Another Perspective on Physician Training: US Graduate Medical Education

By Dr Chan Kwai Tung

As a former House Officer with the Ministry of Health in the early 90s, I found the sentiments expressed by the junior doctors and Editor in the March 2005 issue (Volume 37, Issue 03) of the SMA News interesting and thought-provoking. I spend much of my professional time supervising the training of residents (physician trainees) in my position as a residency programme director (PD) at a major US medical school. Despite the differences between the US and Singapore systems of medical training, I found myself wondering if there are aspects of US physician training (known here as graduate medical education (GME)) that might be relevant to addressing the needs of junior doctors in Singapore.

US MEDICAL EDUCATION

First, some general information about the US medical education system. Medical schooling in the US is typically offered at the post-graduate level and takes four years to complete. Newly graduated doctors then enter into "residency programmes" to train in their chosen specialty. US medical students have many options in terms of specialty choices and training programmes, but they have to select a specialty and obtain a training position fairly early – by the final year of medical school.

The philosophy and outcomes of US physician training are quite different from the British system of medical education that is more familiar to Singaporean doctors. With rare exceptions, all junior doctors in the US complete training in a residency programme before they commence practice as independent physicians/surgeons. Training duration ranges from three years for specialties such as internal medicine, family practice and paediatrics (practitioners in these fields provide the majority of primary medical care in the US) to five years or more for surgical specialties. Sub-specialty training would further extend the total period of training. All residency programmes in the same specialty have the same pre-determined training duration and the training tends to be well-organised, with a strong emphasis on education. This consistency and predictability of training is very appealing as it means trainees generally complete all of their training in the same programme/geographical location and can expect, with reasonable certainty, to be attendings (consultants) after completing their residency training.

This training system has led to a health care system that has many more consultant level physicians and (sub)specialists than the more restrictive/selective British model. It has also been implicated as one of the reasons for high health care expenditures in the US. What makes the situation even more complex is the fact that GME is funded from multiple sources and the number of training positions offered in each specialty is not pre-determined or regulated in any systematic manner.

All residency training programmes in a specialty are required to meet common training requirements set by a national accreditation body called the Accreditation Council for Graduate Medical Education (ACGME). This results in a fairly consistent training experience and curriculum for all programmes within a specialty (at least in theory). Interestingly, while completion of an ACGME-accredited residency programme is a necessary prerequisite for specialty board certification, US physicians do not have to be specialty board-certified to practise medicine as attendings as long as they have a state medical licence (specialty board certification is a separate process under the purview of the American Board of Medical Specialties, a organisation that represents all the major specialty boards). In practice however, most US doctors do take specialty board examinations and obtain board certification to provide a form of quality assurance and to meet credentialing requirements of hospitals and health insurance companies, many of which require a certain percentage of their staff to be "board-certified". Doctors who pass their specialty board examinations are required to participate in continuing medical education (CME) and pass re-certification exams periodically in order to maintain their certification status.

The current US GME system has its share of problems.[1,2] Some of these would probably be familiar to physicians in Singapore. These problems include: too much non-educational work for residents, decrease in faculty teaching, mismatch between educational needs and actual educational experiences and a general lack of responsiveness to changes and needs of society and the health care system.[1,2]

Despite these challenges, the US GME system has developed several good practices to support its educational mission. All residency programmes are expected to have a formal educational curriculum and an organised didactic teaching programme. Other notable features, which will be described in greater detail, are: (1) institutional support, (2) teaching faculty, (3) programme directors, (4) opportunities for trainee feedback and input, and (5) the ACGME.

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INSTITUTIONAL SUPPORT

High quality physician training requires a strong level of support from hospitals and other training sites. In the US, institutional support for GME is provided in a number of ways.

All US teaching hospitals and their affiliated medical schools are required by the ACGME to provide the leadership, infrastructure and resources to support and administer GME activities. This typically includes a designated official who has oversight of all GME activities sponsored by the institution (that is, Associate Dean for GME), a GME office and an institutional GME committee (GMEC) that is responsible for the general administration of training programmes within the institution.

Institutional GMEC membership usually includes: PDs, medical school and hospital leadership, administrators and resident representatives. In my experience, GMECs can be useful forums for addressing matters relating to physician training and greatly assist institutions to meet their ACGME requirements. These committees are usually the primary mechanism for effecting changes to GME at the institutional level.

Teaching hospitals are expected to have adequate ancillary staff to perform non-educational patient care duties such as blood draws, "IV" placements and patient transport. Hospitals that rely excessively on resident staff for such work often have difficulty recruiting the more competitive applicants for their training programmes. More importantly, inadequate support services can trigger increased scrutiny by the ACGME and lead to negative actions such as probation or withdrawal of accreditation. Another practice used by many hospitals to reduce the non-educational workload of trainees is the deployment of advanced nurse practitioners and/or physician assistants for basic and routine patient care.

THE FACULTY

The majority of resident training in the US is done in academic medical centres and teaching hospitals staffed by faculty from medical schools. Unfortunately, the amount of time that faculty actually spend in teaching activities has decreased markedly in recent years.[1]

In an attempt to address this issue, many US medical schools have established alternative promotion tracks for faculty who primarily function as clinician-educators. Medical schools have also recognised the need to encourage faculty participation in educational activities and the importance of assisting faculty development in this area. Some initiatives that have been created include the establishment of academies of educational excellence, educational workshops and mini-fellowships, and collaboration with other educational institutions to offer formal qualifications in education.[3,4]

PROGRAMME DIRECTORS

The Programme Director (PD) plays a unique and important role in US residency training. He/she is the answer to the trainee's question of "who cares for us?" The PD is the faculty member who is responsible for ensuring that residents receive training that they need and that they are reasonably happy. The ACGME requires every residency programme to have one.

Speaking from personal experience, a PD's responsibilities are rather broad and can be quite time-consuming. Duties that are part and parcel of the job include: preparing a formal educational curriculum, setting educational goals and objectives, overseeing the training and evaluation of residents, providing mentorship, remediation and discipline, and getting the programme through the all-important ACGME accreditation survey. While a substantial proportion of the job is probably administrative "busy-work", the role of the PD as a "point person" for matters relating to resident training and welfare is an important one.

TRAINEE INPUT

Residents in the US tend to have many formal and informal opportunities to provide feedback, an important step if you want to improve anything. All residency programmes are required to have processes for residents to evaluate (confidentially) their supervising faculty, clinical rotations and hospitals and overall training experience. Programme directors and supervising faculty also meet with their residents on a regular basis.

Residents have opportunities to provide input through participation on departmental, hospital and institutional committees. Such resident participation is (again) mandated by the ACGME. Feedback can also be provided directly to the ACGME through a web-based questionnaire and complaints process.

THE ACGME

The ACGME is an independent non-profit organisation that sets the standards and requirements for training in most specialties in the US and is responsible for accreditation of programmes and their sponsoring institutions. It has a very influential role because teaching hospitals need to be ACGME-accredited to receive funding from Medicare (the US government's health insurance programme for seniors and the largest funder of GME) for its residents and teaching activities.

The ACGME is also a major driver of change. One major change that the ACGME is implementing is a shift in emphasis from process-oriented education to a focus on the outcomes of learning. In other words, it is no longer enough for programmes to teach what they are supposed to be teaching, they have to demonstrate that their trainees have learnt the lesson, and use this information to improve the way they teach.

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The ACGME has defined six competences that physicians should demonstrate throughout their professional careers (patient care, medical knowledge, practice-based learning, interpersonal and communication skills, professionalism and systems-based practice) and has required all residency programmes to develop and evaluate these competencies in their trainees since July 2002. US medical schools and specialty boards have also incorporated or are in the process of incorporating these concepts into their training and evaluation methods.

Another recent ACGME initiative is the resident duty hour rules.[5] These rules were developed in response to concerns that excessive resident workloads and fatigue were contributing to medical errors and affecting safety for patients and trainees. The rules limit resident work hours to a maximum of 80/week (averaged over four weeks). There are also standards on the number of hours residents can be continuously working, on-call frequency and minimum rest periods. In addition, training programmes and institutions are expected to educate their trainees on the effects and risks of fatigue and to monitor them for excessive fatigue. To comply with these requirements, institutions and programmes have set up systems to monitor work hours and enforce the ACGME rules in addition to implementing various measures such as reducing on-call frequency, minimising non-educational work and establishing night shift services.

These initiatives have created much additional work for PDs and institutions and have resulted in significant restructuring of GME. They will continue to impact physician training in the US for the foreseeable future.

CONCLUSION

The US physician training system has established practices and mechanisms to support its educational mission. Some of these probably have equivalents in the Singapore medical education system while others may be unique to the US. It is interesting to speculate if these US specific practices are relevant and applicable to addressing the needs of junior doctors in Singapore. ■

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