St Vincent's Hospital

Medical Assessment Unit (MAU)
# Table of Contents

OVERVIEW ................................................................. 3
WHAT IS MAU? .......................................................... 3
Benefits of MAU ......................................................... 4
Staff Roles and Responsibilities .................................. 4
  Geriatricians ......................................................... 4
  Geriatric Medicine Staffing Model ......................... 4
  Nursing Staff ...................................................... 5
  Allied Health ...................................................... 5
  Allied Health Business Rules ................................. 5
  Role of MAU Pharmacist ....................................... 6
  Support Staff ...................................................... 7
Case Management Model ......................................... 7
Business Processes .................................................. 7
  Within first 2hrs of Patient Arrival ....................... 7
  Within first 4hrs of Patient Arrival (within 8am- 5pm for allied health) ........................................ 7
  Within first 24hrs of Patient Arrival .................... 7
  Within first 48hrs of Patient Arrival .................... 7
Supporting Systems .................................................. 8
  Diagnostic Services ........................................... 8
  In-Patient wards ............................................... 8
  Access to primary health care services ................ 8
  Community Links .............................................. 8
  General Practitioners ........................................ 8
Patient Selection, Screening and Discharge Criteria ....... 9
  Patient Screening .............................................. 10
  From ED ......................................................... 10
  Discharge Criteria ............................................ 10
Bed Management Redesign, Performance Management & Targets ........................................... 11
MAU Performance Management (outcome KPI's) ........... 11
Escalation Management ............................................ 11
Overview

The complex older 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 do 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.

A radical change is required to the way we currently operate – otherwise delays and adverse events in ED’s will escalate sharply.

What is a MAU?

The Medical Assessment Unit 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 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 older patient at the beginning of the hospital care pathway with better coordination to discharge. There are a number of patients who would have traditionally been admitted to an aged care ward for greater than 5 days who will now be fully worked up and sent home safely within 48 hours from the MAU. Co management by the whole multidisciplinary team is essential for the MAU to function successfully.
Patient Pathway through the Medical Assessment Unit  
The MAU provides an opportunity to break down traditional working patterns and boundaries and improve processes of care for older patients.

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.

Staff Roles and Responsibilities

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

Geriatric Medicine Staffing Model
This model is led by the Director Aged Care with the presence of strong Geriatric leadership where another 3 senior staff specialists participate in the “on take” role on a “daily rotation” basis.
• The senior physician will have protected senior medical time for clinical input and supervision for MAU patients and staff whilst “on take”.
• Facilitate ward rounds twice a day.
• Frequent presence in the MAU as a senior decision maker.
• The Junior Medical staff (RMO and Registrar) will be allocated to the MAU.
• Patients remain under the care of the Geriatrician for the course of hospitalisation, or are transferred to a sub-specialty unit if required.

**Nursing Staff**
Staff interested and experienced in acute aged care will be recruited to the MAU. The nursing team will be led by a Clinical Nurse Consultant/Nurse Practitioner, supported by a Nursing Unit Manager.

**Allied Health**
Allied Health Staff are key members of the MAU multidisciplinary team, their in-put will expedite the assessment, treatment, referral and appropriate discharge of patients.
The team will include Social Workers, Pharmacists, Physiotherapists, Occupational Therapists, Speech Pathologists and Dieticians interested and experienced in acute medicine will be involved in the MAU.

**Allied Health Business Rules**
• An AH MAU representative will be present for all ward rounds.
• Social Work, Physiotherapy and Occupational Therapy services will complete an AH screening assessment for 100% of patients admitted to the MAU within 2 AH working hours of the admission prior to 16.00hrs. A generic AH screening tool will be used and AH staff from each of these disciplines 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. These referrals, together with documentation relating to this initial assessment, will be completed within the same 2 hour period.
• 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. Speech Pathology requires a medical referral for swallowing assessments. A referral form is available on the MAU Unit. Referral protocols for these interventions will be outlined and agreed to at the commencement of the unit. Alternative referral mechanisms may include clinical pathways.
• Social Work, Physiotherapy and Occupational Therapy MAU team members are required to action referrals to their discipline within 2 hours (working hours of the particular discipline).

• Social Work, Physiotherapy and Occupational Therapy will collectively provide a 5 day service commencing between 0800 and 0900.

• Nutrition and Dietetics will provide a Monday to Friday service and new referrals can be seen within one working day. Speech Pathology will provide a Monday to Friday service (19 hours/week). Referrals will be responded to within one working day.

• AH disciplines which have assessed patients on the MAU will provide:
  
  o A management plan as related to their profession, for all patients transferred from the unit to another ward,
  o The treatment, education, equipment and referral for necessary ongoing service, for all patients discharged home from the MAU, 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.

Role of MAU Pharmacist
Pharmacy will provide a 5 day service Monday to Friday not including Low Activity Days. Outside scripts will be used for patients discharged over a weekend.

• Medication history or medication history reconciliation on admission.

• Supply of medications for inpatient stay.

• Identification of medication related problems.

• Investigation and follow up of medication related problems.

• Communication with appropriate community links, eg. Community Pharmacy for set up of compliance aids/Webster packs, GP for changes in medication, carers re issues requiring attention, community teams.

• Discharge planning, medication counselling and planning for ongoing supply of medications.

• Attendance and contribution at ward rounds.
• A timetable for AH staff times and contact details will be made available to the MAU at all times. MAU AH staff will carry pagers.

Support Staff
A 0.5 FTE wards person will be recruited to the MAU team to support the multidisciplinary team in the care of MAU patients.

Case Management Model
All patients admitted to MAU will be able to be discharged home or to an inpatient 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 5 days a week at approximately 10.00 and 14.00 hours.
• The case management plan will be communicated to the patient/carer by the Staff Specialist, Registrar, CNC/NP, RN, within 4 hours of the patient’s arrival (or between 0730 and 1600 for carers).
• The dedicated multidisciplinary team includes: - The Director of Aged Care, Staff Specialists, Registrar, Resident, CNC/NP, Allied Health and nursing staff.
Business Processes

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.

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 (medical staff only).

**Within first 4hrs of Patient Arrival (within 8am- 5pm for allied health)**

- All Assessments completed (inc. Allied Health). Speech Pathology assessment will be completed within one working day.
- 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 CNC/NP.
- Commence discharge planning (e.g. discharge letter, pharmacy, equipment, transport).
- CNC/NP/RN to review the required community services and initiate assessment referral as required.
- Referral to Outpatient clinics to be organised.
  - Confirm and execute all care management plans.
- Enable transition out of MAU (e.g. discharge home or to alternative inpatient unit).
Supporting Systems

Diagnostic Services
Rapid access to diagnostic services will be inline with Emergency Department protocol.
The following will be available:
- Same day access to diagnostics such as X ray, 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.

In-Patient wards
Access to in-patient beds will be the highest priority to ensure patient flow out of the MAU.

Access to primary health care services
Community Links

General Practitioners
Effective two-way communication process with GPs is vital to ensure that continuity of care is maintained for patients.
Patient Selection, Screening and Discharge Criteria

A typical patient suitable for management in MAU is the older complex 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.

The following criteria will be applied for patients transferred to the unit or excluded from the unit:

Admission Criteria (requires all to be fulfilled)
- Adult medical patient > 65 years age
- Haemodynamically stable
- Non critical
- Anticipated to be able to be discharged or transferred to ward within 48 hours

Exclusion Criteria
- Triage category 1 and 2
- An ICU, CCU or HDU admission
- Require BIPAP or CPAP
- Clinically unstable
- Surgical patient
- Homeless Patient
- Dialysis patient
- Palliative
- Require isolation e.g. infectious diseases
- Able to be directly admitted to specific inpatient ward
- Aggressive e.g. psychiatric patient
- Unstable spinal injury requiring >48 hrs in patient care
- Head injury that is:
  - Ventilated
    - GCS< 12
    - GCS 13-14 without CT
- Deemed unsuitable for MAU admission by either MAU Director/MO/NP/CNC

Origin of Referral
1. Emergency Department/Triage
2. ASET
3. ACAT
4. Community Nursing
5. General Practitioner
6. Specialist after discussion with a geriatrician

Any referral needs discussion with Geriatrician prior to decision.
Patient Screening

Appropriate patients can be streamed to the MAU following Triage and assessment by ASET or the Senior Medical Officer in ED. The following selection process may be followed:

From ED

- Patients triaged categories 2 will be referred to the MAU once they are deemed non critical and accepted by the MAU for admission
- Patients triaged categories 3-5 will be referred to the MAU following triage.
- All clinically unstable patients will be assessed and managed in ED
- Inclusion criteria must be satisfied prior to 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 admitting Geriatrician, Registrar and or CNC/NP prior to transfer to the unit
- The MAU NUM or CNC/NP will be contacted regarding eligible patients for admission by the accepting senior MAU team member.

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 as documented by the medical team, aged care, chronic care and other community follow up care
- All patients will be promptly referred to relevant community services (i.e. ComPacks, CAPACS, GP Shared Care, Chronic Care Rehabilitation, Transitional Care and outpatients’ clinics as required.

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.
Bed Management Redesign, 
Performance Management & Targets
Processes to monitor demand and performance have been developed. The escalation plans have been developed and are 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 one third 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
- The patient flow manager will be monitoring patient breech times and in order to meet KPIs. The weekly KPI report will be forwarded to the steering committee weekly and will be used to assist the MAU team in understanding and improving their patient care and performance.
- Patient Flow Processes should strive to ensure patients are admitted to “Home Wards” when admission to inpatient wards is required.

MAU Performance Management (outcome KPI’s)
- LOS in MAU
- % out of MAU within 48 hours (target 100%)
- % Discharged from Hospital
- % Discharged to home from MAU<48 hours (Target 33%)
- % MAU patients transferred to inpatient wards
- Readmission rate within 14 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
- % of deaths in MAU
- % of falls in MAU

Escalation Management
The MAU is for adult non-critical patients who fit the admission criteria. 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: - MAU Medical Director, MAU Registrar OR MAU CNC/NP.
• Each unit's bed base will be quarantined for MAU eligible patients only, exceptions require GM approval
• Weekly LOS reports to be forwarded to the GM
• 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
References

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