

Acute medicine: the physician's role

Proposals for the future

A WORKING PARTY REPORT OF THE
FEDERATION OF MEDICAL ROYAL COLLEGES



Royal College of
Physicians of Edinburgh



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& Surgeons of Glasgow



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■ Foreword

Medical emergencies constitute an ever-expanding component of medical practice and have been subject to virtually linear growth over the past two decades. The causes are not difficult to discern: an ageing population, our ability to do more for patients, and increased public expectation fuelled by the media and latterly the worldwide web. There are also tensions within internal medicine, in part caused by the growth of specialties and the desire of many physicians to undertake less or no general acute medicine. At the same time, improved working hours and more structured training for junior doctors, mean that there is less help available in the admission suite. Staffing at both consultant and junior level has not kept pace with the workload. In the end, of course, consultant staffing must increase and greater use be made of non-medical health professionals, but the problem is with us now and action is needed.

The following report was stimulated by the need for action. It is particularly timely in that the practice of acute medicine has changed dramatically as a result of the introduction of admission/assessment units, and the appointment of a small number of acute care physicians. The report attempts to tackle the problem and to ask a range of fundamental questions about the practice of acute medicine. It makes a series of recommendations which we hope will help both improve the quality of patient care and reinvigorate our physicians who carry the burden of the acute workload.

June 2000

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■ Executive summary and recommendations

Each year in the UK the number of emergency medical admissions increases putting a significant strain on working patterns and staffing levels which have changed little over the years. At the same time there has been an increase in medical specialisation with a corresponding decrease in the number of consultants who wish to undertake general internal medicine. There has also been a decrease in the number of hospital beds which has led to difficulties in adequate access to care. A working party was set up by the Federation of Royal Colleges of Physicians of the UK to make recommendations about acute care medicine with the aim of ensuring that emergency patients receive effective care from appropriately trained physicians.

The working party has addressed the concerns of the medical and other health care professions, the public and the government and has considered the following:

- how best can acute medical care be provided in the hospital?
- what type of physicians are needed to provide this care?
- should the established method of physicians providing both specialist and general care be changed?

The working party has made a number of recommendations, which are addressed to trusts and health boards, local authorities, the government and the Royal Colleges for their consideration and subsequent action.

Recommendations

Recommendations addressed to trusts, health boards and health authorities

1. Trusts should recognise the level and complexity of work required to provide adequate care for acute medical admissions and ensure that there are sufficient consultants who are working as general physicians to provide acute medical care. This will require an increase in consultant numbers. Staff grade doctors may have a role in delivering the service but are not a substitute for consultant physicians.
2. The allocation of consultant sessional time to supervise and further develop medical admission units (MAUs) is essential if they are to be successful. This can be done by one of several routes. One example is by allocation of sessions to one of the general physicians with a special interest who could organise and lead the admission unit and supervise training. Such a physician would have an on-take commitment, rotating with other on-take physicians, junior staff and also have some specialist responsibility. Alternatively, the 'physician of the week' approach may be preferred where a consultant physician is identified who has overall administrative responsibility for that week.
3. A consultant should carry out a post-take ward round with the on-call team in relation to each take period — at least once every 24 hours. Extra ward rounds might be appro-

priate depending on the workload. At times these may be conducted by the registrar, provided there is proper feedback and evaluation of this training opportunity. The on-duty consultant must be available during the take period for advice. Provision should be made for cancelling any conflicting duties during this period.

4. Priority should be given to the further development of medical admission units with adequate infrastructure and nursing personnel and staff to administer bed management policies.
5. Trusts and health boards and local authorities should adopt measures which could improve patient throughput without sacrificing patient care, for example, by providing seven-day access to investigations, psychiatric services, care of the elderly services, improved transportation and improved access to social services.
6. In order to protect the quality of the acute medicine being delivered it is imperative that a considerable body of physicians are trained in both a specialty and general internal medicine. Therefore all trainees enrolling in specialist training after January 2001 should be encouraged to obtain specialist registration in both general internal medicine and their specialty. This is of particular importance in the 'top 8 sub-specialities' – cardiology, endocrinology/diabetes, gastroenterology, geriatrics, renal medicine, respiratory medicine, rheumatology and infectious diseases.
7. Trusts responsible for acute admissions appointing consultant physicians who have enrolled in specialty training after January 2001 should ensure that the training of these individuals meets the trust's requirement to deliver acute general medical take. In most cases this would mean that the physician was dually certificated.
8. Closer liaison with geriatricians is needed to ensure that all those who have been appropriately trained participate in the acute medical emergency rota. Greater acknowledgement and use should be made of the skills geriatricians have in teamwork and rehabilitation.
9. Closer liaison with intensive care specialists is needed. They should be more closely involved in the training and organisation of acute care medicine.

Recommendations addressed to the Royal Colleges

10. Further consideration should be given to comparable general internal medicine (GIM) training across the medical specialties. Whilst unified curriculum for general medicine is defined across all the specialties, there has been an increasing drift towards specialisation at SpR level and so comparable training is not always delivered. The Colleges should therefore ensure that this unified curriculum for general internal medicine be evenly applied in all subspecialties and continually reviewed. Its contents should be drawn to the attention of all consultant physicians in contact with specialist registrars as well as those with direct responsibility for their training.
11. Colleges should not normally recognise training programmes which are constructed without dual certification.

12. The Standing Advisory Committee for GIM is constantly reviewing the content of GIM programmes on behalf of the Joint Committee on Higher Medical Training (JCHMT). The JCHMT and Colleges need to upgrade the exposure to acute medicine in order to ensure adequate training. This may require lengthening training in the future.
13. Examination of the A&E/GIM relationship is important. A role for dual training in A&E/GIM should be considered and whether such physicians might have a role to play in medical admission units. (A Royal College of Physicians of London working party has been set up to explore this interface.)
14. There should be close liaison between existing acute care physicians and the GIM committees of the Royal Colleges of Physicians.
15. Acute care physicians should work closely with the Clinical Evaluation Units of the Royal Colleges of Physicians of London and Edinburgh in order to facilitate the analysis of any retrospective data and to design prospective studies to determine what difference the acute care physician has made to the care of medical emergencies.
16. The general practitioner/acute care interface is under-explored. An intercollegiate group should review this further.

Recommendations addressed to all

17. The appointment of physicians solely to provide acute care without links to a specialty or adequate infrastructure should be actively discouraged by the Colleges and the trusts. There should be recognition of the possible negative effect such appointments could have on the overall provision of medical care as a result of the deskilling of other physicians and the lack of appropriate career pathways for such individuals.
18. The appointment of physicians to provide leadership to medical admission units to facilitate the delivery of acute medical care should be encouraged but should be through the enhancement of existing structures.
19. Acute care posts already in existence should be regularly reviewed and projects designed to study the effectiveness of these new posts. The Clinical Effectiveness and Evaluation Unit (CEEu) of the Royal College of Physicians of London should be one source of advice.

ONE The working party

Background and remit

1.1 The working party was set up by the Federation of Royal Colleges of Physicians of the UK in response to the increasing demands made on emergency admissions units and the consequent concerns about access to emergency care and the quality of that care in the light of increasing medical specialisation.

1.2 Various approaches have been suggested to try to alleviate the situation, including the creation of the *acute care physician*, ie a physician who concentrates on the first 24 hours of care. However, the career structure and training for such a physician have not been established, nor has the relationship between the acute care physician and other disciplines such as general internal medicine (GIM), accident and emergency (A&E), geriatric services and critical care, been adequately defined.

1.3 The key purposes of the working party were therefore to:

- evaluate the role of the specialist acute care physician and consider how this person is different from the current general physician involved in acute care
- investigate the issues involved in specialists and generalists working together and with other members of the team
- examine the relationship between physicians working in acute care and other disciplines
- examine organisational issues involved in managing acute admissions
- consider the role the acute care physician could play in continuing education for junior doctors
- make recommendations about the future staffing of emergency care.

Membership of the working party

1.4 The working party members were chosen for their relevant expertise and experience; they are listed in Appendix 1.

1.5 The working party met on six occasions and invited evidence from a wide variety of expert individuals and organisations including the acute care physicians in post. They conducted a survey of all NHS trusts in the UK in order to collect information about the route taken by emergency medical admissions, the number of admission wards and acute care physicians, and conducted a thorough review of the current literature. Those who gave evidence are listed in Appendix 2.

TWO Emergency admissions: the background

Introduction

2.1 Every year for the past 20 years there has been a rise in the number of emergency admissions throughout the UK; there is little to indicate that this trend will be stabilised or reversed.¹⁻³ At the same time there has been a decrease in the number of hospital beds, an increase in medical specialisation, a reduction in the number of physicians willing to undertake emergency medical work, a decrease in experienced junior staff, and a greater demand for accountability. These issues are of concern to the medical profession, other health care professions, the government and patients alike; to address and resolve them, three questions need first to be considered:

- how best can acute medical care be provided in the hospital?
- what type of physicians are needed to provide this care?
- should the established method of physicians providing both specialist and general care be changed?

2.2 One approach, already suggested in several reports,^{4,5} has been to create physicians who specialise in acute care: *acute care physicians*. The intention was that these would have continuing professional commitment to the organisation and delivery of acute care on an admissions ward and responsibility for training and educating junior medical staff in emergency medicine.

2.3 A small number of acute care physicians have been appointed to meet local circumstances but appropriate training and a career structure for them are not in place. Moreover the relationship of these physicians to other aspects of general medicine, such as the inpatient care of adults with multiple disorders or ill-defined conditions and the provision of outpatient services, has not been established.

Increase in general and acute admissions

2.4 The numbers of general acute admissions are steadily increasing each year (Table 2.1). There are many causes for this which have been analysed in a number of reports.^{6,7}

2.5 Growth in knowledge of the causes and mechanisms of disease, together with technical and therapeutic advances, have created a situation of increasing medical specialisation together with increasing patient expectation. Demographic patterns are also changing; notably, there continues to be an increase in the age of the population with a consequent increase in multiple pathologies and increasing dependency.

2.6 Increasingly, GPs are managing common medical conditions such as asthma, diabetes, peptic ulcer, angina and hypertension that previously were cared for to a greater extent by hospital consultants. If GPs have ready access to laboratory and other investigation facilities, this trend is likely to continue.

2.7 However, hospitals still need to provide readily accessible emergency care 24 hours a day, every day of the year, including facilities for high intensity monitoring

Table 2.1 General and acute activity data: 1992/93 to 1998/99

Year	Non-elective FCEs		Non-elective FFCEs	
	No.	growth (%)	No.	growth (%)
1992/93	3,577,266			
1993/94	3,782,237	5.7		
1994/95	3,942,404	4.2		
1995/96	4,127,234	4.7		
1996/97	4,314,297	4.5		
1997/98	4,471,807	3.7	3,783,350	
1998/99	4,642,382	3.8	3,904,162	3.2
Average annual growth		4.4		—

Source: Common Information Core. Provided by: Acute Services, NHS Executive, Room 4N 34B, Quarry House, Quarry Hill, Leeds, LS2 7UL

Notes: FCE = Finished consultant episode. One admission can result in more than one FCE.

FFCE = First finished consultant episode. Can be used as a proxy for the number of admissions to hospital.

Previous years' figures have been adjusted to allow direct comparison with 1998/99 data.

investigations and treatment strategies. Currently, in the medical specialities, 70–80% of beds are occupied by patients admitted urgently or as emergencies; in some district hospitals it is nearer 95% of medical beds.⁴

2.8 There is, of course, variation in the pattern of care delivered depending on geographical factors. Some physicians serve largely rural communities, particularly in Scotland and Wales, while others work in large district general hospitals and teaching hospitals. Between these two extremes are various patterns of care. Consequently, the recommendations in this report allow flexibility in order to be appropriate to differences in size of hospital, type of practice and geographical need.

Increasing specialisation as a result of modern medical advances

2.9 Hospital practice has changed greatly as a result of the progressive separation of general medicine from the specialities.^{8–10} In the 1970s and 80s the trend was for doctors to acquire greater depth of knowledge and skills in increasingly narrow fields of medicine. Specialisation has appeared an attractive career prospect, affording the satisfaction of knowing more about less, the opportunity to offer better specialist patient care, the opportunity for research, international and national recognition and meeting the needs of patients who generally want to be seen by a specialist. There are now more than 20 recognised subspecialties of internal medicine with some physicians now subspecialising *within* the subspecialty.¹¹

2.10 Consequently there has been a decrease in the number of physicians taking a broader, holistic approach to care; there are fewer physicians interested in acute work, who see the 'multiple disorder' patients, provide an outpatient service for the 'yet to be diagnosed' and who care for patients with persisting symptoms who have been through various subspecialties. This, in essence, is the scope of general medicine. It has been sug-

gested that the general practitioner might become the generalist of the future, but this concept is of doubtful application considering the other demands on primary care physicians and the training requirements for such a role.

2.11 Currently, of some 5,136 hospital physicians, 2,488 work in acute major subspecialties and have a commitment to acute unselected medical take, although for some geriatricians this will be only an age-related commitment. Very few practise general medicine alone.¹² Specialists in respiratory medicine, gastroenterology, diabetes, and endocrinology spend between 40 and 60% of their time in on-call duties, although this will vary according to the type of hospital in which they work. Neurologists and dermatologists rarely have a general medical commitment but, outside the main centres, most cardiologists and some rheumatologists practise general medicine.

**Traditional
practice of acute
medical
admissions and
its problems**

2.12 Before the trend towards specialism occurred, consultant physicians were generalists who began to take an interest in a specialised area. They diagnosed and treated a broad spectrum of acute and less acute medical problems beyond the scope of general practice. In addition, each team took its emergency admissions around the clock, junior staff were resident in the hospital and patients were admitted at the request of GPs or through A&E.

2.13 In the 1970s and 1980s physicians began to specialise more, retaining their general medical skills, mainly through dual certification. This enabled a rotation system to be set up, allowing admissions to be focused on a single team thus rationalising 'on-call' arrangements. There were of course disadvantages to this system. For example, the difficulty of clearing beds led to 'over-spill' with patients being scattered throughout the hospital, possibly in inappropriate wards. This was particularly the case where medical emergencies were placed on surgical wards, with consequent inadequate 'medical' care, infrequent visits by the teams in charge of the patients, nurses not acquainted with medical problems, and cancellation of elective surgical operations.

Models of care

2.14 Patterns of consultant practice vary according to the size and nature of the hospital. Three existing models of care were examined in the 1996 RCP report: *Future patterns of care by general and specialist physicians*.⁴

Model 1: Care provided by specialist teams

It has been estimated that approximately 75% of acute medical admissions have a clinical problem that can be clearly assigned to a specialty, including geriatrics. However, even in this specialist model, the delivery of a good standard of emergency medical care presupposes that all specialists will be trained in, and will maintain, some generalist skills. This model is applicable only to large hospitals serving large populations. Manpower constraints will prevent its implementation in small district general hospital (DGH) units covering populations of 150,000–240,000 as it would require at least five specialist teams (on every night) to each hospital to provide this model of an admissions service: geriatrician, respiratory physician, cardiologist, gastroenterologist and diabetes specialist.

Model 2: Care provided by general physicians with specialty training

This is the approach that operates in most hospitals: physicians participate in the emergency on-call rota as well as practising their specialty. The advantages of this approach include the fact that it is possible to give a smaller population a wider range of services in a cost-effective way, a smaller number of physicians than are required to operate the specialist teams approach.

This model also provides the patient with continuity of care and a more holistic approach than can be achieved within a specialty. This model of care is vulnerable, however, and will not be sustainable, when the population served falls below 100,000–150,000. One of its disadvantages is the concern that patients with some diseases have better outcomes under the care of the relevant specialist and there is a growing body of evidence that for certain diseases this is true. Rhodes¹³ suggests that patients with conditions such as asthma, pneumothorax, pleural effusion, gastrointestinal bleeding, diabetes, myocardial infarction, unstable angina, and stroke are better cared for by a relevant specialist. There is also pressure from patients, relatives and GPs for patients to be seen by an appropriate specialist.

Model 3: Care provided by a mixture of specialists and generalists with specialty training

In the third model, general medical emergency work is undertaken by a proportion of specialty physicians who also do acute take, with the remainder functioning as specialists only. This arrangement possesses many of the advantages of model 1 but there remains the problem of assigning patients to a specialty and caring for those with general or multi-system problems. This model only works well in hospitals with a relatively large number of consultant physicians, ie a hospital serving a population of between 300,000–350,000.

2.15 In addition there are small DGHs with only two to four general physicians with little scope for specialist care. Such hospitals have special needs and special problems.

2.16 The dilemma is about how to service the acute emergency and other aspects of general internal medicine without depriving the specialties. Undoubtedly the number of general physicians has been threatened by the trend of some specialties to withdraw from acute medical on-call but the benefits of specialist care have to be weighed against the need for excellence in emergency care. It is clear that better arrangements need to be made for the processing and care of emergency admissions.

Development of medical observation areas and medical admission units

2.17 In an attempt to deal with the rising number of medical emergencies, the poorer staffing of general medical wards and to implement models of care described above (para 2.14), focused medical observation areas and medical admission units (MAUs) have been set up. The observation area provides close monitoring of patients for a few hours before either discharge or admission to the MAU. The MAUs are intended to facilitate post-take and intra-take ward rounds and to ensure that the medical teams can review acutely ill patients more frequently and efficiently.

2.18 MAUs ideally should be placed within the same area as A&E, coronary care, high dependency beds and intensive care; this proximity can often be lifesaving. MAUs should receive greater nursing resource and skill than other areas, with nursing staff having a wide range of extended roles. At first, medical supervision of these areas was provided by the on-take team having medical responsibility for 8, 12, 16 or 24 hours on a rota system but the major disadvantage of this system was that no single physician had administrative responsibility for the 'in and out' flow. Consequently there was a gap in efficient, continuous medical management of acute admissions which often led to poor throughput, and blocked beds.

2.19 This problem has been tackled in several ways. For example, by the appointment of a non-medical manager, or the appointment of a staff grade doctor, associate specialist, or a nominated consultant from the rota who has continuing responsibility for the overall management of the MAU, as well as his rota responsibility. An alternative approach is the 'physician of the week' system or the appointment of an acute care physician.

Acute care physician

2.20 The idea of the acute care physician (ACP) was proposed by the Royal College of Physicians of London.⁴ The report suggested a new type of physician specialising in emergency care whose duties might include running an admission ward, providing immediate medical care, assigning appropriate patients directly to specialties and supervising the hospital stay of those that did not immediately fit into any specialty. The acute care physician would also be responsible for training programmes of junior doctors, nurses and GPs in training, would co-ordinate protocols and guidelines with other physicians and provide an outpatient service for follow-up and urgent referrals. The RCPL noted that this was a radical proposal which required further study and thorough evaluation in initial trials before it could be implemented.

2.21 The proposal for acute care physicians was repeated by the Scottish Intercollegiate Working Party on Acute Medical Admissions.⁵ These reports were overtaken by events as a number of acute hospital trusts in the UK proceeded to appoint ACPs and more are considering doing so. These posts were created in response to the rising number of medical emergencies and many trust managers hoped that by appointing an ACP the problems of the acute take would disappear and specialists could get on with their specialist activities.

Consultants under pressure due to role changes

2.22 Despite the increase in both the acute specialist and acute general workload, most physicians have coped, provided they have had junior teams which were experienced and worked unacceptably long hours. However, the reduction in junior doctors' hours has meant that consultants now have a greater involvement in emergency care and their need to function as acute physicians has increased. As a consequence, the balance of work between experienced consultants, who have high levels of medical decision making skills, and acute medicine may in the future be disturbed. In addition, a consultant's ability to undertake clinical research has suffered under this pressure.

2.23 At the same time there is increased public expectation of early access to specialist consultant assessment and care. There are also extra demands on consultants with

regard to undergraduate and postgraduate teaching, continuing medical education/continuing professional development and the responsibilities of clinical governance. Whatever the pattern of care to be adopted, a substantial number of consultant physicians will be needed to cope with the expanding workload. A recent paper by Jarman *et al*¹⁴ has shown that the number of doctors per bed is the best predictor of mortality in hospital and therefore, expansion in consultant numbers is required on safety grounds alone.

Problems in the admission process

2.24 The admission process for both acute and emergency admissions is itself the source of problems that impact on subsequent hospital care. The working party has identified a number of factors which can be detrimental to efficient admission:

- Imbalance between the number of admissions and the number of available beds. Bed unavailability is the most common difficulty in managing the admission of emergency patients to acute hospitals resulting in unacceptably long waits for patients in A&E.
- Complex problems in some admissions involving acute illness, disability and dependency, which may be compounded by inadequate community support. Such patients need immediate access to rehabilitation or immediate care facilities for successful and appropriate management.
- Lack of sufficient emergency outpatient clinics. Such clinics could reduce the acute admission load, especially if linked to fast track investigations.
- Split between A&E and medical assessment/admission unit usually based on hospital culture, lack of communication, geography and training rotas.
- Inefficient management of the admission process due to poor administrative systems.
- Poor access to particular investigations, especially out of hours, for example, X-rays, 24-hour cardiac monitoring, endoscopy – lack of a 7-day-a-week service.
- Inadequate triage and delay in assignment of patients within the first 24 hours from the admission ward.
- Increasing reluctance for rapid discharge due to lack of experience of junior staff. Current training programmes and litigation concerns mean that this trend is likely to increase.
- Lack of adequate discharge arrangements, for example, discharge lounges, planned discharge from day of admission.
- Lack of adequate social services leading to delays in discharge with blocked beds.
- Non-availability of ambulance services for discharges out of hours.

All the above factors reduce the efficiency of the admissions process and impact on the delivery of on-going hospital care.

THREE The acute care physician: the current situation

Survey of acute care physicians in post

3.1 The working party conducted a survey of UK trusts which showed that there was already a small group of ACPs in post. These physicians had been appointed to a variety of job descriptions and drawn from different backgrounds, for example, GIM, medical specialties, A&E, intensive care and anaesthesiology. Some hospitals had considered that ACPs would be better placed working as general physicians with a specialty interest and with specific time allocated to deal with the work of co-ordinating the MAU; the remaining physicians within the trust would continue to provide the majority of general acute medical services.

3.2 Other hospitals had seen the appointment as a 9 am–5 pm post, based in the MAU with no, or minimal, alternative sessional commitments. Some posts were without adequate recognition of specialty interest, access to outpatients or protected time for audit, teaching and research.

Views of acute care physicians

3.3 The working group met with a group of ACPs to seek their views at first hand. This survey showed that ACPs have a range of different experiences and work to a variety of job descriptions. The impetus for establishing an ACP post was to find a more efficient way of dealing with acute medical admissions. The number of ACPs has grown because some hospitals have made acute medical care a major focus of activity, recognising that it is essential to bed management issues within the hospital.

3.4 The ACPs interviewed were enthusiastic and provided a valuable input to acute medicine and training. This resource should be harnessed; data collected at the hospitals where the ACPs work could usefully be analysed by the CEEu at the Royal College of Physicians of London.

3.5 The ACPs were also keen to see an acute care training scheme piloted. However, the working party identified a number of issues which need to be considered before making a decision about whether to establish such posts with a new training programme. These fall into three broad areas which are discussed in detail in Section 4.

FOUR Emergency admissions: the issues

In this section, the three broad areas into which the key issues fall are discussed:

- improving the effectiveness of procedures for dealing with emergency admissions
- appropriate training to facilitate the continued involvement of GIM physicians in acute medical admissions
- establishment of lead clinicians for care of emergency admissions and management of the MAU.

Improving the effectiveness of emergency admissions procedures

4.1 There are two main aspects of emergency admissions that need to be considered in order to improve their effectiveness:

- 1 Development and integration of acute admissions with other services, such as A&E, geriatrics, intensive care, and primary care;
- 2 Organisational and practical measures.

Development and integration with other services

Interface of A&E and acute admission

4.2 Close liaison with A&E staff is essential and is reviewed by the Scottish Working Party on Acute Medical Admissions.⁵ Inevitably there is local variation in how A&E departments are run and staffed and the facilities that are available. Some have overnight/short-stay beds for observation and management of straightforward conditions. Many departments act as the first admission area and carry out triage and there is an increasing role for both GPs and specialist nurse practitioners. All those involved with the care of acutely ill patients are concerned with problems such as inappropriate delays before admission because of bed shortages, and the need to fast track certain categories of emergency patients, eg subarachnoid haemorrhage, deep vein thrombosis, myocardial infarctions. The physical proximity of A&E departments to medical admitting units, high dependency units and coronary care units is also an important factor. To practise efficient acute medicine, all these areas should be co-located and be close to diagnostic services, in particular, radiology. The aim should be to ensure efficient, continuous care.

4.3 Whether A&E consultants become acute care physicians is an important question. The importance of the interface of the two specialties is not in question and has been underlined in a recent report on A&E services.¹⁵ Traditionally, A&E consultants were not adequately trained in emergency medicine and their career objectives differed from those of general physicians. Currently, about 20% of A&E consultants hold the MRCP(UK) or FRCP, 30% of A&E specialist registrars are MRCP(UK), and 40% of A&E SpR applicants are MRCP(UK). Some A&E consultants wish to explore a role based either in the emergency room or in the MAU, and the results of our survey indicated that such a development would find favour with some trusts.

4.4 However, if A&E doctors were to take on an extended responsibility for patients in medical assessment and admission units, they would need to have specific training and certification in GIM. A joint working group would need to be established between

the Faculty of A&E Medicine and the Federation of Royal Colleges of Physicians specifically to define this area.

*Interface with
geriatric medicine*

4.5 More than 40% of acute medical admissions are over 65 years of age and it is predicted that there will be a rise in the numbers of patients who are over 85 years until the middle of the next century. A successful system for acute medicine therefore depends on an integrated approach with geriatricians. Almost all emerging specialists in geriatric medicine are dually certificated in GIM/GER and geriatricians now constitute the single largest group of physicians.¹² Geriatricians trained in general and geriatric medicine usually take a share of acute emergency take, depending on local circumstances. At present, more than 50% of consultant geriatricians participate in selected adult medicine on-take rotas.

4.6 The trend for geriatricians to become more involved in the acute care of older patients or acute adult medical take is likely to continue because of demographic change and further specialisation within the medical consultant workforce. Geriatricians are comfortable with this development if adequate consultant time is afforded to the specialty requirements of geriatric medicine, including interdisciplinary assessment, rehabilitation and long-term care. This plan for adequate specialty time runs through every specialty. It is important to note, however, that inadequate geriatric services lead to inadequate development of rehabilitation resulting in blocked acute beds, high institutionalisation rates, high re-admission rates and poorly arranged discharges back to the community with associated stress in the community.

4.7 Systems need to be developed to ensure that elderly patients who require acute admission and whose needs would best be met by geriatricians can be admitted directly by GPs or have immediate transfer following admission to the care of a geriatric specialist. Equally, patients with significant single-organ disease who would benefit from other specialist care should have ready access to such care, irrespective of age, and this may involve transfer to a specialist service.

4.8 Consultant geriatricians are specialists in diseases of old age, not in chronic disease of all ages. However, they are skilled in the multidisciplinary team approach which they use effectively to assess and treat their patients. All physicians in emergency general medicine should work closely with geriatricians to be able to manage the assessment and rehabilitation of multi-system disease and chronic problems in young patients. The involvement of a geriatrician in the post-take ward round improves the process considerably but there are too few geriatricians to fulfil this role.

*Interface with
intensive care
medicine*

4.9 The specialist in intensive care medicine is increasingly necessary to the care of the acutely sick patient, yet the interfaces between intensive care units, high dependency units, A&E departments, MAUs and the on-take team is often unclear. The report of a confidential inquiry into the quality of care before admission of emergency patients to intensive care highlighted the deficiencies in care.¹⁶ These deficiencies have been compounded by a reduction in trainees' experience of handling emergencies, particularly in relation to diagnostic skills, ability to recognise severe illness and to respond rapidly.

4.10 Various suggestions have been made¹⁶ to address these issues, some of which are controversial. They include:

- to ensure a period of three months training in intensive care for all senior house officers (SHOs)
- to reinforce such training at SpR level with short continuous attachments to intensive and/or high dependency units
- intensive care physicians to have greater visibility in the acute process. Review all acute medical admissions 12-hourly between intensive care and acute care physicians
- increase the involvement of intensive care specialists in the training of acute medicine
- to abolish cardiac arrest teams and develop emergency medical teams with multidisciplinary involvement.

Organisation and training are the key issues at the interface between acute care and intensive care.

*Primary care/acute
medicine interface*

4.11 General practitioners have a considerable and legitimate interest in the location, configuration and quality of care delivered in hospital. The GP expects the admitting physician to be sufficiently skilled to instigate immediate therapy for common emergencies and to recognise the need to access higher level skills and facilities when required. In order to deliver such a service to GPs, there must be supervision and support for junior doctors and sufficient cover for senior doctors. This suggests that admissions should be made to units of sufficient size to be able to offer a team-based approach with consultants able to cover for off-duty and holiday periods, and with junior doctors able to call on higher level skills without undue constraint.

4.12 The GP/acute medicine interface would be helped by more emergency outpatient department (OPD) clinics where investigations could be performed rapidly. It has been suggested that an SHO undergoing general professional training should experience primary care and that shared learning would be of mutual benefit. Other areas which require urgent dialogue between GPs and physicians are described in the Intercollegiate Report (RCPE and RCPSG, 1998).⁵ These areas include: the development of realistic discharge policies; the need for liaison and communication with local social services and care managers; the potential role of community hospitals; and the consequent implications for undergraduate and postgraduate training of any shift of acute care into the community.

*Organisational
and practical
measures*

4.13 There are many measures which could improve the process of emergency admissions and which do not require the creation of an ACP. These include:

- Seven day, 24-hour access to investigative facilities required for the assessment of acute inpatients, for example, laboratory investigations, X-ray, ultrasound, CT scanning and rapid access (within 12 hours) to other investigations such as echocardiography, exercise testing and routine endoscopy.

- Seven-day access to psychiatric care and care of the elderly services.
- Regular twice daily consultant review of new patients to maximise throughput and ensure management decisions are appropriate.
- Small assessment area close to an admitting area which would allow rapid appraisal by senior staff when the need for admission is not certain.
- Development of urgent medical OPDs and a rapid investigational track to relieve the pressure to admit.
- Available empty beds for emergency patients in order to avoid unacceptably long waits on trolleys in A&E.
- Systems put in place for as many patients as possible to be assigned to an appropriate specialist within 24 hours of admission.
- Effective support services including physiotherapy and occupational therapy in order that rapid mobilisation can be effected and fitness for discharge can be assessed.
- Development of satisfactory discharge arrangements, discharge lounges, devolved discharge decisions, arrangements that cover weekends and holidays and good relationships with primary care, community and social services.
- Increased external patient transport facilities.
- Concentration of acute patients into certain areas, eg MAUs, in order to allow a critical mass of sufficiently trained nurses and junior medical staff to deal with them.

4.14 It is difficult to see how the progressive rise in medical admissions can be processed satisfactorily without widespread use of MAUs. There will of course be wide variation in their organisation depending on local conditions and circumstances throughout the UK. Adequate clerical and secretarial input is imperative with, for example, standardisation of discharge letters. The development of agreed intercollegiate and/or locally owned protocols/guidelines for the management of common conditions should be a priority and would facilitate the running of these units.

Appropriate training to facilitate the continued involvement of GIM physicians in acute medical admissions

4.15 Physicians need to be trained to be capable of meeting the changing needs of the health service. One of the biggest changes to hospital practice has been the increasing workload of emergency medical admissions. Doctors therefore need to be familiar with high dependency or critical care medicine. Acute medicine is, at its nearest approximation, suitable for those trained in GIM but even in this specialty the training should be enhanced by more specific training in intensive care and an increase in the amount of time given to acute general medicine.

4.16 Existing training programmes have been planned with a focus on the specialties; general medicine training was thought of as taking place 'by osmosis' and could be easily slotted into the specialty training programme. However, this has not worked in practice. The training programme in general medicine was one of the first to be written

but the last to be incorporated into the formal Record of In-training Assessments (RITAs). The question of what should be included to cover acute medicine and critical care medicine was not specifically addressed in the original programme, although this is currently being rectified and attention is being focussed on the need to ensure that each of the specialties provides a similar exposure to GIM and that any inconsistencies are wiped out.

4.17 Medicine, irrespective of specialty practice, should be seen as a holistic subject where the acutely sick patient requires immediate technical competency, and specialty input together with continuing care. Many clinical problems do not respect the organ-based definition of a specialist and many specialists, from all the main disciplines of internal medicine, are involved in acute care.

4.18 There are many reasons for training in general medicine: to be a better specialist with an understanding of general medicine; to provide a holistic approach and continuing care to patients; and to be able to meet the changing needs of the health service. Continuing medical education is also important and must be extended beyond the remit of any specialty requirement to include GIM.

4.19 Already included in the training in general medicine is a defined period spent in a coronary care unit. It would be desirable to have more specific training in intensive care with trainees rotating through intensive care for a similarly defined period. A lack of infrastructure has not, as yet, permitted this arrangement to be put in place. Some rotations now include placements to MAUs but the core curriculum for such attachments is yet to be defined. Urgent consideration should be given to adjustments or changes that are required in the GIM programme to ensure that physicians are competent in acute care as well as in other aspects of GIM and their specialty. In the future it may be appropriate for physicians interested in running acute care units while continuing to practise their specialty to have optional additional training at the end of their medical training. This would of course extend the period of training for a selected, but limited, number of physicians.

**Establishment of
a lead physician
for care of the
emergency
admissions and
management of
the MAU**

4.20 Our survey of UK trusts showed that 80% of trusts had an MAU, but the establishment of an MAU does not alone necessarily solve the admission problem. Experience has shown that without efficient organisation and strong leadership, a unit can become dysfunctional. The development of MAUs requires hands-on consultant supervision of the increased number of procedures and complex management decisions being undertaken by junior medical staff, together with consultant direction of the organisation, day-to-day running and development. For example, handover of patient care from one doctor to another is a critical area. The benefits of specialised care can be lost if handover takes place between junior staff after a consultant post-take round, without the involvement of the responsible consultant.

4.21 But does the delivery of high quality medical care require a new breed of doctor, such as an acute care physician, or could such care be provided by enhancement of the general physician who will also practise his/her specialty? The advantages and disadvantages of a specialised acute care physician are listed in Table 4.1.

Table 4.1 Acute Care Physicians (assuming time largely in MAU)

Advantages	Disadvantages
- Highly specialised in acute care – therefore treatment by specialist. - Designated individual to organise and run the MAU. - No major competing specialist interest or inpatient load. - Time to train junior medical staff. Good for professions allied to medicine. Time to build a team approach. - Expertise in technical skills and interest and experience of ITU/HDU medicine. - Time to develop acute medicine guidelines and protocols.	- De-skilling of other physicians in the hospital as regards provision of acute medical care. Poorer service over weekends or holiday of ACP. - Development of ACPs may reduce perceived need for GIM – both its practice and training. - Numbers required for national provision of ACPs would significantly deplete the remaining specialist pool of physicians. - Several ACPs will be needed per hospital if 24-hour cover is to be provided 7 days a week plus holidays. - May lead to lack of continuity of care. - Dislocates acute medicine from downstream beds: potential for conflict. - Abdicates responsibility of other consultants. - Does not readily encourage: - cross fertilisation of ideas from specialties - maintenance of up-to-date practices. - ACPs subject to 'burn out', possibly exhaustion and low morale. - Unlikely to be attractive as a lifelong career. - No identifiable career structure.

**A middle ground:
a solution?**

4.22 We believe there is a middle ground which would ensure that emergency patients receive treatment from experienced physicians with appropriate specialist expertise and within which both acute general medicine and specialist medicine can flourish, and which would prevent physicians themselves becoming isolated within their own sub-specialty. Indeed, the withdrawal of specialists from general medicine can lead to de-skilling with respect to the recognition, interpretation and management of problems not specific to an individual's specialty. This can therefore affect the management of the individual patient. Acute care is integral to all specialties which manage acute problems and should therefore be seen as the priority of all physicians.

4.23 The working party recommendations acknowledge that there is no 'quick fix' to the problems of acute medicine and take a long-term view with the aim of providing optimum care for patients. A change in the GIM training programme will be required with an increase in consultant numbers. Indeed it is the increasing pressure on acute medicine that is one of the main driving forces for consultant expansion and thus to

recommend the separation of acute medicine from the other sub-specialties would undermine the case. The numbers required for national provision of ACPs would significantly deplete the remaining specialist pool of physicians.

4.24 We therefore recommend augmentation of the acute medicine component of the GIM training programme in order to support future consultants whose posts will require them to undertake unselected medical emergency admissions. We should reconsider those areas in training that relate to developments in modern acute medicine such as training in ITU, A&E and unit management.

4.25 Given enough specialist consultants trained in GIM and acute medicine, the MAU could be led by one consultant, with others providing back-up. A specialist appointed to take on the leadership role for an MAU would have dedicated sessions to fulfil this role. This appointment would be comparable to that of clinical director in that it would give special responsibilities to a consultant. It will take time for an enhancement of the current GIM training programme to be in place, and therefore a new appointee may choose to receive extra short-term intensive care training on appointment.

4.26 Managerial skills will also be important, as they are for all physicians. A suggested outline job plan is listed in Table 4. After a period of time in post the physician might opt for a different workload distribution and become more specialty orientated and thus flexibility must be built into this system. Alternatively, leadership of the MAU may be provided from a cadre of consultants within the hospital, with one person leading the MAU for a limited period, ie 'the physician of the week' approach. This has worked well in one area and is a model which has suited the local environment. It should be noted that the success of the scheme in Chester occurred following consultant expansion.¹⁰

The current position of the acute care physician

4.27 Do we have proposals for those doctors already functioning as ACPs who belong to no particular specialty? Their current collective experience needs to be documented and analysed, their career prospects explored and pilot studies developed based on knowledge accrued. The outcome of these posts in terms of reducing the present acute care problems needs to be assessed. Future studies should be planned using the expertise of such groups as the RCPL and RCPE's evaluation units.

In conclusion

4.28 In conclusion, the working party suggest that we urgently find ways to enhance and define the role of the physician undertaking acute care medicine rather than creating a new specialty of acute physician with a separate training programme. This enhanced role would require adequate infrastructure and support from trusts. Redefining the role and responsibilities of the acute care physician could place emphasis on the training of junior doctors, nurses, and professions allied to medicine and generally enhance the team approach. The Working Party recognise that the approach to the problem will need flexibility and will vary according to geographical factors and the size and need of individual hospitals. The principle should, however, be applied in each trust.

4.29 The working party agreed that acute medicine should remain an integral part of the activity of all physicians and that continuing examination with any subsequent necessary revision of the GIM training programme be encouraged and maintained. Continuing medical education should reflect this and include both general and acute medicine. Some consultants may require refresher courses. It was felt that dual certification in general medicine and in a sub-specialty should be the norm and that at the time of consultant appointment, acute medical take should be part of the job description and plan.

Table 4.1 Suggested job plan for a consultant with a leadership role in acute medicine (assuming a 1 in 8 on-take)

clinical commitments with an on-take rota:	3 NHDs
administration of medical admissions unit:	2 NHDs
OPD for follow-up and new urgent GP referral:	1 NHD
speciality sessions:	3 NHDs
CME and training of junior staff	2 NHDs

The post, like other consultant posts, to include supervision of beds for patients requiring stay beyond a 24–48 hour period.

Junior staff and secretarial support.

FIVE Glossary of terms

Acute care physician (ACP)

A physician who concentrates on the first 24 hours of care.

General internal medicine (GIM)

The core activity of GIM is the management of unselected emergency medical admissions in adults of all ages. Other components of G(I)M includes both the in- and outpatient care of patients with multiple disorders or with an ill-defined condition which does not clearly fall under one of the system-based specialties.

General physician

A physician who undertakes the care of unselected medical emergencies and provides in- and outpatient care for patients with multiple disorders or ill-defined condition which do not easily fall within the remit of any specialty.

Medical admissions unit (MAU)

A ward to which patients presenting as acute medical emergencies are admitted, where immediate treatment and further assessment are instituted, and from which patients are either discharged or transferred to appropriate care within one or two days.

Medical assessment unit (observation area)

An area in which patients presenting as acute medical emergencies are assessed and monitored for a few hours before either discharge or admission to the medical assessment unit.

Post-take round

A ward round for the recent emergency admissions.

Specialist

A physician with a specialty other than that of general medicine.

Continuing professional development (CPD)

CPD is the process by which physicians, through experience and continuing medical education, maintain and extend their knowledge and skills and keep up-to-date on medical practice and the requirements of service provision.

Continuing medical education (CME)

CME is participation by career grade physicians in a variety of educational programmes and events that enable them to maintain or extend their knowledge and skills. Physicians should record their participation in CME activities and this is monitored by the Royal Colleges of Physicians.

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APPENDIX 1

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Verbal and written evidence was received from the following:

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