

EDITORIAL

POST-GRADUATE MEDICAL EDUCATION

A doctor is a perpetual student, for the moment he embarked on his career in medicine, he would speedily realise that his science was in a state of flux with new knowledge appearing constantly with the passage of time. The complexity of the living organism is such that he can at best gain a glimpse of some of the basic problems at the time of his graduation, and his practice will inevitably bring him new problems that require careful thought and rigid discipline in order an advance in his knowledge may be made. Consequently, medical education in the undergraduate stage must be viewed as the beginning of a life-long study, without which the doctor is soon obsolete in knowledge and unable to do the best for his patients.

Although learning can take many forms, including self-education, and indeed in the earlier days of medicine, post-graduate medical learning was entirely one of personal observation of data and correlation of facts, modern medical science is so diverse that an organised system of education is necessary, if doctors are to keep abreast of the changes. The strife to learn more and more of the less and less can only mean that knowledge becomes more detailed, and minutiae, by their very nature, can only occupy the attention of a few, and unfortunately will demand exclusive attention. A specialised doctor finds that he is unable to remain knowledgeable in all aspects, but must be content with a deeper appreciation of his own interest which is frequently very narrow and confined. Furthermore, he will soon find that to make further advance in his own specialty, he must relate it to the advance in others, with whose track he is unable to keep up *alone*. Only an uninitiated or a megalomaniac can seriously believe that he can be an expert in more than one specialised field, and a psychiatrist, who imagines that he will have spare powers to probe the mysteries of cardiology, is only showing up his own inadequacy in psychological medicine.

If coordinated knowledge is necessary to permit an advance in a specific topic, and the human intellect too restrictive to be able to appreciate more than one trend at a time, then obviously an organised system of post-graduate education is essential to permit an extension of medical learning after graduation. The necessity of post-graduate medical education is clear, and the inability of an individual to keep up himself as a lone wolf only too evident. But obviously, coordination is valu-

able, only if the items to be coordinated are big enough in number. It is only when there are a sufficient number of doctors doing specialised work that a coordinated advance can be planned. In other words, post-graduate medical education requires as an absolute prerequisite the presence of many specialties, and post-graduate clinical medicine cannot proceed unless there are cardiologists, neurologists, psychiatrists, surgeons, gynaecologists, and a horde of other narrow interests.

Specialists are dependent on facilities, equipment, laboratories, experimental set-up and special patients. An arm-chair cardiologist professing cardiology without electrocardiograph, cardiovascular laboratory with catheters and angiographic machine, and without cardiac patients to study and treat, would soon be a cardiologist no more. A horde of specialists means a large variety of set-ups, each involving a lot in capital outlay, and almost as much in running costs. Yet, these commitments cannot be avoided in post-graduate medical education.

It has been computed variously, locally and abroad, that the cost to train a medical student is between \$2,500/- to \$10,000/- a year. This amount of money is expended principally on the staff, and only about 20% to 30% on equipment and facilities. In training a post-graduate medical student, however, the cost is phenomenal because not only is the staff pay much greater since it consists of experienced men entirely, but also the expenditure in facilities is literally without limit for a legitimate use can be found for every cent given. This would mean that whereas the training of a medical student is expensive, and requires public subsidy sometimes to the extent of 80% to 90% the cost in training a specialist is prohibitive and if it is to be subsidised, the figure would probably be 95% to 99% :

If post-graduate medical education is so expensive, then obviously it is beyond the ordinary financial provision of a single educational institution, such as a University. The education is essential and must be undertaken irrespective of the cost, and scrutinising post-graduate medical education all over the world, one can see at least two common ways in which this expensive commitment is met, and in fact a common denominator runs through both the systems. The first is one of professional bodies and research institutes taking

on the role of education, and the second is one conducted by Universities but with the aid of professional bodies to provide staff. In both cases, the principal duty of the staff is one of specialist work, and education is only a part-time and frequently very small personal commitment. In other words, the teacher is actually a man practising his specialty and making his living on the practice. His teaching is part-time to the extent of a couple of lectures or demonstrations per course. Very frequently these teaching duties are honorary carrying only very small stipends, and in this way the vexed problem of staff is met. It can be seen that whereas the strength of undergraduate medical education is in full-time teachers, the backbone of post-graduate medical education is in part-time specialist teachers.

That this is a logical step is evident apart from considerations of pure economics. A specialist may spend his life time in his field, but for people in other fields, what they want from him can usually be said in a couple of hours. Thus a neurologist taking part in post-graduate medical teaching would demand no more than a few hours to propound the trends in neurology, although for an aspirant neurologist, many more sessions of actual apprenticeship would be necessary. A proper post-graduate medical course therefore is run by practising medical specialists, and a single course involves not one teacher but many exponents. To pretend that a single man can cover all fields as in undergraduate medicine is to deceive oneself.

In Singapore, the number of specialised doctors

is as yet low, there being probably less than 70 if one excludes the service personnel, and as yet as far as medical science goes, there is only one specialist professional body—namely the Academy of Medicine. 70 is not too small a number to begin post-graduate education, and is not big enough to have more than one independent specialised body. There are keen-minded specialists attempting to form separate and narrow societies such as dermatology, psychological medicine, cardiology, obstetrics and public health, but a society with 3 specialists and 20 aspirants can at best be a specialised professional body in embryo, and it will be many more years before it can be of value in education.

It would seem therefore that we have at present potentials enough to begin post-graduate medical education in a systematised way, and in fact a start has already been made, first in the way of refresher courses by the Academy of Medicine, and then in the recent basic science course by the University of Singapore. Nevertheless, it is well to remember that professional bodies constitute the backbone of post-graduate medical education, and part-time teachers provide the only logical solution to staff. Post-graduate medical education is necessary, and the present is opportune time to begin it. We are at liberty to run it either as an activity of an independent professional body or research institute, or as a sponsored activity of the University. But one thing is clear: without the part-time teachers recruited from practising specialists, the attempt will either be prohibitive in cost, or pared down unnecessarily to become a sub-standard activity which is post-graduate only in name.