

## POSTGRADUATE MEDICAL EDUCATION AND TRAINING IN THE UK

**Professor Elisabeth Paice and Dr Alastair Forrest**

London Deanery, University of London, UK

### **Introduction**

Like any health service, the UK's National Health Service (NHS) is dependent for its quality on a reliable supply of doctors with the right skills and in the right place to meet the needs of patients. For the past decade the NHS has tried to be self-sufficient for its medical workforce. Medical schools have been expanded and more have been established. The number of doctors in postgraduate training programmes has doubled. Steps have been taken to ensure that these doctors enter specialty training in numbers that match expected career opportunities once their training is complete. Since the quality and safety of patient care is so dependent on the quality of the medical workforce, steps have also been taken to ensure that postgraduate medical education and training meets exacting quality standards, whatever the specialty and the setting. In this paper we summarise the system of postgraduate medical education and training in the UK, and comment on some of its strengths and weaknesses. The system is by no means perfect, and is subject to regular review and reform in a constant search for improvement.

### **THE STRUCTURE OF POSTGRADUATE MEDICAL EDUCATION**

#### **Foundation training**

After graduation from medical school (fig.1), doctors have to undertake a two-year Foundation Programme. Foundation training follows the principle that learning in, and from, practice is the most effective way for professionals to develop. Young doctors learn to put theory into practice under supervision, developing their clinical competence in a wide variety of settings, while being paid a salary for their work. There is a set curriculum and a work-based assessment strategy. Key learning aims of the Foundation programme are the initial assessment and management of the acutely ill patient, and an understanding of the management of chronic illness across care settings. Alongside this, the Foundation doctor learns about communication, working in multi-professional teams, shared decision-making between patients and professionals, and an understanding of safe high quality patient care. The programme consists of 4-6 placements across a range of specialties, not only in the acute sector, but also in the community, in mental health and in general practice. During the Foundation programme the trainees record their progress using an electronic portfolio and have a series of work-based assessments, including multisource feedback. They have opportunities to discuss their strengths and weaknesses and consider their career options. Foundation training is overseen by Foundation Schools, consisting of a Foundation Director, administrative support and a training programme director for every 20

#### **Specialty training**

Following the Foundation Programme, the next stage is Specialty training, including General Practice (family medicine) as a specialty in its own right. Each specialty has a written curriculum and an assessment strategy which often includes an examination part way through the programme. Most of the specialties have a broad-based core, followed by one or more higher specialty options. For example, core surgical training prepares the trainee to apply for one of nine surgical specialties. Core medicine leads on to 25 medical specialties. Most specialties have an examination at the end of core training, which must be passed before the trainee can progress to higher training. Each specialty has a curriculum which has been developed by the relevant Royal College and which is reviewed annually.

## The Structure of Postgraduate Training

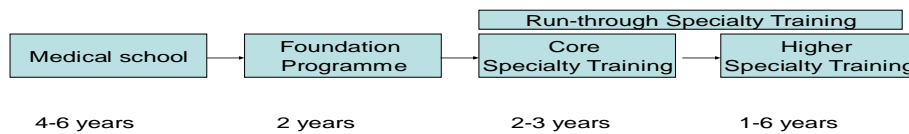


Fig.1 The Structure of Postgraduate Training

The curriculum is delivered through a series of clinical placements usually supported by a taught programme delivered through seminars, e-learning modules and diploma or MSc courses. Most curricula also include an element of research, teaching, quality improvement and leadership. In addition to formal examinations, each trainee is assessed in the workplace, through direct observation of procedures, case-based discussions and multi-source feedback. These assessments are reviewed annually by a panel that decides whether or not the trainee is fit to progress to the next stage of training.

### RESPONSIBILITIES FOR POSTGRADUATE MEDICAL EDUCATION AND TRAINING

#### The Local Educational Provider

Postgraduate medical education is mainly delivered through a series of clinical placements in which doctors learn by working under supervision. They are therefore employees at the same time as learners. The progress they make depends heavily on the quality of the training and supervision they receive day to day, the workbased assessments they undergo at intervals, and the efforts that are made in each placement to identify their individual learning needs and ensure they are met before they move on.

#### Clinical and Educational Supervision

Throughout clinical training, each trainee's day to day work and learning is carried out under the supervision of one or more senior doctors. Every trainee also has a named educational supervisor. The educational supervisor should be trained for the role and have the time to carry it out properly. Educational supervisors provide ongoing supervision across placements to confirm that trainees are making the necessary progress, by offering regular appraisal and feedback. They advise the trainee about their career, and are responsible for both the educational appraisal, and review of their overall performance.

#### Responsibilities of the Educational Supervisor

- Ensuring safe and effective patient care
- Establishing and maintaining an environment for learning
- Teaching and facilitating learning
- Enhancing learning through workbased assessment
- Supporting and monitoring educational progress
- Guiding personal and professional development
- Continuing professional development as an educator

#### Local Educational Leadership

Within each hospital, there is a Director of Medical Education (DME) who manages the postgraduate education budget and makes sure that the environment within the hospital is conducive to learning. This usually includes managing an educational facility with seminar rooms, lecture theatre, skills labs and information services. The DME oversees the work of the

educational leads for Foundation and each of the specialties (usually known as tutors) who in turn manage the the educational supervisors. The DME usually chairs a faculty group. He or she is accountable to the chief executive director for ensuring that education and training throughout the organisation is meeting quality standards, and that the tension between service and training is managed. The DME manages quality locally by

Responsibilities of the Director of Medical Education

- Promote excellence among those involved in education locally
- Provide professional leadership and vision for the organisation on medical education issues
- Liaise with the local Medical School to ensure a smooth transition from undergraduate to postgraduate training.
- Represent the organisation on medical education issues, both externally and internally.
- Establish a structure for the local delivery of medical education, ensuring that all those involved have clear roles and responsibilities and are accountable for these educational roles
- Lead, direct and develop all involved in medical education and be involved in their appointment
- Manage the resources for medical education and training
- Manage data collection and reporting processes necessary for internal quality control.
- Liaise with other educational leaders towards the development of multi-professional learning as appropriate

### **The role of the Regional Postgraduate Dean**

Commissioning postgraduate education

Each region, known in England as a Strategic Health Authority, has a Postgraduate Dean, whose responsibility it is to commission postgraduate medical education from the local education providers and provide a system for co-ordinating their activities. Postgraduate Deans enter into an educational contract with each local education provider in their region. This sets out how many posts at what level and in what specialties are being commissioned, and the quality standards for education and training that must be met. In return the provider receives funding to compensate for the cost of employing the doctor; providing supervision and education; and supporting the educational facilities and infrastructure. The postgraduate dean monitors the quality of what is provided through reviewing annual reports and action plans reports from the DMEs and general practice training leads, data collection, site visits and the results from the National Trainee Survey which is carried out annually (see below).

Co-ordinating postgraduate education

Most training programmes, whether at Foundation, Core or Higher level, span more than one setting and co-ordination is therefore required at a level above that of the local educational provider. This is done through the postgraduate deanery's postgraduate school structure, with one or more Foundation Schools per region, and from 12 to 15 Specialty Schools.

Responsibilities of the postgraduate dean

As commissioner

- Set the strategic direction for education and training and ensuring it is aligned with and supports the service ambitions.
- Plan the number of programmes in each specialty and at each level to meet regional workforce needs
- Contract with local education providers for clinical placements
- Manage the quality of local educational providers
- Develop the providers and their faculty
- Commission regional educational activities and resources
- Recognise and reward good practice and act to

As a co-ordinator

- Recruiting into training programmes
- Maintaining a database of trainees and their progress
- Ensuring that each programme delivers the relevant curriculum
- Ensuring the quality of each trainee through annual review of workbased assessments
- Managing trainees whose performance or progress causes concern
- Managing the clinical element of training for trainees on an academic training pathway
- Providing exceptional training opportunities for trainees who need to train part-time or have other reasonable individual requirements
- Managing trainees who wish to take time out of programme for research or international experience

### **The Postgraduate Medical Education and Training Board.**

The system for postgraduate education and training in the UK is regulated. The Postgraduate Medical Education Board (PMETB) is a non-governmental independent regulatory body overseeing the content and standards of Postgraduate Medical Education across the UK. It promotes and develops UK postgraduate medical education, aiming to improve both the skills of doctors and the quality of healthcare offered to patients and public. It provides quality assurance for postgraduate medical education. Explicit standards have been set by PMETB relating to all aspects of specialty training, including curricula, delivery of training, and assessment. All training programmes must conform to these standards.

Over 40,000 trainees responded to the annual on-line confidential trainees' survey across the UK in 2009 (an 85% response rate) with around 50 questions mapped to training standards. The data allows detailed comparisons across and within deaneries, hospitals, specialties, and training grades, and comparison with previous years. Guarding confidentiality allows exploration of trainee concerns about behaviour towards them, and of their own experience of making medical errors and the factors that contribute to patient safety. The results of the survey are openly available through the PMETB website [www.pmetb.org.uk](http://www.pmetb.org.uk)

The responsibilities of PMETB

- Approval of curricula put forward by Royal Colleges for each specialty
- The approval process of training programmes, posts and trainers
- Targeted and focused visits to postgraduate deaneries, to assess deaneries' implementation of quality management of training within the orbit of that deanery
- Targeted visits to any training programmes or training sites giving particular and urgent concerns
- The Annual National Survey of Trainee Doctors to collect the trainees' perspectives on the quality of their training programmes and their educational outcomes
- Certification of the completion of training

### **Royal Colleges**

The Royal Colleges are professional bodies, the oldest of which were established centuries ago, which aim to improve the quality of medical care by continually improving standards of practice in their specialties. As such they have an important role in medical education, advising PMETB on the content of training curricula, the standards required of a department to be suitable for training purposes, and the standards required for trainees to achieve a certificate of completion of training in their specialties. Membership and/or fellowship of the Royal College is usually by examination, and achieving this is a requirement for progress in training. The Royal Colleges are also providers of education, especially continuing medical education and professional development of consultants.

### **Universities and their Medical Schools**

Universities are responsible for undergraduate medical education and work with regional postgraduate deans to ensure a smooth transition between medical school and postgraduate training programmes. Universities have the primary responsibility for those doctors on academic training programmes. These academic clinical fellowships are available at Foundation, Core and

Higher training levels and are programmes with integrated clinical and academic training, and continuing research involvement. Universities also provide a wide variety of degree and diploma courses, some of which are included as mandatory elements in the specialty curricula and some of which are optional. A close relationship between the regional postgraduate dean and the local university is very important to ensure co-ordinated support for education and training.

### **Discussion**

The system of postgraduate education and training in the UK has been developed over time and is complex. It has been subjected over the years to various reforms, with varying success, and no doubt more are to come. In the search for quality improvement it must be recognised that there is no progress without change. However, some principles seem to stand the test of time and should be respected, whatever the system of postgraduate medical education and training adopted.

1. Patient safety is paramount. The needs of trainees for experience must not be allowed priority over the needs of patients for a safe system of care. Where it is possible to move the lower end of the learning curve away from the patient eg by rehearsal through simulation, that is what should happen. Trainees must be learn within a service that puts a premium on patient safety and must learn themselves to be champions of safety and quality improvement in care.
2. It must be recognised that high quality clinical training takes time and resources and the incentives to do this work must be as effective as the incentives for service or research.
3. Collecting and using metrics to evaluate educational performance is a powerful lever for driving up quality.
4. The roles of workforce planner, educational standard-setter, regulator, commissioner and provider of education and training must be fulfilled, by one body or another.
5. Doctors must be trained for the settings in which they will work, and where possible, in those settings and with the other professionals they will be working with.
6. Educational requirements must be planned into the building, equipping, staffing, scheduling and costing of new service developments.
7. Opportunities for research; postgraduate degrees; academic appointments
8. Trainees should have the right to a reasonable workload and working hours; the opportunity to train part-time if there are well-founded reasons for this; a culture of dignity and equality at work; and an opportunity to voice their views and concerns. Humane training makes humane doctors.
9. Trainees should be developed as leaders - champions of service innovation and continuous quality improvement in patient care.

Further reading:

[www.pmetb.org.uk](http://www.pmetb.org.uk)

[www.foundationprogramme.nhs.uk](http://www.foundationprogramme.nhs.uk)

[www.londondeanery.ac.uk](http://www.londondeanery.ac.uk)