Changing postgraduate medical education: a commentary from the United Kingdom

CHANGING POSTGRADUATE MEDICAL EDUCATION – A COMMENTARY FROM THE UNITED KINGDOM

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Abstract

The current changes in postgraduate training in the United Kingdom are largely politically driven and aimed at producing a medical workforce more quickly and fit-for-purpose in a rapidly changing National Health Service.
Most aspects of the changes are, as yet, untested.
Postgraduate training now consists of a 2-year varied Foundation programme followed by a run-through programme [often with selection points after 2 years] within a chosen specialty.
Assessment systems are a combination of workplace-based assessments and national examinations of knowledge and skill.
The changing, highly managed and partially privatised health service presents challenges in terms of appropriate clinical experience for training.
Postgraduate medical education is now regulated by the Postgraduate Medical Education and Training Board [PMETB] which sets standards for all aspects of training, and approves curricula, programmes and assessment systems.
The lessons to be learned from the UK are:

1. Know why it is changing
2. Understand the difference between political and professional agendas
3. Protection of adequate clinical experience is paramount.
4: Beware of competence frameworks in instrumentalising medical education
5. Set clear standards for medical education but not at too specific a level.
7. If trainees' career structures change, careers advice must also change.

1 BACKGROUND

Postgraduate medical education is of significant interest not only to the profession, for maintenance of its standards and nurturing of the new generation, and to educationalists keen to make the process as effective as possible for trainees and teachers, but also to politicians who have ultimate responsibility for provision of adequate and cost-effective health services to populations. These different interests yield different perspectives on how postgraduate medical education should develop.

For the profession, standards of practice, professionalism and training are paramount. For educationalists, effective and appropriate methods of training and assessment are the primary concern. For politicians, matters of efficiency, effectiveness, economy and service provision are the main concern. These three perspectives have not always proved easy to reconcile. Current developments in the United Kingdom perhaps illustrate this point and provide an informative case study to feed into the current climate of change in Australian postgraduate medical education.

2 CHANGES IN UK POSTGRADUATE MEDICAL EDUCATION

Figures 1 and 2 provide a comparison of the former and new arrangements for training in the UK[1]. Foundation is now fully implemented whereas the run-through grade commences in August 2007 with recruitment in Spring 2007.

Figures 1 and 2 here

The main features of the new arrangements are:

- A 2 year Foundation Programme during which trainees will normally experience a series of 4-month supervised posts in a variety of specialties to include medicine and surgery to assist with the earlier choice of specialty.
- A national curriculum and national system of workplace based assessments [as opposed to one year formerly].
- Immediate competitive entry into limited numbers of specialist and general practice training programmes or into fixed term specialist training, if unsuccessful [a opposed to the former self-determined series of 6 month posts in a variety of specialties by choice followed by competitive entry into specialist training programmes].
- Certificate of Completion of Training [as opposed to the former Certificate of Completion of Specialist Training].
- An approved national curriculum for each specialty and associated workplace-based assessments and national knowledge and clinical tests.

The new system [called Modernising Medical Careers or MMC] is a government initiative, the overall aim of which articulates a developing emphasis for medicine on team working and the workforce imperative:

> *To develop a workforce of trained doctors working within clinical teams, who provide the majority of front-line medical management and care for patients.*

The specific aims of the Foundation years of MMC are:

To produce a trainee who will:

- Be fit to look after patients with acute medical problems
- Have been exposed to a range of medical career options
- Have developed a range of professional 'life skills' essential for working in a healthcare profession:
  - Communication
  - Team working
  - Multi-professional practice
  - Partnerships with patients
  - Time management and decision making
  - High standards of clinical governance and patient safety etc

A simultaneous change has been the establishment of the independent new statutory regulator: the Postgraduate Medical Education and Training Board made up of 25 medical and lay members with a medical majority. The functions of PMETB[ii] are:

- To establish and secure standards of postgraduate medical education and training:
  - Assessment
  - Curriculum
  - Training environments
  - Selection etc

- To administer direct entry to the specialist and GP registers
- To regulate, inspect and approve all aspects of the design, delivery and outcomes of postgraduate training.
- To recommend trainees for entry to the appropriate General Medical Council register
- To develop and promote postgraduate medical education and training.
- In the United Kingdom.

Key relationships for PMETB are shown in Figure 3.

Figure 3 about here.

3 WHY THE CHANGES?

It is to be expected that cost-effectiveness changes in public services will largely be introduced through the political process. But other reasons might also be extant. In the UK, it had been noted that the SHO [basic specialist training] grade was a disorganised period within otherwise structured postgraduate training[iii], and that there was a lack of curriculum and assessments in the PRHO [PGY 1] and SHO years. Research had shown general satisfaction with higher specialise training although some concern about the breadth and extent of clinical experience was also being expressed[iv].

At the same time, managers of a fast-changing National Health Service were worried that the postgraduate system was not producing doctors who were fit for purpose or were of the right spectrum for their work-force requirements. Many former medical tasks were being allocated to new para-medical professionals such that new patterns of service-delivery were emerging. A particular lack of general practitioners needed to be addressed, as did the speed with which the training system could be responsive to changing workforce demands. Added to this, politicians were wanting to produce doctors faster and to keep costs in check.

The changes, then, largely derived from pressing political and service imperatives rather than primarily from professional or educational concerns:

> *…MMC aims to provide the right numbers of doctors to meet changing service needs…..Modernising Medical Careers is …a key enabler for other flagship programmes in the Department of Health.*[v]:

At the same time, mainly in response to workforce pressures, UK medical schools had increased in number and size and, partially as a function of European regulations, the government announced changes in visa regulations for IMGs such that, in effect, they are no longer able to train in the UK. The map of UK postgraduate medical education changed dramatically. Whether it has changed for political, educational or service reasons is not, of itself, important. What is key, however, is to understand why such changes occur so that they can be evaluated and responded to correctly.

4 RESPONSES TO THE CHANGES

Initial responses to the proposed changes were not all positive and a petition to parliament was proposed by the British Medical Association[vi]:

> *MMC represents a huge threat to medical training. It is a political process, rushed through with minimal thought and consideration, loved by politicians, but irrelevant to patients and doctors.*
>
> *BMA Junior Doctors Committee*[vii]

It may well be the case that the process of change management might have been better managed[viii], leading to some anxiety on the part of existing trainees[ix].

An evaluation showed, however, that the policy of providing wider experience of specialties in Foundation as a means of assisting earlier and secure specialty choice did not initially meet with the success intended[x]. By the end of Foundation, only 57% had decided on their specific career choice. However, two factors have mitigated this finding: firstly, many deaneries [regional postgraduate organisations responsible for the implementation of postgraduate medical education] have now implemented psychometric[xi] career choice guidance such as Sci59 Online[xii] and, where appropriate, medical Royal Colleges have designed curricula, now progressing through PMETB approval processes against specified curriculum standards[xiii], which have a common stem during the initial years of specialty training and then allow trainees to be selected into their subspecialties at a later stage. Although this might not fit the original MMC vision of a run-through grade, it is a structure that is appropriate.

A key element of Foundation and MMC is the implementation of a system of four different types of workplace-based assessment. A full-scale evaluation of the actual feasibility and effect this remains to be done, but initial evaluations of pilots[xiv] are shown in Table 1.

TABLE 1 ABOUT HERE

An important point to emerge is that bringing education, training and assessment into focus takes time for both trainees and trainers. No extra time has been factored into consultant contracts or, in many cases, trainee timetables.

The pressing timescale has precluded proper piloting of some elements of the new system – such as the selection system which, at the time of writing, still requires national clarification, and the number of programmes that will be available for each specialty and, consequently, each trainee's chance of finding themselves in the poorly understood area of fixed term specialty training. The assessment systems are also unlikely to be fully developed, and will be only approved against a subset of PMETB standards for assessment[xv].

5 THE TRAINING CONTEXT

Postgraduate medical education takes place in the context of the health service. A number of changes in service configuration and conditions have been cited in decreasing the clinical experience of trainees:

- The introduction of private independent treatment centres, often staffed by overseas doctors, which undertake basic elective surgery previously an important part of junior trainees' experience. Although the exact number is not known, it has been estimated that companies have already been contracted to do 6,000 to 12,000 procedures p.a.
- Market –based cost models require fast patient throughput such that seniors rather than juniors undertake procedures
- Cost pressures and new team configurations force more straightforward definable tasks and processes, often previously performed by junior doctors, on to paramedical practitioners or other extended professionals[xvi]
- Decreased hours of work [48 hours pw by 2009] in accord with the European Working Time Directive.

6 COMPETENCE MODELS

The PMETB curriculum standards do not require new curricula to be expressed in terms of competences, although it is open to medical Royal Colleges to use this type of framework if they so wish and MMC has elected to do so for the Foundation curriculum. It has been argued that this model, which was originally introduced for practical vocational subjects[xvii], is unsuitable for the complex integrated professional performance of medicine[xviii] . Such models facilitate the identification of discrete tasks which can be moved to other workers, but which still may be required as the basis of more complex medical performance. Further, although competence models offer a straightforward basis for blueprinting assessments, it is nonetheless the case, that attainment of separate competences alone does not imply the fluent, integrated, judgment-based professional performance necessary for independent practice. This requires experience over and above any basic competence. In the UK, despite government wishes, overall length of training, in years, is unlikely to alter overall, although the amount of experience within those years will decrease which may lead either to a period of further training, supervision or professional induction after postgraduate programmes, or a greater flow of UK doctors overseas seeking the clinical experience they require for independent practice..

7 WHAT CAN WE LEARN?

A clear common lesson concerns the dangers of instrumentalising medical education, deconstructing the integrated professional performance, attempting to micro-manage, streamline, objectify and rationalise it for purposes of cost or time containment or for managerial imperatives. The complexity of a profession, as opposed to a trade, cannot be accommodated in this way. Where medical education is instrumentalised, and therefore removed from the auspices of the profession, the resulting product will be different from the professional doctor produced by a less controlled, more experiential and integrated training.

Development of postgraduate medical education, whether pre-vocational or specialist, should raise the profile of education at all levels. The importance of supervision and constructive feedback to the trainees is demonstrated in the UK Foundation programme.

Medicine offers many radically different career options. Research shows that a secure early choice is not possible for all trainees. If early career choice is necessary, wider experience of specialties and support for career choice should be offered. But a structure which allows earlier or later career choice with support for both pathways might be preferable. The UK experience suggests, helpfully, that a common general curriculum is appropriate for the early years within any broad specialty area [medicine, surgery etc] before the trainee has to opt for a subspecialty.

The interdependency of training and service must be considered at all points. The ability of the highly regulated service to accommodate intensified training, extensive workplace assessments, planned experience, appraisals, and time for off-the-job learning, requires realistic analysis, planning and funding.

A curriculum should be specified for all stages of training but this should be expressed at an appropriate level of specificity and should allow trainees leeway to manage their own learning in context while ensuring that they are exposed to sufficient clinical experience. A competence-based curriculum might find it difficult to describe the integrated professional performance required of trainees and might cause assessments to focus on the individual components of learning rather than the complexity of professional practice. New and less instrumental approaches to the assessment of performance than the current common package might be required.

Transparent and agreed standards or principles for curriculum, the assessment system and the training environment are a useful basis for planning and accreditation – but these should be specified at an appropriate level of specificity to allow variety of provision and to avoid the possibility of micromanagement and instrumental or bureaucratic compliance.

Table 2 summarises the lessons for action indicated from the current UK experience of changing postgraduate medical education.

Figure 1. The former structure of UK medical education

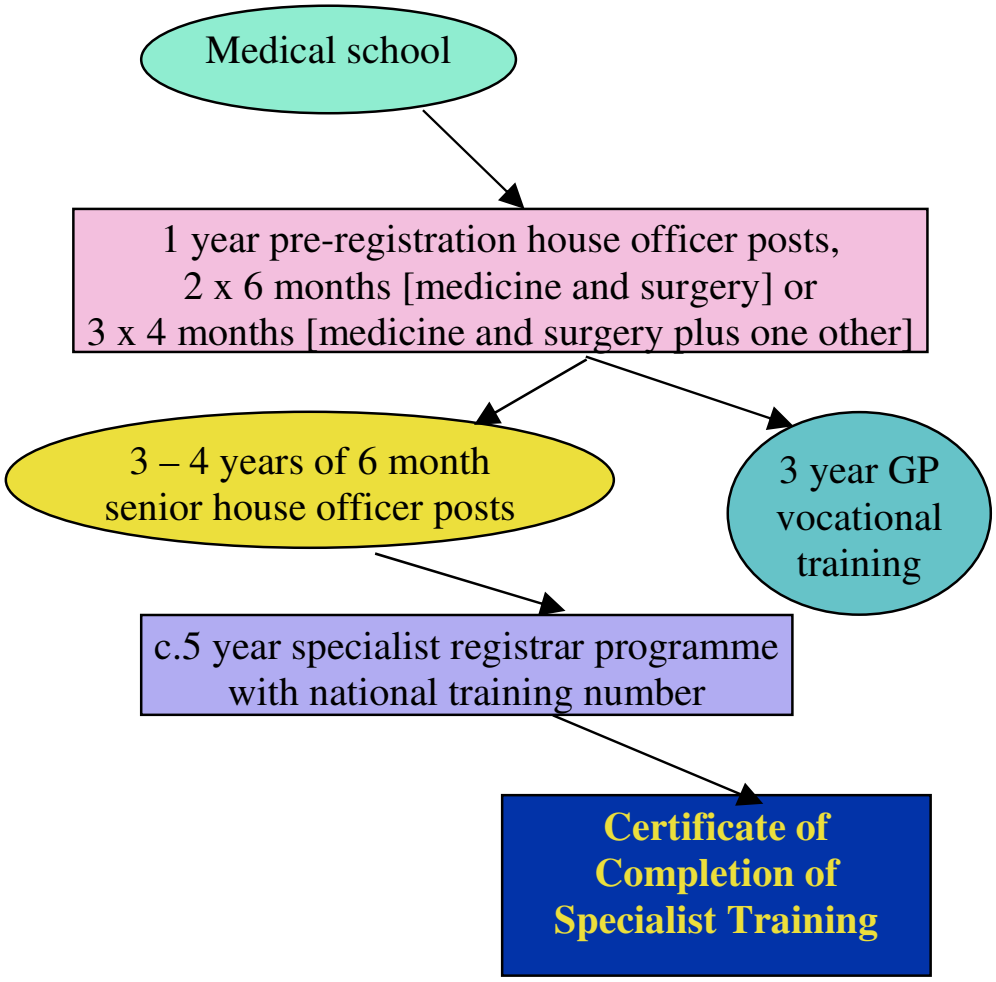
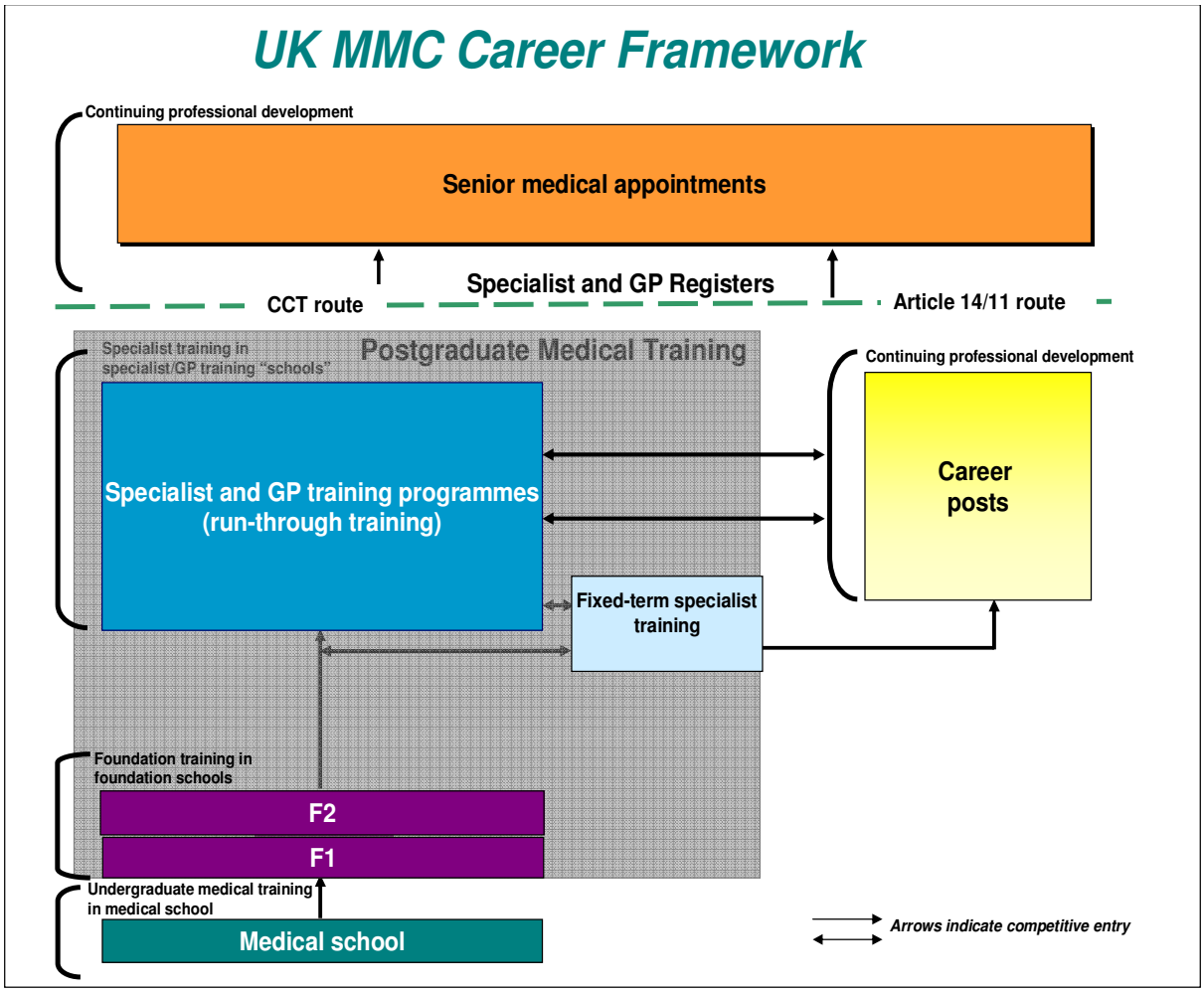


Figure 2. Modernising Medical Careers [MMC] New structure of training [as of August 2007]



CCT = Certificate of Completion of Training
Article 14/11 = direct entry on to specialist or G.P register for international medical graduates

Figure 3. Key relationships for PMETB

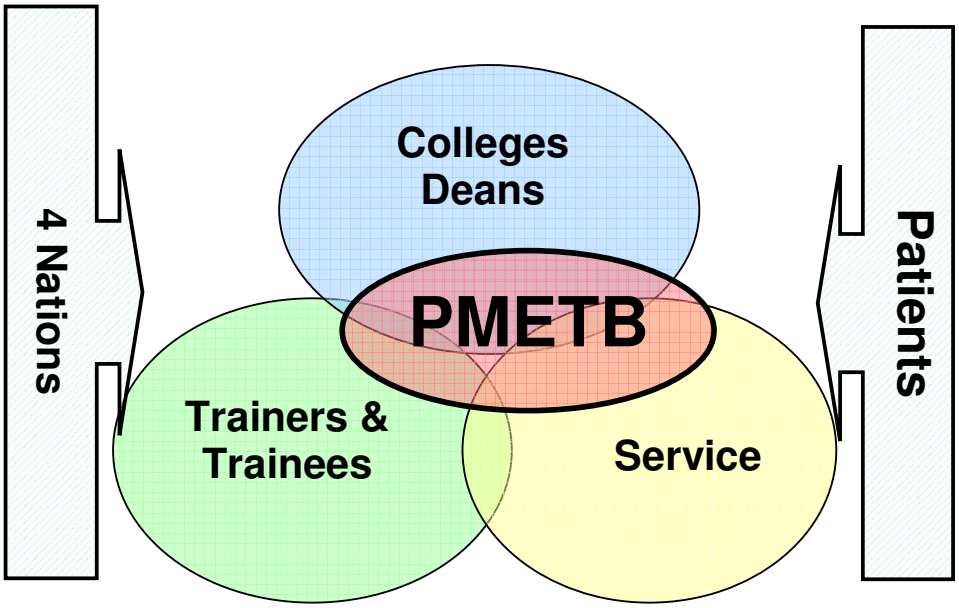


Table 1. Summary of main findings from evaluation of Foundation pilots workplace based assessments

- Overall, the assessment system is valued for its educational benefit and its ability to deliver feedback to trainees.
- There were mixed views about its likely validity.
- Both trainees and assessors find the burden of time to organise and complete this number of assessments an issue
- The need for adequate training for assessors is widely reported.
- Changes to streamline paperwork are recommended.
- Applicability of the tools to non-clinical specialties requires review.
- Trainees were largely able to complete the required number of assessments of each type.
- For the majority of the trainees, the assessments take 30 minutes or less each to complete. DOPS was the most frequently cited as taking longest.
- 34% of trainees felt that time constraints were a barrier to proper implementation of the assessment system.
- For most assessors, preparation time for each assessment was 10 minutes or less
- For the majority of assessors, time was the main barrier to successful implementation of the system.
- The basis of case selection for assessments was variable.
- The majority (n=63, 85%] of trainees experienced problems in organising their assessments for a wide variety of reasons: time, identifying a consultant or registrar or other assessor and the specialty offering few suitable assessment opportunities were cited most commonly.
- 34% of trainees felt that the assessments did give an accurate picture of their competence and 30% felt they did not.
- 39% of assessors were confident that the assessments gave an accurate picture
- 48 [65%] trainees felt that the assessment tools provided them with feedback on their performance .
- The majority of assessors (n=18, 78%) felt that the assessment system did have an educational benefit.

Table 2. Summary of main lessons from the UK changes in postgraduate medical education

1. **KNOW WHY IT IS CHANGING**	Identify the problem. What is the evidence? Tailor the solution Beware of babies in the bathwater: do not lose current strengths Look for perverse incentives that will trigger unintended behaviour e.g. taking short cuts in assessment where there is insufficient time Don't change just because others are
2. **UNDERSTAND THE DIFFERENCE BETWEEN POLITICAL AND PROFESSIONAL AGENDAS**	The profession should protect standards of training and practice despite external pressures Analyse what problem is being addressed. Whose problem is it? Make the solution tackle the problem Stay detached from rhetoric and stick to professional view
3. **PROTECTION OF ADEQUATE CLINICAL EXPERIENCE IS PARAMOUNT**	Postgraduate medical education is situated learning[xix] Learning to be a doctor by experiencing clinical practice and acquiring the knowledge and skill around it to be an independent practitioner This takes time and cannot be fully orchestrated If clinical experience is not protected – suspect an ulterior motive!!
4: **BEWARE OF COMPETENCE FRAMEWORKS**	Beware the limitations of competence based curricula. Competences alone do not describe professional performance but deconstruct it Competence attainment is only the first stage in acquiring adequate professional performance
5. **SET CLEAR STANDARDS [OR PRINCIPLES]**	But at an appropriate level Don't micromanage Offer support and assistance to help players achieve the standards
6. **IF YOU CHANGE TRAINEES' CAREER STRUCTURE, CHANGE THEIR CAREERS ADVICE**	Any new system requires clear advice about how to navigate it.

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