Early discharge from the acute medical unit: is it safe?

The reorganization of acute medical services in the UK over the past decade has seen the development of an acute medical unit in virtually all trusts receiving unselected medical take (Almond, 2007). The concept of the acute medical unit arose in parallel with the development of acute medicine as a specialty, and as a response to an increasing demand for high quality emergency care.

The Royal College of Physicians (2004) emphasized the need for the presence of an experienced clinician at all times on the acute medical unit, with consultant review for each new admission within 24 hours. The primary imperative was to improve quality of care by identifying sick patients at an earlier stage. In addition, early review by a senior acute medical unit doctor can identify those patients suitable for ambulatory care, thereby increasing the discharge rate from the acute medical unit.

Early discharge is possible

A more recent report (Royal College of Physicians 2007) suggests that discharge directly from the acute medical unit should be possible for a significant percentage (around 50%) of acute medical admissions. Many of these could potentially be ready for discharge before 24 hours have elapsed, and although executing such early discharges can be a challenge, there are strong motivating factors to encourage the acute medical unit team to achieve it.

The primary driving force is pressure on acute hospital beds. The number of emergency admissions continues to rise despite a reduction in overall capacity, leading to high bed occupancy rates and an inevitable negative impact on quality of patient care. Every early discharge frees up a valuable acute medical unit bed, reducing emergency department waiting times and allowing a greater turnover of admissions.

A second spur to aim for early discharge is the looming presence of hospital-acquired infection, the spread of which accompanies a high bed occupancy rate. A 'better out [of hospital] than in' policy may help us to reach government targets as well as protecting individual patients. Third, we must consider patient choice. Hospital admission can be a frightening and stressful experience, and many people would favour early discharge with either appropriate support in the community or outpatient follow up.

How can we achieve safe early discharge?

So how do we structure a service to improve patient care, increase discharge rates and reduce bed occupancy? Two studies have demonstrated that the introduction of an acute medical unit with associated reconfiguration of staffing can lead to a reduction in length of hospital stay without a change in readmission rate (Moloney et al, 2005; St Noble et al, 2008). The physical presence on the acute medical unit of a senior clinician (the 'decision maker'), regular patient reviews (no more delaying to the 'post take' ward round) and close links with the emergency department are beneficial.

A senior medical doctor acting as an emergency department liaison can avert admissions to the acute medical unit completely by reviewing selected patients within the emergency department and discharging directly from there. In a similar vein, the acute medical unit is ideally placed to foster strong links with medical specialties. Prompt specialist input, in selected cases, can expedite discharge. To be maximally effective, 7-day access to specialist diagnostic testing is needed; this remains an aspiration rather than a reality for most acute hospitals.

Importantly, early discharge planning must be supported by a multidisciplinary acute medical unit team: physiotherapists, occupational therapists, social workers, discharge coordinators and pharmacists have a huge part to play in assessing the safety of discharge, and ensuring that it happens at the right time.

Locally, a number of changes have been made to the delivery of acute medical care over recent years: a short stay unit, in addition to the acute medical unit, supported by dedicated acute medical unit consultants, junior doctors and multidisciplinary team; increased consultant 'shop-floor' presence; consultant ward rounds 7 days a week; daily multiprofessional or multispeciality board rounds; outpatient ambulatory pathways for deep vein thrombosis, pulmonary embolus and 'low-risk for acute coronary syndrome' chest pain; co-location of an acute GP service within the acute medical unit; and emergency department liaison.

Three recent service evaluations have been both encouraging and reassuring. Despite early discharges by acute medical unit consultants, a performance audit in 2008 demonstrated readmission rates in the authors' unit to be in line with the national average (13 *vs* 13.6%). A second analysis confirmed the safety and efficacy of the 'low risk chest pain pathway', introduced in 2007: 377 fewer medical admissions over 1 year, equating to a 94% rise in number of admissions avoided, equalling a saving of 488 bed days, with a 4.9% readmission rate and zero 28-day-mortality. Finally, an audit of patient waiting times has also shown a reduction in time to senior review since the implementation of a new medical rota on the authors' acute medical unit; it is not yet clear whether this has contributed to a reduction in length of stay.

The future

The impetus for early discharge is unlikely to diminish with time. The current acute medical unit model has much to offer in terms of efficiency and safety, but there will always be room for improvement. The development of short stay units, specifically designed for acute medical admissions with a predicted hospital stay of less than 48 hours, could allow earlier discharges and ease bed pressures even further. A study in a Gateshead hospital recorded lower lengths of stay after the introduction of a short stay unit in addi-

tion to their acute medical unit (Downing et al, 2008). A short stay unit will only be as efficient as its admission policy is strict. The development of an outpatient emergency care service (rapid access or ambulatory clinics) to work alongside the acute medical unit could also expedite discharge and even prevent the need for hospital admission in selected cases (Connolly and Hamad, 2008). Extended day working, with senior clinical decision-makers on the acute medical unit at the busiest times out-of-hours, seems necessary and inevitable. However, implementing such changes without adversely affecting existing services will be no easy task, and requires an expansion in consultant numbers.

Conclusions

The organization and operation of acute medical services must continue to evolve in order to provide the quality and efficiency expected by the government, the public and the profession. Lengthy patient stays in the absence of clinical need are untenable in the current climate. There is a growing body of evidence suggesting that, with the correct infrastructure in place, early discharge can be a safe and sensible option. Further research in this area by ambitious and innovative acute medical unit teams should be welcomed. **BJHM**

Alice Miller/Kate Evans
Specialist Registrar in Acute Medicine/
Consultant Physician
Acute Medical Unit
Derriford Hospital
Plymouth
Devon PL6 8DH

Almond S (2007) Where is the sharp end and how did we get here? *Clin Med* **7:** 105–8
Connolly V, Hamad M (2008) The acute medical take: an outpatient specialty. *Clin Med* **8:** 21–4
Downing H, Scott C, Kelly C (2008) Evaluation of a dedicated short-stay unit for acute medical admissions. *Clin Med* **8:** 18–20
Moloney ED, Smith D, Bennett K, O'Riordan D, Silke B (2005) Impact of an acute medical admission unit on length of hospital stay, and emergency department 'wait times'. *Q J Med* **98:** 283–9
Royal College of Physicians (2004) *Acute medicine. Making it work for patients.* Report of a Working Party. Royal College of Physicians, London
Royal College of Physicians (2007) *Acute medical care. The right person, in the right setting – first time.* Report of the Acute Medicine Task Force. Royal College of Physicians, London
St Noble VJ, Davies G, Bell D (2008) Improving continuity of care in an acute medical unit: initial outcomes. *Q J Med* **101:** 529–33

KEY POINTS

- Increasing demand for high quality emergency care has seen the development of acute medical units staffed by a dedicated multidisciplinary team.
- Early acute medical unit consultant review aims to improve quality of care by identifying sick patients at an earlier stage.
- Early review by a senior doctor can also identify those patients suitable for ambulatory care.
- Discharge directly from acute medical unit should be possible for around 50% of acute medical admissions.
- Extended day working, with senior clinical decision-makers on the acute medical unit at the busiest times out-of-hours, seems necessary and inevitable.