Medical Assessment Unit Guidelines

St George Hospital:
1.0 Overview

The complex undifferentiated medical patient presenting to the emergency department tends to have co-morbidity with deterioration in one or more of their principal health problems. Junior staff working in the emergency department often does not know these patients and as such, undertake intensive investigations to determine the patient’s principal diagnosis and referral to the appropriate treating team.

Patients are delayed undergoing these investigations and subsequent senior physician assessment and clinical management decisions. Delays in specialist physician assessment results in:

- Blockages in ED while awaiting review
- Delays due to lack of available ward beds to receive patients
- Longer hospital length of stay
- Increased risk of experiencing adverse events due to longer hospitalisation.

The establishment of an alternative pathway for this group of patients through a Medical Assessment Unit will provide timely access to senior physicians and a multidisciplinary team for assessment and decision-making and decrease pressure currently placed on the emergency department.

1.1 What is a MAU?

The Medical Assessment Units will improve the efficiency in the admission process for unplanned patients by providing assessment, care and treatment for a designated period of usually 48 hours, prior to transfer to a medical ward or home where appropriate. The Emergency Department stay is eliminated or drastically reduced in this model of care.

The MAU’s will provide comprehensive, multidisciplinary patient-centred care by dedicated teams of hospital and community based staff. The Medical Assessment Unit will provide specialist physician assessment, review and evaluation of the medical patient at the beginning of the hospital care pathway with better coordination to discharge.

Co management by the whole multidisciplinary team is essential for the MAU to function successfully.

1.2 Benefits of MAU

Experience from the UK National Health Service (NHS) and New Zealand shows that a reduction in the time patient’s wait for a senior physician review and multidisciplinary assessment can:

- Reduce the length of stay in the ED for these patients
- Reduce the level of intensive investigations prior to decision-making
- Reduce the length of stay in longer stay wards through multidisciplinary assessment at the time of hospital entry.

Earlier activation of community based care solutions for these patients provides the opportunity for a coordinated approach to services across the acute setting, whether in an in-hospital environment or in the community.

2.0 The Challenges:

St George Hospital operates in a subspecialty environment and this sets some major challenges in setting up a model of care that is reflective of this, whilst maximising the opportunity to manage those with complex medical problems and reduce the burden on the ED.

The lack of immediate access to pool of general medicine physicians is a major constraint and limits the ability of the hospital to develop and implement the model of care set down by the NSW Acute Care Taskforce. There is however an opportunity to implement a model of care that underpinned by the principles set out in the HOPE document and is based on:

- a multidisciplinary team approach
- discharge or transfer to an inpatient unit within 48 hours
- the front loading of resources
- a reduction in ED LOS
- a reduction in in-hospital length of stay (LOS),
- improved co-ordination to acute community care
- case management principles

2.1 Transitional Plan:

Whilst the recruitment to the senior and Junior Medical Officer Position is occurring a transitional model of care will be in place to support the opening on the Medical Assessment Unit. This model of care will be supported by an interim set of business rules that will evolve over the next 6-12 months as the outstanding issues are resolved, allowing for full implementation of the business rules and the achievement of the ‘goal state’.

In this context, the following risk management strategies will be adopted the main focus of which will be focused on a nurse/allied health led model:

2.1.2 Nurse Lead Model:

The introduction of Nurse Case Managers (NCM) will support the flow and management of short stay admission; The NCM would be responsible for coordinating the management planning for patients who are admitted as a short stay admission or those requiring transfer for further management to a long stay bed. It was suggested that case managers would be required 2 shifts per day 7 days per week in order to maintain the momentum.

As an interim measure the number of Nurse Case Managers will increase to cover 7 days per week 2 shifts per day. Using of salary and wages identified for SMO and JMO salary and wages and by using temporary secondments.

In the absence of a Clinical Governance model and the availability of senior medical staff, the model of care for the management of patient flow will also be different to the model associated with the “goal state” business rules. Patients continue to be cared for by their sub speciality team and the role of the NCM would be to liaise directly with the Consultant or Advanced trainee in regard to the patients’ clinical management plan, timelines for care and likely disposition.

The Afternoon NCM will focus on patient selection and screening through the ED and will liaise directly with the ED NUM and admitting Team.

2.1.3 Case Management Model:

All patients admitted to MAU will be able to be discharged home or to an in-patient ward within 48 hours. To achieve this, an individual case management plan is required for each patient and should be commenced within 2hrs of arrival.

- The plan should be documented and specify the required observations, treatments and interventions and include allied health interventions
- For patients likely to be discharged from MAU, discharge criteria (including nurse initiated discharge criteria should be defined)
- Implementation of standing orders or protocols for common conditions will facilitate prompt accurate patient assessment, investigation, diagnosis and treatment
- Clear standardised evidence based policies, protocols and guidelines will be initiated
- Care management will be facilitated by twice daily multidisciplinary ward rounds conducted 7 days a week.
- The case management plan will be communicated to the patient by the Staff Specialist, Registrar, CNC’s or CNS-Individual Case Manager within 4 hours of the patients arrival
- A dedicated multidisciplinary team includes: - A Medical Director, Staff Specialists, Registrar, Resident, CNC’s, CNS’s, NUM, Allied Health and nursing staff.

2.1.4 Allied Health Model:

As noted the transitional model of care for patients admitted to the MAU will focus on a Nurse and Allied Health Model of Care.
As previously identified early access and exposure to Allied Health assessment will be a central part of the MAU model of care in order to identify individual needs and adopt a risk management approach to management of MAU patient flow. Allied Health personnel will expedite the assessment, treatment, referral and appropriate discharge of patients though the adoption of the combined assessment document used for each patient. During the transitional period Social Work, Occupational Therapy, Physiotherapy, Dietetic and Speech Pathology will be ‘front loaded’ as described above, however allied health screening assessments will only be available for 0800 to 1800 until recruitment is complete.

3.0 Alignment of the CDU model of care to the MAU business rules:

Currently CDU focus on short stay admissions and the unit has been very proactive in the case management; however there are a number of gaps that need to be addressed in order for the timelines for patient flow to be met. This includes:
- The management and transfer of patients beyond the 48 hour period.
- Appropriate patient selection.
- The relationship with early discharge programs Respiratory Chronic Care Program (RCCP) Heart failure, Quick Response Program (QRP) and Community Nursing)

During the transitional period the patient flow models will be aligned to ensure that the length of stay of 48 hours is achieved in line with benchmarks; full adoption of the case management model of care and the introduction of allied health intervention for all admissions.

4.0 Patient Selection and Screening

A typical patient suitable for management in MAU is the older complex medical patient with co-morbidities. The patients can be identified at triage as not being critically ill but in need of assessment and treatment, and account for about one third of patients admitted.

These patients are:
- Adult medical patients
- Haemo dynamically stable
- Non-critical

During the transitional phase it has been identified that the types of patients transferred to MAU will include those patients who:
- are likely to respond to a brief course of therapy, which then can be modified so that treatment can be continued at home;
- are of uncertain severity or seriousness, which are expected to rapidly evolve and fully declare themselves;
- need prolonged observation that should resolve within 24-48 hours;

4.1 Patient selection:

During the transitional period it will not be possible for the undifferentiated group of patients to go to MAU without a diagnosis or clinical management plan in place and another cohort of patients has been identified for management in the Medical Assessment Unit

These patients include:
- Direct admissions who require rapid access to diagnostics or time limited therapies. These patients are current managed through the Clinical Decision Unit and are admitted under Gastroenterology, Respiratory and Renal.
- Are likely to have a <48 LOS
- Can be discharged to an admission avoidance/post acute care service, this includes patients known to RCCP, Heart Failures services etc
- Who currently access EMU but are likely to have length of stay greater than 24 hours (the shift of these patients will allow for the closure of the EMU annexe beds and making them available for use by the ED and increasing ED Capacity.)
4.2 Patients INCLUSION criteria for admission:

- Cellulitis
- COAD/Asthma known to RCCP
- Respiratory infections
- DVT
- Pulmonary embolism
- Non monitored heart failure known to Heart Failure Service
- Low risk chest pain (weekends)
- Patients admitted under Infectious Diseases/Rheumatology/Endocrinology
- Diabetes for stabilisation- no insulin infusions
- Non- combative overdoses who do not require cardiac monitoring
- Frail elderly requiring assessment and further intervention by Quick Response (QRP) with an expected length of stay of less than 48 hours.
- Selected booked medical admissions, this includes renal biopsy (complex patients), renal hypertension for stabilisation, or any booked patient screened by bed management and deemed to have an expected LOS of less than 48 hours.
- Small gastro intestinal bleeds requiring endoscopy (Mallory wises tears, coffee ground vomit).
- Drug concealments
- Selected surgical cases- expected LOS < 48 hours, this may include
  - Renal colic needing more than 24 hours of hospital care
  - Cholelithiasis and cholecystitis
  - Appendicitis
  - Epistaxis
  - Tonsillitis
  - Abdominal pain

4.3 Patients EXCLUSION criteria for admission:

- Patients who are haemodynamically compromised
- Patients with a GCS <14
- Patients having repeated and/or prolonged seizures
- Patients who require acute BIPAP or CPAP
- Patients who require dialysis
- Patients who require cardiac monitoring
- Patients with violent or disruptive behaviour
- Patients under a schedule II of the Mental Health Act
- Any patients requiring specialling
- Nursing mothers
- Patients under 16 years of age
- Any patient deemed inappropriate by the MAU Clinical Director /Nursing Unit Manager
- Patients who are immobile and who have complex medical problems.
- Elderly patients with high risk of falls.

4.4 Patient Screening

During the transitional phase patient selection will occur in conjunction with ED Nursing and Medical Staff, the MAU Nurse Case Managers/NUM, Patient Flow Managers and the After Hours Nurse Managers and will be based on the inclusion criteria identified below.

In the long term and subsequent to the availability of appropriately skilled junior medical staff, it is anticipated that appropriate patients can be streamed via their GP or Consultant Rooms to the MAU following assessment by the ED triage nurse. It is planned that patients who are known to a subspecialty team and have a clear indication for admission will be referred directly from their GP to a consultant and accepted for admission into MAU. It is imperative that all patient present to the Emergency department for triage and to have the relevant admission documentation commenced.
The following selection process will be followed:

From Triage

- All patients are assessed at triage to identify their level of clinical urgency and clinical stability.
- All clinically unstable patients (Triage category 1 and 2 presentations) will be assessed and managed in ED
- Triage categories 3-5 can be admitted from triage
- Inclusion criteria must be satisfied prior to admission
- Transfer to MAU will be at the triage nurses clinical discretion and based on the availability of Medical staff in MAU
- If clarification for MAU suitability is required by the Triage Nurse then the Senior Medical Officer in ED will be consulted

From ED

- Patients triaged as categories 1 and 2 may only be referred to the MAU once they are deemed non critical and accepted by the MAU for admission
- Patients may be referred by medical staff from within the ED after assessment and management has been undertaken
- All suitable patients will be discussed with and accepted by the Consultant, Registrar, Nurse Practitioner or Clinical Nurse Consultant prior to transfer to the unit
- The MAU NUM/ Nurse Case Manager/ Patient Flow Manager will be contacted regarding eligible patients for admission by the accepting senior MAU team member.

The use of a screening tool will ensure patients meet admission criteria.

5.0 Staff Roles and Responsibilities

5.1 Physicians

The Director of Aged and Extended Care will provide direction, clinical leadership and medical services for patients in the MAU, with the provision of senior physician cover to develop and review comprehensive care management plans to ensure patient safety and quality is delivered within the KPI.

5.2 Inpatient Medical Staff:

Patients admitted to MAU will continue to be admitted under the relevant sub specialist who will be responsible for ensuring that there is a clear management plan in place to support the first 48 hours of a patient’s admission. This plan will include details of the diagnostic workup required, likely diagnosis clinical care requirements.

5.2.1 All medical teams are expected to:

- Facilitate daily ward rounds
- Liaise with the Nurse Case Managers to ensure that timelines for care and early decision making occurs.
- Promote access to early discharge and long stay admission avoidance programs to support the early discharge of patients back to the community. This includes but not restricted to, Respiratory Chronic Care Program (RCCP), Heart Failure Services and Community Nursing
- Ensure that consult occur within 24 hours
- Facilitate the transfer of care for patients who have other sub specialty care requirements
- Ensure that there is prompt review of diagnostic tests undertaken.
- Give clear direction to junior medical staff about the need to communicate and liaise with nursing staff regarding the care requirements of each patients

5.3 Nursing Staff

The nursing team will be led by a Nurse Unit Manager, supported by a Nursing Case Manager model, with liaison and consultation with hospital Clinical Nurse Consultants.
Management of patient care will be delivered by senior members of the multidisciplinary team, responsible for all aspects of patient care including; ordering and interpretation of diagnostic tests, prescribing and referral with disposition authority. Staff working in the MAU will be quarantined to ensure that there is continual access to staff that have the knowledge and skill to facilitate the patient journey and manage an episode of care.

5.4 Specialty Nurses:

The roles of specialty nursing services are pivotal in supporting and meeting the timelines for care for patients admitted to the MAU. This includes services that support the early discharge of patients including RCCP, Heart Failure, Quick Response Program AARC’s and Community Nursing.

5.5 Allied Health:

The Allied Health Team will be led by the Physiotherapist who will liaise with other Allied Health staff to ensure that their in-put will expedite the assessment, treatment, referral and appropriate discharge of patients.

The MAU has access to dedicated:

- Social Workers,
- Pharmacists,
- Physiotherapists,
- Occupational Therapists,
- Speech Pathologists,
- Dieticians.

5.6 Support Staff

Wards persons and Administration Officers will be recruited to the MAU team to support the multidisciplinary team in the care of MAU patients.

- The Administrative Officer will cover 5 days per week from 0800-1630hrs
- Orderlies will be available from 1100-1930hrs 7 days per week. The 0700-1100hr period will be covered by the medical orderly assigned to PDU.
6.0 Business Rules:

In order to meet the timelines for care the following will occur:

**Within first 2hrs of Patient Arrival**

- Clinical assessments to be completed by nursing and medical staff
- Commencement of management plan
- Order and initiate diagnostic services

**Within first 4hrs of Patient Arrival (within 8am – 8pm)**

- All Assessments completed
- Social Work, Physiotherapy and Occupational Therapy services will complete an AH screening assessment for 100% of patients admitted to the MAU within 4 working hours of the admission
- Care management plans completed and communicated to patient / family / carer
- Estimated date and time of discharge allocated and communicated to multidisciplinary team and patient (incl. carer / family)

**Within first 24hrs of Patient Arrival**

- A Multidisciplinary team co-ordination of care will be facilitated by the NCM
- Commence discharge planning (e.g. discharge letter, pharmacy, equipment, transport)
- Review required Community services and initiate assessment referral
- Referral to Outpatient clinics to be organised
- Patients likely to require ongoing admission should have a referral made to the subspecialty consultant on call for the day.

**Within first 48hrs of Patient Arrival**

- Confirm and execute all care management plans
- Enable transition out of MAU (e.g. discharge home or to alternative inpatient unit)

To expedite assessment, treatment and discharge of patients within the MAU the following will occur:

- Implementation of standing orders or protocols will facilitate prompt accurate patient assessment and treatment
- Application of an estimated date and time of discharge (EDD) on admission to enhance care coordination and timely discharge within 48 hours of admission

6.2 Screening Tools:

6.2.1 Nursing:

6.2.2 Allied Health:

A generic AH screening tool will be used and staff from each discipline will be trained in the implementation of the screening tool. This screening assessment will form the basis for patient referral to the other AH disciplines and the development of an AH intervention plan

6.3 Allied Health Business Rules:

6.3.1 Referrals:

Referral for AH assessment or intervention will be accepted from nursing, medical and other allied health staff with the exception of specific interventions requiring medical referral. Referral protocols for these interventions will be outlined and agreed to at the commencement of the unit. Alternative referral mechanisms may include clinical pathways.
6.3.2 **AH disciplines which have assessed patients on the MAU will provide:**

- For all patients transferred from the unit to another ward, a management plan as related to their profession.
- For all patients discharged home from the MAU, the treatment, education, equipment and referral for ongoing service. AH staff are not required to address long term, complex home support matters that do not relate to the current admission or services that can be provided in domiciliary capacity eg home modifications, future respite planning. The aim of the service will be safe discharge with the community supports to manage the longer term needs.
- Pharmacy will provide a 7 day service, however an effective weekend service will require patient discharge scripts to be completed by a specified time each day – this time will be negotiated with the MAU medical team.
- A timetable for AH staff times and contact details will be made available to the MAU at all times. MAU AH staff will carry MAU dedicated pagers.

6.3.3 **Hours of Service:**

- Social Work, Physiotherapy and Occupational Therapy will each provide a 7 day service and collectively will provide a service from 0800 to 1930 daily.
- Speech Pathology will provide a 7 day service.
- Nutrition and Dietetics will provide a Monday to Friday service with weekend call out if required. The service will include outpatient and domiciliary components. If the patient can be discharged with the service to be safely provided in an outpatient or domiciliary capacity, the dietician has the right to elect this option for service provision.

7.0 **Supporting Systems**

7.1 **Rapid Access to Diagnostic Services**

Rapid access to diagnostic services (this includes radiology, pathology and nuclear medicine) will be inline with Emergency Department protocol.

The following will be required:

- Same day access to diagnostics such as X ray, endoscopy, ultrasound CT and pathology services and systems with priority equal to ED and ICU
- Processes to communicate results rapidly to senior decision makers on the MAU
- Point of care diagnosis should be considered where appropriate

7.2 **In-Patient wards:**

Access to in-patient beds will be the highest priority to ensure patient flow out of the MAU. Where an inpatient bed is not available and care has been accepted by a subspecialty team, the team will manage the care of that patient in the MAU.

7.3 **Bed Management:**

Patient flows must be clearly defined and understood. This includes the development of processes to monitor demand and performance. Clearly defined escalation plans must be developed and agreed.

- If a patient is unable to be discharged from MAU within 48 hours, then arrangements for transfer to an inpatient ward must be made. Indicatively 50% of patients need to be discharged daily from MAU to maintain patient flow.
- Integration with patient flow units will be required to assist in the development of processes to monitor demand and performance and to achieve targets.
- Patient Flow Processes should strive to ensure patients are admitted to “Home Wards” when admission to inpatient wards is required.
### 7.3.1 Escalation Management:

The MAU is for adult non-critical medical patients who fit the admission criteria UNLESS an external disaster occurs. To ensure the 48 hour length of stay is adhered to, an escalation plan is required and will include reference to:

- Adherence to MAU admission criteria and patient screening
- Eligible patients must be accepted by one of the following staff: - Inpatient Consultant, MAU Registrar, MAU NUM or Nurse Case Manager
- Each unit’s bed base will be quarantined for MAU eligible patients only, exceptions require GM approval
- Patients exceeding LOS require GM notification
- Access to in patient beds (if required)
- Access to diagnostic services i.e. X-ray, CT and pathology (inc. timeframes)
- Access to community services i.e. CAPAC, ComPACK and Chronic Care Rehabilitation
- Access to outpatient clinics
- Access to internal and external transport services
- The MAU will be incorporated into each sites disaster plan

### 8.0 Discharge Criteria

Individual case management plans can be used to ensure patients are discharged home with appropriate community based services or transferred to a ward bed within 48hrs. In summary:

- Patients will be discharged home or transferred to an in-patient ward bed within 48hrs
- Patients individual case management plans document and include: - Observations, treatments and interventions required, allied health interventions, nurse initiated discharge criteria, aged care, chronic care and other community follow up care
- All patients who are assessed as suitable will be promptly referred to relevant community services. This includes
  - ComPacks,
  - Admission Avoidance/CAPAC Services
  - GP Shared Care,
  - Chronic Care Rehabilitation,
  - Transitional Care and outpatients’ clinics.(NCM to facilitate through ARCCS co-ordinator)

For patients that will be transferred to an in-patient bed within 48hrs the case management plan will additionally include: - Workup required for transfer to ward, ongoing observation, interventions, diagnosis & management decisions, discharge documentation and community referrals.

Should the patient be transferred to an alternative inpatient or subspecialty team, the team CANNOT refuse transfer of care and must sign off on the clinical management plan as documented in the MAU at the time of hand over

### 9.0 Access to Primary Health Care Services

#### 9.1 Community Links

Early liaison and referral to outpatient clinics and community services such as CAPAC, ComPack and Chronic Care Rehabilitation via the Access Referral Service will be required to ensure support is instigated early to facilitate timely discharge.

- The community services can be accessed via a Single Point of Access (SPA) contact number 91133999
- Priority access to early outpatient clinic or ambulatory care clinic appointments is required for MAU patients. The appointments will be given within 3 days or alternative arrangements must be made
- Priority access to community services such as ComPacks, CAPAC, GP Shared Care, Heart Failure, Respiratory Chronic Care and Transitional Care will be given to MAU patients
- Liaison with community services will be coordinated by the Nursing Case Manager and AARCs.
• Outcomes will be documented in each patient's Individual Case Management plan. This will occur within 4hrs of the patient arriving to the MAU

9.2 General Practitioners

Effective two-way communication process with GPs is vital to ensure that continuity of care is maintained for patients.

10.0 Performance Management & Targets

The Patient Flow Manager and MAU Nursing Unit Manager will be responsible for the monitoring and documentation of weekly KPI reports. These can be used to assist the MAU team in understanding and improving their patient care and performance. The KPI’s for the MAU is now part of the organisation's KPI’s and will be reported on a monthly basis. Fortnightly monitoring of the KPI’s will occur fortnightly using a business objects report to track performance to target; this information will be used to:
• assess the effectiveness of the service delivery model,
• identify constraints
• guide the further development of the MAU business rules and the development of an action plan.

10.1 MAU Performance Management (outcome KPI’s)

• LOS in MAU
• % out of MAU within 48 hours (target 90%)
• % out of MAU within 72 hours (target 100%)
• % Discharged to home from MAU
• % Discharged to home from MAU <48 hours (Target 50%)
• % MAU patients transferred to inpatient wards
• LOS (RSI) for MAU target Medical patients
• LOS (RSI) for MAU target Medical patients aged 75 and over
• Readmission rate within 28 days of MAU discharge
• % of admitted MAU target Medical patients with ED LOS <6 hours (target = 98%)
• % ED patients with an ED LOS <6 hours
• Off stretcher time: % of patients offloaded in 30 minutes (target 90%).

10.2 Feedback Mechanisms and Governance

• Monthly KPI data will be tabled at the Patient Access & Demand Management Meeting
• Fortnightly MAU operational meeting: This is the forum where issues and constraints and managed and recommendations made to the MAU Executive Committee in regard to the further development of the MAU guidelines and operational procedures.
• Fortnightly MAU Executive Committee meetings: This meeting has over all responsibility for the governance of the MAU.