

3. Recommendation of appropriate medical staffing levels and rostering practices; and of alternative staffing arrangements where applicable. These should include consideration of multi-disciplinary models of care.

4. Identify specific requirements for recruitment, supervision and professional development of ED medical officers.

5. Review the scope of practice and skill mix of ED nursing staff and identify opportunities for maximising these in patient assessment and care.

6. Recommendation of any further actions required to support patient safety and clinical effectiveness.

Timeframe for Review

To be conducted and a draft report provided during December 2016.

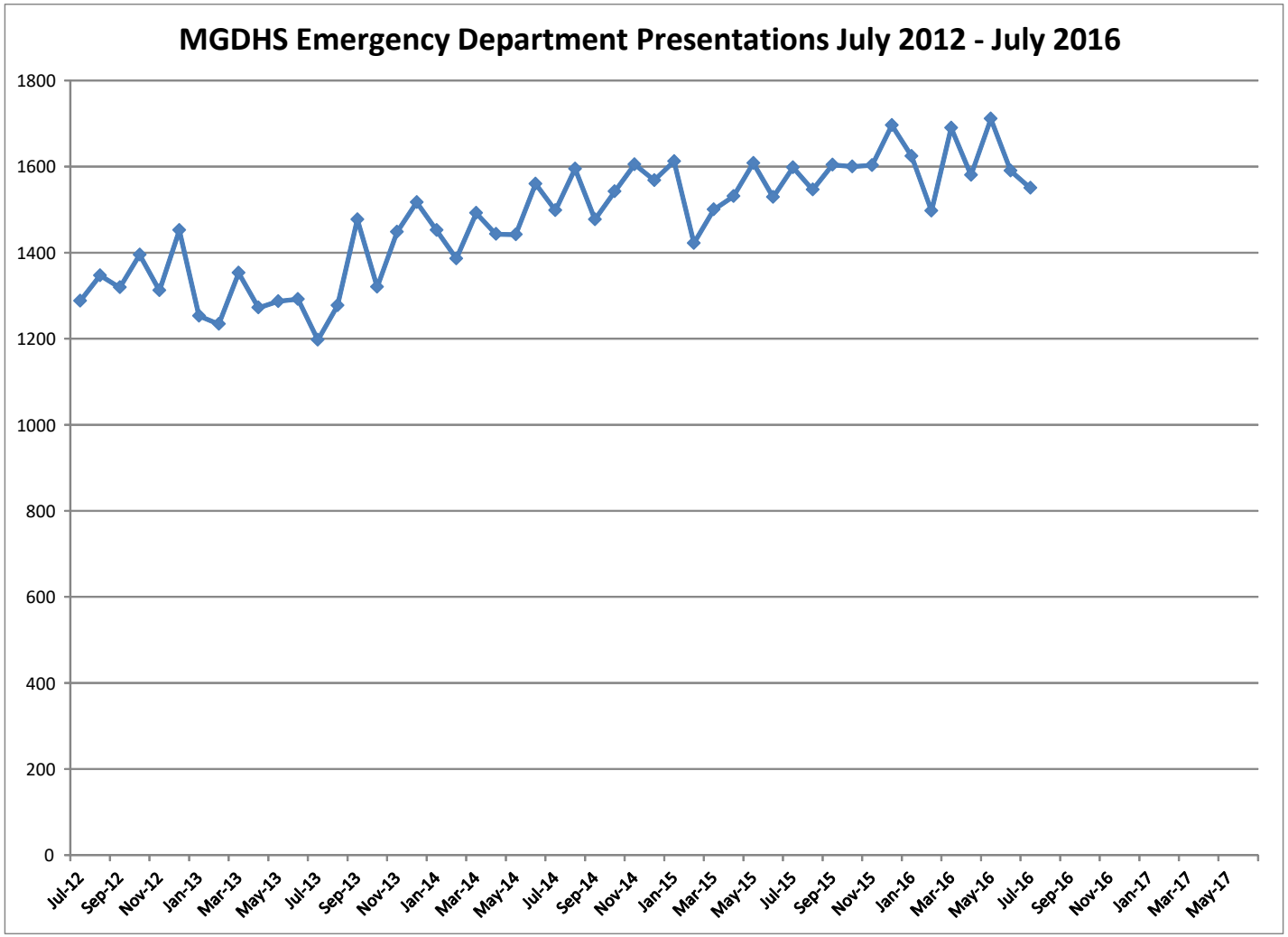
Review Outputs

A draft report and a verbal briefing to senior CHSALHN staff will be provided.

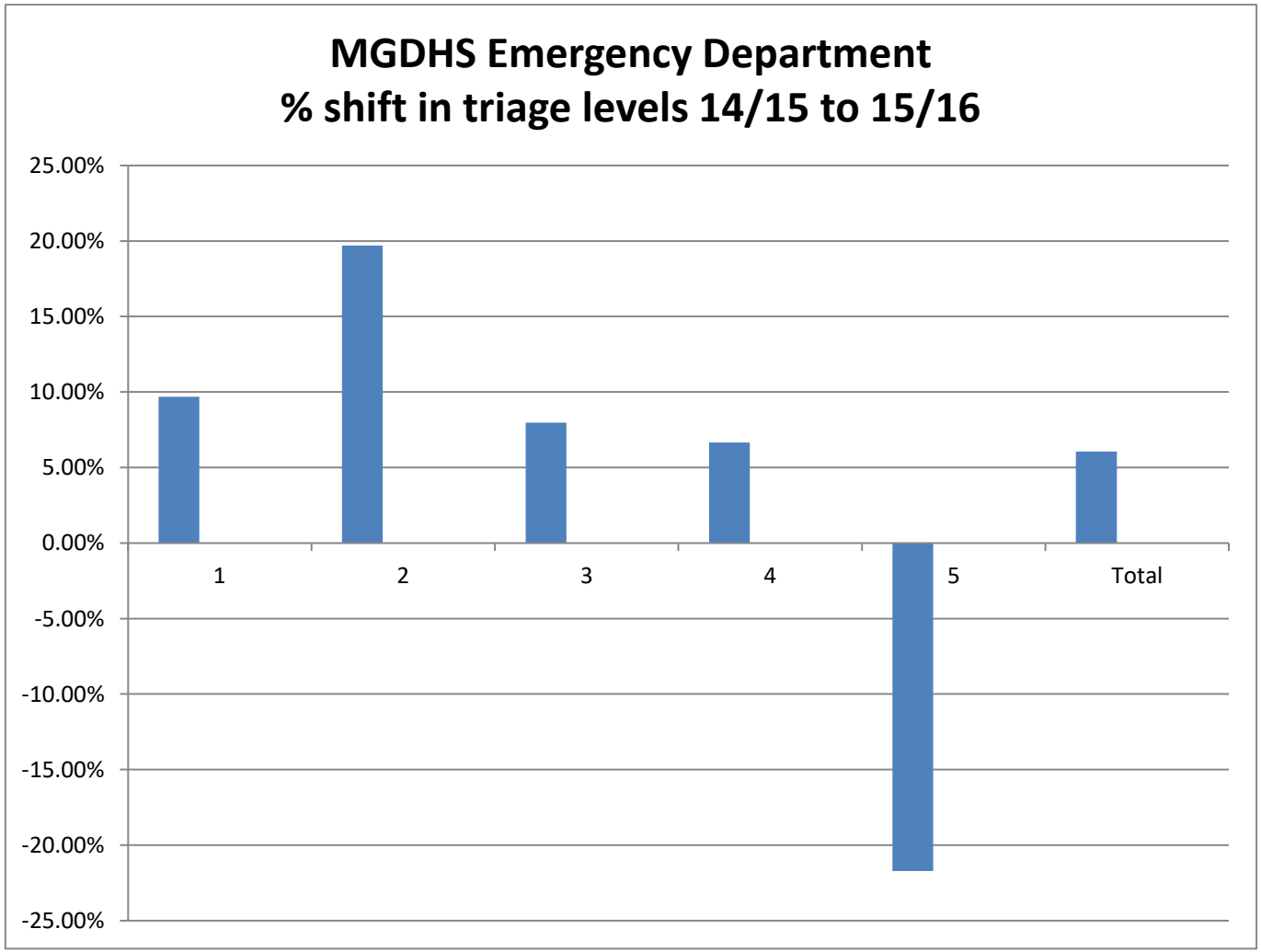
The outcomes and recommendations of the Review will be considered by the CHSALHN Clinical Governance Committee.

Maree Geraghty
Chief executive officer
Country Health SA Local Health Network

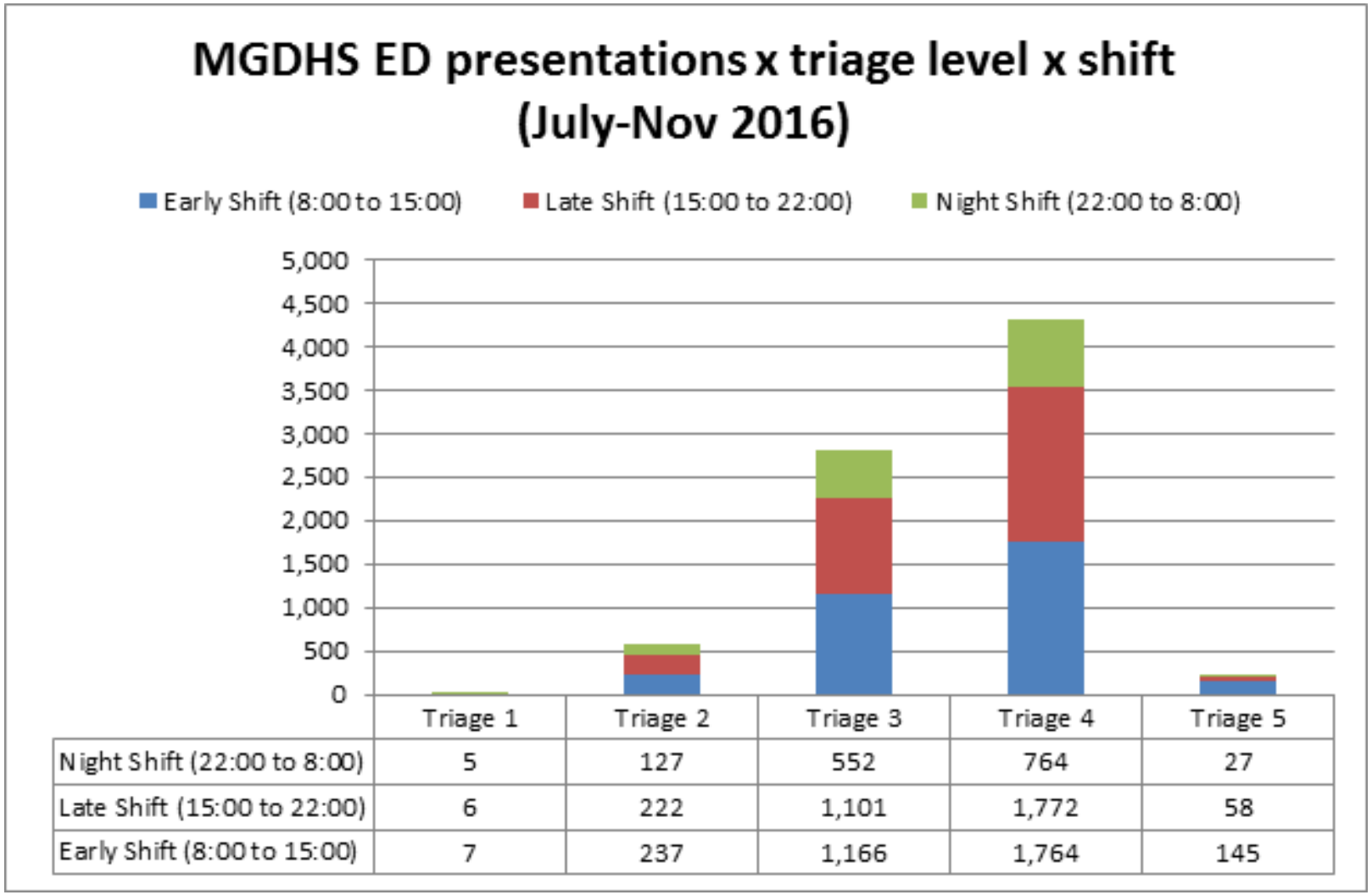
5.2 Attachment 2 - MGDHS ED Emergency Department Presentations July 2012 – July 2016



5.3 Attachment 3 - MGDHS Emergency Department - % shift in triage levels 14/15 to 15/16



5.4 Attachment 4 - MGDHS ED presentations x triage level x shift



	Triage 1	Triage 2	Triage 3	Triage 4	Triage 5
Night Shift (22:00 to 8:00)	5	127	552	764	27
Late Shift (15:00 to 22:00)	6	222	1,101	1,772	58
Early Shift (8:00 to 15:00)	7	237	1,166	1,764	145

5.5 Attachment 5 - Comparison of MGDHS with nearby Hospitals

	MGDHS/MGPH	Wimmera Base	Portland	Warrnambool Base	Mildura
Population – nearby only	35,000	16,451	14,000	35,000 in town, 45,000 near catchment, 100,000 wide catchment	60,000
Beds	96 public + 17 private hospital	81 acute / 20 subacute	55	194	165
Inpatient admissions	11,385	11,156	5000	17,015	18,500
ED presentations	19,580	13,815	6980	24,325	30,000
Consultants	25	11	6	52	25
FACEM Locum	60 hours/week	8 hours	20 hours/week	4 FTE	(4 FACEM on staff)
GP Specialists / VMS	8	3	1	15 head count	3
Registrars	3	12	0	12	21 (inc 4 ED Reg)
Resident medical officers	10	0	0	NA	20
TMO – PGY3 and above	4	0	6	12	Inc in RMO count
TMO – PGY2	4	0	2	13	7
TMO – Interns	5	13	0	16	12