The College of
Emergency Medicine

Emergency Medicine Operational Handbook

The Way Ahead

Version 2: December 2011

Contents

Amendment History

Version	Date	Description of Change
2.0	December 2011	Re-write and reissue

Introduction

The aim of the College of Emergency Medicine is to ensure the delivery of patient care of consistent high quality and safety. This is a challenging agenda for all involved in providing such care but the importance of Emergency Medicine to the public is paramount and we must deliver.

The provision of high quality emergency care is one of the tenets of any healthcare service. The pace of change in Emergency Medicine is impressive. The College of Emergency Medicine will continue to strive to ensure that the public receive the care which they both expect and deserve.

This document replaces the previous guidance we issued known as *'The Way Ahead'*. This guidance is for clinicians, managers and commissioners involved in the delivery of Emergency Medicine in the UK and the Republic of Ireland. The public may also find the document of interest.

As the pace of change is brisk we will continually refresh this guidance as the service develops. The workforce section for example will change significantly as a result of the forthcoming report from the Emergency Medicine Workforce Task Group involving representatives from the College, the Department of Health, Centre of Workforce Intelligence, RCN and others.

A summary of the key principles will be available shortly.

John Heyworth

Mike Clancy

Gordon Miles

Executive Summary

The provision of high quality emergency care should be a fundamental component of the National Health Service (NHS). Almost 20 million new patients attend Emergency Departments in England each year. This number is rising by 5-7% per annum. There is a concomitant increase in the acuity of the case mix. We believe similar pressure is seen in Wales, Scotland, Northern Ireland and the Republic of Ireland.

The Emergency Department (ED) is a unique venue at which patients are guaranteed access to emergency care 24 hours a day, 7 days a week. For the general public the Emergency Department is the "shop window" of the NHS; in consequence it should be supported to provide the level of care which the public both expect and deserve.

The development of Emergency Medicine (EM) in the United Kingdom has been hindered by a decade of attempts to reduce the number of Emergency Department attendances. These have been imposed without evidence of benefit, have wasted resources and failed in their objectives.

The College of Emergency Medicine is committed to ensuring that all patients who attend the Emergency Department receive prompt, high quality and safe emergency care.

The College urges a paradigm shift in which emergency care is provided by more senior clinicians throughout the 24 hour period. As a matter of urgency the Emergency Department workforce must be re-configured to reflect both the numbers and acuity of patients presenting to the Emergency Department.

The College urges all health care planners and commissioners to prioritise emergency care at national and local level.

The College of Emergency Medicine recommends that every Emergency Department should have a minimum of 10 whole time equivalent Consultants in Emergency Medicine. This would allow a consultant to be present to supervise care for a minimum of 14 hours a day.

The College of Emergency Medicine is committed to developing a model of consultant care that benefits all patients and provides a sustainable and rewarding career to enable the specialty to attract the highest calibre practitioners.

Consultant expansion as well as delivering an improved patient experience also provides opportunities for protected time to ensure optimal training is provided. Our proposals for consultant expansion aim to provide a sustainable career model for Emergency Medicine encouraging doctors to the specialty and retaining expertise at the point of care.

The Emergency Department workforce should be both multidisciplinary and integrated. The Emergency Department provides a unique and superb training environment for all doctors. The College of Emergency Medicine recommends that all junior doctor training programmes allocate specific time to Emergency Medicine.

The College of Emergency Medicine welcomes the new Quality Indicators (QIs) and views them as a catalyst for sustained improvements in emergency care. They should be regarded as tools to improve quality and safety of care and not as targets.

The College of Emergency Medicine recommends the following model of care with the aim of delivering guaranteed access to a comprehensive high quality service 24/7, and one in which all the QIs could be realised:

- Patient responsive access to Primary Care expertise, both in hours and out of hours
- A co-located Emergency Department and Primary Care facility tailored to local demand, based on evidence and agreement between the Emergency Medicine clinicians and colleagues in Primary Care
- Triage and Streaming of all attendances by Emergency Medicine clinicians based on clinical need alone.

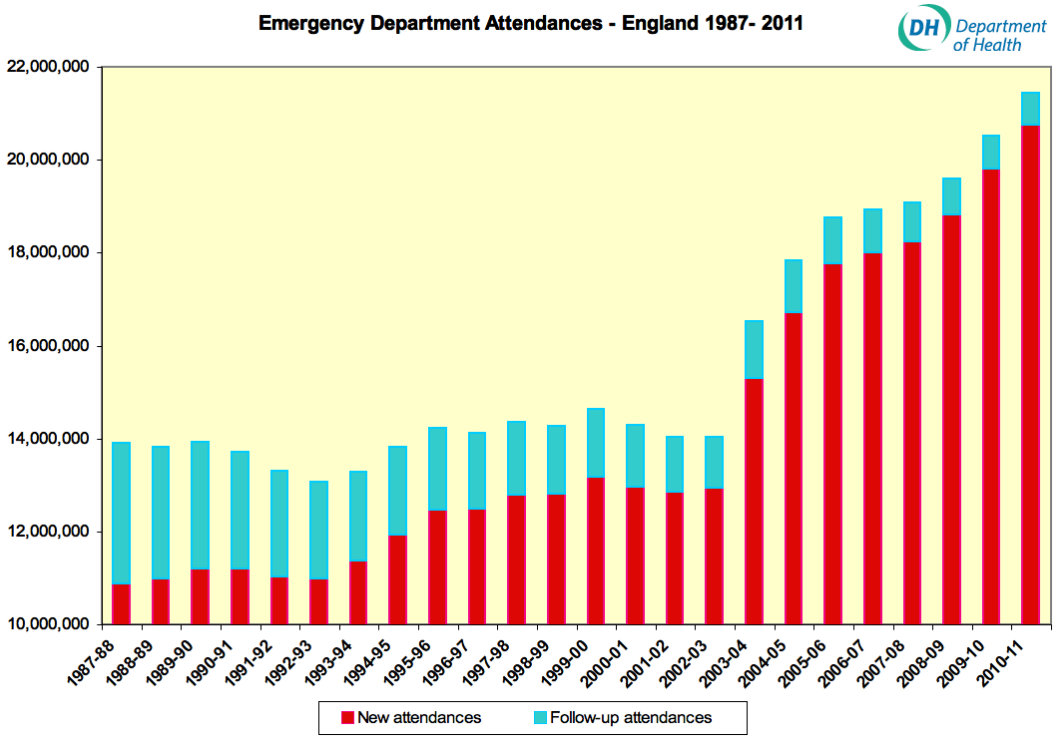
Emergency Medicine in the UK and Ireland aspires to stand comparison with Emergency Medicine models throughout the world. However, this unique potential has only been partially realised and emergency care requires absolute prioritisation within the forthcoming commissioning agenda to ensure that ED patients are provided with the care and expertise which they expect and deserve.

The key aspects of modern Emergency Medicine practice may be summarised as follows:

- Early involvement of senior Emergency Medicine clinicians
- Rapid expert early assessment
- Prompt commencement of time critical interventions
- Unrestricted access to imaging (CT, Ultrasound, Plain radiography) by Emergency Medicine doctors to allow immediate diagnosis of life threatening conditions
- Expertise in relevant critical care skills in collaboration with colleagues from anaesthesia and intensive care
- The extended presence of Emergency Medicine consultants providing leadership and supervision
- Development of Clinical Decision Units (CDUs)as a core component of Emergency Department activity providing protocol-driven periods of investigation, observation and review for patients who would otherwise be admitted to scarce and expensive hospital beds or discharged, potentially unsafely.

Emergency Medicine in the UK has made great strides in the past 20 years, but further work is required as a matter of urgency to ensure provision of a consistent high quality service.

Current demands on Emergency Departments



A large increase in workload (numbers and acuity) has occurred in the last 6 years. Due to inadequate IT systems and the consequent incomplete and poor quality data, we do not know **why** this increase has occurred. Many factors may be responsible:

- Social factors such as increased mobility, increasing expectations regarding level of access and level of service have tended to encourage ED visits over GP attendances, particularly out of hours (OOH)
- Demographic factors such as an increase in the proportion of elderly persons has increased the complexity of cases presenting to the Emergency Department
- Resource reconfiguration such as the restructuring of GP OOH care, and reduced inpatient beds have cumulatively led to a reduction in OOH and in patient capacity with only the emergency department available to many who require urgent care
- Technical advances have allowed rapid diagnosis and turnaround within the Emergency Department of patients with conditions that would have historically required hospital admission e.g. chest pain, thromboembolism, cellulitis.

Defining the Core Emergency Medicine Service

The objective of the College of Emergency Medicine (the College) is to ensure the highest standards of emergency care 24 hours a day for patients of all ages with acute illness and injury. The resources needed to deliver the core service are listed below. The College believes that these should be in place in all Emergency Departments (EDs):

- The presence of a doctor trained and experienced in EM 24 hours a day (ST4 or above)
- Up-to-date facilities for resuscitation, emergency care and ambulatory care
- 24/7 access to x-rays, ultrasound and computed tomography (CT)
- Timely support from inpatient teams and efficient procedures for admission to hospital
- A Clinical Decision Unit (CDU) / observation ward
- An up-to-date information technology (IT) and records system linked to hospital and community care records
- Educational and administrative space within the department.

Definition of a core service

Emergency Physicians (EPs) are specialists in the initial assessment and management of the full range of emergency and urgent conditions in patients of all ages. Core elements of EM practice include:

- Resuscitation of patients with life-threatening illness or injury
- The assessment and early treatment of patients with sudden serious illness or injury, including those who self-present
- The management of patients requiring a short period of programmed investigations and observation to ensure safe discharge of patients with symptoms that might suggest serious disease and avoid unnecessary hospital admissions
- Strong influence in the planning, delivery and management of the emergency care system
- Contingency planning to cope with major incidents or periods of huge or fluctuating demand (such as a flu pandemic)
- Teaching and training doctors and other staff in the care and assessment of the ill and injured patient.

Workforce

Emergency Medicine has been at the leading edge of the development of multidisciplinary working and there is a strong team ethos in EDs. EDs function best with strong medical and nursing leadership.

The care of seriously ill patients and dealing with difficult diagnostic problems are not roles for the unsupervised junior trainee doctor.

Workforce planning both locally and nationally must ensure the presence of doctors of adequate seniority, training and experience (the equivalent of UK specialty training ST4 or above) to provide clinical decision making throughout the 24 hour period.

The ultimate aim is to have senior ED doctor advice and review for all patients attending the ED. Until there are enough Emergency Physicians (EPs) in post to achieve this standard, consultant review should apply to the following high-risk patient groups prior to discharge from the ED: adults with non-traumatic chest pain, febrile children under 12 months and unplanned returns within 72 hours , as stated in the current Quality Indicators. In time we hope to extend this further to include those patients presenting with acute headache, chest pain or abdominal pain, ill or injured children under the age of five and unscheduled return attendances. EDs are encouraged to adopt consultant review for these conditions if possible or use the importance of EM consultant input for these high risk patients as a driver for consultant expansion.

Facilities and equipment

As a minimum standard, the footprint and design of the ED should comply with national standards. In the UK this is the Hospital Building Note HBN22 (many modern departments will exceed this standard) and the College recommends that this document be updated urgently to reflect modern ED practice. In the Republic of Ireland see *Standards for Emergency Department Design and Specification for Ireland, 2007*.

The Emergency Department should ensure adequate space for all members of the ED team, patients and their carers; and provide safety, confidentiality, privacy and dignity. Infection control is a sine qua non of safe practice and is equally important in the ED as elsewhere in the hospital; this mandates the provision of adequate cubicles, areas for isolation of patients who are an infection risk as well as those more susceptible to acquiring infection.

There should be separate areas within the ED for children, both whilst waiting and during treatment. Acutely disturbed patients need specific facilities. There should be a quiet area for the care of bereaved relatives.

Up-to-date resuscitation equipment is essential, with monitoring facilities allowing portable and central monitoring. Where possible, monitoring and diagnostic data collected electronically should be transferred to the electronic patient record.

Core facilities

Every ED should have the following estate:

- Resuscitation area
- Trolley area(s)
- Ambulatory care area
- Reception and waiting area
- Dedicated children's facilities
- Rapid assessment and treatment area

- CDU/observation ward
- Educational space
- Offices and secretarial space.

Details of the numbers of rooms can be found in relevant national documents. The College intends to work with the Department of Health to review the current national standards to ensure that they meet the needs of modern EDs, especially for resuscitation and trolley areas, to ensure these standards reflect the increasing numbers of seriously ill patients attending the ED.

Diagnostics

There is abundant evidence that the safe delivery of care bundles and pathways requires timely access to investigations. The risks of misdiagnosis of some conditions are too high to be left to clinical assessment alone. Early access to diagnostic tests can also prevent unnecessary hospital admission.

Pathology

As a minimum, point of care testing in the ED should be available to provide results for:

- Arterial blood gases
- Haemoglobin
- Electrolytes
- Urinalysis and pregnancy testing
- Glucose
- Lactate.

The ED should agree with the admitting teams the relevant investigations required for the majority of presentations. This will optimise the early ordering of such investigations and minimise unnecessary or delayed requests.

There should be a reliable method of rapid transport of pathology samples. These must be prioritised by the pathology department as all of these will be urgent requests. Most results should be available within one hour. A robust and accountable system of results acknowledgment must be in place.

Diagnostic imaging

To function effectively the ED must have a range of diagnostic imaging capabilities available. These include the following:

Radiographs

The ED must have access to plain radiography 24 hours a day. The images should be available on a digital PACS system for review in the ED and by colleagues in other clinical areas within the hospital, for example intensive care and the trauma and orthopaedic departments. All radiographs must be reviewed by a radiologist/radiographer. Immediate, 'hot' reporting is ideal but as a minimum all reports should be available for review within 48 hours.

Ultrasound

Ultrasound is now established as a fundamental component of the assessment of the acutely ill and injured patient in the ED. Every resuscitation room should have an ultrasound machine.

Emergency Medicine trainees now undergo training in ultrasound as part of their curriculum-based training.

ED clinicians are expected to provide diagnostic ultrasound in the following situations:

- Focused assessment with sonography for trauma (FAST) scan
- Abdominal aortic aneurysm (AAA) diagnosis
- Central venous access as required by national guidelines.

In many departments the scope of ultrasound diagnosis has extended to a visual assessment of cardiac function.

In some areas, ultrasound services may be provided by radiology. If this is the case, systems must be in place to ensure a timely 24/7 service. More information on the use of ultrasound technology and the required training follow later in this document.

Computed Tomography (CT)

The use of CT provides early, prompt and detailed assessment of patients with neurological, thoracic and abdomino-pelvic pathologies. The College recommends that a CT scanner should be available within or immediately adjacent to the ED. This facility should be available 24 hours a day. Protocols should be agreed with colleagues in radiology regarding the referral process for CTs for head injury, stroke, pulmonary embolus, major trauma and abdominal pain. Such CTs should be reported immediately.

Magnetic Resonance Imaging (MRI)

Access must be available for urgent MRI 24 hours a day for those conditions where immediate surgical intervention may be necessary (for example, spinal cord compression). This may be in another unit, but systems should be in place for timely referral and transfer.

Less urgently, MRI of the extremities will provide prompt and detailed assessment of injuries where previously repeat radiographs and clinical assessment was unavoidable. These conditions would include wrist injuries with possible scaphoid fractures, and knee injuries.

Inpatient support to the Emergency Department

To function effectively the ED must have a range of inpatient support capabilities available. These include the following:

Access to inpatient beds

Patients waiting on trolleys for prolonged periods due to a lack of inpatient beds represents sub-optimal patient care. This is an international problem with evidence that patients with prolonged 'trolley times' have an increased length of stay in

hospital and in some cases increased mortality and morbidity. The lodging of large numbers of patients on trolleys awaiting admission (access block) compromises the ability of the ED to treat other patients and substantially adds to distress of all patients, carers and staff.

There has been a marked improvement in England with a 'whole systems' approach to this problem. It is essential to appreciate that the actions of in-patient teams are a key determinant of patient flow through the ED.

However, some parts of the British Isles still have major difficulties and there are concerns about this issue. In the Republic of Ireland, there is no meaningful performance standard for ED trolley waits.

A sustainable system to eliminate ED trolley waits arising from hospital bed shortages would require average bed occupancy of 85%. Realistically, the financial agenda in most acute Trusts will not allow such unused capacity. Nevertheless all acute hospitals should have sufficient capacity to ensure patient flow is maintained.

Supporting specialties

The College view is that an ED must have 24/7 support services from Acute Medicine, Intensive Care/Anaesthesia, diagnostic imaging and laboratory services, including blood bank.

The supporting specialties required on site to support an ED have been extensively reviewed in previous documents. It remains the view of the College that the required support for an ED is provided by the 'seven key specialties'- Critical Care, Acute Medicine, Imaging, Laboratory Services, Paediatrics, Orthopaedics and General Surgery. However, inpatient teams may not be able to sustain full 24/7 services on all current sites. There is a balance between centralising or rationalising some services with the consequent risk of patient deterioration en route and the economic cost and reduced expertise of maintaining numerous smaller units.

Preferably Paediatrics, General Surgery and Orthopaedics should be on site. If they are not, then robust and safe pathways should be in place for the management of severe illness or injury in these groups. This may mean ambulances bypassing the nearest ED or clear procedures for rapid stabilisation and summoning retrieval teams if there is a long journey to the nearest appropriate facility.

Where key support services such as Orthopaedics, General Surgery or Paediatrics are not on site, then the need for more senior EPs to assess, stabilise and treat patients prior to discharge or transfer is self-evident. There must also be clear procedures and protocols for dealing with common problems, for example, acute abdominal pain and the pyrexial child.

Psychiatric patients are in general poorly served in terms of out of hours provision and often present by default rather than by design to the ED. There should be clear arrangements for timely support from psychiatric services.

Facilities for transfer

There should be clear guidelines for whenever referral and transfer of a patient to another hospital is required. These should be agreed by both the receiving and

transferring hospitals. These should cover the information required for referral, documentation, treatment prior to transfer, equipment and escorting staff.

Information technology (IT)

EM is an information intensive discipline. There is a substantial need to continually gather, integrate, analyse and act on information whether in the clinical environment or in the management and development of services. Such systems should be ED-specific and developed to comply with national standards as it is essential to share information with other health and social care providers. The IT system should provide:

- Rapid registration
- Electronic access to previous clinical records including ECGs and clinic/hospital discharge letters
- Documentation of all clinical activity including direct supervision and advice by senior ED doctors
- Direct access to ED clinical guidelines
- Electronic ordering of pathology and diagnostic imaging and access to results
- Results acknowledgement
- Presentation specific pro-forma
- Prompts to comply with coding requirements include:
    - timings (assessment, admission or discharge)
    - diagnostic coding
    - investigations coding
- Electronic discharge summaries
- E-mail access to general practitioner (GP) surgeries for transmission of ED discharge letters
- Contact numbers for other health care professionals, such as health visitors, re: child protection issues
- Direct access to clinical databases and reference sources, for example TOXBASE, National Electronic Library for Health
- ED reports for audit and governance
- ED reports for case mix and staff modelling, business intelligence.

Accurate real-time data entry does have staffing implications. This process takes longer than traditional methods, especially with the need to train new junior doctors as frequently as three times a year.

Clinical Decision Unit/observation ward

Patients with many conditions can be safely discharged following a short, intense period of investigation or a brief period of treatment and observation, typically 4-12 hours. Many EDs include such units as an integral part of their work. If the ED does not

have this facility then inevitably there will be more short stay admissions to hospital and potentially more unsafe discharges from the ED.

The admissions criteria for short-stay observation should be agreed in conjunction with the inpatient teams and the commissioners of the service. Further details of CDUs and observation medicine are described in the relevant section of this guide.

Guidelines

The ED should develop, in conjunction with the admitting specialties, appropriate evidence-based guidelines. These may be derived from national or international reference sources or adapted locally as required. The guidelines should be available electronically and in hard copy to all clinicians in the department. Review and amendment (where appropriate) of the guidelines should occur every three years at least. Compliance with the guidelines should be the subject of a departmental rolling audit programme. The College produces guidelines on topics of major import to EM in the UK and provides audit tools and reporting mechanisms for selected conditions on an annual basis.

Prevention, public health and public education

The ED should lead and co-operate with other services in the prevention of illness or injury. Examples would be referral to falls clinics for the elderly, accident prevention in children, working with police on the prevention of violence and initiatives to reduce harm from alcohol or misuse of drugs. EDs can have a key role in public education but this requires time and resources.

Quality Indicators

New quality indicators for emergency care in England were announced in December 2010 and were implemented in April 2011. The new indicators represent measures regarding time, quality and the patient experience, which will drive better patient care in Emergency Departments. The quality indicators were developed by the Department of Health team in conjunction with clinicians from the College of Emergency Medicine and the Royal College of Nursing, with significant guidance and contributions from the CEM Lay Advisory Group. This suite of indicators represents the most important development in emergency care standards in the past 10 years.

The aim is for patients to see tangible improvements in their care with earlier initial assessment, prompt treatment interventions, and optimal patient flow through an Emergency Department, including discharge home, admission to an Emergency Department Clinical Decision Unit or to a hospital bed.

This is a demanding set of measures and success will be dependent on emergency care achieving the highest level of profile and support within an Acute Trust. The intention of the measures is to improve the consistent quality of care provided in Emergency Departments.

In order to achieve compliance, the following key points and recommendations should be noted:

- Acute Trusts should consider the appointment of a Director of Emergency Care, preferably a clinician from Emergency Medicine, to provide an informed overview and ensure that emergency care achieves the necessary high profile within the Trust agenda
- Trusts should review their Emergency Department staffing with a view to increasing consultant numbers to those recommended by the College of Emergency Medicine i.e. a minimum of 10 whole time equivalent consultants in Emergency Medicine. The drive towards senior sign-off and early senior clinical involvement identified in the measures requires this level of staffing. There is an increasing body of robust evidence which identifies the clinical and cost benefits of such a modest investment
- Ambulatory care is identified as an important issue. A properly configured Emergency Department Clinical Decision Unit is the key to providing such clinical and cost efficient care
- The time related incentive that no patient should be in the Emergency Department for more than 6 hours will necessitate pre-emptive hospital capacity planning, particularly in intensive care and high dependency units
- Monitoring performance will require adequate IT provision. At present, this is variable and there are major concerns regarding the reliability of Emergency Department data. Trusts should review the IT provision in their Emergency Department at the earliest opportunity and upgrade where necessary
- Please note there are two guidance documents concerning the QIs which are subtly different - data definitions and implementation. It is vital to understand the clinical rationale for each indicator and the philosophy of the

set of indicators to successfully implement them. This is only described in the implementation guidance

- Key indicators will be measured by Monitor and by the Department of Health (Performance Management Team)
- It is absolutely crucial that the Quality Indicators be regarded as a complete set of indicators rather than individual measures. Compliance will be achieved by improving clinical standards across the board. The keys to achieving this are ensuring Emergency Departments have a workforce matched against demand in terms of numbers and decision makers particularly at Consultant level, streamlined processes, access to an Emergency Department Clinical Decision Unit and pre-emptive bed planning within the hospital.

The College of Emergency Medicine has set up a forum on the ENLIGHTENme website for feedback, comments and observations as these indicators evolve: www.enlightenme.org

It is important to note that although intuitively these indicators address key issues in Emergency Department care, they are untested and unproven. It is inevitable that there will be a need to refine and amend the indicators in due course.

Not all these indicators will be immediately achievable. In the interim, the indicators should be regarded as levers to drive improvements in emergency care and not a template for criticism of clinicians working hard to provide optimal care for their patients, often in challenging circumstances.

Overall, the new quality indicators provide an outstanding opportunity to ensure that all Emergency Departments deliver the consistent high quality care which our patients expect and deserve.
www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_122868

IT/Coding/Tariffs/Minimum Data Set

Summary

- To provide high quality patient care, to improve standards, and to develop Emergency Medicine accurate information is essential
- For information to be comparable, common data standards are required
- To collect reliable data the information technology must collect key data as part of the clinical process
- For data to be useful it must be easy to retrieve and analyse.

Good informatics are essential for safe and effective patient care. IT systems must:

- Support clinical care
- Ensure health professionals, patients, and managers have access to accurate high quality information, when they need it
- Ensure health records are comprehensive, accurate and can be shared as required
- Support clinical audit and research
- Inform discussions around activity, case mix and costs and thereby inform the development of effective emergency services.

As a minimum the ED IT system must be able to produce the relevant datasets for the EM tariffs and mandatory reports, integrate with the main hospital patient database and be compatible with the radiology and laboratory systems

Definitions

Informatics: Covers the skills needed to use information, technology, processes, analytical techniques, and governance to improve healthcare.

Case mix: The comparison of activity, costs, and quality between hospitals.

Tariffs: The payment made under Payment by Results for particular units of activity.

Overview

The sustained growth in the volume and complexity of emergency care as a result of a number of social, demographic and out of hours care changes has highlighted the gap in the current collection of information relevant to providing and delivering emergency care services.

What is the problem?

The current system does not measure inputs or outputs accurately:

- There is no universal system of triage
- The diagnostic coding systems currently used are not designed for either clinical use or policy-making:
    - 30-40% of all visits are un-coded
    - A further 10% are coded as symptoms, e.g. ‘chest pain’

- The remaining 50% are coded in a variety of different codes sets, making comparison with other healthcare providers, or coordinated service improvement near impossible.

Acuity levels have also risen; though for the data collection reasons stated above there is only incomplete information. Nevertheless using proxy measures of ambulance attendances and admission rates there is ample evidence that the problem is not simply one of more attendances; there is a greater proportion of seriously ill patients, requiring hospital admission.

Clinical content standards

CEM has been working to assemble a Minimum Data Set. This dataset recognises that there is an urgent need for good quality data to measure attendance, activity and outcomes.

The CEM Minimum Data Set will:

- Promote improved data collection with a focus on both activity and quality of care provided in Emergency Departments
- Provide data to support implementation of more sophisticated and accurate funding models for emergency care
- Create a common standard for communication GPs and other health and social care providers
- Support injury and disease surveillance
- Facilitate the aggregation of data regionally and nationally to inform clinically meaningful service reconfiguration and research.

Why do we need better information?

Patients presenting to emergency departments represent a subset of all OOH healthcare contacts, albeit a substantial one. However the pre-test probability of a patient being significantly unwell is much higher in the population that present to the ED, in contrast to those who present to other OOH providers. This reflects the incidence of serious illness in this group of patients and explains why access to inpatient teams, radiology and laboratory services is essential for the safe management of a large proportion of patients who present to the ED.

A GP will acutely admit about 1% of all patients seen, whereas an Emergency Department will admit 25-40%. They are very different patient populations and therefore the testing strategy needs to be different.

To ensure this phenomenon is both understood and resourced it is essential that accurate case mix data is collected for all ED presentations.

Diagnostic data coding systems

Accepting the fact that 50% (i.e. 10,000,000 patients per year) have no diagnosis, there are significant problems with the remaining 50% who at least have something entered as a diagnosis.

There are three coding systems used to capture diagnosis data:

1. CDS/OPCS: Commissioning Data Set from the Department of Health (England) – which is very rudimentary, and clinically pointless
2. ICD10: International Classification of Diseases version 10
3. SNOMED-CT: Systematised NOmenclature of MEDicine – Clinical Terms

CEM policy

The Clinical Effectiveness Committee has refined a Unified Diagnostic DAtaset (UDDA). This creates a bridge between ICD10, SNOMED, CDS and 'real world' descriptions of disease. The aim is to enable consistent coding in Emergency Departments, in a way that is easy for IT systems providers to implement.

The UDDA also allows aggregation of data to support public health (Syndromic Surveillance[1]), audit and research.

The UDDA is one part of a wider push for better emergency data generally. The College has generated a Minimum Data Set as a major contribution to reforming the data collection in Emergency Care.

Information technology

There has been an evolution of Emergency Department Information Systems (EDIS) from paper tracking to electronic "whiteboards" and systems with the potential to become an electronic patient record. There is a need for the development of 'Clinical Information Systems' (CIS) that allow clinical information to be useful and accurate, rather than data collection designed principally for operational or accounting purposes. Development has been piecemeal. The main systems available in the UK are Cerner, Lorenzo, HAS and Ascribe. There is no uniform dataset or accepted standard.

Clinical Information systems need to be able to:

- Receive information from ambulance services, GP and hospital clinical records
- Record clinical activity including presentation, diagnosis, investigations and procedures to allow audit and disease surveillance
- Populate clinical fields in a meaningful electronic discharge letter to the GP
- Support child protection procedures
- Allow public health data to be collected
- Feed data into hospital systems in a format that allows funding to be accurately apportioned.

Ideally they should:

- Progress to a full Electronic Patient Record (EPR)
- Include electronic requesting of investigations, and capture of the results

[1] Syndromic surveillance is an important public health early warning system that uses diagnostic data to prevent and monitor of threats to public health, both natural (Flu, SARS, heat and cold) and man-made (Buncefield, Camelford, 7/7, bioterrorism).

- Support electronic prescribing where implemented.

Case mix

At present there are limited case mix systems available to UK Emergency Physicians. They include:

- Simple demographics: (e.g.) numbers of new attendances, proportion of patients who are children
- Measures of acuity: Triage category, majors/minors splits, ESC groups
- Measures of activity / resource use: Healthcare Resource Group (HRG)
- Proxy measures of acuity: Mode of arrival, age of patients, disposition
- Proxy measures of resource use: Triage category, diagnostic coding.

The Department of Health (England) has implemented 'Payment by Results' (PbR) – a system to link healthcare activity in the NHS with remuneration. To do this, DH groups patients with similar costs together using Healthcare Resource Groups (HRGs), and remuneration is calculated in the form a 'tariff' linked to each particular HRG.

Until recently HRGs used in the UK have been too broad based to accurately reflect ED activity. The new HRG 4.0 system, which divides activity into 11 groups, offers more detail. It is this system that is currently being used as the basis for funding of Emergency Departments.

To provide high quality care, Emergency Departments need to be properly funded. Currently the information upon which reference costs are based is poor, and the reference costs are therefore inaccurate. Tariffs, which should be based on reference costs are consequently not a true reflection of costs. HRG 4.0 offers an opportunity for improved coding of activity within EDs.

Block contracting, whereby commissioners pay a fixed sum for activity over a period of time, is not an appropriate method to fund emergency care. Block contracts are usually based on historical financial and activity data. In a specialty where demand is rising, and historical funding is inadequate, this will lead to a substantial funding shortfall.

What do I need to do?

Learn how the funding works so that you can make sure your Emergency Department is paid the full amount due.

1) Download the UDDA from the College website. Discuss with your IT provider how the UDDA can be integrated into your system
2) Support the CEM's position for diagnosis coding to be a future performance standard
3) Download the CEM minimum dataset (MDS) from the College website, which describes the many issues in more detail. Discuss with your IT provider how your IT can be adapted to provide data in this format. Funding may be available to support this
4) Measure the increase in funding due from the move to HRGv4.0.

Job Planning for Emergency Medicine Consultants Covering 24/7

A number of developments may lead Emergency Medicine consultants to consider working a shift pattern that includes the whole of the 24 hour period.

These include:

- Trauma Centres where commissioning specifications require that the trauma team is led by a consultant 24 hours a day. Emergency Medicine consultants are ideally placed to fill this role
- Reconfiguration of services – resulting in fewer, bigger Emergency Departments with consequently increased numbers of attendances
- Difficulty in recruiting middle grade doctors to provide leadership when the EM consultant is not present
- A desire to provide improved supervision to trainees working out of hours
- A desire to improve quality and cost effectiveness of care.

Many of these developments are already resulting in consultants working extended hours and providing significant out of hours cover.

This guidance is intended to assist EM consultants and clinical managers in planning working arrangements that include significant scheduled out of hours working.
It should be read in conjunction with the September 2009 document *The Consultant Contract and Job Planning for Emergency Medicine Consultants* published by the BMA and CEM.
www.collemergencymed.ac.uk/Development/Consultant working/Consultant Contract and Job Planning Advice

Interim College Statement on Job Planning

The College would suggest that ED consultants consider job planning as a team. This allows for members of the team to be flexible and to work to their individual strengths, accommodating requirements of additional responsibilities. The team job plan should ensure that the optimal clinical cover is provided by the consultant team, depending on the total number of WTE Consultants in the team, and therefore the total pool of DCCs available. Such team job plans could usefully include a regular consultant meeting where all consultants are present for communication, strategic decisions and rota management.

The College recognises that not all consultants will be able to work the same proportion of out of hours shifts and that careers in EM must necessarily be flexible as personal circumstances and working patterns evolve. For example, a job share arrangement may result in one consultant working the majority of the out of hours work, by agreement, for a specified period of time before the job plan is reviewed. Teams must decide whether the team can support an unequal distribution of out of hours working, working out of hours is not essential for an individual consultant to maintain their specialist certification although the benefits to the ED staff from doing so are significant.

The College recognises that there is a minimum number of DCCs that would allow the consultant to maintain their skills but that not all EM consultants will necessarily revalidate in the full spectrum of clinical cases. This must reflect the consultants individual work pattern over their career. This is a matter for the consultants annual appraisal discussion that should then feed into the job planning cycle. The College recommends a minimum of two DCCs per week to maintain emergency medicine skills.

Workforce numbers

The CEM recommends that every Emergency Department should have at least 10 EM consultants to provide up to 16 hours of on-site shop floor cover seven days a week.

Larger Emergency Departments will require more consultants to provide an adequate level of cover.

Moving from extended hours cover to night shift cover requires a substantial change in both consultant numbers and the working pattern.

In planning for this new way of working Emergency Physicians will want to consider a number of issues. These are discussed below.

CEM Workforce recommendations April 2010
Recommended minimums of wte Consultants in Type 1 EDs in England

ED size by attendance per annum	Number of Type 1 EDs in England	Recommended minimum number of wte Consultants per ED to achieve sufficient 16/7 'shopfloor' leadership	Recommended total number of wte Consultants to achieve sufficient 16/7 'shopfloor' leadership
<50,000	48	10	480
50,000 to 80,000	78	10	780
80,000 to 100,000	51	12	612
>100,000	17	16	272
TOTALS	194		**2144**

Role of the consultant on night shifts

Depending on local attendance rates, casemix issue and rotas of more junior doctors the EM consultant working overnight might be:-

- Resident on call for trauma team leader
- Resident on call for ED – critically ill patients, advice on complex cases, resuscitation team leader etc.
- Full shift filling normal shop floor consultant role as occurs during the day and evening
- Consultants on some nights only or 7 nights a week.

Numbers of consultants required

CEM recommends 16/7 cover for all EDs with a minimum of 10 consultants required to provide this.

If covering a larger unit with high intensity or if there is to be any period planned with more than one EM consultant present out of hours, the number of consultants required will be greater than ten.

For Emergency Medicine to be an attractive and sustainable the working pattern of consultants must provide a work life balance that is competitive with other acute specialties.

The role of a consultant is not only to provide direct care to individual patients but also to develop a service, to improve the quality of that service and to teach and train the next generation of doctors. To do so requires that a significant proportion of consultant working time is during the normal working week when colleagues, managers other clinicians and facilities are available.

Thus there must be a finite proportion of the amount of out of hours work for which a consultant is scheduled.

Night shifts

The effect of the working time directive and the legal judgments arising from this are that a traditional on call pattern of 24 or 48 hours on call is not permitted if resident; in effect resident on call must take the form of a night shift.

The requirement for 11 hours consecutive rest in every 24 hour period – effectively sets a maximum shift length of 13 hours even if working as on call rather than full shift.

At least three consultants are required to cover each 24 hour period if shop floor responsibilities form the bulk of the expected workload as shift lengths in excess of 8-10 hours for consultant level activity are unsustainable.

Weekends

Experience has shown that the rate limiting step in determining the number of doctors to staff a rota is the number of weekends disrupted by working. Optimal rostering will therefore involve the same doctor working on Friday, Saturday and Sunday of each shift, and as low a frequency as is possible.

A 1 in 4 rota is defined as high frequency in the consultant contract England 2003 and there is an expectation that all such rotas will be reduced to 1 in 5 or lower frequency.

The more antisocial the weekend shifts are, the less frequently that some consultants may be willing to work.

EM consultants may be willing to work 1 in 5 weekends with some scheduled sessions during the day but if a working pattern involves late shifts the acceptable frequency of weekend working is probably less.

If night shift working is then added to this, a lower frequency (i.e. 1 in 8) may be required to recruit and retain consultants.

The table below gives a summary of plausible shift patterns for EM consultants:

Time of scheduled working week	Frequency	Number of consultants
Day time e.g. 9am to 6pm	1 in 5 weekends	5 Consultants
Alternating day and late shifts e.g. 8am to 5pm and 3pm to MN	1 in 6 weekends	12 Consultants
Long day and night shifts (on call low intensity) e.g. 9am – 8pm, 8pm – 9am	1 in 7 weekends	14 Consultants
Rotating day, late and Night shifts e.g. 8am – 5pm, 3pm – MN, 8pm – 8am	1 in 8 weekends	24 Consultants

In some circumstances it may be appropriate for a regional centre to have EM consultants from neighbouring units participate in an out of hours rota on a part time basis.

Remuneration/ compensation

A consultant job plan is broken down into units of time called Programmed Activities (PA). From 7am to 7pm excluding public holidays one PA is 4 hours.

At other times a PA is 3 hours (unless locally agreed to be different).

Alternatively a PA can be four hours with additional pay equivalent to time and a third.

Some EM consultants have reached local agreements whereby evening or weekend working is remunerated at a higher rate than 3 hours per PA.

There is no obligation on any EM consultant to agree night shift working unless they sign a contract that specifically requires this.

The consultant contract (2003 England) specifically allows for local negotiation if a consultant agrees to work "resident on call".

"Where unusually a consultant is asked to be resident at the hospital or other place of work during his or her on-call period, appropriate arrangements may be agreed locally. A consultant will only be resident during an on-call period by mutual agreement".

Higher PA rates for resident on call/ night shift working are quite specifically allowed for in the Terms and Conditions of Service i.e. "appropriate arrangements may be agreed locally".

The BMA advocates a substantial premium on the current PA rate as recompense for the onerous nature of resident on-call/night shifts.

Some EM consultants have agreed working patterns that include a commitment to be on site overnight, to respond for example to trauma calls, but with a room provided on the understanding that they will go to bed at midnight and only respond to the needs of critically ill or injured patients. This is referred to as a "resident on call" working arrangement. It may be appropriate to agree a lower PA rate for this style of working than for a full night shift on the shop floor.

In the few trusts where EM consultants do work overnight agreements have been reached on a rate of 2 hours per PA between 11pm and 7am for a resident on call model of working.

If a full shift night working pattern is expected then a higher effective remuneration should be expected.

Total remuneration

If a significant proportion of working hours falls in premium time or at night then for 10 PA contract the total hours worked will be considerably less than 40 hours per week Some doctors will prefer to work fewer total hours for the same total remuneration as compensation for working an antisocial pattern.

Others however prefer to maintain a working week of about 40 hours and to be paid additional PAs as compensation.

A typical EM consultant job plan that includes a significant commitment to scheduled out of hours work equates to 11 or 12 PAs.

No consultant can be required to work more than 10 PAs.

Job plan allocation of PAs

Supporting Professional Activities

Consultants working 24/7 rotas will have the same needs as those on more typical working patterns for time to be allocated to Supporting Professional Activities (SPAs).

All consultants should be involved in teaching and training, quality and safety improvement, audit and continuing professional development.

The standard guidance on supporting professional activities is that for full time consultants the Job Plan will typically include an average of 7.5 Programmed Activities for Direct Clinical Care (DCC) duties and 2.5 Programmed Activities for Supporting Professional Activities.

Here the "average" refers to the weekly time allocation for an individual consultant NOT to an average across a group of consultants. In other words some weeks could have fewer than 10 hours of SPA time and some weeks more provided that the average is 10 hours.

"Typically" means that this will be the default position although some consultants with additional roles and responsibilities may require more SPA time.

It may be that in departments that have implemented 24/7 consultant working and have large numbers of consultants the needs of the service are such that the consultants do not all need 2.5 PAs of SPA time. This should however not be assumed.

The Academy of Medical Royal Colleges advises that every consultant requires a minimum of 1.5 PA for CPD and the requirements of revalidation. The CEM endorses this advice.
www.aomrc.org.uk/publications/reports-guidance/doc_download/9309-advice-on-supporting-professional-activities-in-consultant-job-planning.html

Direct Clinical Care

Within the standard 7.5 PAs of Direct Clinical Care (DCC) work for most EM consultants will be allocated to shop floor duties (clinical diagnostic work). The nature of consultants' clinical work is such that there is an inevitable need for clinical administrative time to deal with matters arising from direct patient care. The College of Emergency Medicine Professional Standards Committee advises that for every 4 hours of shop floor Direct Clinical Care there will be a need for one hour of clinical administrative work.

At most 6 PAs should be allocated to shop floor work, within a 10 PA contract or 8 PAs in a 12 PA contract.

On call availability

In general it is likely that once a 24/7 on site EM consultant rota is implemented there will be no need for an "on call" consultant in addition. Consequently the consultants will lose any payment for on call availability. However if a "second on call" consultant rota continues or if the EM consultants are sharing an on-site rota with other specialties or with EM Associate Specialists or Specialty Doctors, an on call availability supplement will continue.

Clinical Staffing (UK)

Summary and recommendations

- The medical workforce in the Emergency Department (ED) requires significant change
- The current model where the majority of care is delivered by inexperienced junior doctors is inappropriate
- The College recommendation is that patient care will be directed by experienced senior ED doctors supported by junior medical staff. This would still provide a superb training environment for junior doctors and ensure the delivery of high quality care for patients
- It is an aspiration that all EDs will have 24- hour cover by experienced EM medical staff
- This model requires a significant expansion in the numbers of experienced decision makers to be available 24 hours a day, seven days a week, and will not be deliverable in smaller hospitals
- All Emergency Departments should have a minimum of 10 EM consultants to provide up to 16 hours a day of onsite consultant presence.

Introduction

Proper staffing of the ED is the single most important factor in providing a high quality, timely and clinically effective service to patients.

The volume and complexity of the work of the ED continues to increase. Much of this clinical burden is falling to senior trainees, staff grade and associate specialist (SAS) doctors and consultants. We now have evidence that junior doctors are seeing fewer patients, feel less confident and require more supervision.

The challenge for the future is to provide a high quality clinical service that is based on trained staff but is also cost-effective.

The pressures imposed on the provision of emergency cover in acute hospitals by the European and UK legislation together with changes to training and education will pose great challenges to all hospitals but will have particular implications for smaller units.

Definitions

Senior Emergency Physician

An EM consultant properly appointed to an NHS consultant post

or

A doctor on the specialist register for EM, an associate specialist or specialty doctor if they have clinical competencies equivalent to or similar to an EM consultant.

Middle grade Emergency Physician

An EM trainee at ST4 level of above

or

A career grade doctor (Staff doctor, specialty doctor, associate specialist or other non-training grade doctor), with clinical competencies at least equivalent to a trainee at ST4 level.

Junior doctor

Those post-registration doctors who do not meet the criteria to be middle grade Emergency Physicians. Usually they will have less than three years' training in EM or EM-related specialties.

Foundation trainee

Foundation trainees may be first year post qualification - pre-registration (F1) or second year post qualification (F2).

F1 doctors are effectively supernumerary in the ED and F2 doctors require very close supervision but can and do provide service.

Nurse Practitioner

An EM nurse who has undertaken formal training in the ambulatory care of patients with injury (and/or illness) and has had an assessment of competency allowing a degree of autonomous practice.

Workforce planning

What skills are needed to staff an Emergency Department?

The College recommendation is that patient care will be directed by experienced ED doctors supported by junior medical staff, and other dependent practitioners.

The medical staffing of an Emergency Department is dictated by the numbers of staff required to provide a safe level of cover. Variation in numbers of patients presenting and acuity levels are a constant challenge to any staffing model.

Consultants

The College of Emergency Medicine recommends that all EDs should have an establishment of at least 10 EM consultants to provide up to 16 hours a day of consultant cover.

Typically this will be 8am to Midnight or 7am to 11pm. 10 consultants can provide 16/7 cover only in departments with one consultant scheduled to be on site out of hours at any given time.

Departments with more than 80,000 attendances or those seeing over 50,000 excluding urgent care or "minors" type patients will have a higher intensity of work and at least 12 consultants will be required to provide 16/7 cover.

Safety net

There is a need for experienced middle grade EM doctors to cover night shifts and any other time that EM consultants are not scheduled to be present.
Unless EM consultants participate in a night shift or resident on call rota for the ED, middle grade doctors must cover 7 nights a week between them.

Virtually no ED has sufficient senior trainees (ST4+) to entirely staff a middle grade night shift rota.

WTD, work life balance, and training requirements are such that at most a 1 in 8 night shift rota is acceptable for trainees.

Experience has shown that for non-career grade doctors on middle grade EM rotas recruitment and retention is possible only with a night shift frequency of 1 in 12 or less In practice therefore a twelve to fourteen person rota is required to safely and sustainably staff a middle grade rota.

Not all the doctors on this rota need be full time provided that they are willing to take a full share of the nights and weekend shifts.

A twelve person rota will allow three middle grade doctor shifts at weekends on a 1 in 4 rota.

Foundation year 2 doctors are usually on 4-6 month EM rotations and can work up to 1 in 6 nights and 1 in 2 weekends.

Junior doctors at ST1-3 level may be on 4-6 month rotations as a trainee or may be in non-training posts working at an equivalent level.

They can usually be rostered for 1 in 6 nights and 1 in 2 weekends.

Models of EM consultant working

Command and control model

In this model the main role of the consultant consists of clinical activity including direct patient care, supervision and team leading in addition to teaching, clinical governance, management and administration.

The College recommends that departments should move away from this model. This will pose challenges for smaller departments (see rural hospitals) where the burden of administrative work remains relatively high but shared between fewer consultants.

Clinical manager model

In this model the main role of the consultant is directing junior staff, actively 'signing off' treatment plans and the management of patient flows around the department. This is becoming the work pattern in large multi-consultant departments.

At any time that one or more consultants are scheduled to be on the shop floor, one consultant should be working in this way.

This consultant will have significant input into the care of many patients but will not be the sole clinician responsible for the care of individual patients as the primary clinician.

Clinical decision maker model

When two or more consultants are scheduled to be on the shop floor the second, third and subsequent may fill a clinical decision maker role.

In this role the consultant will be responsible for the care of individual patients as the primary clinician.

As well as their own case load they will provide supervision, support, advice and sign off for patients seen primarily by junior or middle grade staff or nurse practitioners. When supervising trainees the level and form of supervision provided should be subject to agreement between the Consultant and trainee, and will depend upon the trainee's level and experience, and be condition-specific

In managing their own case load the consultant will be most efficient if they have a full team of nursing and other support staff so that their time is spent doing things only a doctor can do.

As consultant numbers increase, this model will characterise a larger part of the consultant role.

Less than full time working

EM is especially suited to doctors who wish to work less than full time. With more multi-consultant departments and more shift work, the trend to less than full time working will increase.

Factors affecting the rate of seeing patients

Numbers of senior staff in the department

Where there are fewer senior staff, a greater proportion of time will be spent on the basic managerial and educational needs of the department and in supervision. The College no longer recommends a full 'command and control' structure, but in small departments a degree of this type of working is still required. As senior staff numbers increase, more time will be spent in a clinical decision role.

Working style and support

A Consultant may see several ambulatory care patients per hour if fully supported by a nursing team and the ability to dictate the clinical record. However, this needs an excellent back up system where any 'grey cases' and practical tasks are undertaken by other members of staff. Work at this intensity is going to be difficult to sustain for more than a few sessions per week.

Equally, departments with a high number of complex resuscitation cases might find consultants constantly involved in critical cases where an individual patient might require two hours or more of consultant time.

Case mix

Normal case mix indicates the average admission rate has risen from 15-20% to 25-30% in the last 5 years.

This heavier case mix includes large numbers of ambulance and trolley cases, more complex illness and fewer minor injury or paediatric cases. These cases take longer to assess and manage.

Other clinical duties

Most departments should have a Clinical Decision Unit (CDU). It is vital that there is regular senior input to such units. It will take a minimum of one PA per day per CDU. Review clinics, hospital at night work and work in subspecialty areas will all reduce the clinical time available in the ED. Consultants are on call to assist with serious clinical cases. They should not be expected be recalled to hospital to "queue bust" where deficiencies in staffing have caused a build-up of less serious cases.

Shift systems

The effects of working a full shift rota will significantly alter the numbers of patients seen. It is recognised that doctors working very antisocial shifts, especially night shifts, take time to recover and this has to be reflected in the amount of hours scheduled for antisocial clinical shifts.

The actual number of clinical hours worked is affected by different rotas.
The College recommends that doctors over the age of 55 should not have to work night shifts.

Observation Medicine & Ambulatory Emergency Care

Concepts

Observation Medicine is becoming an integral part of the work of Emergency Departments in the UK. Similarly, in Ireland an increasing emphasis is being placed on the importance of such units allied to the main ED. The concept (delivered on an ED short stay ward or Clinical Decision Unit - CDU) focuses on the delivery of intensive short-term assessment, observation or therapy to optimise the early treatment and discharge of selected emergency patients in addition to appropriate safe discharge of some patients from the ED directly. The model provides an alternative to extended stays as an inpatient.

In addition, the importance of robust gate-keeping of the in-hospital bed base has led to the development of ambulatory emergency care (AEC). Ambulatory care focuses on discharging patients whilst undergoing active treatment for conditions that historically have been treated in an in-patient setting. Some of these pathways are delivered as part of the activity of the CDU and some can be delivered on discharge from the main ED back into the community, with links to primary care.

Models of delivery

Patients with a range of conditions can be safely discharged following a short, intense period of investigation or a brief period of treatment and observation, typically 4-12 hours. Many EDs see such units as an integral part of their work. If the ED does not have this facility then inevitably there will be more admissions to the in-hospital bed base and potentially more unsafe discharges from the ED. The admissions criteria for short-stay observation should be agreed in conjunction with the inpatient teams and the commissioners/purchasers of the service.

The following principles apply:

- The CDU/observation ward should be run by the ED clinical team
- Regular review by a senior ED doctor is recommended and a consultant led ward round must take place twice in 24 hours
- Dedicated medical and nursing presence is required
- The maximum length of stay should be 24 hours, although many patients will stay for less than 12 hours
- All patients admitted to the CDU/observation ward must have a management plan including provisional diagnosis, frequency/ nature of observations required and discharge arrangements
- Management of many patients in the CDU/ observation ward should be protocol-driven
- The area must not to be used by admitting teams as a default for failure in hospital capacity planning.

Protocols may include the following:

Diagnostic protocols

- Exclusion of acute coronary syndrome
- Assessment of severe sudden headache
- Assessment of renal colic
- Assessment of possible deep venous
- Exclusion of thrombosis/pulmonary embolus.

Observation and risk stratification protocols

- Syncope
- Transient ischaemic attack assessment
- Head injury care
- Observation following alcohol intoxication
- Non-specific abdominal pain
- Management of self-harm and overdose
- Recovery from sedation
- Elderly patients requiring multidisciplinary assessment.

Therapeutic protocols

- Moderate asthma
- Cellulitis
- Pneumothorax
- Community acquired pneumonia
- Self-harm
- Pain control after soft tissue trauma.

Economic issues and the future

There is now robust evidence to support the models described above that are being delivered by many units in the UK. The aim for the future should be to mirror these examples of excellence to deliver cost effective and efficient care consistently across all emergency care systems tailored to need and size, with the patient's needs at the heart of the process.

The key components that lead to high quality ambulatory emergency care (in the ED or on a CDU) are the involvement of a senior EM decision maker, rapid access to diagnostics where appropriate and an evidence based care pathway with appropriate safety netting.

Work is on-going so that in the future (in the UK) this type of work can be better recognised by commissioners of healthcare as best practice with tariffs set accordingly.

Paediatric Emergency Medicine

Summary and Recommendations

- In most EDs children account for 25% of all attendances
- All EDs should have a named consultant who leads for children's issues in the department
- Paediatric Emergency Medicine (PEM) as a sub-specialty can be registered on the CCT of either paediatric or EM specialists
- There is an agreed training pathway for sub-specialisation in PEM from paediatrics or EM. www.collemergencymed.ac.uk/Training-Exams/Paediatric Emergency Medicine/PEM Training
- The College recommends that every ED with more than 16,000 childrens' visits per annum must have a minimum of one PEM-trained consultant. This equates to almost 50% of Emergency Departments in the UK
- Large EDs should have a PEM trained consultant from each of the parent specialties i.e. paediatrics and EM
- Detailed service standards for the care of acutely unwell or injured children are available in the 2011 publication *Standards of Care for Children in Emergency Care Settings*[2] available via the CEM or RCPCH websites
- There is a special interest group for PEM clinicians (APEM): www.apem.me.uk

The interface between Paediatrics and EM

It is important that the interface between Paediatrics and EM is configured to provide optimum care for patients. This means understanding the local case mix i.e. the proportion of injuries to illness, the percentage of children requiring admission to hospital (often dependent on the effectiveness of the primary care "sieve" locally), and whether or not the hospital is a receiving site for emergency cases from other units (for example, those without in-patient paediatric support).

In the majority of cases children with undifferentiated problems are best assessed within an ED. No other discipline provides specialists trained to assess and treat patients with undifferentiated presentations across the spectrum of ages and complaints, from infants with minor viral illness or meningitis, to children with foreign bodies in noses or major trauma, and teenagers with alcohol intoxication or psychological problems.

The Intercollegiate Committee publication, *Standards for the Care of Children in Emergency Care Settings*[2], includes recommendations for organisational and clinical issues across the wide range of paediatric emergency practice, as well as information management and technology, major incidents, and research. Other useful intercollegiate publications include *Short Stay Paediatric Assessment Units*[3],

[2] Standards of Care for Children in Emergency Care Settings, RCPCH 2011, www.rcpch.ac.uk/child-health/standards-care/service-configuration/emergency-and-urgent-care/emergency-and-urgent-car

[3] Short Stay Assessment Units – Advice for Commissioners and Providers, RCPCH 2009 www.rcpch.ac.uk/sites/default/files/asset_library/Policy%20and%20Standards/SSPAU.pdf

RCPCH 2009, *Maximising Paediatric Nursing Skills in Emergency Departments*[4], RCN 2010 and *The Role of the Paediatrician with Emergency Medicine Training*[5], RCPCH 2008.

Avoidance of hospital admission is desirable. Clinicians "at the front door" need the skills and confidence to accurately predict the need for admission. Admission rates for children are usually lower than that for adults, reflecting the low incidence of chronic illness in children and an ability to recover quickly.

Admission avoidance goes hand in hand with safe discharge and good safety net processes. The Department of Health (England) clinical quality indicators introduced in April 2011 include standards for safer discharge of children from the ED.

Outreach services for acutely unwell children are developing well across the UK, with availability of "next day" assessments by skilled nurses in the community, or paediatrician-led rapid access follow-up clinics. This support can help EDs avoid hospital admission.

The development of Clinical Decision Units (CDUs) or Short Stay Assessment Units for children also facilitates admission avoidance and there are successful models around the UK[2].

Training in Paediatric Emergency Medicine (PEM)

Core training in PEM is undertaken at CT3 level for EM trainees (usually six months). A Framework for Paediatric Emergency Medicine Training and Assessment in CT3 can be found on the college website. This provides core information on the setting in which training should be undertaken, the curriculum and work-based training. Core competences in PEM achieved during CT3 are enhanced during higher specialist training (HST) and details of these and the relevant assessments can be found in the CEM curriculum. www.collemergencymed.ac.uk/Training-Exams/Work place based assessment/Workplace based assessment forms from August 2010/CT3 year

Beyond CT3, higher trainees from either specialty may opt to acquire a CCT with a registered sub-speciality interest in PEM by completing additional relevant time in an appropriate training post.

The joint curriculum for trainees undertaking PEM sub-specialty training, from either paediatrics or EM, is available from the CEM website:
www.collemergencymed.ac.uk/Training-Exams/Curriculum

PEM with a Certificate of Completion of Training (CCT) in EM

A trainee in EM who seeks to register PEM as a sub-specialty will usually need to undertake at least one year of training in the care of children, over and above core

[4] Maximising Paediatric Nursing Skills in Emergency Departments, RCN 2010, www.rcpch.ac.uk/sites/default/files/Nursing.pdf

[5] The Role of the Paediatrician with Emergency Medicine Training, RCPCH 2008, www.rcpch.ac.uk/sites/default/files/asset_library/Health%20Services/FINAL%20FOR%20WEB%20%28REDUCED%20FILE%20SIZE%29%20Role%20of%20the%20Consultant%20Paediatrician%20with%20Subspecialty%20Training%20in%20Paediatric%20Emergency%20Medicine.pdf

and higher EM training following the joint curriculum for PEM sub-specialty training. For more detailed information see the trainee's guide to speciality training in Emergency Medicine, available on the CEM website.

EM consultants with a recognised subspecialty interest in paediatric emergencies may act as:

- The PEM lead in a general ED, liaising between paediatrics and ED and developing shared pathways,
- A consultant in a general ED with clinical sessions dedicated to a paediatric ED
- Or a consultant in a standalone paediatric Emergency Department with or without sessions in an adult ED.

PEM with a Certificate of Completion of Training (CCT) in paediatrics

A trainee in paediatrics who seeks to register PEM as a sub-specialty will need to undertake a two-year training programme. This is undertaken after core higher specialist training and will work to the joint curriculum for PEM sub-specialty training.

This type of training, when translated into a consultant job plan, can stand alone as a pure PEM post, or can be combined with work on the acute admissions / observation unit, outreach care for urgent follow-up, intensive care and retrieval medicine. Further advice is available from the intercollegiate publication *The Role of the Paediatrician with Emergency Medicine Training*.

Training in PEM in the Republic of Ireland

Those who have achieved a CCT in EM in the Republic of Ireland who wish to register PEM as a sub-specialty will need to undertake at least one year of training in the care of children over and above core Specialty Registrar (StR) training. As in the UK, trainees in Paediatrics seeking registration in PEM have a pathway available to them. The Advisory Committee on Emergency Medicine Training is currently in negotiation with the Faculty of Paediatrics of the Royal College of Physicians of Ireland to streamline this process.

The Association for Paediatric Emergency Medicine (APEM)

EPs and paediatricians with an interest in PEM may choose to belong to the Association of Paediatric Emergency Medicine. Two one-day meetings are held each year: the Spring meeting with the annual conference of the Royal College of Paediatrics & Child Health and the Autumn meeting with the College of Emergency Medicine. Contact www.apem.me.uk for further details.

Intensive Care Medicine

A quarter of Intensive Care Unit (ICU) admissions originate in the Emergency Department[6] and the ED is the source of up to half of all level III patients. Recent substantial investment in ICU bed provision has been outstripped by increased demand and rising expectations. Consequently, some critically ill patients experience prolonged delays in the ED. Critical care interventions are often required before admission to ICU; these interventions may include advanced airway management, non-invasive ventilation, and intensive therapy for severe sepsis – all of which are within the curriculum for EM trainees[7].

Changes in the work patterns of EM consultants, involving more direct patient contact and out-of-hours presence, have facilitated a greater focus on the sickest ED patients. The core objectives of the Emergency Physician and the intensivist – support of vital functions and correction of abnormal physiology – are similar. Thus, the knowledge, skills and attitudes that prevail in the ICU are appropriate in the resuscitation room[8]. In *Comprehensive Critical Care*[9] an expert group stated, "Competences are more important than professional boundaries in the delivery of a safe, efficient and cost-effective service."

Training in Emergency Medicine and Intensive Care Medicine

In 2010 the seven parent Royal Colleges approved the creation of the Inter-Collegiate Faculty of Intensive Care Medicine (FICM), just over ten years after Intensive Care was recognised as a specialty[10]. In early 2011 the GMC approved a new single specialty CCT curriculum in Intensive Care Medicine. This has built on the iterations of the original 2001 competency-based training programme, which was linked with a base/parent specialty CCT. A number of Emergency Physicians have completed joint training and are expected to contribute 5-10% of the ICM consultant establishment by 2012. The new stand-alone programme is in three stages over seven years, resulting in a CCT in ICM.

Although ICM has now finally emerged as a specialty in its own right the Faculty recognizes the value of dual trained intensivists in enhancing the care of the critically ill. The Faculty's Training and Assessment Committee (FICMTAC) is actively working with the College of Emergency Medicine to develop a dual programme, building on the success of the present Joint CCT programme. It is likely that EM trainees seeking to acquire dual CCT will enter an 8.5 year programme after foundation training. The detail of the new training will be published in 2011, after approval by the GMC.

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[6] Simpson HK, Clancy M, Goldfrad C and Rowan K. Admissions to intensive care units from emergency departments: a descriptive study. Emerg Med J 2005; 22:423-428.

[7] www.collemergencymed.ac.uk/Training-Exams/Curriculum/Curriculum%20pre-August%202010/default.asp

[8] Nee P.A, Andrews F and Rivers E. Critical care in the Emergency Department: Introduction. Emerg Med J 2006;23:560

[9] Department of Health Comprehensive Critical Care, A Review of Adult Critical Care Services. Department of Health, London 2000. www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4006585

[10] www.ficm.ac.uk/

Acute Medicine

Summary and recommendations

- Over half of all admissions to acute beds from the Emergency Department (ED) are to Acute Medicine (AM) or related specialties
- Hospitals should develop integrated links between Acute Medicine and the Emergency Department.

The interface between Acute Medicine and Emergency Medicine in the UK and the Republic of Ireland

It is important that the interface between EM and AM is configured to provide optimum care for patients. Most patients with undifferentiated acute illness are best assessed within an ED. EM physicians are trained and experienced in the assessment and treatment of patients with undifferentiated problems across the spectrums of ages and disease. However, following assessment and initial treatment in the ED by an EM specialist many patients requiring hospital admission will best be managed in an Acute Admissions Unit staffed by Acute Physicians. Effective communication, agreed protocols and integrated care pathways are of benefit to such patients and to EM and AM doctors alike.

Patients who have been assessed in primary care and referred to the Acute Medical "take" team will usually be admitted directly to a medical admissions unit. However, certain patient groups such as those with haemodynamic instability or impaired conscious level are better assessed and stabilized within the resuscitation area of an Emergency Department. Patients with ST elevation myocardial infarction (STEMI) should go directly to a primary angioplasty facility.

The successful introduction of time critical interventions such as stroke thrombolysis and sepsis bundles has required substantial contributions and commitment from EM physicians, nurses and departments. Such presentations and the attendant skills required to treat them reinforce the need for highly trained, experienced clinicians to be immediately available within the Emergency Department if the substantial morbidity and mortality associated with these major disease groups is to be improved.

The College contributed to the report *Acute Medical Care,* in which recommendations were proposed to reflect best practice in the care of medical emergencies. The report acknowledged the differences between EM and AM whilst acknowledging the complementary nature of these two specialties. One of the key recommendations of the report was the concept of the 'emergency floor'. The co-location of the ED, acute medical admissions unit and critical care, plus key support services.

One of the most important service developments within EM in recent years has been the Clinical Decision Unit (CDU). The role of the CDU in delivering high quality, evidence-based and timely care for a spectrum of patients that would traditionally be admitted to an inpatient bed has been clearly established. The care delivered in CDUs is often guideline or protocol driven, and the range of conditions amenable to

this type of care process continues to expand as experience increases; examples include:

- Diagnostic pathways (chest pain, venous thromboembolism, subarachnoid haemorrhage)
- Observation pathways (including post- procedural sedation, deliberate self-harm, opiate toxicity and smoke inhalation)
- Treatment pathways (including asthma, community acquired pneumonia and cellulitis).

Links between Acute Medicine and Emergency Medicine in the UK

The College of Emergency Medicine is represented at board level within the Society of Acute Medicine and is keen to ensure further investment in both specialties. Sub-specialty recognition in Acute Medicine for EM trainees is a recognized career path and mirrors the same in Intensive Care Medicine and Paediatric Emergency Medicine.

Specialist training in Acute Medicine for Emergency Medicine trainees in the UK

The development of Acute Care Common Stem training (ACCS) as the core training programme for doctors in Emergency Medicine has resulted in the widespread acquisition of level one competencies in AM. These doctors will be able to undertake a further period of training to gain level two competencies, enabling them to work as a specialist within an AM service. The development of a workforce able to work across the boundaries of EM and AM will be important in efficient integration of services.

Elderly Care

Introduction

As a result of an increasing demographic shift over the next 20 years, the number of people aged 85 and over is set to increase by two-thirds, compared with a 10 per cent growth in the overall population[11]. This will be manifest in further increases in the number of older people attending Emergency Departments and accessing acute care services. A small proportion, 2-3%, of this population is vulnerable because of varying combinations of health and social care problems and can be classified as frail[12] and at increased risk of adverse health outcomes, prolonged hospital stay or readmission[13].

Older people:

- Account for 17% of attendances to Emergency Departments in England and Wales.
- Already represent 40% of the 5 million people admitted to hospital in 2008/9, and the number of admissions is increasing year on year[4].
- Aged 85+, who are often frail, are nearly 10 times more likely to have an emergency admission than people aged 20-40[14].

This changing demographic with its attendant healthcare needs brings new challenges in service provision and delivery.

Current state:

Frail older people present at Emergency Departments mostly with non-specific complaints including falls, immobility, confusion and incontinence. Multiple co-morbidities, polypharmacy and inadequate access to information, make this group of patients more difficult to safely and appropriately manage than most ED patients. This problem is compounded when such patients are assessed by relatively inexperienced frontline staff working within time constraints. In consequence these patients experience longer stays in emergency departments and experience higher admission rates. The National Clinical Audit of Falls and Bone health show that older people with falls are not assessed and managed adequately in Emergency Departments and minor injuries units and CEM audits of hip fracture reveal poor pain management. Nearly a third of patients with hip fractures spend in excess of 4 hours in Emergency Departments[15]. The recent Ombudsman's report[16] drew attention to

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serious deficiencies in older people's care in acute settings. Dementia sufferers are particularly vulnerable to decompensation within an unfamiliar, loud, busy and stressful environment.

Models of care:

The Emergency Department is the default single entry point into secondary care and accounts for the majority of hospital admissions. Given the demographic pressures and the economic climate it is crucial that the Emergency Department is appropriately supported in the management of older people. Multi-dimensional assessment and multi-agency management of older people leads to better outcomes[17] and it is intuitively sensible to provide the best care for frail older people at the first opportunity in close cooperation with clinical partners in primary and secondary care to ensure optimal efficiency of the health and social care system.

Models of care need to take into account issues such as impact on the patient, outcomes such as admission and readmission rates, mortality and morbidity indicators. Given the contesting pressures and stressful environment within Emergency Departments, adjacent Clinical Decision Units may well provide an excellent environment for extended workup. The validated Identification of Seniors at Risk (ISAR) tool[18] can reduce the rate of functional decline, death and readmission in patients discharged from Emergency Departments (sensitivity 94% at 6 months) as can multidisciplinary evaluation and access to comprehensive geriatric assessment and management[19]. Service alignment with geriatricians may provide the right blend of expertise, knowledge and outlook to provide an appropriate response combining clinical risk assessment with diagnostic management and adequate disposition. There are already several EDs in the UK using consultant geriatricians working alongside Emergency Physicians in joint models of care with emerging evidence of effectiveness.

Training and development

Specific curriculum-based competencies for trauma and non-trauma conditions in geriatric emergency care should promote the specific needs of the older person in the ED. Attitudinal issues need to be addressed as well to maximise effectiveness. A pilot programme for trainees in Emergency Medicine with a geriatrics background has been initiated with the aim of improving skills and competencies and to improve understanding and communication to facilitate joint models of care.

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Emergency Nursing

Patients in the Emergency Department attend with a multitude of nursing care needs ranging from minor injuries and illness through to life threatening conditions. In addition to the physical needs the patient has psychological, social and emotional needs that can often require highly skilled nursing interventions. Relatives and friends can also have a dependency for care to which the nursing team must respond.

Emergency nursing practice can be defined as "…the nursing knowledge and skills required for the assessment and management of acute and urgent aspects of illness and injury affecting patients of all age groups with a full spectrum of undifferentiated physical and behavioural problems." Increasing numbers of nurses are also acquiring skills in diagnosis in defined areas of practice.

Emergency nursing is now practised in a number of settings in addition to the Emergency Department (ED), such as walk-in centres (WICs), minor injury units (MIUs) and urgent care centres (UCCs). Some of these services are nurse-led. These developments in service provision have required an expansion of roles and responsibilities with nurses in key decision-making roles. New and innovative roles such as advanced practitioners allow the management of increasingly complex patient presentations. Across the UK and Ireland the scope of practice and pace of role expansion shows some variation, in line with national developments in redesign of emergency care services.

Determining the numbers and levels of nurses required to effectively staff an Emergency Department has always been a challenge, a simple ratio of nurse per number of patients does not account for the complexity and diversity of patient need. Work is being undertaken by the RCN Emergency Care Association together with the Emergency Nurse Consultants Association (ENCA) the Faculty of Emergency Nursing (FEN) and CEM, to validate a skill mix tool.

Triage/see and treat

Initial assessment of patients has been acknowledged in the DH (England) Quality Indicators as an integral component of Emergency Department services. In most Emergency Departments this is undertaken by nurses trained to use a formal triage tool such as the Manchester Triage System. See and treat models are used more widely in minor injury units (MIUs) and walk in centres (WICs) where patient case mix will differ with larger numbers of non-urgent presentations and lower overall attendance figures than EDs. However many of these services operate both see and treat, and triage depending on patient volume.

In a number of departments changes to models of triage have been made. These include triage by providers other than ED staff such as primary care organisations. Whilst this may be helpful in some settings, care must be taken to ensure that the role of ED as a 'safety net' for seeking care is not lost. It would be unwise for nurses to be placed in a position of denying access to care in Emergency Departments particularly where other services are not co-located.

Emergency nurses

The high volume of patients with immediate nursing needs is reflected in the relatively high numbers of band 5/6 nurses found in most departments. The important role of immediate assessment has been recognised in the DH ED Quality Indicators. This assessment helps to identify those with the most urgent need, record physiological observations and importantly record a pain score to assist in early management of pain. The importance of this role should not be underestimated in ensuring quality and safety in the emergency department and requires a high level of skill in rapid, effective decision-making.

An increasing number of older patients with high levels of nursing need attend the ED and levels of serious and critical illness are increasing. Interventions such as thrombolysis and non-invasive ventilation and more intensive monitoring require improved levels of education and continuing professional development (CPD) for nursing staff. Nurses, in conjunction with relevant medical colleagues, are currently compiling a 'silver book' of recommended care standards for the older patient in emergency care settings.

Children and young people continue to account for 25% of attendances to emergency care facilities; implementation of recommendations from the intercollegiate Committee for children's emergency care (RCPCH 2007) still remain inconsistent. In an effort to improve the care received by children and young people in all emergency care settings, a revised "Red Book" has been produced entitled *Standards for Children and Young people in Emergency Care Setting* (RCPCH 2011). Challenges still exist within paediatric emergency care and this latest recommendations are relevant to all facilities that offer emergency care to children and young people.

With the development of a Major Trauma Systems in the UK there is a need to focus on adequate nurse staffing, education and training for resuscitation, stabilisation and transfer of trauma patients. The role and function of those emergency nurses not employed in trauma centres and units should also be considered; they may need to take on a more specialised and expanded role to manage the care of the remaining caseload of patients and some may wish to retain relevant skills by means of rotation into the major trauma system.
www.excellence.eastmidlands.nhs.uk/welcome/improving-care/emergency-urgent-care/major-trauma/nhs-clinical-advisory-group/

The shift leader/coordinator role

The ED quality indicators have brought new responsibilities for senior nursing staff. Senior nursing staff possess the skills to expedite patient care, improve the patient experience, and manage patient flows within the ED but such duties can remove these nurses from direct patient care with potentially negative effects on clinical care and on supervision of more junior nurses. A Royal College of Nursing Emergency Care Forum membership survey in 2008 found that the maintenance of standards was often seen as a nursing responsibility rather than a multi-disciplinary one, and that shift leaders often felt under immense pressure to achieve these standards sometimes to the detriment of patient care and adequate supervision of other staff. The risks inherent in these circumstances are obvious and adequate regard should

be taken to skill mix in addition to staffing numbers when planning nursing establishments.

The role of Sister/Charge Nurse is fundamental to day-to-day clinical leadership. Their main responsibility is that of shift leader, overseeing and maintaining the effective management of nursing care during their shift. They are acknowledged as a clinical expert and provide a constant presence delivering direct patient care.

The Sister/Charge Nurse should work in key areas across the department i.e. the minimum of one band 6 nurse is required in the resuscitation area as these nurses have the expertise to rapidly identify problems and manage complex situations. They should manage the area, and the nursing staff within it, to ensure appropriate care and safety of patients.

Paediatrics

Significant numbers of children attending emergency care are effectively managed by emergency nurses with a RN (adult) level of first registration. It is recommended that RN (Adult) nurses are supported by structured training and development to acquire the knowledge and skills specific to both children and emergency care. The minimum competences in relation to caring for children and young people have been defined by skills for health, in addition to the Faculty of Emergency Nursing (FEN) and more recently the *Emergency Care Framework for Children and Young People in Scotland*[20] and *Maximising Nursing Skills in Caring for Children in Emergency Departments* (RCPCH/RCN 2010)[21]. These can be used by both children's and adult registered nurses to develop the skills and competency needed for emergency nursing. Where children's nurses are employed in general EDs, and managing adult care, a competency framework is also required.

For staff working in minor injury units and urgent care centres it is recommended that where possible rotation of staff through Emergency Departments takes place in order to maintain skills in the care of children that may otherwise not be utilised frequently enough to ensure competence and confidence. It is also recommended that a paediatric link nurse is established to ensure all staff retain and develop skills in the emergency care of children.

Emergency nurse practitioners

The roles and responsibilities of emergency nurse practitioners (ENPs) across the UK vary significantly in terms of scope of practice, grading and impact on local services. In the 2007 HCC workforce survey, over 300 units stated they operated some form of ENP service, 172 units had ENPs working in dedicated roles whilst 133 units favoured a dual role of ENP and senior nurse. Bandings were fairly consistent with band 6 and 7. An increasing number of ENP's nationally are now independent prescribers which enhances the timeliness of care.

There remains considerable variation in educational preparation, competency frameworks and scope of nurse practitioner practice in the UK. There is an urgent

[20] www.scotland.gov.uk/Publications/2006/09/19153348/0

[21] www.rcpch.ac.uk/sites/default/files/Nursing.pdf

need for a unified curriculum and national standards with comparable education and examination standards with medical colleagues who are seeing and treating the same case mix of patients. These developments would facilitate greater consistency of care and transferability between departments/settings.

National standards should include practice audit and clinical supervision. It is difficult to reach consensus on the number of cases it is reasonable to expect ENPs to see and treat per hour. There are a number of reasons for this which include differences in scope of practice as well as confounding factors such as the extent to which they ENPs manage the whole patient episode including treatments. There are some differences in practice between how ENPs and Medical staff work in a number of units.

Advanced nurse practitioners (ANP)

The ANP is still a relatively new role but one that is gaining recognition both nationally and internationally as a major contributor to the provision of accessible and quality health care.

The Nursing and Midwifery Council (2005) defines advanced practitioner roles as nurses who are " … highly experienced and educated members of the care team who are able to diagnose and treat health care needs and refer to an appropriate specialist if needed."

The role requires skills of advanced clinical assessment and treatment of a diverse and undetermined caseload of patients, who may have highly complex and/or chronic presentations. These nurses work autonomously, determining clinical diagnosis and treatments indicated, whilst providing expert clinical expertise for developing and enhancing services. It is difficult to estimate the numbers of patients seen by or impact of APs as many are still in preparation via MSc's in clinical practice programmes and are new to services. Similar challenges exist as with ENPs with regards to scope of practice and preparation for the role. Agreed national standards are also required.

Clinical educators

The role of the clinical educator has been developed and implemented in recent years in a number of departments. The clinical educator will typically work as a 'hands-on' educator developing both the knowledge and clinical skills of those they are working with. They may also become involved in the overall planning of educational provision at a strategic level. The application of theory to practice is of vital importance in the education of emergency nurses and it is increasingly common to see post-registration students being supported in the workplace by teaching staff. Assessment of work undertaken in higher education is increasingly a mix of examination and proof of the acquisition of clinical skills in practice (i.e. the transfer of theory to practice) by submission of a portfolio of clinical competencies. The FEN competency framework provides a suitable template for the structure of such work.

A number of other nursing roles such as project nurse and practice development nurses are found in Emergency Departments. While the remit of the individuals

holding these posts will vary from department to department, most focus on supporting the development of practice within the environment.

Senior clinical leadership and management

This can be effectively achieved by a number of roles:

Consultant nurses

Consultant nurses have clinical leadership, strategic development, and teaching/education responsibilities in EDs and some may be involved in research. This role importantly focuses on expert clinical practice. They will clinically manage groups of ENPs or ANPs. The role although relatively new, has offered career progression to senior emergency nurses who wish to stay in clinical practice. Approximately 40 departments in the UK have a nurse consultant. There are currently only a few training schemes for this role. Consultant nurses have an important role in clinical leadership working alongside matrons and clinical educators.

Matron/lead nurse

Given the unique and highly specialised nature of emergency care, nursing leadership of Emergency Departments needs to sit with individuals experienced and competent in the speciality. The matron/lead nurse for Emergency Care should work alongside the speciality medical lead and general manager to ensure service provision meets patient needs. The modern matron takes responsibility for all aspects of patient care and experience within a department with the exception of medical care. Where other roles such as consultant nurse co-exist clinical leadership elements are shared; the roles are complimentary in nature.

Summary

The need for skilled senior emergency nurses should not be underestimated. The majority of patients who present in an emergency care setting have undifferentiated and undiagnosed problems; the rapid identification of need and early intervention are fundamental. Ensuring that there is an effective ratio of qualified nursing staff to support workers (80% qualified to 20% support staff) is essential in providing effective care.

Pre-Hospital Emergency Medicine

Pre-hospital Emergency Medicine (PHEM) has continued to develop and as of July 2011 is now a GMC recognised and approved subspecialty of Emergency Medicine and Anaesthesia.

The College's PHEM subcommittee have been working closely with the Inter-Collegiate Board for Training in Prehospital Emergency Medicine (IBTPHEM) under the Chairmanship of Sir Keith Porter.

The IBTPHEM curriculum and assessment framework has now been approved by the GMC. Deaneries are in the process of setting up training programs in PHEM, with national recruitment.

Recruitment is planned to commence by August 2012. Further details may be obtained from the IBTPHEM website at www.IBTPHEM.org.uk

The CEM PHEM sub-committee is also now considering the revalidation of pre-hospital care doctors and career development opportunities at a regional level.

Interest within the College for PHEM remains high - a recent College survey with over 860 responses confirmed that 35% of consultants and Associate Specialists and 29% Trainees report that they are currently active in pre-hospital care, and 84% of EM trainees confirmed they were potentially interested in obtaining formal training in PHEM in the future.

Ultrasound

Development and current practice

EM ultrasound has changed from an enthusiast-based skill, to a generic service. In recognition of this the curriculum has been revised, to include EM ultrasound (EMUS) The College also has its own training manual, available without charge from the website (www.collemergencymed.ac.uk/Training-Exams/Training/Ultrasound training). Over 70% of EDs have access to a machine and many of these are now upgrading to more advanced machines.

Access to training has been greatly facilitated by the ENLIGHTENME project, and the key 6 sessions which cover EMUS are available, with appropriate certification, provided on successful completion. A key new development has been the web database developed by Dr Bob Jarman (http://ultrasoundregistry.tees.ac.uk) and this will create a register of those who have been signed off as competent.

The process and approach that has been used has been observed and copied by other specialties, in particular the competency based assessment, with a departure from insistence on absolute numbers of scans.

We have also developed an approach to level 2 competency, and it is possible to gain a Certificate in Focused Emergency Ultrasound (CFEU) from the CEM. The CEM website has details of this.

The FCEM deadline of 2013 for trainees to demonstrate core competency in EMUS has provided impetus to all trainees to become level 1 proficient. As a result, the "Finishing School" concept has been very successful.

What do I need to do if I want to train in EMUS?

The best approach is to register for the ENLIGHTENme project and complete the six EMUS sessions. Meanwhile it is important to get some 'hands-on' practice with a trainer. The term "trainer" in this context means a practitioner who has completed the core competencies and has practiced EMUS for at least 6 months. Their grade may be consultant, ST or staff grade or they may be a radiologist or sonographer who is familiar with the limited objectives of EMUS (detailed on the website). If sufficient practice can be obtained, a formal course is not required, but a selection of scans should be logged (on paper or disc). Eventually the trainee will feel that they are reaching the stage where they can function reliably. There are 4 areas in which assessment occurs, i.e. Focused Assessment of the Abdominal Aorta, Focused Assessment using Sonography in Trauma (FAST), Vascular Access and Echo in Life Support (i.e. assessment of the heart in cardiac arrest). At this stage the trainee must write reflective notes on at least 10 of their logged scans and then present themselves for "triggered assessment" in each of the 4 areas. The readiness for assessment is "triggered" by

the trainee. The layout of these assessments is shown at the rear of the CEM booklet, which also has some space for reflective notes.

Provided the trainee has completed theoretical training (evidenced by modules or a course) and hands-on training (evidenced by a log); a trainer can carry out the triggered assessments. When all four are signed off, core competency has been achieved, and the trainee should notify their regional ultrasound co-ordinator (the list is on the web) and enter the details on the web database.

Future agenda

The skills of some trainees are of a calibre at which they are aspiring to Level 3 (sub-specialty) practice, and work is underway to consider how this might be achieved. Meanwhile there is a good deal of inter-specialty liaison over training. In particular Intensivists and Acute Physicians aspire to the same common skills as EP's, and it will be worthwhile to explore the introduction of ultrasound into Acute Care Common Stem Training.

Overseas liaison has been considerable with training and research collaboration.

Finally, research in this enormous field is ripe for development.

Safety

Summary and recommendations

Patient safety is a major issue in all areas of healthcare. Large numbers of patients suffer harm as a result of healthcare errors. Multiple factors combine to make the ED a particularly high risk environment in which patients may potentially be harmed. Clinicians and managers must recognise this risk and ensure that appropriate resources are invested in reducing the risk inherent in the ED and so improve patient safety.

It is recognised that healthcare staff most frequently make mistakes because the systems, tasks and processes they work in and with are poorly designed.

Patient harm commonly occurs because the systems, tasks and processes for the delivery of care are poorly designed or inadequately monitored. The College Safer Care Committee (SCC) aims to raise awareness of patient safety; and to provide advice to the NHS to ensure that staff are appropriately trained and equipped to minimise the risk of harm to patients.

Background

Patients expect healthcare to be safe. Many doctors and other healthcare workers also assume this to be the case. It is recognised that a large number of patients are harmed as a result of healthcare interventions and treatments. In the NHS it is estimated that there are 300,000 to 1,400,000 adverse events each year. The financial cost of these to the NHS is in the region of £2 billion for unnecessary treatment and £400 million in clinical negligence claims.

Healthcare staff do not go to work expecting to harm a patient. If they do harm a patient they often do not realise that the harm is usually preventable. The ED is a particularly high risk environment for patient harm. Factors contributing to this include:

- Large and unlimited volume of patients
- Large teams of staff which change frequently
- Inexperienced and locum staff
- Lack of senior supervision particularly out of hours
- Diverse and undifferentiated patient presentations
- Stressful environment with high decision frequency
- Time limited assessment and interventions
- Interaction with and dependency on a wide range of other services.

The CEM Safer Care Committee

The Safer Care Committee's mission is to develop and disseminate patient safety and risk management strategies for the specialty. To achieve this aim the committee has:

- Established routes for sharing learning both within the specialty; and with external partners with an interest in patient safety and risk management
- Ensured that patient safety issues are considered where relevant in all areas of the work of the College
- Embedded patient safety into the curriculum for EM training at all levels
- Provided and supported the development of educational activities relevant to patient safety, including the development of non-technical skills and safety scenarios for inclusion in ENLIGHTENme: www.enlightenme.org
- Developed the safety section of the College website providing guidance and reference documents to support patient safety work in EDs www.collemergencymed.ac.uk/Shop-Floor/Safer Care
- Developed systems to categorise risk incidents to enable the reporting of incidents to the College
- Established a patient safety award to highlight the importance of patient safety and recognise outstanding work in this area within the Emergency Department.

Safety and Emergency Departments

The real work of improving patient safety has to take place at local level. Every ED should have a lead EM consultant for patient safety and hold regular patient safety meetings. The aim must be to establish a safety culture in the department and support staff in improving safety. Wherever possible this should be done in conjunction with the patient safety strategy for the whole hospital. Many of the risks identified will not be isolated to the ED; and many of the solutions to improving safety will involve other areas of the hospital.

The lead consultant for patient safety will require time in their job plan and support to perform this important role. Support may be required from management, information services, risk management and other professional groups. A specimen job description of this role and sample terms of reference and agendas for department safety and governance committees are available on the CEM website.

The following must be addressed in order to improve patient safety in the ED:

- Building a safety culture
- Leading and supporting staff in maintaining safe practice and challenging unsafe practice
- Developing staffing structures that provide senior supervision and decision making
- Risk management to identify and mitigate against known risks
- Promoting adverse incident reporting
- Patient involvement in designing systems
- Learning and sharing safety lessons
- Implementing solutions to prevent harm.

Examinations, Curriculum and Training

Summary and recommendations

- The competency based Emergency Medicine curriculum was approved by the General Medical Council (GMC) in 2007 and revised in 2010. It is up to date, evidence based and founded on the GMC's *Good Medical Practice* principles. The curriculum indicates those skills and behaviours that Emergency Physicians need to be effective and to communicate with patients, carers and their families and how these are assessed
- The training programme, as currently structured, was launched in 2007 and has since been fine tuned. Training takes a minimum of six years and aims to deliver the competences the NHS requires of doctors running a modern emergency care system
- Schools of EM, in conjunction with postgraduate deaneries, run local training programmes, monitor trainee progress and quality assure training placements
- Trainers must have scheduled educational time to undertake workplace-based assessments as recommended by specialty schools and the GMC
- Schools of EM provide a focus for development of staff grade and associate specialist (SAS) doctors and local continuing professional development (CPD)
- The examination for Membership sets the level of competency expected for doctors who perform at middle grade level in EM in the UK and the Republic of Ireland. It is founded on educational principles and evidence from research and is regarded by candidates as fair and relevant to EM practice
- The examination for Fellowship sets the level of competence expected for doctors who undertake consultant roles within the ED. It tests a wide range of competences including clinical, academic and managerial skills
- For trainees, these exams are supported by workplace-based assessments and an annual review of progress (ARCP), all contributing to a robust assessment package for EM training
- A key College objective is to provide more support and development for trainers.

The curriculum

The EM curriculum has been in place since 2006. The curriculum describes the knowledge, skills and attitudes needed for future consultants. It also describes the assessment tools that are used to ensure trainees meet these standards. The knowledge base required for basic sciences that underpin EM practice has been developed using results from ground-breaking internationally recognised research. The curriculum is central to successful EM training and practice. Both trainers and trainees need to be familiar with the content of the curriculum as it continues to evolve to reflect EM practice and how we can best meet the needs of our patients. It is not anticipated that there will be major changes to the content of the curriculum over the next five years.

New skills have been added to the curriculum and by 2012 all those completing their training at that time will have advanced airway skills and ultrasound skills (Level 1).

Assessment processes

The College seeks to ensure that individual doctors meet the required standards by a process of continuous assessment using work-based tools, yearly reviews of progress, and examinations. The examinations are aimed at assessing competence at two levels, the first level assessing competence to act as the experienced doctor in the department (MCEM), the second to act at consultant level (FCEM).

The examination components continue to evolve. Rigorous quality assurance will continue and be supported by educational research.

The examination for Membership (MCEM)

The Membership examination tests basic science and clinical knowledge (Parts A and B). Part C tests the application of clinical, communication and team working skills in an objective structured clinical examination (OSCE). Research has shown that candidates judge the exam to be fair and to be relevant to clinical practice.

The pass rate in the Part A is improving with the development of the ACCS programme. Consideration will be given to the most appropriate instruments for evaluating this basic science knowledge. Parts B and C will remain largely unchanged with enhanced mapping to the ACCS year 1 & 2 and core training year 3 curriculum.

The examination for Fellowship (FCEM)

The final examination will continue though with the introduction of some modularisation. The critical appraisal paper is now sat from ST4 onwards. The clinical examination is mapped to the HST curriculum with a focus on high cognitive and analytical skills and applying the competences learnt in core training to difficult or unexpected presentations.

The College is sponsoring a project to review the Fellowship examination with an expected delivery date of recommendations of autumn 2012 with changes to the examination in spring 2014. This may include the use of more sophisticated simulation, ultrasound and other assessment methods.

The examinations must reflect EM clinical practice. Thus the examination process will reflect the severity, frequency, reversibility, morbidity and mortality of the conditions experienced by patients cared for by Emergency Physicians (EP's). The GMC requires that the College reports the results of each of the component parts of MCEM and FCEM exams by Deanery. These reports are available on the College website.

The EM training programme

The training programme for EM has been extensively reformed over recent years. The objective of this reform was to produce doctors with the skills required by the modernised NHS. Therefore, there is an early emphasis on high level Critical Care

skills and Acute Medicine skills, reflecting the change in case mix attending the ED. The aim is to equip EPs with a level of skill that will allow more self-sufficiency in the initial care and stabilisation of seriously ill or injured patients. Equally, the training continues to include ambulatory care of patients with injuries and illnesses recognising that the ED is key to the safe provision of care for these conditions 24 hours a day.

After two years of Foundation training, EM specialty training will take a minimum of six years. Entry into Higher Specialty Training (HST) (year four to year six) is by competitive application after core training has been completed. The minimum criteria for entry to HST will be evidence of satisfactory competences gained during the two year Acute Care Common Stem (ACCS) and the third specialty specific core training year (CT3). This evidence comprises completion of the workplace-based assessments specified in the curriculum, yearly reviews of progress and success in the MCEM examination (Figure 3). It is possible to go out of programme to gain experience in areas of special interest or to travel during higher training but such time is likely to extend training time.

Those clinicians in fixed-term specialty training appointments (FTSTAs) and SAS posts wishing to pursue a career in EM should adopt the same educational goals and competences as those within training programmes.

Acute Care Common Stem (ACCS)

The ACCS programme comprises training in acute internal medicine, anaesthetics and critical care as well as EM and is central to the development of the specialty. The College chairs the Intercollegiate Committee for ACCS training. Close working with the other specialties that run ACCS programmes is important in the development of this initiative.

Career grade pathways and support for SAS doctors

SAS doctors and those in other non-career grade posts form a key component of the EM workforce. SAS doctors are represented on the College Council and regional boards. Twenty seven EM doctors working in SAS posts have successfully gained entry to the Specialist Register by applying to the GMC for a Certificate of Eligibility for Specialist Registration (CESR).

Doctors in these posts who are working towards CESR must be able to demonstrate that they have reached a standard equivalent to a CCT holder and therefore have the same educational requirements as trainees in formal training schemes. They are strongly recommended to adopt the same educational goals using the College curriculum and assessment tools such as workplace-based assessment. The process is exacting and any SAS doctor preparing to make an application is advised to seek advice from local EM trainers. The College is committed to providing appropriate CPD for SAS doctors working in the ED.

Schools of Emergency Medicine

Schools of EM are established within the Deanery structure in all regions in England. Similar structures supporting training are in place in Scotland and Northern Ireland.

Schools act as a focus for training and education for all EM doctors, including SAS doctors.

Schools of EM, in conjunction with postgraduate deaneries, run local training programmes, monitor trainee progress and quality assure training placements. They provide a focus for development of SAS doctors and local continuing professional development (CPD).

Trainers

The College recognises the pivotal role of trainers in the delivery of the training programme. The College intends to help trainers by:

- Providing national training days which will focus on the assessment process, the important role of the educational supervisor and Annual Reviews of Competence Progression (ARCP)
- Providing help to become more effective teachers in our day to day practice
- Providing educational support in the form of e-learning and study days, run both at the College and regionally.

It is anticipated over the longer term that there will be a trend towards trainee summative assessments being undertaken regionally. Thus, the intention is to support each region in developing a larger cohort of examiners who can undertake such assessments and would also participate in the College examination process.

The input of other specialists to our training programmes is very helpful. However, only EPs have a true understanding of the issues that face EM. EM will need to become more self-reliant in providing its own training.

The College supports the adoption of new knowledge, skills and techniques shown to improve the care of our patients. The College supports, for example, the increasing use of ultrasound and greater airway expertise. It can be expected that new areas will emerge (for example, focused echocardiography) requiring additional training and support.

Training centres can anticipate the need to demonstrate their effectiveness against standard criteria. More time will be needed for the provision, assessment and organisation of training. The protection of that time against a background of service demand is central to the maintenance of training standards. This must be reflected in job planning for both existing consultants and new appointments. It may be that, in the future, some departments will elect not to deliver specialty training but to focus on providing clinical care with senior ED doctors (consultant and SAS) whilst other departments concentrate on providing the highest possible standards of training alongside clinical care. Sufficient resources must be provided for each model.

Continuing Professional Development

Continuing professional development (CPD) is the process by which individual doctors keep themselves up to date and maintain the highest standard of professional practice.

Participation of a doctor in CPD is a core part of the process of revalidation as set out in the Chief Medical Officer's Report, *Medical Revalidation – Principles and Next Steps*.

The College of Emergency Medicine is a signatory to the Academy of Medical Royal College's *Ten Principles for CPD*.

An individual's CPD activities should be planned in advance through a personal development plan, and should reflect and be relevant to his or her current and future profile of professional practice and performance. These activities should include continuing professional development outside narrower specialty interests. (Principle 1)

In order to quality assure their CPD system, Colleges/Faculties should fully audit participants' activities on a random basis. Such peer-based audit should verify that claimed activities have been undertaken and are appropriate. Participants will need to collect evidence to enable this process. (Principle 8)

It will be the responsibility of individual doctors to ensure that they undertake a range of CPD activities that reflect the local and national needs of their practice and their own learning needs.

The GMC will require documented proof of CPD as an essential component of the information needed for successful appraisal and revalidation. A CPD record is one of the six types of supporting information that will be expected to be provided and discussed at appraisal.

CPD belongs to the individual, but there is a need for the organised collection of evidence of appropriate activity, together with some audit of the adequacy of any individual's programme.

CPD is not an end in itself. In the face of potential restrictions to study leave it is very important that individual doctors consider their own learning needs and make sure that they plan relevant CPD taking care to keep an appropriately broad range of activities.

CEM CPD role

In accordance with Principle 8 the College has an electronic recording system so that individuals can register their CPD with the College. This system ultimately will be integrated into an e-portfolio so that all supporting evidence can be kept in one place. The College CPD Director will select at random a proportion of those electronic records for audit and provide feedback to individuals as well as supplementary guidance to the Fellowship about CPD recording. The College will

improve the CPD site so that it is easier to record supporting evidence about CPD activities that are self-accredited.

The CPD Director and CPD team at the College provide written guidance on CPD (Regulations) and direct advice to Fellows/Associate specialists about their individual circumstances and CPD requirements.

The College approves individual CPD events. Course organisers are asked to complete an application form which requires clear educational objectives, linkage to the CEM curriculum and an explicit statement about conflicts of interest.

The College provides a diary of CPD activities around the country so that the College members are aware of educational opportunities.

The College organises CPD events which are relevant, accessible and affordable. The Spring CPD event – three days of pure CPD has proved very popular and will continue to be an important contribution. The College intends to make more of the lectures at specific events accessible to non-attendees by making them available on the CPD website and College hub.

Revalidation

The purpose of revalidation is to assure patients and the public, employers and other healthcare professionals that doctors are up to date and fit to practice. The GMC has established a programme board to oversee the practical delivery of medical revalidation across all four countries of the UK. In addition there has been widespread consultation and several pilot projects (pathfinder projects) in an attempt to identify and rectify problems. The college has been actively represented on the Academy of Medical Colleges' Revalidation Steering Group (ARSG) and Development Group (ARDG). It is planned that revalidation will be introduced in the latter part of 2012.

What has not changed is that every doctor wishing to practice medicine in the UK must be registered with the General Medical Council (GMC). Those wishing to take up a consultant post must be on the Specialist Register. This is sometimes also referred to as certification as it requires either a certificate of completion of training (CCT) or a certificate of eligibility for specialist registration (CESR).

Since November 2009 any doctor involved in patient care also requires a license to practice. This is viewed as the first step towards revalidation. Without this they will not be able to prescribe or sign any statutory certificates that are routinely part of practice in the NHS. Licenses will require periodic review and in future will only be issued if the doctor has undergone a successful revalidation process.

Revalidation will be required every five years, informed by an enhanced and robust process of annual appraisal. Thus ensuring a continuing evaluation of fitness to practice. As yet it is not clear exactly how this will commence, as clearly every current doctor cannot be expected to revalidate simultaneously in 2012.

Organisations employing doctors are required to identify Responsible Officers (ROs) who will make recommendations to the GMC about an individual doctor's suitability for revalidation but the final decision rests with the GMC. In most NHS trusts the designated RO is the Medical Director, though it is likely that they will devolve some of this workload to deputies. However the RO is ultimately responsible for the system of appraisal and revalidation within the organisation. Doctors practicing in small organisations or isolation will be required to identify an appropriate RO. Those who have complex work patterns e.g. combine Emergency Medicine with another specialty or primary care will be required to revalidate in all disciplines but need only have one annual appraisal provided all relevant areas of practice are reviewed.

An important principle is that individuals revalidate and prove competence in the sphere of work in which they practice. For example, a consultant working in a department which does not deal with children will not have to provide evidence they are competent in the treatment of paediatric emergencies. Similarly a staff grade doctor who is only expected to work in a minor injuries setting does not need to demonstrate the abilities required for managing major trauma.

What does this mean for a member or Fellow of the College?

Fitness to practice will be reviewed against the standards of competent practice set out in the GMCs core guidance *Good Medical Practice* (November 2006). The framework consists of four domains which cover the spectrum of medical practice. They are:

1. Knowledge, skills and performance
2. Safety and quality
3. Communication, partnership and teamwork
4. Maintaining trust

Each domain is described by three attributes and these in turn define the scope and purpose of each domain.

It is not essential to structure an appraisal formally round the framework or to map supporting information directly against each attribute, although some doctors may prefer to do this and appraisers may find it a useful way to structure the interview. It is likely that should GMC involvement be required adherence to this structure would be advised.

Clinicians will be expected to gather supporting information about their practice throughout the year and review it with their appraiser annually. This supporting information should form the basis of the discussion with your appraiser.

A set of generic core standards for all doctors and suggestions for supporting information or evidence has been agreed and is available on the GMC website. These have been mapped against the Good Medical Practice domains and attributes. In addition the College has developed a set of standards specifically for those in Emergency Medicine. These will be revised as experience of the process is gained. The guidance includes a combination of mandatory and suggested evidence. Not all the supporting information will be required at every annual appraisal e.g. colleague and patient feedback reports, though this will be required within the five year revalidation cycle. However, some information e.g. evidence of continuing professional development will be necessary every year.

What does this mean for the College?

The role of training and providing appraisers belongs to employing organizations, though some of the larger Colleges consider this as part of their function. The CEM has a network of regional revalidation leads who form the Revalidation Committee. They will be available for training, advice and support concerning the specialty standards.

The College will continue to provide an electronic recording service for CPD and ENLIGHTENME as an e-learning source. There is on-going work to develop a specialist e-portfolio for collection of additional information and evidence. The complexity of IT systems involved in health care make this particularly challenging.

In the future it is envisaged that the College will have a major role in supporting those members who require assistance with revalidation and remediation. The

National Clinical Assessment Service (NCAS) has gained substantial expertise in remediation in the past. It is envisaged that it will continue to exist as a self-funding organization.

Several college members serve as NCAS assessors.

www.gmc-uk.org/doctors/revalidation/revalidation_relicensing.asp

Elearning - ENLIGHTENme

Introduction

The College of Emergency Medicine (CEM) has over the past 5 years developed a strategy for a virtual learning environment (ENLIGHTENme) for its Members and Fellows. ENLIGHTENme aims to provide a comprehensive web-based solution to meeting the educational needs of the Emergency Physician in the 21st century. ENLIGHTENme is designed for trainees, FASSGEM doctors and consultants in EM in the UK and Ireland. In addition materials are also available that will be of use to students on attachment in ED and Foundation doctors. The project is also attracting international attention and potential collaboration.

The main platform is the Hub at www.enlightenme.org. Collaborations are also on-going with the Dept of Health's eLearning for Healthcare programme (CEM - eLfH) and Doctors.net (for Foundation doctors). These developments are in addition to excellent regional and departmental learning initiatives that have been developed and are continuing to evolve.

What will ENLIGHTENme provide?

The key attributes of the web-based platform (www.enlightenme.org) are:

- Evidence based reviews in Emergency Medicine for knowledge acquisition and decision support
- Short "point of care" learning summaries that are available on mobile devices
- Educational modules with embedded self-assessment tests covering the Emergency Medicine curriculum.
- Tailored short quizzes to provide formative self-assessment and improve key cognitive, psychomotor and attitudinal skills.
- Sharing good practice in clinical care as well as managerial and leadership activities within the Emergency Department setting through a variety of different techniques using a virtual ED – "St EM-ER".
- Peer academic networking nationally and internationally in Emergency Medicine
- Development of personalised "intelligent" portfolios to capture progress in self-development and maintenance of skill sets.

Other collaborations and future opportunities

The College has developed a relationship with the Department of Health's e-learning for healthcare (eLfh) programme though this was curtailed to some extent by the austerity measures affecting the NHS. At present the CEM-eLfH platform has over 110 eLearning modules with pre- and post- test self-evaluation for trainees and CPD for consultants and FASSGEM doctors. We hope that this collaboration with the DH will continue over the next few years on a smaller scale.

In addition, the College has continued a collaboration with Doctors.net to provide eLearning materials for Foundation doctors working in the ED and others involved in emergency care. This will be supported by the materials that evolve on the College

Hub and will be especially helpful in supporting consultants delivering regular education to this group of doctors.

In the future we hope to form collaborations with other partners internationally that will harness the strengths and expertise of Emergency Physicians from around the world and find ways to support the education of emergency care health workers in developing countries.

Research and Publications

Summary and recommendations

Emergency Medicine research has been very successful over the past five years in establishing a number of nationally recognised research units.

EM researchers are now winning large grants and publishing in leading national and international journals. However, the research base is still small compared with other specialties.

A functional clinical research network has been developed, enabling some success in large multi-centre trial methodology. However, the number of patients registered in clinical trials in EDs remains very small compared to the clinical base of the specialty. The entry of patients into clinical trials should become a core skill of EM clinicians and should be given priority in departmental work plans.

Academic training schemes have been established but more needs to be done to foster academic training. To this end the College is establishing part funded PhD studentships. The College will continue to:

- Encourage development of the Emergency Medicine Journal (EMJ) as a journal with an international reputation
- Publish evidence-based guidelines developed through the GEMNET system
- Promote academic excellence through its high quality annual scientific meetings
- Grant awards and the recent appointment of two College Professors.

Introduction and background

An effective academic base is vital to provide the evidence to develop the practice of EM. EM has become firmly embedded in the clinical systems for acute care in the UK and Republic of Ireland, and is now starting to develop a firm academic structure in the UK. In the research assessment exercise (RAE) in 1999 no Emergency Physicians (EPs) were 'returned' by UK universities. In RAE 2008 six academics in EM were included in the 'returns'. This demonstrates a rapid improvement in the quality of output and number of EM academics; however, the number is still very small compared to many other specialties, and is disproportionately low compared to the total number of EPs.

The background to academic EM has been rapidly changing. The most important research programmes for EM are the Health Technology Assessment (HTA) and Service Delivery and Organisation (SDO) programmes. These two programmes have provided most of the recent funding for EM research. The MRC has also funded some high profile EM projects. The National Research Ethics Service (NRES) is vital for the conduct of large research projects. It consists of a co-ordinating centre at the Central Office for Research Ethics Committees (COREC) and the Research Ethics Committees (REC). RECs are now becoming increasingly specialised (especially for areas such as paediatrics, incapacitated subjects, and tissue-based research).

Future development of academic Emergency Medicine

In order to develop the academic basis for EM we need to look at the types of research that EM will need in the future and the College's role in creating the people and infrastructure. EM clinical practice needs expertise in:

- Evaluation of technologies – drugs, interventions, diagnostics, methods of risk stratification, service delivery and organisation
- Secondary research – synthesis of the evidence into Cochrane reviews and health technology appraisals.

A research project consists of subject content, methodology and delivery. We will always be in competition with other specialists about the subject content, for example cardiologists will have as great a content expertise (or maybe more) as an EP on the acute management of a myocardial infarction. The key 'competitive edge' or 'added value' that can be provided by EPs is knowledge of the methodology of emergency care research and the ability to deliver a research project in a challenging environment.

Our future strategy should therefore be to develop (1) our methodological expertise and (2) our systems for delivering the research. The first will be undertaken by academics. However, the second will require a much wider engagement of EPs within the NHS.

Emergency Medicine academic centres

Academic centres are defined by criteria developed for the research assessment exercise (value of research grants and impact of published papers). Current academic capacity within EM is below our requirements, so we need to develop additional centres, with an additional three university academic units over the next five years.

Most EM academics currently work in units that are below a critical mass. Over five years we should aim to have a minimum of three substantive academic posts in each academic unit. We should encourage more specialisation so that each centre has a particular expertise and track record in a particular methodology or research area.

Contribution of non-academics

The delivery of future EM research will require the contribution of many EPs who are not in academic posts. One of our major strengths is the vast number of patients who attend our EDs. We must engage all EPs in entering patients into clinical trials and EDs in participating in research projects as these activities cannot only be undertaken by the relatively few academic centres. Our training programme must provide the knowledge, skills and attitudes that allow this to happen. Our job plans must recognise that most EPs should devote time to patient recruitment for clinical trials. This can now be facilitated by funding from the Comprehensive Research Networks (CRN) for Portfolio studies. (A Portfolio study is one on the National Institute of Health Research (NIHR) Portfolio of recognized studies, this involves the study being funded by a recognized NIHR partner such as HTA/MRC/Wellcome/CEM and being adopted by the CRN.)

CEM grants

CEM has now been recognized as an NIHR Partner - effectively doubling the value of these annual competitive awards. It is no surprise therefore that these grants have been highly competitive in 2009 and 2010 and are a significant opportunity for academic development.

Training

There are two types of training programme in EM; the standard programme; and the academic programme.

Standard EM training programmes

The research content of standard EM programmes needs to support pragmatic, clinically based, research which must be applicable to everyday practice. Such research cannot be carried out in the 'ivory towers 'it must be carried out in typical emergency medicine settings. So, EM research must substantially take place in non-academic centres, usually with many EDs co-operating in large multi-centre studies. This means that every EP must play their part – and in order to do this our training programmes must provide:

1. Competence in Critical Appraisal
2. Knowledge of the international conference on harmonisation of technical requirements for registration of pharmaceuticals for human use-Good Medical Practice (ICH GMP)
3. Attitudes that promote collaborative research

Academic EM training programmes

We need to develop an academic training strategy that is structured, yet flexible. The following elements should be incorporated:

- Academic Foundation Year 2 EM posts
- Academic EM ACCS programmes
- Academic clinical fellowships
- PhD (funded fellowships)
- Academic clinical lecturer
- Academic senior lecturer.

The building blocks of such a system are all in place, but we need to put them together to give trainees a clear vision of an academic training pathway and provide support for those individuals choosing this career path.

Recognition of academic contribution

For the large multi-centre research projects needed in EM it is not possible for all contributors to be authors on the published papers that result. However, we do need to create mechanisms by which all participants in research projects can have their contribution acknowledged through the appraisal system, the Clinical Excellence

Awards Scheme and the Research Excellence Framework Assessment Exercise. There is also the need to create an ethos within EM that research is important enough to have time spent on it for the good of the specialty without personal reward and have research time recognised within job plans for EPs.

Publications

The Emergency Medicine Journal (EMJ) is gaining a deserved national and international reputation. The College will continue to foster development of the Journal.

The College will also ensure closer collaboration with other educational projects such as e-learning.

Standards and guidelines

The Clinical Effectiveness Committee will continue the publication of evidence-based guidelines developed though the GEMNET system. The professional standards committee will publish service guidelines and standards.

Website

The website will become the hub of College communications. It has recently been updated and further development is planned.

Northern Ireland

Emergency Medicine in Northern Ireland has been through a period of rapid change. Currently reconfiguration, of departments and services, refurbishment and rebuilding of Emergency Departments, and an expansion of the consultant workforce are enabling EM to move beyond its historical resource constrained base. Attendances continue to rise by over 5% per year with some departments reporting a 21% increase over 3 years.

The School of Emergency Medicine is now well established with a Head and Deputy Head of School. It continues to push forward the Emergency Medicine agenda in trying to secure more training places and expand and explore the ways to deliver Emergency Medicine training in Northern Ireland.

Currently the four hour standard persists but the College in Northern Ireland is working with the Patient Safety Forum of the Department of Health, Social Services and Public Safety, Northern Ireland (DHSSPSNI) to look at outcome based quality measures for Emergency Medicine. The challenge for Emergency Medicine is to deliver the highest quality care for time sensitive conditions. To achieve this goal requires the provision of appropriate resources to Emergency Medicine consultants.

Whilst the number of consultants in Emergency Medicine has risen, numbers are still well short of College workforce recommendations in all departments. Recruitment to junior tiers has been difficult and most departments are locum dependent. We have seen the loss of some of our experienced middle grades, for a variety of reasons, and struggle with ways to replace this invaluable resource. We are in contact with our commissioners and DHSSPSNI on workforce issues as this remains the most pressing problem particularly in light of the rising attendances.

The issue of delivering care to all the communities in Northern Ireland including those that are geographically remote is a problem seeking a solution. Innovative ideas are already being tried and for the future novel solutions must be found to deliver a high quality, sustainable service. This work will be in conjunction with region-wide reviews of the way emergency and urgent care in all specialties is delivered.

The College remains a nascent body in Northern Ireland but we have recently had the FASSGEM conference held in Belfast and a visit by the President of the College to meet with Members and Fellows in Northern Ireland. This year will see on-going change as the local College structures allow for succession of College officers.

The College of Emergency Medicine in Northern Ireland will continue to promote our specialty. Whilst due to statutory and regional variances local solutions must be found to local problems the importance of being part of the larger organisation should not be understated. There is an enormous amount of good work being done centrally by the College; the ability to use that expertise is self-evidently important.

Republic of Ireland

Summary and recommendations

- The Irish Association for Emergency Medicine (IAEM) is the representative body for consultants, trainees and non-career grade doctors in Emergency Medicine (EM) in the Republic of Ireland
- The National Board for Ireland of the College of Emergency Medicine (NBICEM) works very closely with IAEM to further the development of emergency medicine in Ireland
- The Emergency Medicine Programme (EMP) is one the five clinician-led acute care National Clinical Programmes being developed by the Health Service Executive (HSE) to provide the framework for the delivery of all publicly-funded health care in Ireland over the coming decades. The EMP will recommend the establishment of a number of Emergency Care Networks, with one or more 24/7 Emergency Departments (EDs) in each network, working to either a "hub-and-spoke" (one central major ED with linked units with limited opening hours) or collaborative (more than one 24/7 ED with linked units with limited opening hours) model
- There are plans for significant expansion in consultant and specialist registrar (SpR) posts
- The Irish Committee on EM Training (ICEMT) directs training. NBICEM and IAEM are strongly represented on ICEMT. A period of basic specialist training of at least three years is followed by a five-year higher specialist training programme in EM.

Introduction

There are currently 32 24/7 EDs in the Republic of Ireland. Service re-organisation and the influence of the EMP and other national Clinical Programmes will lead to a smaller number of larger EDs in the near future. IAEM is a strong supporter of properly delivered reconfiguration, as espoused in its position paper available here.

Staffing

There are currently 62 whole-time equivalent (WTE) consultants in EM posts serving a population of 4.2 million. The Department of Health and Children (DoHC) and the HSE have a stated intention to expand consultant numbers significantly in the next few years. 14 new posts have been approved nationally in 2011 and a smaller number of additional posts is anticipated in 2012, as part of a systematic increase in consultant numbers required to bring Ireland up to international norms for numbers of consultants in EM.

The EMP envisages a move to a 12-hour day, seven day a week, model of consultant shop floor presence, requiring ten WTE consultants per ED. In addition, the programme will recommend the establishment of a grade of senior doctor akin to the SAS doctor in the UK, rather than the current ad hoc situation that applies to some practitioners. IAEM and NBICEM support these plans.

Training

Training in EM is directed by the Irish Committee on Emergency Medicine Training (ICEMT). Training in EM requires a minimum of three years' general professional training (GPT) after completion of Internship (pre-registration house officer year) and five years higher specialist training (HSTEM).

A National Basic Specialist Training Programme in Emergency Medicine (BSTEM) was established in 2011. This is of three years duration, with a year in Emergency Medicine and six months each in Paediatric Emergency Medicine, anaesthesia/critical care, Acute Medicine and Trauma & Orthopaedics or Plastic Surgery. Candidates are expected to pass the Membership of the College of Emergency Medicine (MCEM) examination during BSTEM.

The duration of HSTEM is five years, of which a minimum of three years must be spent in the practice of EM on the HSTEM programme. Completion of training requires a satisfactory record of in-training assessment (RITA) from ICEMT and success in the Fellowship examination of the College of Emergency Medicine (FCEM).

Certification of satisfactory completion of specialist training

The Irish Surgical Postgraduate Training Committee (ISPTC) is the training body currently recognised to advise the Medical Council on completion of training in the specialty of EM and for entry on the Register of Medical Specialists.

For current trainees in Ireland, the requirements for certification of completion of training in the specialty are that they should have satisfactorily completed a HST programme in EM in educationally approved posts and passed the FCEM examination. Fulfilment of these two requirements triggers a recommendation for accreditation by ICEMT. This recommendation is certified by the ISPTC at which stage a certificate of completion of training (CCT) is issued.

A process exists for recognition of training of doctors outside of the Irish HST Training programme. Those recommended for accreditation in the UK or those who have completed full EM training in Australasia, Hong Kong or Singapore are deemed to have acceptable qualifications for entry to the Register of Medical Specialists in Ireland. Those trained in EM to Specialist level in an EU country are entitled to reciprocal Specialist registration in EM in Ireland.

Future developments

The soon to be launched Emergency Medicine Programme (currently in draft form), if successfully implemented, represents the most significant development in the system of emergency care delivery in Ireland.

It is accepted in a recent review of ED overcrowding that there are significant infrastructural deficits in Irish EDs and that even many recently opened or redeveloped EDs have substandard facilities.
www.hse.ie/eng/services/Publications/services/Hospitals/ECTaskForce.html

IAEM has produced a detailed paper on ED design and specifications in October 2007, outlining the standards to which EDs should be redeveloped.

www.iaem.ie/images/stories/iaem/publications_position_statements/2007/iaem_standards_for_ed_design__specification_for_ireland_300907.pdf

There is an urgent need for a national programme to rapidly upgrade and improve ED infrastructure particularly in view of the current and impending reconfiguration of services which will place greater pressures on the smaller number of departments left open to provide the full range of EM services.

A six-hour target for 95% of all patients attending EDs to have left the ED, is imminent, being driven by the Special Delivery Unit of the DoHC which should result in significant improvement in patient welfare and staff working conditions.

The provision of high quality clinical information systems in Irish EDs is inadequate, with plans to rectify this being recommended in the EMP report.

The benefit of the development of clinical decisions units (CDU) and/or observation wards as an integral part of EM have yet to be fully realised in Ireland but the EMP plans to rectify this deficit.

Community and social services are poorly developed in Ireland and tend to operate on an office hours basis. These services need to be significantly expanded so as to facilitate the safe discharge from the ED of patients who may require community support.

Scotland

There continue to be significant differences in the organisation of the Health Service on either side of the border and the Scottish Government continues to put more emphasis on a non-market based healthcare system.

The Scottish National Board of the College of Emergency Medicine recognise that while many of the challenges we face in the future configuration of emergency care are shared throughout the UK, there are issues which are particular to Scotland and the system of healthcare we have in place. This will inevitably lead to the Scottish Board requiring a degree of autonomy in its approach to developing systems and finding solutions issues specific to Scotland. In acknowledgement of this a Scottish version of *The Way Ahead* was produced last year and it is planned that this will be updated and rewritten in 2012.

Following the formation of the Scottish National Board engagement with the clinical service has been paramount. Two national meetings are being held each year both to inform and listen to concerns. These take the form of a clinical meeting, where best practice is shared, and a business meeting, which will be used to inform the review of the Scottish *Way Ahead* document. In addition the Scottish National Board meets with the clinical leads throughout Scotland yearly and the Chair meets regularly with the Scottish CMO.

There are significant challenges ahead for the Emergency Medicine community in Scotland. Among these are the need to find solutions to the current workforce shortfall and increasing difficulties with access block. The National Board will continue to work to address these and other areas of concern to our service. The updated version of The *Way Ahead* (Scotland) will outline policy and strategy for our services.

Wales

In Wales, responsibility for health lies with the Welsh Assembly Government (WAG). This is overseen and monitored by a National Unscheduled Care Board, jointly chaired by an appointed Director of Unscheduled Care and the CEO of a Health Board.

The strategy of health care delivery differs as there is no internal market (purchasing or commissioning) in Wales.

All health care is delivered by 8 Local Health Boards (LHB), which include primary, community, secondary and tertiary care. They are funded directly from WAG and payment by results does not exist.

The rural geography, difficulties in transport and sparsely populated areas cause significant difficulty in logistics of health care delivery.

The main Emergency Departments are spread along M4 (south) and A55 corridor (north) in Wales with attached Minor Injury Units (MIU). There are no plans for urgent care centres to date.

Social deprivation, tourism related activities and trauma profile make the disease spectrum different from England.

Although the 95% 4-hour performance target has been retained in Wales, NHS Quality Indicators are currently under discussion for adoption.

There are slight differences in the consultant contract, with cautious adoption of unsocial hours working by EM consultants.

International

The College of Emergency Medicine is established to serve and represent the Members and Fellows of the College. Whilst most live and work in the UK and Republic of Ireland many work overseas. Moreover the College actively seeks to collaborate with similar Colleges and organisations overseas. In so doing the College aims to develop new ideas and strategies for the relief of sickness and ensure UK and ROI practice is up to date and relevant to modern international emergency medicine.

The International Committee of the College promotes links with the International Federation of Emergency Medicine (IFEM) and the European Society of Emergency Medicine (EUSEM) as well as many other organisations and colleagues. The committee coordinates the work of Fellows and Members in other countries and supports collaboration in a range of academic and educational areas.

The College recognises the imperative to work collaboratively with other countries, particularly in the EU, to develop a common vision of high quality care and excellent standards of training for all Emergency Physicians, enabling cross-border working and enhancing patient safety. This is increasingly important in the modern EU and will be a focus of the International Committee and Education and Examination committee over the coming years, working with the GMC and other statutory bodies to ensure safe high quality care.

EMTA

Summary and recommendations

EMTA is working with the College to develop a trainee/ trainer charter which is aimed at promoting further improvements in EM training and thereby improve yet further the clinical care provided to ED patients.

- Emergency Departments (EDs) are a unique environment in which to train. The nature of the work should be reflected in the training opportunities provided
- Emergency Medicine (EM) specialty training, comprises 2 years of ACCS posts, 1 year of ST3 EM and Paediatric EM posts, followed by 3 years (post MCEM) of Higher Specialist Training. The purpose of the training scheme is to produce doctors competent to take up consultant posts
- There needs to be urgent expansion in the numbers of consultant posts to improve both service provision to patients and supervision of trainees
- EM trainees are encouraged to develop special interests within EM and this will require more posts aimed at trainees developing these extra skills e.g. Intensive Care Medicine, Paediatric Emergency Medicine and pre-hospital care
- Senior EM trainees provide large amounts of service provision and supervision of more junior staff, especially out of office hours. They should be directly supervised by an EM consultant at least one third of the time they are in the department. This proportion should increase as more EM consultants are appointed
- Quality training time requires a high level of organisation and the quality of this training should be signed off by EM schools
- Study leave is vital for some core training and budgets for study leave should be sufficient for these core courses
- The Emergency Medicine Trainees Association (EMTA) has become part of the College. This provides an improved means of communication with the College executive and College committees
- Trainees have regional as well as national representation
- There are significant differences to training programmes in the Republic of Ireland.

EM training is unlike training in any other specialty. Nowhere else do trainees need to manage every patient within such a narrow timeframe. Nowhere else is the influx of patients so relentless and the demand to maintain patient flow so pressured.

EM trainees help maintain throughput against the four-hour target. This may have a direct impact on their training needs. As with training in many specialties, there is a fine balance between service provision and training needs in Emergency Medicine and this should be reflected in the resources available to EM trainees and trainers alike.

Modernising medical careers (MMC) and new training programmes

The new training programme is described in detail in other documents. Trainees have welcomed the new approach to training and strongly believe that this programme produces doctors ready to take up consultant posts. As with all major changes, there have been some problems with some posts and EMTA will be working with the College to ensure high quality training across the country.

While trainees have concerns that MMC and the EWTD could have a negative impact on training, particularly in this unique environment, the College has done a huge amount of work to offset these constraints i.e. developed a curriculum and electronic training resources and portfolio; striven to improve and develop the delivery of training in departments; and refined workplace-based assessments and examinations that will reliably assess progress through formative and summative assessment. Trainees have confidence that these measures will counter the reduction in time available for training and allow them to achieve the required competences and skills as long as trainers have sufficient time for supervision and support of trainees.

Teaching time should be protected (for trainees and trainers alike) and scheduled training opportunities should not be supplanted by departmental pressures.

The introduction of MMC has led to a large increase in the number of trainees. (see below). This increase is concordant with the College aim to establish a minimum of 10 consultants per department by 2012. However there needs to be real and sustained expansion of consultant posts over the next five years

Estimated numbers of new CCT holders per year

2008	2009	2010	2011	2012
125	125	125	325	200

MMC results in trainees having a relatively brief time to achieve the level of skill and experience previously acquired over substantially longer periods.
EM training is mapped to the CEM curriculum, focused on knowledge and competences specific to EM, and predominately delivered within the ED.

Trainee representation

EMTA is working closely with other organizations such as the British Medical Association (BMA) and the Academy of Medical Royal Colleges. Through EMTA representations EM trainees have the opportunity to use their voice at the highest levels including on working groups within the Department of Health (England).

EMTA provides trainee representation to all levels of College activity, and to external agencies.

Each UK Deanery has a Specialist Training Committee that oversees the structure, organisation and quality of training. The majority of these invite a trainee to sit on the committee to provide feedback to and from the trainees. To date, this has been an informal arrangement and not a requirement.

The College structure has established a regional committee in each DH region. A trainee representative is elected by their peers regionally to sit on these committees and represent the trainee body in that region. They in turn can feed back to the EMTA executive about any regional matters, and can act as a route of communication between the trainees and the executive. These regional trainees collectively comprise the Council of EMTA, and meet annually at the EMTA conference.

Any junior doctor who is a member (in any category) of the College and is registered for training is automatically a member of EMTA and can look for support, advice and representation from the executive and council. Full details are available on the EMTA website:
www.collemergencymed.ac.uk/Training-Exams/EMTA

Emergency Medicine training

Training leading to a CCT in EM consists of three years of core training and three years of higher specialist training.

Core specialty training in EM (CST)

CST in EM consists of two years of the acute care common stem rotation (ACCS) plus the core training (CT) third year. The first two years (ACCS) comprise one year of anaesthetics and critical care medicine, plus one further year of Acute Medicine and EM.

EMTA believes core trainees should be allowed to maximise the potential of this experience. Trainees must be permitted the full six months experience in each non-EM specialty to allow acquisition and consolidation of skills, even if competences are signed off early. Close working relationships must be maintained at a senior level with the anaesthetic, critical Care and medical directorates to ensure the quality of training delivered to all trainees entering each discipline. A well-defined educational programme and competency goals should be established at an early stage.

The CT3 year is intended to deliver appropriate Adult and Paediatric EM experience. In regions with Paediatric EDs, trainees should be rotated through these departments for their Paediatric placement. The College has issued a framework of training for CT3 which is available on the website:
www.collemergencymed.ac.uk/Training-Exams/Training/CT3 training

Higher specialty training (ST4-6)

At this stage, trainees have made a commitment to EM and will have gained all the basic competences and passed the Membership of the College of Emergency Medicine examination (MCEM). This provides the basic skill set necessary to manage acute situations until more senior and/or specialist help arrives. ST4-6 trainees are known collectively as specialist registrars (StR).

While specialist registrars will spend 30-50% of their time with a consultant present in the department, they will participate in a full shift rota at middle grade level, and will be providing a greater degree of service provision. Service commitment provides many of the training opportunities necessary to gain competency in the specialty.

This includes the supervision and training of the more junior trainees (CST and FY) in the department.

Supervision and service provision

By 2012, supervision of CST trainees by middle grade doctors or consultants should be available indirectly 100% of the time (i.e. present in the department), and directly at least 30% of the time. Core trainees should always be supervised (directly or indirectly) at night time, and such supervision for Foundation doctors at night must always occur. The presence or availability of more senior trainees in other specialties is not a substitute for appropriate supervision of EM trainees by EM specialists.

For senior trainees, time at work should be approximately divided into three: seeing new patients; supervising junior staff and being trained.

Supervised practice (30-50% for all trainees) involves the immediate availability of a consultant who is present on the shop floor, who is able to observe clinical practice, discuss cases, teach junior staff about presenting conditions and their management, and demonstrate and supervise practical skills.

Out-of-programme experience (OOPE) and sub-specialisation

There are currently approved training programmes that provide accredited training in Paediatric Emergency Medicine, Intensive Care Medicine, and Acute Medicine. The College is currently developing such training in pre-hospital Emergency Medicine.

These sub-specialty programmes will require taking time out-of-programme to develop these interests. Time allowed would depend on an individual trainee's experience, learning needs and GMC requirements, but would generally be for a minimum of three months to a maximum of two years (particularly if attempting dual accreditation with another specialty, for example Intensive Care Medicine).

Trainees should be encouraged to experience out-of-hours practice in the chosen specialty. Trainees should keep in contact with their EM trainer throughout their OOPE and should, whenever possible, continue to attend formal teaching within their region and ED. Any out-of-programme experience must be approved in advance for training by the GMC.

Shorter exposures to specialty clinics, wards and theatres should be available to allow experience in other areas of ED work if the trainee and trainer feel that this is the best way to address learning needs that cannot easily be met within the ED. Such shorter attachments might include Ophthalmology or Obstetrics and Gynaecology.

Research and audit

All trainees should have office space within the ED with a computer and internet access for searching the literature for research and audit purposes. Trainees and their trainers should agree at an early stage what achievements and activities are expected of them. Trainees may have up to four hours per week allocated for research and audit activities. This is no longer strongly recommended with the reduction in working hours, but where trainers/STCs and local educational providers support this allocation, a trainee should know what outcomes are expected and these should be monitored.

There should be support provided on a regional basis to allow coordinated research projects by trainees regionally and nationally. Such support should include available training for critical appraisal and research.

Management experience

Experience available in management will vary widely between departments. However, senior (ST4-6) trainees should be allowed the opportunity to attend meetings and contribute to the management of the department. This may include the handling of complaints, the development of clinical protocols, clinical services, business cases and budget planning, undertaking medico-legal work and attending both departmental and directorate meetings.

E-learning and educational supervision

Trainees should have a named educational supervisor for each department in which they are employed. In addition, regional training boards may consider supporting a longer-term mentor scheme, to provide continuity in career development and guidance.

The ENLIGHTENme e-learning programme currently hosted on the DH website and College website are an extremely valuable resource for trainees and trainers alike. It can help to document trainee progress, identify training needs and facilitate the provision of training to address these needs. Importantly these e learning resources allow trainees a portal to bespoke EM training materials from their own home and within their own time, so adding flexibility to the training programme.

The development of an e-portfolio and logbook will facilitate documentation of procedures and clinical cases and also help record exposure to and experience of essential competences, while reducing the workload involved in maintaining a training record.

Regional teaching programmes

Regional training committees must ensure there is a comprehensive programme of educational meetings provided for trainees at all levels of experience. These should be for a minimum of one full day per month, or equivalent. There should be consultant input into these sessions, and they should employ a variety of teaching methods to mirror the curriculum and content of examinations, and broader skills and knowledge to be determined by the needs of the trainees in that region.

Study leave

Study leave budgets have been decreasing steadily and this trend is expected to continue. Essential courses required to complete training should be provided within the training region, and subsidised outside the study leave budget if possible. STCs might consider group training dedicated to EM trainees for advanced life support (ALS), advanced paediatric life support (APLS) and advanced trauma life support (ATLS) within the regional educational programme on a rolling basis.

Examinations

Membership of the College of Emergency Medicine (MCEM)

The Membership examination is undertaken during core training and is a necessary requirement for progression to higher training (ST4 and beyond). Core trainees should aim to complete this examination at an early stage if their career is to progress without the need for additional training years.

Fellowship of the College of Emergency Medicine (FCEM)

The Fellowship examination is undertaken in the final 18 months of training and successful candidates have demonstrated their knowledge and skills to consultant level. They will, once they have completed the minimum period required for training, be eligible to apply for consultant posts.

Encouraging foundation trainees and medical students

Specialty trainees have important roles in supervising and teaching foundation trainees and medical students. They can also have an important influence in encouraging interest in the specialty and can assist in national and local career events. As members of EMTA, trainees at all levels of experience are encouraged to take an active part in the development of the specialty on a local, regional, national and international basis.

FASSGEM

Specialty doctors, staff grades and associate specialists

Summary and recommendations

- Schools of Emergency Medicine should appoint a SAS tutor with specific responsibility for the training and education of staff grade and associate specialist doctors
- All SAS doctors in EM should be encouraged to join CEM and FASSGEM
- FASSGEM should be consulted and informed of significant changes or development of SAS provision
- Each regional CEM/FASSGEM representative and SAS tutor should encourage active utilisation of the DH SAS fund
- The College recommends that all Specialty/SAS doctors who either work part or full time in EM participate in the CEM online CPD registration as part of the revalidation process
- The job plans of Specialty/SAS doctors should include a minimum of 1.5 SPAs in line with recommendations from the AoMRC
- The College recommends that doctors entering these posts should have at least four years post-graduate experience with at least 1 year's experience in the specialty, provider status in ATLS, ALS, APLS and a postgraduate qualification relevant to EM
- Job planning for SAS doctors should refer to the CEM job planning document.

Introduction

SAS doctors have for many years provided a significant and important service to Emergency Departments (EDs). Because these posts have developed locally and are not under the responsibility of a Deanery their training and continuing development has often been neglected. In the last 5 years this lack of personal and role development has been exacerbated by service pressures.

Training, education, appraisal and continuing development is as essential for SAS doctors as they are for trainees and consultants. SAS doctors will have to meet requirements similar to those of consultants in order to revalidate.
The SAS cadre is with a heterogeneous mix of experience. This necessarily complicates the delivery of learner centred education.

SAS doctors within College structures

The Forum for Associate Specialist and Staff Grades in Emergency Medicine (FASSGEM).

FASSGEM is the focus for promoting SAS training, education and views within the College. FASSGEM members are represented on Council, on regional and national Boards and all the major committees.

The College will work with Deaneries to ensure that the schools of EM in conjunction with FASSGEM continue to provide input to the educational and training needs of SAS doctors. The point of reference will be the SAS tutor/FASSGEM regional representative.

The College and FASSGEM will provide advice on career development, educational resources and applications for a certificate confirming eligibility for specialist registration (CESR).

Training and education

It is recommended that there are regional and national, coordinated, programmed educational activities to ensure that educational and CPD needs are met. These should be based on similar programmes for specialty trainees as SAS doctors are expected to provide identical high quality patient care. These should be the equivalent of one full day a month on separate days to the ST programme. SAS tutors should coordinate these with regional DH SAS funds.

Management experience and e-learning should be available to SAS doctors. Audit (and if appropriate, research time) should be built into SAS job plans. FASSGEM provides an educational conference in November and a spring meeting.

It is the view of the College and that of the AoMRC that 1.5 PA for supporting professional activities (SPAs) is the absolute minimum for any full time career grade doctor, and is essential for CPD requirements.

Department of Health SAS funds

The DH as part of the contract agreement provides £12 million annually towards the development of SAS doctors. Many deaneries have developed processes to disseminate these funds. Regional CEM and FASSGEM representatives and SAS tutors should assist SAS doctors in utilising these funds. It is important to note that these funds are in addition to the usual study leave budgets that individual trusts are responsible for providing.

The specialty doctors' contract

All new doctors will be called specialty doctors under the new contract. The contract is based mainly on the consultant contract and has been available on an optional basis from 1 April 2008. There is no compulsion on any existing staff grade or associate specialist to convert to the new contract.

The new contract is based on the current consultant contract with usually a 10 programmed activity basic weekly commitment, which is broken down into direct clinical care and supporting professional activities. SAS doctors are offered a guaranteed minimum of 1 SPA per week and if they feel that more SPA time will be required, they should raise this in the job planning process. Those more senior SG and AS doctors are likely to need more than 1 SPA to meet the requirements for incremental and threshold progression. There is one single on-call supplement spine which sits between the percentage rates offered to consultants on the A and B spines. The rates are 6%, 4% and 2%.

However, the contract also abolishes any new Associate Specialist post and the optional/discretionary points scheme which has been replaced by incremental pay rises contingent on satisfactory appraisals

Doctors are advised to visit the BMA website/contact FASSGEM for details of the contract: www.bma.org.uk/ap.nsf/content/home

The College recommends that doctors who are considering applying for SAS posts should meet the College guidelines for middle grades.

Job planning

The new 'specialty doctors' will have defined and agreed responsibilities depending on their experience and capabilities. Service delivery and patient care will continue to be central to the post.

An agreed job plan should be based on their current timetable of activities. The discussion should focus on the prospective timetable and list all the duties of the doctor, the number of PAs for which the doctor is contracted and paid, a schedule/ job plan for delivering these PAs, the doctor's personal and professional objectives and agreed supporting resources. It will be based on and will build upon the doctor's existing NHS commitments and will set out their duties, responsibilities and objectives for the coming year.

Changing to the new contract

The following steps will need to be followed: The HR department will assess payment for each individual doctor in the relevant grades (SG, AS, CMO, SCMO and non GP HPs and CAs2) under their current contract, identifying the elements given above.

The career grade doctor or service grade doctor in the Republic of Ireland

Although officially there is no provision for such a grade in the HSE, there are a number of individual senior doctors working in EM in the Republic of Ireland who fit into this category. They have a variety of titles, contractual arrangements and receive different levels of pay. The Irish Association for Emergency Medicine recognises the need to have a proper structure for these doctors sharing a uniform contract with appropriate terms and conditions of employment. The educational requirements for entry into higher specialist training are defined in a document available at: www.iaem.ie. However, the exact entry requirements to the proposed associate Emergency Physician grade have not been finalised nor has any formal contract of terms and conditions.

Glossary of selected abbreviations

ACCS	Acute Care Common Stem
AM	Acute Medicine
ANP	Advanced Nurse Practitioner
AoMRC	Academy of Medical Royal Colleges
CCT	Certificate of Completion of Training
CDU	Clinical Decision Unit
CEM	The College of Emergency Medicine
CESR	Certificate of Eligibility for Specialist Registration
DCC	Direct Clinical Care
DH	Department of Health (England)
ED	Emergency Department
EDIS	Emergency Department Information System
EM	Emergency Medicine
ENP	Emergency Nurse Practitioner
EP	Emergency Physician
FASSGEM	Forum for Associate Specialist and Staff Grades in Emergency Medicine
FEN	Faculty of Emergency Nursing
FICM	Faculty of Intensive Care Medicine
GEMNet	Guidelines in Emergency Medicine Network
GMC	General Medical Council
HRG	Healthcare Resource Group
IAEM	Irish Association for Emergency Medicine
IBTPHEM	Intercollegiate Board of Trianing in Pre-Hospital Emergency Medicine
ICM	Intensive Care Medicine
ICU	Intensive Care Unit
MIU	Minor Injury Unit
OOH	Out Of Hours
PA	Programmed Activites
PbR	Payment By Results
PEM	Paediatric Emergency Medicine
PHEM	Pre-Hospital Emergency Medicine
QI	Quality Indicator
SAS	Specialty doctors/staff grades & Associate Specialists
SPA	Supporting Professional Activities
SpR	Specialist Registrar
StR	Specialty Registrar
The College	The College of Emergency Medicine
UCC	Urgent care centre
UDDA	Unified Diagnostic DAtaset
WIC	Walk-In Centre