assess criteria such as the quality of the hospital, the chief of the particular specialty, the scientific standard, etc. After discussion the Concilium sends its conclusion and decision to the Commission. In this way a hospital can obtain the necessary authorization to train people in one or several specialties.

Generally, specialist training lasts five years. There is no final examination; as a rule the prospective specialist can be entered in the specialist register once he has completed this period. Obtaining a thesis is not necessary for specialist registration, and hence obviously the scrutiny of hospitals and the heads of departments of a specialty has to be very strict. Recognition of a head of a department, the department, and the hospital for the

right to train specialists must imply a very high standard of theoretical and practical training.

Though in the Netherlands we have not finished discussing the problems of specialist training in general internal medicine, the number of doctors who are registered as specialists in this field has not yet begun to fall. Naturally we have a high regard for our colleagues specializing in cardiology, gastroenterology, thoracic disease, and so on. Nevertheless, we believe that one can practise general internal medicine and at the same time have a particular interest in one subject. This kind of practise can allow doctors to have a special interest and yet retain a broad outlook so that the unity of man is not threatened.

Continuing Education in Internal Medicine

Collaboration of Universities and Schools of Medicine

LORD ROSENHEIM

I shall assume that this topic refers to those who have completed their formal postgraduate education and who have, around the age of 35, been appointed as a consultant physician to a hospital. The general physician, or "internist", must thereafter keep abreast of advances in medicine for at least 30 years, a problem which most of us at this meeting have, I hope, successfully faced. During the years that I have practised as a general physician I have had to learn about and adjust my practice to the use of antibiotics, steroids, immunotherapy, chemotherapy, and renal dialysis and transplantation, to mention only a few of the outstanding advances.

It is only fairly recently that we have appreciated the great need for organizing the "continuing education" of the physician after he has finished his training, and more needs still to be done in supplying the necessary facilities. The provision of facilities will, however, be useless if there is not a great desire on the part of the individual physician to keep himself up to date. The first need is, of course, regular reading, of journals, books, and reports, and access to a good medical and reference library is essential. This may be the university library, a library run by the medical school and hospital, but will often be a library owned by a local medical society. As I expect most of you know, the best medical library in London, in the United Kingdom, is that of the Royal Society of Medicine.

With the rapid advances in therapeutics, regular information about new drugs, their uses and dangers, must be made available for all physicians. In Great Britain, as elsewhere, there is a growing tendency to the development of specialties in medical practice, but for a long time to come we shall need to produce a race of general physicians, though many of them will have a particular interest in some special subject. The full specialist is needed in the special centre, but general physicians with or without special interests will long be needed in all our hospitals.

It is not easy to maintain widespread general interest, and our purpose at this session is to review how this can best be

done. The general physician may be on the staff of a university or teaching hospital, or of a peripheral non-teaching hospital. In each, continuing education results best from regular and close contact with colleagues and assistants, and from one's students. Discussions with assistants by the bedside, attendance at the weekly "grand round", at clinicopathological conferences, and other hospital activities keep the physician in touch with changing views. The professor of medicine has, perhaps, the simplest task of remaining a generalist, for he usually finds himself surrounded by young men who keep him up to date.

Role of University

The major role of the university in postgraduate education must lie in the training of physicians during the early years of their careers, in research laboratories and in the wards. The collaboration of the universities and medical schools in the continuing education of the general physician is largely informal. The academic staff of the school and the physicians on the staff of the teaching hospital spend an increasing amount of time on lecturing at postgraduate meetings.

In the United Kingdom there are now considerable opportunities for postgraduate study by established consultants. They may obtain study leave for several months, though regular sabbatical leave has not yet been organized by the National Health Service. The royal colleges of physicians, the universities, the Royal Society of Medicine, and regional postgraduate organizations hold regular meetings and conferences. The Association of Physicians of Great Britain and Ireland has long held its annual meeting in university centres, and regional associations have recently sprung up. On 8 and 9 May I attended the meeting of the Society of Physicians in Wales and listened to a series of excellent papers.

The Royal College of Physicians of London holds its annual advanced medicine conference in the college every February. This lasts for five days and includes discussions by experts on recent development in medicine, formal lectures, and also seminar sessions, where some ten physicians meet a specialist for informal discussion. Some 300 physicians attend each year and the proceedings are published as soon as possible after the meeting. The College also holds many shorter conferences on selected topics, at which the specialist is encouraged to explain advances in his subject in terms understandable by the generalist.

It is, I believe, easier for the specialist to keep up to date in his subject than it is for the general physician, but in both the main impetus for continuing education must lie within the individual. There can be no doubt that every physician benefits from a period away from his daily routine, and study leave, whether spent back at a teaching hospital or in travel

to conferences or courses at home or abroad, gives him the much needed opportunity of refreshing his mind and adapting himself to advances in medicine. I hope that the European Association for Internal Medicine will provide just such facilities for the general physicians of Europe.

Collaboration of General Non-university Hospitals

H. DIRIART

The qualified specialist in internal medicine must maintain his knowledge at the level he reached when he specialized. This may be done by reading medical journals as well as regular attendance at his local hospital. Hence non-university hospitals have an important part to play in the continuing education of doctors, particularly since nowadays their facilities match the high standard of the doctors working in them. Moreover, the hospitals have had a considerable stimulus from the attachment of medical students to them for teaching, as well as from the building of medical postgraduate centres. It is important that the specialist in internal medicine should be integrated as much as possible into the hospital department and invited to participate fully in its work.

Postgraduate Medical Teaching Association, Paris

H. DIRIART, M.D., President

Continuing Education Outside the Hospital

R. SCHAUS

Even those with relatively easy access to hospitals and services cannot do without additional means of continuing education, such as reading medical journals. The choice of the other means depends on the preferences and geographical situation of the individual doctor. I shall now consider some of the really useful resources available in continuing education.

The medical lecture by an individual lecturer is still useful but its value is dwindling. Much more valuable are colloquia and round table conferences held with special speakers, which give the doctor a living refresher course on a specific subject. The advantage of direct contact lies in the dialogue which it allows and encourages.

We are all overwhelmed by the presentday proliferation of medical periodicals, and everybody must select his own special sieve through which essential papers will not pass. One solution might be for an association like ours to ask its members from various countries to draw up a list of the first-class journals in their countries, both in the field of general internal medicine and in related specialties. One can quote as an instance the booklet of the British Council on British medical periodicals.

It is also essential that every doctor should be able to obtain a bibliography on any given subject and in addition the articles

he needs, whether as microfilms, photostats, or any other means of reproduction. Such an ideal service is offered by the Royal Society of Medicine to its members.

Self-assessment

Subjects which a doctor studies of his own free will are not always the same as those in which there are particularly large gaps in his knowledge. So the tendency has grown up to study what areas the doctor knows particularly well, which gaps should be filled, and at the same time to provide a means of filling them. The American College of Physicians took the initiative in this field in 1968 and also in 1971, when it sent out a document containing 100 questions to specialists in internal medicine in the U.S.A. After it had been corrected this questionnaire was returned again to the specialist (in confidence) telling him of the results and suggesting a possible bibliography for study. Since then, this type of experiment has been used more and more on the other side of the Atlantic.

This "self assessment of medical knowledge" may be achieved by other means. Examples include the *Textbook Study Guide of Internal Medicine*, with its 2,265 questions and answers, which is published in the U.S.A; multiple-choice questions in medical journals, with the answers published in the next issue; and collections in book form of, for instance, electrocardiograms with multiple-choice answers, the answers being printed at the end of the volume. Another technique in this field is programmed learning, which allows instruction to be geared to the individual. This system allows the reader to consolidate his knowledge or to acquire new facts.

Slides

Slides have now become an essential part of any lecture, but they may be used for teaching in another way—that is as a collection of illustrations relating to a particular topic. Thus, the College of Medicine of the Paris Hospitals has collected together an outstanding photograph library, where each set of colour slides is accompanied by a printed commentary, which is read out to the audience as the slides are projected. Obviously some subjects (such as endoscopy and radiology) lend themselves much better to this type of teaching than do others. Another possible way of using slides is to combine a set of them with a tape recording, so that they are projected with a synchronized commentary.

Radio and Sound Recordings

Radio has been used much less in medical teaching than in other fields. The School of Medicine of New South Wales in Australia, broadcasts programmes of continuing medical education three times every week. These last one hour and use a special wavelength, which can be received only by specially adapted receivers.

The telephone has been found useful for consultations with specialists or research workers over immediate specific problems, but so far experiments using it for actual teaching suggest that its value is negligible.

At the moment sound recordings are dominated by magnetic tapes, which have been widely used for some time. Tapes have many advantages. They can be recorded anywhere, edited, mass produced, and posted quickly. The doctor can listen to them anywhere and at any time. I personally have been very impressed by a regularly appearing internal medicine periodical in sound. These are cassettes playing for an hour and are published by the California Medical Association 24 times a year. Similarly, every

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Institute of the Grand Duchy of Luxembourg

R. SCHAUS, M.D., President of the Faculty of Medical Sciences

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