A guide to the acute medical unit

Introduction

Acute medicine is the fastest growing medical speciality in the UK and acute medical units, which provide the best possible care for acutely unwell medical patients, are increasingly common.

Acute medicine is defined as that 'part of general (internal) medicine concerned with the immediate and early specialist management of adult patients suffering from a wide range of medical conditions who present to, or from within hospitals, requiring urgent or emergency care' (Royal College of Physicians, 2007).

Medical emergencies are the commonest reason for admission to a hospital and acute medicine has developed as an independent speciality both to meet this growing demand and to improve the care of the acutely unwell patient. Other factors, such as the increasingly complex medical needs of the ageing population, changes to community care, the shift towards consultant-led services and the desire to meet training needs and support research, have also been important in moulding the emerging discipline. Not surprisingly, acute medicine is now the fastest growing medical speciality in the UK.

The majority of acute care hospitals in the UK now have an acute medical unit, although it may operate under a different name, such as 'medical admissions unit'. They should provide an optimum environment for the acutely medically unwell patient, with clinicians overseeing the patient's early investigation, formulation of interim diagnosis and early management. Most acute medical units will care for patients for up to 48–72 hours before discharge back to the community or transfer to another hospital team.

The emphasis within the acute medical unit should be on the delivery of high quality, timely care. It has been shown that standardizing aspects of the management of several common medical illnesses, such as myocardial infarction, improves outcomes (Rogers et al, 2007). It is envisioned that acute medical units will lead the way in developing protocols or care bundles for common acute illnesses and set benchmarks for improving patient care, while providing an effective basis for research and training.

What sorts of patients do acute medical units care for?

Virtually all patients are referred to acute medical units via another health-care professional, such as the GP, out-of-hours service or emergency department doctor.

The patients usually range from the severely unwell to those with complex medical needs being admitted with associated social problems. Some units co-locate medical and surgical patients to avoid disputes and improve the quality of care of patients with 'watershed conditions' where the distinction between speciality boundaries is blurred, such as head injuries, acute pancreatitis, gastrointestinal bleeding or non-operative fractures in elderly patients. In places where this does not happen, patient safety is paramount and should not be subordinate to professional disputes. Processes should be streamlined for patients to access acute medical units quickly and easily, ideally using locally-agreed protocols.

Where they should be

The acute medical unit should be located beside the emergency department, with easy access to diagnostic imaging facilities and critical care facilities. In some hospitals, for historical reasons, acute medical units are not located close to the 'front door' of the hospital. This usually means delays for patients and less productive use of staff time.

Acute medical unit facilities and staffing

Acute medical units should have sufficient bed capacity to prevent the inappropriate movement of patients before assessment is complete. Often they will have discrete areas for the management of different types of patients (*Figure 1*). The initial assessment area, where patients are received from the community, will have a monitored trolley area but may also have chairs. This area should be treated the same way as an emergency department, with the decision to admit or discharge being made

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Figure 1. The acute medical unit, Royal Infirmary of Edinburgh.

Figure 2. The allied health team, Royal Infirmary of Edinburgh.

within 1–2 hours of the patient's arrival. There will be another monitored area for the care for more acutely unwell patients, with equipment for invasive monitoring and ventilatory support. In some hospitals, the acute medical unit may function as a high dependency unit and accept patients from the wards. The rest of the ward will have bed areas which should operate a single sex policy to maintain patient privacy and dignity.

The acute medical unit may have ambulatory care or rapid access facilities, in the form of a clinic area or consulting rooms. Larger units should have dedicated assessment and treatment areas for allied health professionals and separate spaces for teaching and training. Larger units should have near side laboratory facilities and a dedicated blood gas analyser.

Acute medical units should be staffed by dedicated professionals working as part of a true multidisciplinary team aligned to the needs of the patients. The team should include nursing staff with acute care skills, occupational and physiotherapists, pharmacists and social workers (*Figure 2*). Medical staff might range in grade from foundation year 1 to senior registrar, include staff or trust grade doctors and be led by a dedicated consultant.

It is recommended that staff spend dedicated periods of time in the acute medical unit. Single or 'drop in' shifts of all staff should be actively discouraged, as these interfere with continuity of care. Where allied health or support teams are shared with other wards, there should be clear policies for accessing services 7 days per week.

Unit functioning

The care of the patient will begin with his/her referral from another health-care professional and the acute medical unit should have a robust system for tracking expected patients.

On arrival, the patient should have a complete set of observations taken and an early warning system score calculated (National Institute for Health and Clinical Excellence, 2007). Those patients triggering the early warning system at any time should have immediate medical review. All other patients should be reviewed, even if briefly, by a senior doctor within 1 hour. Appropriate clerking, formulation of plan and ordering of tests should be done within 1–2 hours. Management plans should be implemented as quickly as possible.

Consultant ward rounds should take place at least twice daily and involve the whole multidisciplinary team. All patients should be assessed with regard to predicted length of stay, the need for specialist care and early discharge planning. This is particularly important in the frail elderly, who need early input from allied health and social work staff. In addition to improving patient care, these steps prevent discharge delays and allow for better hospital-wide bed planning. Patients with an expected short stay (<48 hours) usually remain on the acute medical unit until discharge. Patients requiring specialist care should be referred and promptly transferred.

The need for 24/7 comprehensive medical cover necessitates a shift-working pattern for junior staff and some cover will usually provided by non-acute medical unit staff. This, combined with high patient turnovers, makes it imperative to have robust systems in place for handover. Handovers should take place with every change of shift and there should be a clear method of highlighting unwell patients or urgent jobs.

The case study below encapsulates the way in which an acute medical unit can improve patient care.

Teaching and training

The acute medical unit should be an integral part of training and development for

Case study

A 75-year-old woman was found confused on the floor by her neighbour. Her GP was called and the patient was referred directly to the local acute medical unit. On arrival, the patient was found to have a blood pressure of 85/60 mmHg, triggering the early warning system. The medical registrar responded and it was found that the patient was dehydrated and had evidence of a fractured right humerus. Intravenous fluids were commenced, with good effect. The fracture was confirmed on X-ray and the orthopaedic registrar, on seeing the patient on the acute medical unit, recommended a collar and cuff and arranged for orthopaedic follow-up. On review of the patient's medication by the pharmacist, it was discovered that the patient had misunderstood how to correctly take newly-prescribed diuretic medication. The following morning, the patient was substantially better, with a normal blood pressure. During the multidisciplinary team ward round, it was decided that the patient could be discharged with changes to her medication. The patient expressed anxiety about her ability to cope with her right arm in a sling. The physiotherapist and occupational therapist, after assessment, decided that she could go home with interim support. The social worker arranged for an emergency care package and she was discharged the next day, confident of her ability to manage at home with the additional help.

all staff and an essential part of the medical undergraduate curriculum. The ability to rapidly recognize, assess and manage the unwell patient is a crucial one for all medical staff, regardless of their planned career path. The acute medical unit provides a high level of exposure to such patients, but in an environment that is controlled and supportive.

From August 2007, all trainee physicians will be required to spend time in acute medicine, at least in the early part of their specialist programme. Acute medicine trainees will be expected to gain wider experience of the management of acute medical problems and be skilled in specific practical procedures, such as echocardiography and basic ultrasound. Additionally, training will cover the managerial skills necessary to deliver the care objectives of an acute medical unit.

The Society for Acute Medicine was founded 8 years ago to support all members of multiprofessional teams involved in the management of acute medical emergencies. The Society promotes and supports training, research and education at all levels and now runs an annual international conference. Those interested in a career in acute medicine are encouraged to join. Further information can be found at www.acutemedicine.org.uk. **BJHM**

Conflict of interest: none.

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KEY POINTS

- Acute medicine is the fastest growing medical specialty.
- Acute medical units are designed to provide the optimum environment for the care of the acutely unwell patient.
- The emphasis should be on the delivery of high-quality, multidisciplinary care in a timely fashion.