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THE EDUCATION OF THE ANAESTHETIST

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THE reasons why people take up anaesthesia as a specialty are probably many and mixed. Some are possibly moved by humanitarian motives such as a desire to relieve pain and fear. Some have a particular aptitude for physics or mechanics, or develop an interest in materia medica which achieves fulfilment in the applied pharmacology of anaesthetic management almost more than in any other branch of medicine. A liking for respiratory physiology may provide the spur for some. There are those, no doubt, who see in anaesthesia a path to consultant status less exacting academically than in surgery and medicine. They see the queue on the promotion ladder moving slightly faster than is the case in some other specialties.

Whatever prompts the young postgraduate to adopt an anaesthetic training, it should be as a postgraduate that he is first taught anaesthesia and not as an undergraduate. (This is not to say that the department of anaesthesia has no role to play in undergraduate teaching. Where better can applied physiology or pharmacology be learnt than in a fully functioning anaesthetic department?) It should be, therefore, as a Senior House Officer that the young doctor starts his anaesthetic training. Before this it is hoped—and it might well be a statutory obligation—that he will have done at least one appointment in general medicine, and better still one also in paediatrics or obstetrics.

The Senior House Officer

There are some 700 anaesthetic juniors, of whom over 300 are S.H.O.s. 80% of these work in Regional Board hospitals. I rather doubt the logic of this when it is realised that they are scattered over 220 different hospitals. The

S.H.O. should, in my opinion, really be at school, learning the theory of anaesthesia, the pharmacology and physics and physiology of the specialty and, under the present academic pattern, working for his Primary F.F.A.R.C.S. Of course, during this time, he must be introduced to the various techniques of anaesthesia but under much stricter supervision than he usually gets now. This early schooling is much more profitably undertaken in a group, and the Senior House Officers should, therefore, be working in teaching centres, either in University Departments or in large Regional Hospitals where special arrangements can be made to give adequate school time and proper teaching. There are too many lone S.H.O.s out in the field up to their necks in work which they ought not yet to be doing.

I referred just now to the Primary F.F.A.R.C.S. This examination in the basic sciences has been for many years a stumbling-block to the aspiring young anaesthetist, just as the surgical primary has been to the young surgeon. There is something wrong in introducing at the very beginning of a specialist training an examination which brings down in failure more than two-thirds of those who have to take it. Why is it such an obstacle? Either the academic capacity of the candidates is too low; or the examination is unrealistic and ridiculously difficult; or the entrant is doing a job, often right round the clock, while he is trying to work for it; or there is something wrong with undergraduate education. There is probably some truth in each of these explanations for such a high failure rate in the Primary. But the most important is this something lacking in general medical education. After all, the Primary should be a straight examination

in basic science and the basic sciences should be the A.B.C. of medicine for every doctor. But so long as anatomy and physiology are taught in a preclinical wonderland to be forgotten almost deliberately as soon as the student is released into clinical studies, and so long as the teaching of pharmacology is as neglected as it is, pathology would seem to be the only one of the four graces which has a chance of survival into the postgraduate scene. It has been said that a revision of basic science is a necessary starting point for any one embarking upon a specialist career, and may be there is the rub. For how much teaching for the Primary in these days represents a revision of what the student learned in his second M.B.? The physiology he hears now will be quite different from that which he heard five years ago. The pharmacology may indeed be actually contradictory. Anatomy has almost disappeared down the eyepieces of the electron microscope. Pathology has fragmented into at least four separate specialties! What is a poor postgraduate to do but struggle to add late-night reading onto an overfull working day, or take time off to do a basic science course; or try for a job in one of the few centres where schooling is possible? As to the content of the examination itself, there is a committee of the Faculty which is giving it a look-over and perhaps in a year or two the examination may emerge in new form.

It is not in my brief to suggest a new pattern of undergraduate education, but the wind of change is blowing more and more strongly and there may be a chance that before long we shall find more of the basic study of health as well as disease, more pharmacology, pathology and biology, more of the social sciences, being taught to undergraduates, leaving the specialties (including the techniques of surgery) to follow in the postgraduate stage of education.

Let us, therefore, gather our anaesthetic S.H.O.s into anaesthetic departments in hospitals with teaching facilities. They might be clustered for example into 40 or 50 centres with 6-10 S.H.O.s in each. These would gather for tutorials or laboratory work for some part of each day and would work for the rest of the time in theatres, some in nearby district hospitals, with selected consultants or with senior registrars. I would hope that under some such scheme as this the majority of S.H.O.s would pass their Primary before becoming registrars or early in their registrar existence.

Registrars

With their Primary behind them many more of the 400-odd anaesthetic registrars could give uninterrupted attention to learning to give good anaesthesia. The registrar, as I see him in my pattern, would be more ubiquitous than the S.H.O. But the hospitals in which he worked must be more critically vetted by the Faculty Visitors. The criterion for recognition for training for the final F.F.A.R.C.S. must be the training and teaching that is provided, not what might or could be provided. The majority of registrars might work for two years in a district hospital and most of them might be expected to pass their Final Fellowship during this period.

During this period the life of a registrar in theatre and wards should be one of expanding responsibility. At first, much of his time should be spent either working with a consultant, or in an adjacent theatre. In academic centres where there is a senior registrar, the latter will play a large part in his education. His gradual emancipation will be a planned affair. There must be regional or area schemes which will allow for some movement of registrars, if only on a day basis to visit special units.

Other activities will be departmental discussion evenings, journal clubs and attendance at general postgraduate sessions, clinico-pathological conferences, and post mortems of general or topical interest. The management of cases of respiratory insufficiency and of post-operative complications will, of course, form part of his education.

This pattern implies that consultants who are interested in and willing to teach must be given some time to do so. In other words sessions must be allowed here and there to prevent the teachers from being smothered and discouraged by overwork.

What will happen to the anaesthetic services in those hospitals which either no longer have a Senior House Officer or a Registrar or are not recognised for training for the Fellowships? While I would agree with the Platt report's contention that direct responsibility for a patient's welfare must lie with a consultant, I can see the possible virtue in a medical assistant grade provided that the doctor so graded is properly trained with at least three years in senior house officer and registrar posts. I think that if a doctor wants to mix general practice with a skill and training which has taken him years to acquire there is some sense in using him to fill a need due to reorganisation

of training posts. Here, perhaps, par excellence is a place where the anaesthetic woman post-graduate who marries as a registrar and later wants to come back into anaesthetic practice can be most usefully employed after, perhaps, a period of rehabilitation. But the planning and management of anaesthetic services in such hospitals must be a consultant responsibility. Sooner or later we shall agree, I hope, that cottage hospital surgery shall cease. The general practitioner cottage hospital has a vital and useful place in the hospital service, but not in the surgical field. This will mean that medical assistant "specialists" will be working in district hospitals as part of the departmental hospital specialist service.

Senior Registrars

Senior registrars are the successful registrars who graduate into the finishing school for consultants. They will, of course, have their Fellowship and should be working round the teaching centres, (using the term again in its broadest sense). Wherever there is a school of senior house officers there should be a senior registrar. I suspect that a young anaesthetist in training learns more of worth from a senior registrar than from many consultants who are not so constantly present in his day-to-day life. The number of senior registrars should be equated with the expected consultant vacancies. That there are, in anaesthesia, too few senior registrars is generally acknowledged. A figure double the present establishment is probably realistic. This should not be an impossible target, given the financial backing from the Ministry, if senior registrars are used in a logical and proper manner. No senior registrar should be indispensable, for a limited time, to the department in which he works. He should, in fact, be almost supernumerary to establishment, if he is engrossed in a research project, or if he is away at a course or conference. If he is teaching in formal or informal commitments, the work of the department should not suffer as a consequence. The period of senior registrar activity should be exploited to the fullest advantage as the final polishing period for consultant status. With so much anaesthetic participation in clinical affairs; in intensive care units; in post-operative recovery wards; in assessment for operation units and so on, it would add strength to such activities if more anaesthetists acquired an M.D. or Membership. The time to do this would obviously be during the senior registrar appointment.

There is a continuous debate as to the desirability of senior registrar links between university teaching centres and Regional Board hospitals. The Ministry of Health has come down strongly in favour of such linked appointments and I would give my support to such a decision. Most consultants will work for their 30-odd years as such in Regional Board hospitals, and it would seem to me as unreal to expect them to be ready for such appointments if they have never served in a regional hospital as to expect a newly appointed senior lecturer or reader to settle into a university department who had never been taught the various patterns and techniques of research. Nevertheless, there are undoubtedly snags if such linked appointments are geographically separated by long distance and if domestic upheaval occurs in such an arrangement. The solution must lie in both university and regional hospitals accepting responsibility for providing married accommodation of a high standard and easy availability; though this still leaves the difficult problem of disrupted schooling for the children. A lot of goodwill and intelligent planning will be necessary if this desirable pattern of senior registrar training is to become accepted.

Consultant Continuing Education

In these days the whole pattern and content of knowledge of any branch of medicine is changing all the time. It is as necessary for consultants to continue to learn as it is for registrars. There must be time to read current literature, not only in anaesthetic journals but in those other journals which report work which has a bearing on the activities of an anaesthetic department. This implies a post-graduate organisation which provides library and meeting facilities. It implies adequate study leave for the odd day or occasional longer period to attend meetings or congresses at home or abroad. It implies enough staff and enough central imagination to make this possible without disrupting the service. It also implies a willingness on the part of the consultant to take, or make, such opportunities.

Is what I have tried to describe as a desirable pattern of training at all possible? It would seem to me that it is. Judging from what we have achieved in Wessex, which is the region about which I know most, I am sure that we could modify the organisation of anaesthetic services to make a much more satisfactory pattern of anaesthetic education.

Already in Wessex we have a basic science programme, based on Southampton, where senior house officers and registrars from all over the Region can take an in-service course each year. There are several large anaesthetic departments with seven or eight juniors and a senior registrar linked with a University Department of Anaesthetics, who spends one or two years in the regional hospital. There is a general postgraduate educational programme which takes place in specially built medical centres and which supplements departmental teaching programmes. There are good library

facilities in the seven Postgraduate Medical Centres and a Regional Board which is generous in providing study leave and money for postgraduate activities. With the Ministry's recognition of its responsibilities in postgraduate education which will supplement that already shouldered by the universities, and the Faculty of Anaesthetists' interest in re-planning the training programme and Fellowship examination, it would seem to me possible to fulfil our obligation to the next generation which is to make them better anaesthetists than their present teachers.
