Government, Regulation and Legislation

There is increasing feeling on both sides of the Atlantic that a need to comply with a wide range of legislative and governmental decrees is compromising training of health professionals. The apparent paradox of shortened length of training (UK) and decreased working hours at a time when there is an increasing workload potentially leads to incomplete training and health professionals that are unprepared to cope with the current load placed upon them. There are increasing demands that patients should be seen by "fully trained" health professionals serving to increase patient expectations but denying the trainee the opportunity of learning in practice and further practising within a safe environment. The Government in the UK is promoting "Improving Working Lives" and exhorting a review of the "work-life" balance while increasing pressures to meet arbitrary targets designed to demonstrate improving healthcare which serves to increase pressures for staff and managers.

Working Time Directives

Changes in working practices both in North America and the UK have necessitated a re-appraisal of traditional educational methods. In the UK, European legislation by 2009 will have limited working hours in hospital to a maximum of 48 hours. In the US there is pressure to reduce working hours to 80 by 1st July 2003. There are moves in the UK to reduce the number of years to completion of medical training and increasingly, on both sides of the Atlantic, there is pressure to address the work/life balance issue. The number of women training in medicine now outnumbers the men and "family-friendly" working practices are proving increasingly attractive.

The challenge to medical educators is to maximise educational opportunity within the available working hours and to ensure that standards of medical practice and professionalism are maintained through high quality training programmes and innovative practices.

Duration of training

There has been a sustained drive to reduce the amount of time spent training for consultant posts. At the beginning of the 1990s, consultants were often appointed around at the age of the 35 years; surgical specialties might appoint even later, some in the early forties. Over the last decade there have been several changes aiming to reduce the length of training. These have been given an impetus by attempts to align the postgraduate medical education system with Europe. Specialist registrars (SpRs) complete higher Specialist Training in five years for most specialties. Training before the SpR grade - at Senior House Officer (SHO) level - generally lasts three or four years following registration.

There are currently pressures to drive down the duration of training still further, particularly as there is a shortage of doctors both in general practice and hospitals. Attempts to regulate a shorter working week for both SHO and the SpRs reduce experience and mitigate against the shorter training. The introduction of problem-based learning at medical school may produce more active learners in PGME. The introduction of simulators into medical education - both technological and human - may provide ways that doctors can gain experience in a protected environment before exposure to real patients and their problems.

"SHO Modernisation" Programmes

A major restructuring of the SHO grade is underway. Ambitious proposals have been published to introduce an extra year, after the Pre-Registration House Officer (PRHO) year, to complete a "foundation course" for new doctors. This foundation course will complete a programme of generic skills for all junior staff: sessions on subjects such as communication skills, time management, critical reasoning, notekeeping, etc. These new graduates will then proceed into programmes of SHO education. Programmes will last two or three years and doctors will take their first specialist exams at during them. Currently, the 10-20% of junior SHO posts are within rotations. It is planned to reverse this ratio, with the majority of trainees entering rotations. A few jobs will be retained for individual doctors who may wish to construct their own rotations, for example those who are leaving one rotation and joining another. These plans imply a loss of service, which cannot be easily covered by the current staff. Plans to extend the role of nursing and other staff may help to mitigate some of the pressures, but there are not enough nursing staff either. Discussions about the Stormont proposals are not finalised as yet, but implementation of at least part of the proposals looks certain.

The North Carolina AHEC Program

The North Carolina AHEC Program was founded in 1972 in order decentralize and regionalize health professions education in the state. There are nine regional AHEC Centers in the state, serving multi-county regions with a broad array of undergraduate, graduate and postgraduate educational programs. Unlike the postgraduate centers in the U.K., the AHECs serve all types of health science students, residents and practicing health professionals. While medical education forms a core set of programs at each AHEC, staff at the AHECs are also heavily involved in the education of nurses, dentists, pharmacists, allied health personnel, and persons working in the public health and mental health fields. Detailed descriptions of each of the AHEC Centers as well as all of the major programs operated by AHEC are contained on the AHEC website at www.ncahec.net.

The AHEC Program is primarily funded with an appropriation by the North Carolina General Assembly for approximately $44 million. A small amount of federal AHEC funding also supports the program, as well as fees that are charged for various AHEC programs and services. Finally, AHEC's rely on both foundation and federal grants to fund demonstration projects, a modest research program, and other new initiatives.

Distance Learning

Reduced working hours in UK (56 hours maximum) and US (80 hours maximum) have diminished learning opportunities. Technological advances have improved access to asynchronous learning resources. There has been a significant investment in web-based and computer-aided teaching materials. Trainees must now possess the skills and technology to facilitate access to the breadth of materials that are available in a wide range of formats to enhance the learning experience. Teachers can also use these resources to enhance and refresh their teaching aids and allow their students to extend their own learning capability. Contributions to a central depository of Re-usable Learning Objects (RLO's) encourages innovation and sharing of materials.

There has been considerable progress in developing teaching materials that adapt well to web-based delivery. They include interactive participation, web- streaming video and on-line evaluation. Many institutions recognise them as being valid for Continuing Medical Education (CME) and there are an increasing number of undergraduate and post-graduate degree courses provided with a significant (or complete) web-based delivery (eg University of Phoenix). Some modular courses are available for preceptor development (Teaching the Teacher).

Development of Hardware and Software

Development and new initiatives in technology to support patient care offers new opportunities and challenges for medical educators. The introduction of electronic patient records may both inhibit traditional styles of learning (case-note review) and also offer the potential to develop new tools of "just-in-time" learning aids to enhance patient care and aid physician development. Medical Educators need to remain aware of technological developments and act opportunistically. Point of Entry Audits (POE) are providing useful in learning from critical events and improving patient safety and clinician awareness.

The increasing use of handheld computers (Personal Digital Assistants or PDA's) offers another means of improving patient care and unique opportunities for facilitated learning. Accessibility to current literature, pharmaceutical databases and medical support software in a mobile format can provide timely and accurate interventions reducing the risk of medical errors and supporting student and trained professional alike.