

**HIGHER MEDICAL TRAINING**

**CURRICULUM**

**FOR**

**SUB SPECIALTY TRAINING IN**

**ACUTE MEDICINE**

**For General (Internal) Medicine NTN Holders**

**JULY 2003**

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## **INTRODUCTION**

This document aims to outline the necessary skills that should be developed by an individual who aims to work in, and play a lead role in, a Medical Assessment or Medical Admissions unit (MAU). This differentiates the Acute Physician as laid out in this document from the physician who takes part in the acute take but is further qualified in another medical specialty and does not take a managerial role in the MAU.

The trainee in Acute Medicine will also have to fulfil the syllabus as laid out in the Generic and General (Internal) Medicine (G(I)M) curricula as well as extending their experience and developing the specific skills outlined below. It is **mandatory**, therefore, that this curriculum is read in association with the curricula mentioned above for the trainee in Acute Medicine to recognise all the relevant training needs.

## **ENTRY REQUIREMENTS:**

2 years general professional training, as detailed in the G(I)M curricula, the MRCP (UK) examination, together with an NTN in G(I)M. Training in Acute Medicine will be planned to supplement existing training in GIM.

## **DESCRIPTION OF TRAINING:**

It is suggested that in addition to the G(I)M experience obtained the trainee in Acute Medicine should:

1. Develop a specific practical skill relevant to practice in an MAU. This may include echocardiography, bronchoscopy, abdominal ultrasonography or upper G-I endoscopy. For any of the specific practical skills it is mandatory that the trainee can be shown to be competent. At the present time there are professional organisations that determine minimum numbers of procedures that should be done to achieve and maintain competence. It is recommended that trainees should adhere to the standards set by these organisations.
2. The trainee should gain experience in a wide variety of acute medical specialities which must include CCU involvement and ITU or HDU attachment and might also include cardiology, respiratory medicine, gastroenterology, infectious disease and care of the elderly. This would include both in patient and out patient experience.
3. Gain experience in an appropriately staffed and equipped MAU for at least six months. In the later years of training it is mandatory that this include experience of the managerial role in the unit. Ideally acute medical receiving will be experienced in two separate MAU's during the training period.
4. Gain experience in a critical care setting including either ITU or HDU for at least four months. During this time competency in advanced airway management and circulatory support must be achieved.

5. Develop and maintain expertise in venous and arterial cannulation and advanced airways protection.
6. Specific expertise in all the essential practical procedures outlined in the G(I)M curriculum. The trainee will, in particular, be expected to have expertise in procedures that, when applied timeously, can be life saving e.g. pericardial aspiration and cardiac pacing.

Depending on the training that has been undertaken to fulfil the G(I)M curriculum some experience may have already been achieved in an MAU and/or critical care. It is anticipated, however, that all trainees will require at least an extra year of training to supplement that experienced in pure G(I)M.

### **COMPETENCE**

Assessment of competency will determine the trainees who have achieved the necessary standards in the MAU environment. Competency assessment will use a combination of techniques including:

360° assessment, mini clinical examination and procedural skill assessment.

For the latter it may be that experience on simulators will be necessary before the trainee performs the practical technique on a patient.

### **RECOMMENDATIONS FOR MEDICAL ASSESSMENT (ADMISSION) UNITS (MAU'S)**

The training of individuals who wish to take a lead role in an MAU has to include time in an appropriate MAU. It is recommended that at least one year of the training period is spent in an MAU.

The systems in place within an MAU should be designed to provide rapid assessment, diagnosis, stabilisation, observation and early treatment which is dictated by clinical need and is not time limited. As such the system is not a form of triage. MAU's will function as an integral part of the overall Acute Trust and primary care structure to ensure access to specialty care in a timely fashion. Early patient review by an appropriately trained senior clinician is necessary to promote the training environment and provide adequate standards of patient care.

### **STRUCTURE**

1. MAU's should have a defined organisational structure to include:
  - Designated Clinical Lead
  - Dedicated Nurse or Clinical Manager
2. A bed capacity to accommodate and approximately reflect the average daily clinical take. Thus a routine daily admission take consisting of 30 patients daily requires approximately 30 beds.  
A minimum of 20% of the bed complement should have fixed monitoring equipment preferably with central console monitoring.

3. All units should have a clinical governance strategy that includes monitoring of outcomes e.g. 24hr mortality, 7 day re-admission data.

### **MANPOWER**

The MAU should have a dedicated staff to provide high quality patient-focussed service and ensure staff training opportunities.

- o **Nursing**

Staffing levels and skill mix to reflect activity, patient dependency and unit size. The staff numbers and skill mix should reflect the spectrum of patients' conditions, from acutely unwell to complex needs.

- o **Medical**

All medical staff (Consultants, Training and Non-training grades) participating in Acute Medical admissions through an MAU should have protected time with no other responsibilities.

### **ALLIED HEALTH PROFESSIONALS**

- a. Physiotherapy and Occupational Therapy

There should be designated therapy input to the MAU preferably 7 days per week.

- b. Speech and Language Therapy and Dietetics

Access to these services when appropriate.

- c. Pharmacy

Pharmacy input is required 7 days per week

- d. Administrative & Clerical Staff (A&C Staff)

Dedicated A&C staff are necessary because of the volume of activity and importance of patient records.

It is suggested that the above is the model that should be in place for an MAU to be an appropriate training environment.

### **NON UK EXPERIENCE**

For acute medicine such experience will only be recognised if written information can be obtained from the department concerned and the Programme Director so equivalence of experience can be determined.

### **ASSESSMENT AND LEARNING METHODS**

The learning methods are similar to those that have been used in G(I)M training.

1. Grey case discussion
2. Self directed learning

3. Reference to recent and current medical literature to facilitate evidence based practice
4. Observation by a Consultant trainer
5. Anonymised records of patients cared for by trainee
6. Discussion with Educational supervisor.
7. Observation of practical skills by a consultant
8. Training Record
9. Portfolio of activities and formal documentation of assessment and appraisal

### **PRACTICAL PROCEDURES - TRAINING RECORD**

It is mandatory that all practical procedures are adequately supervised until competence is achieved. The supervisor for each procedure does not have to be the educational supervisor but must themselves be competent to perform the supervised technique. Trainees will be encouraged to keep a note of all procedures so that the Training Record may be reviewed by the educational supervisor. All complications and adverse events must be recorded in the Training Record.

<b>Objective</b>	<b>Knowledge</b>	<b>Skills</b>	<b>Attitudes</b>
Competence in insertion of central venous lines	<p>Anatomy of the central venous system of the upper thorax, neck and femoral veins</p> <p>Define the indications for a central line, complications of insertion and ways to minimise these</p> <p>The use of central lines in circulatory support</p>	<p>Insert central venous lines using Seldinger technique in Jugular, subclavian or femoral veins</p> <p>Use ultrasound guidance (where appropriate) for localisation of target veins</p> <p>Discuss with patient, relatives and carers the indications, benefits and adverse events of central line insertion to allow informed consent</p> <p>Management of patients circulation using appropriate fluid balance and pharmacological techniques</p>	<p>Professional relationship with nursing staff who aid in insertion of line and in the aftercare of the patient.</p> <p>Self confidence but within recognition of own limitations</p>

<b>Objective</b>	<b>Knowledge</b>	<b>Skills</b>	<b>Attitudes</b>
Competence in airway protection	<p>Methods of maintaining a clear airway</p> <p>Indications for and methods of tracheal intubation</p> <p>Selection of tube type</p> <p>Insertion and use of oral airways, face masks and laryngeal mask airway</p>	<p>Introduction and checking correct placement of laryngeal airway</p> <p>Appropriate choice and passage of ET tube</p> <p>Identifying correct placement of ET tube</p>	<p>Knowing own limitations and when to call for senior assistance</p> <p>Being clear in explanations to patients, relatives, and carers to facilitate informed consent</p> <p>Consideration of patient autonomy</p>

<b>Objective</b>	<b>Knowledge</b>	<b>Skills</b>	<b>Attitudes</b>
Competence in use of CPAP and BiPAP ventilatory support	Indications for use of CPAP and BiPAP (Continuous and biphasic positive airways pressure ventilation respectively) Choosing appropriate equipment and settings for specific patient	Setting up appropriate equipment Monitoring response to treatment and modifying settings appropriately	Knowing own limitations and when to call for senior assistance Being clear in explanations to patients, relatives, and carers to facilitate informed consent Consideration of patient autonomy

<b>Objective</b>	<b>Knowledge</b>	<b>Skills</b>	<b>Attitudes</b>
Identification of patient at risk of critical illness including cardiac arrest	Basic pathophysiological parameters that can predict acute decline in patient condition	Adequate patient assessment including critical cardiological, respiratory and biochemical derangements. Appropriate therapeutic response to detected abnormalities	Knowing own limitations and when to call for senior assistance Being clear in explanations to patients, relatives, and carers to facilitate informed consent Consideration of patient autonomy

<b>Objective</b>	<b>Knowledge</b>	<b>Skills</b>	<b>Attitudes</b>
Integrating information from several sources to promote appropriate patient care	Principles underlying physiological monitoring Indication and contraindication for the use of monitoring devices Methods for assessing pain Glasgow Coma Scale Severity of illness scoring schemes	Safe use of: Pulse oximetry Invasive BP measurement CVP measurement (direct and transduced) Pulmonary artery catheters Collection of data for illness severity scoring Correct use of Glasgow Coma scale Clinical assessment of pain	Ensuring safe use of monitoring Support other staff in use of monitoring Being clear in explanations to patients, relatives, and carers to facilitate informed consent Consideration of patient autonomy and comfort

<b>Objective</b>	<b>Knowledge</b>	<b>Skills</b>	<b>Attitudes</b>
Minimising symptoms of distress in the often frightened acutely sick patient	Causes of and methods of minimising distress for patients Bereavement anticipating and responding to grief Stress responses Causes and management of acute confusional states	Identify and treat causes of distress Minimise complications associated with analgesia	Actively minimising patient distress Being clear in explanations to patients, relatives, and carers Consideration of patient autonomy and comfort

<b>Objective</b>	<b>Knowledge</b>	<b>Skills</b>	<b>Attitudes</b>
Safe and compassionate handling of unavoidable patient demise	Basic ethical principles Advance directives The rights of the incompetent patient With-holding treatment including no resuscitation orders Cultural differences to death and dying The medical legal interface	Communication with patient and relatives Discussion of treatment options Relieving distress Obtaining consent for autopsy Death certification	Respect for patient wishes Desire to support patients, relatives, carers and other staff members.

<b>Objective</b>	<b>Knowledge</b>	<b>Skills</b>	<b>Attitudes</b>
Promotion of MAU to provide high quality care	Evidence based care and standards Local policies and procedures Methods of audit to promote change into practice	Proper use of data sources Participation in unit audit Participation in research Strategic planning of the MAU within the local environment Principles of workforce planning Practical applications of legislation relevant to the MAU Appropriate role within the multidisciplinary team in the MAU	Functioning within competence Supportive of colleagues Professional and reassuring approach Accepts advice from other health care professionals Demonstrates ability in analysing problems and evaluating system of service delivery

<b>Objective</b>	<b>Knowledge</b>	<b>Skills</b>	<b>Attitudes</b>
Management of alcohol and drug intoxication and withdrawal	Effects and adverse events associated with commonly used social and therapeutic drugs Medico-legal aspects of care relating to self harm	Recognition of acute intoxication Identification of intoxicant using clinical clues and laboratory data. Appropriate monitoring of patient and therapeutic intervention. Management of intoxication, promoting elimination of drug where appropriate. Management of adverse drug effects. Appropriate use of legal framework to assist management of patient.	Knowing own limitations and when to call for senior and specialty assistance Consideration of patient autonomy balanced with risk of further self harm.