Department of Health

Clinical Access and Redesign Unit

Medical Assessment and Planning Units (MAP Units) Reference Paper

prepared by the Statewide General Medicine Clinical Network, Medical Assessment and Planning Unit (MAP Unit) Working Group

For further information contact:
Clinical Access and Redesign Unit
Health Systems Innovation Branch
Health Service and Clinical Innovation Division
Department of Health
GPO Box 48
Brisbane Queensland 4001
Email: caru@health.qld.gov.au

Suggested citation:
Department of Health.
Medical Assessment and Planning Units (MAP Units) Reference Paper
Department of Health, Brisbane 2013.

Contents

1 Purpose

The purpose of this reference paper is to seek input from relevant stakeholders on:

- A set of core principles and fundamental requirements/guidelines to be applied to Medical Assessment and Planning Units (MAP Unit) statewide
- MAP Unit models and functions

A MAP Unit is defined as: a unit which provides rapid physician assessment, early referral and intervention from allied health, priority investigations, and a multidisciplinary approach to discharge planning. The unit accepts patients presenting with an acute medical illness from the Emergency Department (ED). Within a predefined period of time of the admission, patients will be assessed and managed in preparation for discharge or transfer to another ward or unit. Hospitals of level 3 or greater service capability (according to the Queensland Health Clinical Services Capability Framework) are suitable for establishing a MAP Unit (Queensland Health).

The purpose of a MAP Unit is to:

- Optimise patient outcomes and safety
- Facilitate patient flow
- Promote efficient use of resources.

2 Expected outcomes of this reference paper

Input from relevant stakeholders will inform outcomes of the Statewide General Medicine Clinical Network (SGMCN) MAP Unit Working Group and result in:

- A standardised set of core principles and guidelines for Queensland Health MAP Units
- Defined models for MAP Units in Queensland.

3 Core Principles for all MAP Units

Targeting of acute medical patients

- Complex patients, who are often older, have multiple co-morbidities, functional decline, cognitive impairment and/or psychosocial issues who benefit from early senior clinician input, multidisciplinary assessment and management.
- Patients with severe illness who benefit from early senior clinician input.
- Patients with single issue problems where assessment, early senior clinician input, management and discharge can be expedited.

Timely and safe access to inpatient care

- All MAP Units should provide a seven (7) day a week, 24 hour service.
- MAP Units should provide time-limited inpatient care (generally 48-72 hours).
- MAP Units should have bed capacity equal to at least 80% of the average daily medical admission, multiplied by a factor equal to the number of days patients are allowed to stay in the MAP Unit.
- Early identification of patients in the Emergency Department (ED) should occur, with processes in place to facilitate transfer of patients to the MAP Unit.
- MAP Units should be co-located with or within close proximity to the ED.
- Close working arrangements with ED and other specialty teams need to be developed to ensure patients are streamed efficiently and appropriately.

- A close working relationship with hospital substitution services such as 'Hospital in the Home' needs to be developed given the important role these services play in decanting patients from a MAP Unit.
- Changes to treating medical teams during a patient's stay should be minimised and avoided if possible, and there should be highly effective handovers between teams and team members where this is required.

Care provided by a multidisciplinary team

- The medical team should be led by a consultant physician with generalist and acute medicine competencies and skills.
- The nursing team should include nurses skilled in acute care medicine and patient centered models of care.
- The allied health team should include health professionals in physiotherapy, occupational therapy, social work, speech pathology, dietetics and pharmacy.
- There should be access to psychology, alcohol and drug, and appropriate psychiatry services as well as close links with other specialty services in the hospital. These patients should be prioritised by the respective service.

Early comprehensive assessment and establishment of a management plan

- Patients should undergo early comprehensive assessment addressing medical, functional, cognitive, and psychosocial issues where appropriate.
- Patients should be reviewed by, or have their case discussed with, a consultant physician within 12 hours of admission to a MAP Unit.
- Assessment should be followed by the prompt establishment of a management plan.
- Access to diagnostics for MAP Unit patients should be prioritised.
- Access to subspecialty medical and surgical consultations should be prioritised.
- Processes should be in place to facilitate communication between members of the multidisciplinary team.

Early and effective discharge planning

- There should be early identification of a comprehensive discharge plan including an expected date of discharge.
- Patients identified as requiring an admission longer than the MAP Unit timeframe should be transferred with comprehensive handover to an inpatient unit once their initial assessment and establishment of the management plan has been completed.
- Admission and discharge information should be provided and communicated promptly to the patient, carers, families, general practitioners and other community health providers, including sub acute facilities, as appropriate.
- Patients should be discharged from a MAP Unit as soon as it is safe and logistically feasible to do so.
- Links with Medicare Locals and community services should be established to facilitate discharge and processes should be in place to achieve this.
- For appropriate patients, clearly defined protocols for transfer to inpatient units including other specialty services in the hospital should be established.
- All MAP Units should implement standardised evidence based care pathways and protocols where possible and appropriate to optimise care across the continuum.

Governance

- MAP Units should be governed by a designated consultant physician or nominated clinical director of a MAP Unit in association with a designated nursing director/manager and senior allied health clinicians.
- The designated consultant physician or nominated clinical director of a MAP Unit, in association with a designated nursing director/manager and senior allied health clinicians, should have single point accountability and clearly articulated duties.
- MAP Units should be supported by a leadership team comprising medical, senior nursing and senior allied health clinicians.

4 Background

A joint *Improving Patient Access* workshop convened by the SGMCN and the Statewide Emergency Department Clinical Network (SWEDN) was held on 19 April 2011 to discuss the implementation and associated issues of the four hour national access target. One of the outcomes for the SGMCN from that day was the development of a core set of principles and guidelines for MAP Units that would underpin all existing and future MAP Unit models and be applied statewide. The SWEDN is completing the same scope of work for Short Stay Units. This initiative had the interest and full support of the Chief Executive Officer, Centre for Healthcare Improvement.

5 Context

Research and experience centered on the MAP Unit model of care has expanded greatly since October 1999 when the first MAP Unit was established in Queensland at the Royal Brisbane and Women's Hospital. The model was then largely based upon models in New Zealand (Auckland Hospital) and Scotland (Stobhill Hospital). The guiding philosophy was that the early application of diagnostic and management resources in an individual admission would lead to improved care. The primary aim and function of the Unit was to achieve a consultant-led early, comprehensive, multi-disciplinary management plan within the first twenty-four hours of a patient's admission.

In 2009 the first systematic review of the effectiveness of the MAP Unit model of care citedin nine (9) before-after analyses of seven (7) Units in the UK and Ireland.[1] These studies indicated that in contrast to traditional care, MAP Units were associated with decreased in-patient mortality over five (5) years for acute medical admissions, reduced length of stay (LOS) on average by one day and decreased waiting times for patient transfer from ED. There was improved patient and staff satisfaction with care and a greater proportion of medical patients were being discharged directly home from the hospital. All these improved outcomes were achieved with no increase in 30-day readmission rates and have been reiterated in a more recent review.[2] Since 2009 studies of Australian MAP Units have been published which have confirmed the reduction in LOS and ED waiting times, even in the presence of increased numbers of admissions.[3,4] These effects have been repeatedly reported in numerous non-peer-reviewed reports from MAP Unit conferences and forums.[5]

Over the last five years, more than 50 MAP Units have been established throughout several Australian states including Queensland, and this number continues to rise. Operational standards for MAP Units in Australia and New Zealand were first proposed in 2006[6] and these have been used to assess existing MAP Units in a national survey reported in early 2011.[7] MAP Units are

now afforded formal recognition and executive support within hospitals. However, several permutations of the basic MAP Unit model of care defined in the 2006 guidelines have emerged as MAP Units in various sites have had to confront local issues related to bed block, increasing demand and system pressures, shifting bottlenecks, and access to diagnostics. As a result, a variety of models has developed along with a variety of terminologies which may include, in addition to MAP Unit: Acute Medical Unit (AMU), Acute Assessment Unit (AAU), Acute Medical Assessment and Planning Units (AMAP Unit), Early Assessment Medical Unit (EMU), Emergency Assessment Medical Unit (EAMU), Medical Assessment and Co-ordination Unit (MACU), Rapid Assessment Medical Unit (RAMU) and Admission and Planning Unit (APU). Most are under governance of General Medicine services and others the Emergency Department.

While the definition can be generalised, there is recognition by Queensland Health that one model of care for a MAP Unit does not suit all hospitals due to various influencing factors.

6 Core Requirements / Core Guidelines for all MAP Units

6.1 Executive support

Departments of Medicine and/or Divisions of Medicine and Medical Services in liaison with Executive Management should actively explore the establishment of a designated MAP Unit in their facility. Where daily overnight admissions to the hospital exceed eight (8) patients, then it is possible that there will be value in establishing a MAP Unit.

Executive Management has a responsibility to ensure the provision of a specifically designated and resourced location within the facility for the purpose of a MAP Unit.

Executive Management have a responsibility to provide adequate and dedicated resources to a MAP Unit to ensure that the medical assessment and management of patients reliably occurs within time guidelines, without adversely affecting the care of patients within standard inpatient wards. This includes the provision of adequate numbers of senior medical, nursing and allied health staff, administrative support and patient support officers.

Departments of Medicine and/or Divisions of Medicine at hospitals providing a MAP Unit have a responsibility to ensure the availability of a group of physicians willing to take part in an acute admitting roster.

6.2 Service organisation

It is highly recommended that MAP Units:

- Be under the care and jurisdiction of General Medicine / Internal Medicine Departments.
- Be governed by a designated consultant physician or a nominated Clinical Director of MAP Unit with generalist and acute medicine competencies and skills that cover the broad scope of acute internal medicine and longitudinal medical care; who has single point accountability and clearly articulated duties.
- Be supported by a leadership team comprising medical, senior nursing and senior allied health clinicians.
- Be co-located with, or located within close proximity to, the Emergency Department (ED) to maximise the interdependent functional relationship between these services.

- Be located within close proximity, and have prioritised access, to diagnostic services (pathology, radiology, subspecialty diagnostic services and procedures e.g. endoscopy, cardiac investigations), pharmacy services, and where possible procedural areas.
- Establish clear robust links and communication protocols with other key departments and specialty services (e.g. cardiology, gastroenterology, gerontology / aged care); alternative admission programs and hospitalisation substitution services; community and support services; so that patients in a MAP Unit are given a high priority to be assessed by these services.
- Work closely with Medicare Locals and General Practitioners to optimise information exchange and to establish policy, guidelines and protocols.
- Maintain continuity of care (as much as possible) in the form of a single general physician team for the entire hospital stay, but where that is not possible, comprehensive handovers should be provided.
- Ensure efficient, effective and comprehensive clinical handovers at change of shift, at transfer from MAP Unit to other wards, and at discharge to the community.
- Have dedicated infrastructure: equipment (oximeters, ECG machines, bedside spirometry, etc), procedural and meeting rooms, electronic journey boards, clinical workstations, reception areas and access to discharge/transit lounges.
- Host or have priority access to stress testing facilities.
- Facilitate teaching and research in the care of acutely ill medical patients.

6.3 Access to MAP Unit

All MAP Units should have documented admission, decant and discharge criteria and processes. Individual facilities can develop local admission and/or exclusion criteria for the MAP Unit that align with their model of care and recommendations in the MAP Unit Guideline.
Patients admitted to the MAP Unit will be those requiring admission of up to 24 or 72 hours (depending on the MAP Unit model) for rapid and comprehensive multidisciplinary assessment and care planning.

Patients likely to exceed the 48 or 72 hour admission time frame should be transferred to either General Medicine or the appropriate Subspecialty Service after a comprehensive multidisciplinary management plan has been put in place.

Those patients who require urgent specialty care (e.g. intensive care, coronary care, renal unit, stroke unit, oncology unit, mental health) should be transferred to the relevant unit or facility as soon as practically possible and, where appropriate, after consultant physician review.

Patients with acute confusion or high risk of delirium should be considered for early transfer to likely home ward as soon as possible after consultant physician review.

The designated consultant physician leader or nominated Clinical Director of the MAP Unit and the ED Director shall share responsibility for establishing close links between the clinical services.

It is recommended that the MAP Unit team consider negotiating an arrangement to review potential medical inpatients in the ED, to facilitate rapid identification and transfer of MAP Unit eligible patients.

Patients identified as potential general medicine inpatients who meet the criteria for admission to MAP Unit, should be admitted from the ED as soon as possible and safe to do so.

It is highly recommended that the designated consultant physician leader / Clinical Director of MAP Unit or Medical Registrar on take for new admissions, and senior nurse on duty, approve all admissions to the MAP Unit.

MAP Units should have bed capacity equal to at least 80% of the average daily medical admission, multiplied by a factor equal to the number of days patients are allowed to stay in the MAP Unit

MAP Unit patients should not be patients admitted as a result of overloading of other units (overflow from ED or diagnostic units; e.g. day surgery, day procedures units, patients outlied from other services). MAP Units should not accept elective admissions or transferred inpatients for any reason.

6.4 Admission to MAP Unit

It is highly recommended that all patients admitted to a MAP Unit:

- Be reviewed by or have their case discussed with a consultant physician within 12 hours of admission. It is recommended that rapid access from triage models of care be in place.
- Be reviewed by a senior nursing staff on admission.
- Be reviewed by appropriate allied health staff within 24 hours of admission for assessment and referral to appropriate services.
- Be reviewed by a pharmacist and have medication reconciliation completed within 24 hours of admission.
- Have a comprehensive multidisciplinary risk assessment performed within 24 hours of admission.
- Where appropriate, have an Acute Resuscitation Plan documented.
- Have a full multidisciplinary evaluation and discharge plan developed within 24 hours, irrespective of the day of admission.
- Be reviewed daily by the medical team with consultant review or oversight and as often as clinically indicated.

MAP Units should:

- Implement standardised evidence based care protocols where possible and appropriate.
- Establish protocols that guarantee transmission of clinical information on admission and discharge between primary care practitioners and hospital staff, including management plans of frequent attenders and patients with chronic disease, aimed at minimising risk of future hospitalisation.
- Implement daily (seven (7) day a week) multidisciplinary team meetings, inclusive of the consultant and medical staff on duty, the Nurse Unit Manager/senior nurse and allied health staff to facilitate multidisciplinary care planning and management.
- Where such a position exists, have the designated Clinical Director of a MAP Unit attend as many multidisciplinary team meetings as possible to assist in ensuring consistencies in the model of care and patient flow.
- Establish an Expected Date of Discharge at the daily multidisciplinary meeting and within 24 hours of admission.

6.5 Urgent transfer of critically ill patients

Any patient that deteriorates and requires acute emergency intervention while admitted to the MAP Unit should be transferred to the most clinically appropriate area of for ongoing treatment. It is highly recommended that there be clear protocols in place with appropriate critical care units for the transfer of patients requiring escalation of care.

6.6 Discharge from MAP Unit

It is highly recommended that all patients discharged from the MAP Unit to the community have an electronic discharge summary, medication reconciliation, and community support services organised as appropriate. In cases where early review by a general practitioner (GP) is anticipated and further changes to management may be required and are of a complex nature, direct contact with that GP is preferred.

If the patient is to be transferred to a subspecialty service, then comprehensive handover to inpatient teams should be undertaken.

Comprehensive handover should be provided to any service which constitutes an alternative to admission – i.e. Hospital in the Home/Hospital in the Nursing Home.

It is highly recommended that patients who could be discharged home but warrant early hospital outpatient review for investigations / procedures or subspecialty opinion be identified and placed on a high priority waiting list. Where appropriate an Advanced Health Directive should be advised to be performed in consultation with usual health carers/GP.

It is recommended that hospitals establish rapid access clinics ("Hot Clinics or Hot Spots") for those services which attract the majority of referrals from a MAP Unit. These patients should also have priority access to day treatment units.

It is recommended that patients who could be discharged but require frequent review be seen at daily rapid access clinics run by MAP Unit staff or General Medicine.

An individualised management plan should be developed for patients who frequently re-attend at an ED and require admission.

6.7 Measurement and monitoring

It is highly recommended that all MAP Units collect data on a common set of key clinical indicators on an ongoing basis and/or by spot audit to measure performance and benchmark with other services.

6.8 Administration

All patients admitted to a MAP Unit should be admitted as an inpatient on the Hospital Based Clinical Information System (HBCIS).

It is highly recommended that Health care facilities providing a dedicated medical assessment and planning service use 'MAP Unit' as the standardised naming convention in HBCIS and in all correspondence beyond the respective facility.

This includes those Units using the following and similar terminologies: Medical Assessment and Planning Unit (MAP Unit), Acute Medical Unit (AMU), Acute Assessment Unit (AAU), Acute Medical Assessment and Planning Units (AMAP Unit), Early Assessment Medical Unit (EMU), Emergency Assessment Medical Unit (EAMU), Medical Assessment and Co-ordination Unit (MACU), Rapid Assessment Medical Unit (RAMU) and Admission and Planning Unit (APU).
It is recommended that MAP Unit occupancy rates be maintained below 85% and average length of stay shall be less than 72 hours.

No one set of staffing guidelines or benchmarks exist for MAP Units. However, Allied Health clinicians are referred to the following document for guidance:
http://qheps.health.qld.gov.au/ahwac/docs/Reports/staffing-general-med.pdf

7 Models of MAP Units

There are several different models of MAP Unit which have developed according to local needs and priorities and this paper does not attempt to canvass every one of them. However, most variants are predicated on intended length of stay (LOS) in the MAP Unit, whether admission policy is one that includes 'all-comers' or is restricted to patients with predicted LOS of less than 3 days, and whether patients are identified as MAP Unit-eligible and admitted directly to the MAP Unit after ED triage or first spend some time in ED before transfer to the MAP Unit. Triaging of patients in ED can be further facilitated by having ED appoint a senior medical officer at triage to identify medical admissions that may be MAP Unit-eligible.

Model 1
Triage » ED » MAP Unit (48hrs) » and then discharge home or transfer to ward.

Model 2
Triage » ED » transfer directly to ward if patient requires admission for more than 48 to 72 hours; otherwise stay in MAP Unit (48 – 72 hrs) and discharge home

Model 3
Triage » ED » MAP Unit (4-8hrs) » transfer directly to ward if patient requires admission for more than 48 to 72 hours; otherwise stay in MAP Unit (48 – 72 hrs) and discharge home

Model 4
Triage » MAP Unit (48 - 72hrs) » and then discharge home or transfer to ward.

7.1 Components and Characteristics of MAP Unit Models

Irrespective of the model, all its components and characteristics should be defined and include:

- How components outlined in the requirements of the MAP Unit implementation standard are to be effected
- Patient flow specifics
- How communication pathways and protocols work with key support services (radiology, pathology etc)
- Entry and exit criteria
- Evidence of efficiency and effectiveness where it exists
- Use of protocols and pathways
- Key performance indicators and collection processes.

In addition to these variants regarding patient processing, other specific functions may vary according to admission criteria, casemix demands, availability of community services, bed numbers and configuration and local demographics. These specific functions are in addition to the core requirements already listed.

7.2 Other Specific Functions / Optional Variants of MAP Units

Telemetry beds: These are needed in the assessment and management of patients presenting with syncope/ pre-syncopal symptoms, dizziness, palpitations, atypical chest pain, and atrial fibrillation. Such patients do not warrant admission to CCU but do require ECG monitoring and therefore some monitored beds may be required depending on anticipated admission load / Casemix. These beds are not to be regarded as 'cardiac beds' necessarily but as 'monitored' beds for use at the discretion of MAP Unit medical staff.

Short term non invasive ventilation: This may be delivered in a MAP Unit for patients presenting with Chronic Obstructive Pulmonary Disease (COPD) or other respiratory conditions that may require short term BiPap to resolve acute exacerbations prior to transfer to an inpatient unit.

Dedicated MAP Unit junior medical staff: some Units have dedicated MAP Unit medical teams which then handover patient care to in-patient teams if patients require transfer to in-patient wards. Other units retain the same medical team for the entire episode of care regardless of where the patient is physically located.

ED outreach from a dedicated MAP Unit registrar or Nurse Practitioner: this person may roam in ED and screen all medical admissions for eligibility for MAP Unit admission, act as first point of contact for ED staff seeking advice on MAP Unit eligibility, liaise with admitting medical registrars (including subspecialty Units where appropriate) and facilitate rapid transfer of MAP Unit-eligible patients into MAP Unit.

Ward moves/location admission route for elderly at risk of delirium: it is important to minimise movement of such patients and to locate them in an elder-friendly ward environment. Single bed rooms in MAP Unit and implementation of delirium prevention pathways are recommended where admission through a MAP Unit is unavoidable.

Marketing of MAP Unit (internal and external to MAP Unit staff): to be successful, MAP Units need good working relationships with staff in ED, ancillary services, subspecialty departments, and community-based health providers. They also need support of hospital managers and senior executives. It is important that MAP Unit directors actively involve themselves in hospital committees and groups that have influence on MAP Unit functions, staffing and financing.

Standard and optional equipment: stress testing facilities, physiotherapy gym equipment, mobile laptops, and electronic journey boards may be regarded as optional items depending on functions

Control / influence of alternatives to admission: MAP Units should encourage hospital in the home services and other programs designed to expedite early discharge and avoidance of in-patient stay to be located within the MAP Unit precinct. MAP Unit directors should support and act as mentors to directors and staff of such services.

Sub-acute beds: some patients may benefit from short-term rehabilitation or require a longer stay while home aids and modifications, community services, mental health care, palliative care or respite care are arranged. Such patients should be transferred to sub-acute beds once acute medical diagnoses are stable.

Fast track clinics: in minimising the risk of unplanned representation associated with early discharge of patients, selected patients may need early review at a fast track clinic located within MAP Unit, especially on week-ends.

Frequent Attender Protocols and management teams: some patients are at high risk of repeated unplanned readmission due to difficult to manage medical and psychosocial morbidity. These people may benefit from more focused hospital avoidance and outreach services.

Day Unit for Investigations and Treatment (DUIT): some MAP Units are co-located with units that specialise in one-off diagnostic procedures and treatments for ambulatory patients, either referred directly from MAP Unit or booked as elective appointments. These units may provide some bed buffering capacity by allowing some patients to transit into DUITs and then be discharged from there.

8 Key Performance Indicators

The key performance indicators (KPIs) for MAP Units are related to their purpose to:

- Optimise patient outcomes and safety
- Facilitate patient flow
- Promote efficient use of resources

The KPIs are used to provide information which can be used for performance monitoring or for continuous improvement at a state-wide and / or local level.

State-wide performance monitoring will be used to provide aggregate and Unit specific data. The aggregate state-wide measures provide information relating to the effectiveness of the Statewide General Medicine Clinical Network in improving health outcomes on MAP Unit patients, with the unit specific data an opportunity to benchmark unit performance. To facilitate benchmarking, state-wide MAP Unit KPI data definitions must be consistent across all sites and models. State-wide KPIs are available for ongoing monthly monitoring for all MAP Units as the data is accessible from existing state-wide data sets (TII, HBCIS).

In addition to the state-wide performance monitoring KPIs, improvement measures must also be considered. Commonly, these measures fall into the process and impact categories (and directly influence any outcome or monitoring measures). Improvement measures are more difficult to routinely collect with some measures requiring access to specialised data (e.g. pathology, radiology, EDS, ELMS) or would require new collection that may be manual. For these reasons improvement measures would not be routinely collected but undertaken in snapshot audits. The SGMCN would select the subset of improvement measures from the larger possible set for collection.

Units may choose to measure other indicators specifically related to the standards as a method to improve performance at own facility.

9 Proposed MAP Unit KPIs

Clinical process	Clinical impact *(or shorter term outcome)*	Clinical outcome
Patient process	Patient impact	Patient outcome
(1) Indicator Topic: Rapid Patient Assessment Eligible MAP Unit admissions gain access to rapid physician assessment, early referral and intervention from allied health, and a multidisciplinary approach to discharge planning (including use of/initiation of an ARP). Potential indicator: % MAP Unit patients undergone a comprehensive assessment by senior clinician within 12hrs of admission to MAP Unit REQUIRES NEW DATA COLLECTION - JOURNEY BOARD/AUDIT	(2) Indicator Topic: Patient experience Improved patient/carer involvement Potential indicator:	(3) Indicator Topic: Improved Patient Outcomes Reduced adverse events, readmissions and mortality Potential indicator: Hospital wide mortality rate - VLADS HSMR Hospital wide 7 day readmission rate for medical discharges (exclude same day) Hospital wide 28 day readmission rate for medical discharges (exclude same day) USE ADMITTED PATIENT DATA
Staff process	Staff impact	Staff outcome
(4) Indicator Topic: MAP Unit Staffing Capacity for rapid patient assessment MAP Unit provides rapid physician assessment, early referral and intervention from allied health, and a multidisciplinary approach to discharge planning. Potential indicator:	(5) Indicator Topic: Multidisciplinary Care Planning All MAP Unit patients should have streamlined multidisciplinary care through a diagnostic formulation and management plan Potential indicator: % MAP Unit patients that have a MDT management plan within 24hrs of admission % MAP Unit patients with Discharge Medication Reconciliation (in ELMS) on D/C REQUIRES NEW DATA COLLECTION - JOURNEY BOARD/AUDIT - DMR from Med Services Qld – ELMS	(6) Indicator Topic: Improved Staff Wellbeing Increases morale and staff retention and decreases staff turnover and absenteeism Potential indicator:
Health service process	Health service impact	Health service outcome
(7) Indicator Topic: Hospital service support MAP Unit 24/7 Operation MAP Unit are open 24/7 and have access to priority investigations and specialist services (e.g. mental health) Potential indicator:	(8) Indicator Topic: Well Functioning MAP Unit MAP Unit accepts patients presenting with an acute medical illness from ED, whereby within 48 hours of the admission patients will be assessed and managed in preparation for discharge or transfer to another ward or unit Potential indicator: ALOS (casemix adjusted) - hospital wide medical discharges (report as variance to state) % MAP Unit patients discharged/transferred within 48hrs USE ADMITTED PATIENT DATA	(9) Indicator Topic: Improved Patient Flow in the Hospital Functioning MAP Unit has a positive impact on patient flow Potential indicator: Access block - hospital wide Access block - medical admissions USE ADMITTED PATIENT DATA

10 Appendix 1 - MAP Unit Working Group Members

Dr Nick Buckmaster, Chair, Statewide General Medicine Clinical Network & Chair, MAP Unit Working Group

Darren Clark, A/Director of Nursing, Emergency Department, Princess Alexandra Hospital

Dr Charles Denaro, Director, Department of Internal Medicine & Aged Care, Royal Brisbane & Women's Hospital

Dr Mark Forbes, Acting Director, General Medicine, Gold Coast Health Service District

Dr Michael Schoeman, General physician, Department of Medicine, Nambour General Hospital

Dr Ian Scott, Director of Internal Medicine and Clinical Epidemiology, Princess Alexandra Hospital

Rebecca Smith, Senior Clinical Dietitian, Early-assessment Medical Unit, The Prince Charles Hospital

Leah Thompson, A/Manager Research and Quality, Internal Medicine Service, The Prince Charles Hospital

Genny White, Nurse Unit Manager - Medical Ward, Mackay Base Hospital

Dr Elizabeth Whiting, Medical Director, Internal Medicine Services, The Prince Charles Hospital

11 References

1 Scott I, Vaughan L, Bell D. Effectiveness of acute medical Units in hospitals: a systematic review. Int J Qual Health Care 2009; 21: 397-407.

2 Byrne D, Silke B. Acute medical Units: Review of evidence. Eur J Intern Med 2011 (in press).

3 Brand CA, Kennedy MP, King-Kallimanis BL, Williams G, Bain CA, Russell DM. Evaluation of the impact of implementation of a Medical Assessment and Planning Unit on length of stay. Aust Health Rev. 2010; 34: 334-9.

4 Li JYZ, Yong TY, Bennett DM, O'Brien LT, Roberts S, Hakendorf P, Ben-Tovim DI, Phillips PA, Thompson CH. Outcomes of establishing an acute assessment Unit in the general medical service of a tertiary teaching hospital. Med J Aust 2010; 192: 384–387

5 Newnham HH, Thompson CH, Jenkins PF, O'Brien LT. Acute medical admissions in our hospitals: getting it right. Med J Aust 2009; 191: 9-10.

6 Henley J, Bennett C, Williamson J, Scott I; IMSANZ Medical Assessment and Planning Unit Working Group. Position statement of the Internal Medicine Society of Australia and New Zealand. Standards for medical assessment and planning units in public and private hospitals. Sydney: IMSANZ, 2006.

7 O'Neill GBS, Brand C, Clarke K, Jenkins G, Scott IA, Thompson C, Jenkins P. Optimising care for acute medical patients: the Australasian Medical Assessment Unit Survey. Intern Med J 2011; 41: 19-26.