A consultant physician in acute medicine: The Bournemouth Model for managing increasing numbers of medical emergency admissions

Mary Armitage and Tanzeem Raza

ABSTRACT – Consultant-led medical admission units have been developed as one method of managing the increasing number of acute medical emergencies. The need to document such innovations and to evaluate and analyse the role of an acute care physician in meeting the problems of acute care has been emphasised. We therefore report our experience of an acute admissions unit led by a consultant physician in acute medicine in a district general hospital.

KEY WORDS: acute admissions unit, acute care physician, emergency medical admissions

The problem

The relentless rise in emergency admissions over the last 15 years has coincided with a reduction in hospital beds and junior doctors' hours, resulting in severe problems in most acute hospitals[1–5], and the attendant miseries will be familiar to all. There is also increasing public expectation that senior doctors, ie consultants, will be directly involved in the acute care of emergency admissions. Evidence that specialist care may give better outcomes has increased the trend towards specialisation[6,7], but specialist practice represents a substantial workload and thus creates a conflict with the need to retain high-quality general medicine to manage the emergency workload.

The search for solutions

There have been numerous initiatives designed to cope with the increase in emergency admissions[8–12], and examples of good practice can be found around the country. These responses have considered every stage in the admission process, from initial referral to discharge. Many hospitals are making radical attempts to reduce admissions by using, for example, rapid access assessment clinics, telephone specialist advice and domiciliary visits[3]. The role of the geriatrician in leading 'intermediate care' is likely to evolve and facilitate care across the acute assessment and community interface in the future. At the other end of the patient journey, discharge planning should start on admission. Early home visits after discharge may reduce readmissions[13].

Many hospitals have introduced an acute admissions area for initial management of emergencies followed by early triage of patients to specialist wards[14]. This creates an opportunity to find a bed in the appropriate specialist area and provides a focus of clinical care for the junior medical staff rather than having their patients spread across several different wards. It also makes post-take ward rounds easier and facilitates the contribution of nurses with extended roles. However, unsurprisingly, hospitals found that when takes were busy the admissions unit became blocked, and no longer functioned effectively. The importance of a regular consultant-led post-take ward round has been emphasised by the RCP[15] and the model of 'physician of the week' has been used effectively in some hospitals to provide this senior cover[16].

The Bournemouth Model: a consultant physician in acute medicine

The Royal Bournemouth Hospital is a district general hospital serving a population of 275,000. The number of patients admitted on acute medical take has increased from around 600 patients per month in 1992 to about 1,100 patients per month in 2001. The average number of acute medical admissions is 35 patients daily, with a maximum of 70 patients. In January 1997, there were 103 medical patients outlying in surgical beds, with patients spread across 13 different wards. The management of acute medical admissions was in crisis.

We elected to try a new model, which involved appointing a physician in acute medicine. We believed that senior leadership was essential, firstly to

Key Point

The appointment of an acute physician has been effective in providing continuous leadership, early senior review, fast track investigations and early follow-up clinics, thus facilitating early discharge of a large proportion of acute admissions

Mary Armitage
BSc DM FRCP FRCP(Edin), Consultant Physician, Clinical Director of Medicine, Royal Bournemouth Hospital; Chair, General Internal Medicine Committee, RCP

Tanzeem Raza
BSc FRCP FRCP(Edin), Consultant Physician in Acute Medicine, Royal Bournemouth Hospital

Clin Med JRCPL 2002;**2**:331–3

ensure that acutely ill patients were well managed initially and then referred on to the most appropriate specialist team, and secondly to identify those who could be investigated and managed quickly and then discharged home with early review in outpatients. Although 'physician of the week' appears to work in some units, existing physicians may find difficulties in suspending all their specialist commitments for their week on the admissions ward. The RCP recommends that consultant physicians should carry out a post-take ward round at least once every 24 hours, and that other fixed commitments must be cancelled to accommodate this[15]. More frequent ward rounds (every 12 or 8 hours) may be appropriate where admission numbers are high. However, there is pressure within medical directorates not to cancel specialist clinics or procedures because of the impact on waiting times. A physician appointed with fixed sessions for undertaking ward rounds and a dedicated commitment to running the admission ward would not have other conflicting pressures. In addition, we believed that continuity of leadership was important in order to identify problems, make changes to improve the service, develop protocols and to undertake continuing audit. A medical admissions unit led by a consultant in acute medicine was set up along these lines in November 1997. This paper describes our experience with this model over the last four years.

Protocols and practice

After initial assessment in the accident & emergency (A&E) department, the majority of patients, except those requiring specialist care in the intensive care unit (ICU), coronary care unit (CCU) and the gastrointenstinal bleeding unit, are admitted to the acute admissions unit (AAU). The acute physician leads a ward round with the on-call team *every* afternoon and agrees a management plan and investigations as well as transfer to the appropriate specialist ward for continuing care if necessary. The triage to specialist care is based on protocols agreed by all physicians in the directorate.

The patients suitable for early discharge are identified and their care is taken over by the acute physician, who is then responsible for continuing care and follow-up. He has rapid access to investigations such as CT scans, ultrasound, endoscopy, exercise tests and echocardiography. The on-call medical registrar leads another ward round at 9 pm every evening. The consultant on call for the previous night leads a post-take ward round every morning on the AAU, and any patients suitable for early discharge are referred to the admissions unit consultant. Patients requiring specialist care are triaged appropriately. This arrangement provides for *three* senior level ward rounds for the acute admissions in a 24-hour period, but does not often require the other physicians to cancel specialist fixed commitments.

Impact of senior leadership

During the first two years, there were 22 beds on the AAU and only patients with a predicted discharge within 24 hours were taken over by the acute physician. During this period, 18,735 patients were admitted through the AAU and the acute physician discharged 21% of them directly from the unit within the first 24 hours. Of these direct discharges, 40% were seen in the acute physician's follow-up clinic within two weeks of their discharge. During the first year, the total number of medical admissions *increased* by 6% but the number of medical outlyer bed days *fell* from 4,053 to 3,401, a decrease of 16%.

The perceived benefits of early and active senior review led to the addition of another eight beds in year 3, allowing more patients to remain under the acute physician. The direct discharge rate increased to 32% of total admissions during the third year. The AAU was extended further the following year to 42 beds, which allowed patients with a predicted stay of up to 72 hours to be managed by the acute physician. Currently around 40% of acute admissions are discharged directly from the AAU.

To ensure that there were no premature discharges resulting in 'revolving door' readmissions, we monitored readmissions within the first two weeks of discharge. Out of 7,795 patients discharged directly from AAU during the three-year period, only 1.5% (120) were readmitted within one week and another 68 (0.87%) during the second week after their discharge. All cases in the first year were reviewed. In only two cases out of 56 was the readmission due to continuing or exacerbation of the original complaint, and in both cases audit by an independent clinician reaffirmed the decision to discharge.

Job plan

The consultant in acute medicine has his own office and secretary based on AAU, as well as facilities for outpatient review on the ward. With the increase in the number of beds, the medical team on the unit has also increased. The AAU team now includes one Pre-Registration House Officer, one Senior House Officer on a general medical rotation and two staff grade physicians, both experienced in acute general medicine. The model has proved so successful for our hospital that we have just appointed a second acute physician. The Federation of Medical Royal Colleges' report, *Acute medicine: the physician's role*, emphasises the importance of maintaining specialist skills[17]. The job plan of each physician has seven fixed sessions. Four of these are covering daily post-take ward rounds. Each physician undertakes at least one outpatient clinic on AAU for follow-up of acute medical patients discharged from the ward, and has two specialist sessions for outpatients or procedures. They share in the on-call rota with the other physicians.

Discussion

This initiative was not set up as a controlled research project but as a response to a crisis situation on the wards. Both junior and senior medical staff consider that their work has been transformed in terms of on-take ward rounds, which had become unmanageable. The model has evolved over the first four years and over this time emergency admissions have risen by 25% and

total number of medical beds decreased by 17% due to required efficiency savings and difficulties in recruiting nursing staff. Good practice continues to evolve with additional weekend discharge ward rounds, a new outpatient deep vein thrombosis clinic and a rapid access chest pain clinic adjacent to the AAU, with collaboration from the cardiologists.

Different models will be appropriate for different hospitals, but this model has worked well for us. The acute physician uses the afternoon ward round as a teaching opportunity in acute medicine, which is now rarely available in most hospitals, and the junior doctors greatly value both the teaching and the experienced advice immediately available during the day. Management of patients increasingly involves multidisciplinary care and a strong team has emerged. Teams function less well with multiple leaders, and also if different physicians are leading the ward each week readmission rates are difficult to interpret. The physician responsible for early discharge should follow up those patients to provide continuity for the patients and for the doctor.

The balance between specialist care and good general medical skills is critical in acute medicine[12,18]. General practitioners value access to a generalist[19] but patients do benefit from specialist care[7]. We believe the model of rapid assessment and treatment under a general physician, followed by triage to the appropriate specialist, provides a good model for most patients. The wide diversity of diagnostic categories[15] admitted underlines the need for emergency patients to be seen by physicians who maintain a broad general medical base.

References

1 Capewell S. The continuing rise in emergency admissions. *BMJ* 1996; **312**:99–2.

2 Kendrick S. The pattern of increase in emergency hospital admissions in Scotland. *Health Bulletin (Edin.)* 1996;**54**:169–83.

3 Blatchford O, Capewell S. Emergency medical admissions: taking stock and planning for winter. *BMJ* 1997;**315**:1322–3.

4 Hanlon P, Beck S, Robertson G. Coping with the inexorable rise in medical admissions: evaluating a radical reorganisation of acute medical care in a Scottish district general hospital. *Health Bulletin (Edin.)* 1997; **55**:176–84.

5 Kendrick S. Emergency admissions: What is driving the increase? *Health Services Journal* 1995;**105**:26–8.

6 Rhodes JM, Harrison B, Black D, Spiro S *et al*. General Internal Medicine and speciality medicine – time to rethink the relationship. *J R Coll Physicians Lond* 1999;**33**:341–7.

7 Royal College of Physicians. *Future patterns of care by general and specialist physicians*. A working party report. London: RCP, 1996.

8 Council of International Hospitals. *Confronting the challenge: seven tactics for managing the rise in emergency admissions*. London: Council of International Hospitals, 1996.

9 Scottish Intercollegiate Working Party. *Acute medical admissions and the future of general medicine*. Edinburgh: RCP, 1998.

10 NHS Executive. *Emergency Services Action Team Report*. London: DH, 1998.

11 Dorward AJ. Patterns of acute medical receiving in Scotland. *Health Bulletin (Edin.)* 1997;**55**:162–6.

12 Mather HM. Coping with pressures in acute medicine. *J R Coll Physicians Lond* 1998;**32**:211–18.

13 Townsend J, Frank A, Piper M. Continuing rise in emergency admissions. Visiting elderly patients at home immediately after discharge reduces emergency readmissions. *BMJ* 1996;**313**:302.

14 Hampton JR, Gray A. The future of general medicine: lessons from an admissions ward. *J R Coll Physicians Lond* 1998;**32**:39–43.

15 Royal College of Physicians. *Clinical governance in acute general medicine*. Recommendations from the General (Internal) Medicine Committee. London: RCP, 2000

16 Worth R, Young G. Consultant physician of the week: a solution to the bed crisis. *J R Coll Physicians Lond* 1996;**30**:211–12.

17 Federation of Medical Royal Colleges. *Acute medicine: the physician's future role*. London: Federation of Royal Colleges of Physicians of the UK, 2000.

18 Bennett JR. The general physician – dinosaur or superman? *J R Coll Physicians Lond* 1997;**31**:6–7.

19 Connor H. Who needs a general physician? *J R Coll Physicians Lond* 1998;**32**:548–1.