Middle Articles

MEDICAL EDUCATION

Postgraduate Surgical Education*

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Throughout its history the Royal College of Surgeons of England has held education in surgery to be its primary concern. In the early days the College had the responsibility of licensing surgeons to practise surgery in and around the City of London, and this authority was later extended to the whole of England. An Act of Parliament in 1875 authorized the newly constituted General Medical Council to recognize the diploma of Membership of the College as a registrable qualification, so that holders of the M.R.C.S. together with the equivalent diploma of the College of Physicians of London were entitled to have their names recorded on the *Medical Register* and to practise as legally qualified doctors in the British Isles. Thus the College always has been and still is concerned in undergraduate medical education. The General Medical Council was also authorized to recognize the medical degrees of the university medical schools as registrable qualifications, and because there has been a considerable increase in the number of university medical schools since 1875 a large number of degrees in addition to the College diploma are now acceptable to the General Medical Council.

In 1843, as a result of considerable agitation by the members of the College and for reasons quite unconnected with surgical education, the College instituted the diploma of Fellow—a diploma to be awarded by further examination at a higher level than that for membership. Since that time the F.R.C.S. diploma has come to be held in the highest esteem, not only in the British Isles but throughout the world, so much so that in this country the diploma is now the essential requisite for consultant status as a surgeon in the National Health Service. In this respect the diploma far exceeds in importance any higher university surgical degree. Thus while the importance and influence of the College on undergraduate education has perhaps diminished over the years, for the diploma of Membership of the Royal College of Surgeons is but one of many qualifying diplomas recognized by the General Medical Council, the importance and influence of the College in postgraduate surgical education has increased enormously, for the diploma of Fellow is unique. It is therefore not surprising that the College has shown and is showing profound interest in the proper organization of postgraduate education and would view with concern any attempt to diminish its influence and authority in this field—authority which has assured the uniformly high standard of British surgery over the past hundred years.

Specialization

Surgery has both advanced and expanded since the Fellowship was instituted, and in the past 25 years the expansion might

be described as an explosion. This explosion has fragmented surgery into a number of different but still closely allied disciplines. This separation of surgery into a number of disciplines has given rise to new problems in postgraduate education.

In the past the young surgeon in training could acquire the necessary knowledge and skill to equip him for independent practice in any field of surgery simply by working for an adequate time under one or two experienced surgeons in a good hospital. This is no longer the case. All surgeons now practise mainly, if not exclusively, in the restricted field of one of the major branches of surgery—so-called “general” surgery, orthopaedic surgery, thoracic surgery, and so on. This tendency for specialization is inevitably increasing, for the scientific basis, methods of investigation, and operative techniques are now so complicated that no single individual can hope to master the whole of surgery. Training, however, cannot be confined to a single specialty, for such training is unbalanced and tends to produce excellent technicians but surgeons lacking in judgement and incapable of tackling any problem outside their own particular field. It is the almost unanimous opinion of surgeons of experience, and certainly of the Council of the Royal College of Surgeons, that all surgeons should have a basic knowledge of surgery in general before proceeding to any specialist branch. Because of specialization in surgery it is clear that nowadays in order to achieve a reasonable standard of knowledge in the principles and simpler techniques of surgery in general the young surgeon has to work in several disciplines under several specialized surgeons, and, in addition, has to acquire a much deeper knowledge and higher technical skill in the branch of surgery he chooses for his career.

Organization of Training

All this calls for considerable change, not in the principles of postgraduate education but in the organization. British surgical training is essentially clinical and based on the apprentice system. It is the opinion of the majority of surgeons that this system should and must continue, but that the organization of training must change, for what was once simple is now complex.

Though the proper organization of training posts is the most important development it is by no means the only one. Modern surgery is largely a science and a rapidly developing science. In addition to apprentice teaching of clinical “know-how” and technical expertise there must be organized teaching of the basic sciences of physiology, pathology, biochemistry, and the other scientific disciplines of which a reasonably sound knowledge is essential for the practice of modern surgery.

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For many years the College has recognized its responsibility in postgraduate education and has endeavoured to discharge these responsibilities in three principal ways: (1) by providing an examination system that is fair to the young surgeons and at the same time fulfilling its obligation to the community to see that they are fit for the tasks they will have to perform as fully trained surgeons; (2) by providing formal postgraduate education in the form of lectures, courses of instruction, and scientific symposia; and (3) by ensuring that the hospital posts in which the trainees carry out clinical training provide the sort of supervision, experience, and intellectual stimulus that they need.

Because of the major advances and the extensive changes which have occurred in surgical practice in the past 20 years the Council of the College realized that changes were necessary in surgical training to ensure that the surgeons of the future would be fully equipped for the increasingly complex tasks that they will have to perform as specialists. Accordingly in 1959 the Council appointed the Committee on Surgical Training under the chairmanship of, first, Mr. Harold Edwards and, later, of Professor Wells and Mr. Norman Barrett. During the past seven years this committee, through Council, has reviewed the Primary examinations, and as a result of this review the examination is becoming orientated more towards practical surgery, thus giving the candidate more opportunity to show his own knowledge and requiring less of the purely theoretical knowledge in the more traditional areas of the academic disciplines. They have also kept the Final examination under constant review.

On the advice of the Committee on Surgical Training the Council has appointed a director of surgical studies and regional surgical advisers. The duties of the director and the surgical advisers, in collaboration with the university postgraduate deans, include the organization and co-ordination of formal postgraduate surgical teaching in the regions, and to give advice to young surgeons on the organization of their training programmes. In these duties the advisers have been greatly helped by the appointments, with the help of the Nuffield Hospitals Trust, of surgical tutors in each region.

Training Posts

All this is a considerable achievement, but Council and the committee have done more. They have prepared the ground and laid the foundations for what is the most important step of all—the establishment of an organized system of training posts which will enable a young man aspiring to a surgical career in any branch of surgery to complete his full training by regular and progressive steps, and expeditiously enough to make it possible for him to be recognized as fully trained to the standard of consultant status in the National Health Service at the age of 32 or 33, and, moreover, to do this without having to move his house and family every six to twelve months.

Council and the committee have striven to achieve this ideal for many years. The difficulty has been to work out a practicable scheme which would embrace not only general surgery but also all the major surgical specialties.

In the past two years, stimulated by the view of Council and by their own anxiety over the total absence of organized training, at least after completion of the Fellowship regulations, the major surgical specialist associations together agreed on a full training programme up to consultant status and submitted a memorandum to the College Council. Since the memorandum presented a workable scheme entirely compatible with the views of the College, it is not surprising that Council at once accepted it in principle, and it is now the declared policy of the College.

In broad outline the scheme retains the Fellowship diploma in its present form as the indication of a satisfactory standard of knowledge of surgery in general. After completion of the Fellowship regulations it is proposed that there should be organized training in each of the specialties, including general surgery, lasting at most four years. On completing this final period of training and on satisfactory reports from his teachers—but not by examination—Council will certify the trainee as being suitable for appointment to a consultant post. Thus it is proposed that training should be considered in two parts: (1) pre-fellowship training in surgery in general, and (2) training in depth in the chosen specialty, and that completion of satisfactory training should be marked by formal certification.

If we are to minimize the anxieties, frustrations, and hardships which are now experienced by young men in training, then it is obvious that the training posts in each part of the programme should be organized so as to provide the necessary experience efficiently and expeditiously.

In the pre-fellowship period this can be achieved only by the organization of proper rotating posts between a number of specialties at registrar and S.H.O. level and within one hospital or geographically compact hospital group. The organization of such posts is clearly the responsibility of the Training Committee assisted by the surgical advisers, and the College intends to use its powers of inspection to encourage the introduction of such posts.

In the post-fellowship period the College intends to introduce complete training programmes in each specialty to be carried out in designated hospitals or hospital groups. To assist Council both in the arrangement of the programmes and in the designation of hospitals Council proposes that standing committees should be appointed in each specialty, each consisting of members of Council and members from the appropriate specialist association. In addition to advising upon individual training programmes and upon designation of hospitals, these committees, directly responsible to Council, will keep all programmes under constant review, keep a register of training posts and of surgeons in training, consider reports on individuals on completion of training, and, if these are satisfactory, recommend certification by Council.

Conclusion

I have described in brief outline the main principles of a practicable scheme designed to solve many of the problems of the young trainee. However, in addition to the main principles, much of the detail has already been worked out and Council believes that the scheme can be implemented quickly once the standing committees are appointed, for each committee, constituted as already described, will have not only the necessary knowledge to advise on training programmes for the particular specialty with which it is concerned but also knowledge of the existing training potentials of hospitals and hospital groups essential for the designation of training hospitals.

No surgeon is satisfied with the present state of postgraduate surgical education. The plan described is the logical outcome of much work and deliberation by the College Council and the Training Committee. Council believes that it is the line that reform should take. The success of the new programmes will ultimately depend, however, not on the efforts of Council but on the enthusiasm, co-operation, and sometimes sacrifice of the Fellows of the Royal College of Surgeons in the effort that all must make to maintain and to improve the high standard of British surgery. Council believes that the Fellows of the College fully appreciate the problems, and that it will have their support to ensure that these reforms will be an unqualified success.