The success of this second six months has varied. Most but not all of the consultants have been co-operative. In some specialties where the consultant has only a part-time lien on a houseman, the young doctor has been welcome. In others, he has tended to poach on the preserves of an established houseman and has come off second best—as a bored pupil rather than an active assistant. I think that probably we have tried to include too many departments in this period of six months; perhaps two periods of six months and two groups of specialties would be better. However, with the present pre-registration period of one year, and with the economic forces attracting young graduates into posts as assistants or assistants with a view, we felt that six months in the special departments would be as much as we could expect the young graduate to accept. On the whole I am sure that this part of the experiment has been worth while and helpful. During the part of preparation for general practice that is spent in hospital it is training in the work of the special departments by means of rotating house posts or by other similar methods that requires the closest examination.

During the second year the young doctor is attached under the Government Trainee Scheme to a general practitioner. To start with, his responsibilities are none—he sits and watches and listens. Gradually he does more and more himself, until at the end of the year he does, and indeed should do, locums for absent partners, though with a partner available if he is in trouble. Even in the early stages he does not always work with the same partner, and so sees not only differences in method but differences in philosophy and in the approach to patients. To broaden his experience he is sent for a week at a time to colleagues in different types of practice—a rural dispensing practice, a practice in a small town with a general-practitioner hospital, a practice doing part-time industrial medicine. In addition, he goes to the County Medical Officer of Health for a week or more to see how the local authority services link up with general practice. He also sees something of the work of full-time industrial medical officers, regional medical officers, family planning clinics, child guidance clinics, and so on. It is important, I think, that the trainee year should be spent near the hospital where the first year's training has been carried out. The trainee is known in the hospital, and can more readily

follow his patients through the hospital and can attend the out-patient department or domiciliary consultations on the more difficult cases with consultants whom he already knows.

At the end of his two years we hope he will be not only a clinically competent general practitioner but will understand and be able to make the best use of all the branches of the Health Service and of the ancillary services to the greatest benefit of his patients.

I have not spoken about the training of the general practitioner who wishes to acquire a special knowledge of some branch of medicine, and who may aspire to a clinical assistantship or to enter the medical assistant grade. I believe very strongly that it can only be good for a general practitioner to have this special training, but it should be designed by the specialist for the specialty concerned and is not strictly postgraduate education for general practice. I have limited myself to discussing the minimum needs of the general practitioner, and have suggested that this should take two or two and a half years after registration. Training for a special interest must add one or more years' training in hospital to the statutory minimum.

Conclusion

To sum up, I believe there should be a planned preparation for entry to general practice. This means that we must understand and define the work of the present-day family doctor. The hospitals must remember their duty to provide educational opportunities for all their junior staffs, and, in particular, should design posts in which potential general practitioners can gain practical experience of the work of the special departments.

Short courses in "adaptation for general practice" and on the clinical conditions seen only in general practice should be arranged.

Experienced general practitioners should be prepared to engage young doctors as apprentices and pupils and teach them the art and disciplines of family doctoring.

Our main difficulty is that the general practitioner knows little of teaching, and the teachers of medicine often have little experience of general practice. I am sure that if we can share our knowledge a sound postgraduate preparation for general practice can be designed.

NEW APPROACH TO GENERAL-PRACTITIONER OBSTETRIC EDUCATION

BY

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Even when the recommendations of the Maternity Services (Cranbrook Committee) are fully implemented three confinements out of ten in England and Wales will take place outside hospital, usually in the mother's own home. Increasingly, confinements are coming under the care of general-practitioner obstetricians, if not in patients' homes, in general-practitioner units. In some areas as many as 99% of women to be confined at home book the services of a general-practitioner obstetrician. Yet the three confidential inquiries into maternal deaths, and the more recent (and incompletely published) findings of the National Birthday Trust's Perinatal Mortality Survey, have indicated disturbing—and avoidable—weaknesses in the domiciliary maternity services. The key to overcoming these deficiencies must include some consideration of the

postgraduate education of general-practitioner obstetricians; and information and guidance on its organization seems inversely proportional to the clear extent of its need.

In the academic year 1961–2 3,370 doctors attended postgraduate refresher courses of all sorts under the auspices of the Ministry of Health. Of these, about 500 chose courses in obstetrics, and for the first time 60 of these attended "individual attachment"—that is, residential practical courses. The purpose of these practical courses is to offer the postgraduate student the opportunity to perform practical obstetrics under hospital conditions in collaboration with his consultant colleagues.

The following account of one of the first postgraduate centres for practical courses—started as an educational experiment, but now firmly established—can be helpful

at this critical moment in the development of the country's maternity services.

The Unit

A postgraduate school of obstetrics was established at St. John's Hospital, Chelmsford, in 1959. The obstetric department of the hospital, with 80 beds, including 30 antenatal beds, admits between 1,700 and 1,900 complicated or potentially abnormal confinements annually—300 of them as emergencies. (The mainly normal confinements take place either in patients' homes or in G.P. obstetric units.) An academic atmosphere is established in the department, since it is not only a pupil midwives' training-school recognized by the Central Midwives Board but it also accepts two undergraduate students each month from the London Hospital for obstetric experience. While the pupil midwives and the medical students are taught predominantly normal midwifery, the wide range of abnormal cases provides excellent clinical material for postgraduate teaching, with the emphasis on the prevention, recognition, and treatment of obstetric complications.

In 1962 the Chelmsford Hospital Management Committee's obstetric statistics produced a stillbirth rate of 10.7 per 1,000 births, a perinatal mortality of 19.1 per 1,000 births, and a maternal death rate of 0.27 per 1,000 births. These results were obtained from 1,729 deliveries at the specialist unit at St. John's Hospital; 769 in the three G.P. units, and 1,170 at home. It may be seen, therefore, that 52.9% of confinements in the area were entirely under the care of general practitioners.

One post-natal and three antenatal clinics are held weekly at the hospital. In addition, gynaecological out-patient clinics are held at near-by hospitals in the group, as well as operating sessions.

Organization of the Courses

All these sessions, as well as many other facilities, are open to all G.P.s attending the practical courses, and are fully used for teaching purposes. The department accepts two doctors, who live in comfortable quarters in the hospital. They stay for one or two weeks, according to their own wishes. During this time they attend not only the formal midwifery lectures (three per week) given to the pupil midwives and medical students, but also the antenatal, post-natal, and gynaecological clinics; they assist at operations, and they personally perform (under supervision) such obstetric procedures as pudendal blocks, surgical inductions, episiotomy repairs, forceps deliveries, and so on. In addition three routine teaching-ward rounds are conducted weekly.

At all times of the day and night there is a constant informal interchange between the postgraduate students and their mentors. As the responsible tutor I endeavour to spend between two and five hours daily with the post-graduates. Teaching takes a variety of forms: the discussion of G.P. problems over cases sent into a hospital by fellow G.P.s; case conferences, often in the labour rooms and sometimes involving the physician, paediatrician, and pathologist; seminar discussion, such as perinatal conferences; and occasionally the rebuttal by the teachers of outspoken criticisms of hospital methods. The advantages of such methods of teaching, and particularly of obstetric teaching, are self-evident. The teaching tradition which existed in my own department, though not a prerequisite for such a course, helps to establish a constructive relationship between the students and the staff—particularly, of course, the midwives, who might otherwise regard with resentment the additional burden they are asked to carry.

By accepting no more than two "students" at a time I can be sure of providing enough clinical material for each of them without trespassing on the recognized rights of my own junior staff, as well as establishing a close tutorial amity which encourages relaxed discussion and free questioning.

Up till now 107 doctors have attended these residential courses. The majority have expressed great satisfaction; several doctors even before their own course had ended booked places for their partners. One doctor expressed the view that "this was the first course he'd attended where he'd learned more from the consultant than from his fellow G.P.s over a glass of beer between lectures." Another has recorded his enthusiasm in the correspondence columns of the *British Medical Journal*.

Future Organization of Postgraduate Obstetric Training

Other centres in Wessex and Scotland, as well as several universities in other parts of the country, have now begun to experiment with courses similar to those at Chelmsford. I am unconvinced that the university teaching hospital is the ideal place for them, as fierce competition already exists for the available clinical material there. More important, these hospitals often suffer from an unnecessary remoteness from the problems and standards of general practice, and this obstructs the establishment of a good relationship between the postgraduate student and the instructor.

The better alternative, in my submission, would be for suitable larger teaching units in hospitals under the regional hospital boards to mount their own courses. They admit an abundance of first-class clinical material; and, however high their standards, they could benefit from the stimulus, the self-critical attitude, and the status engendered by regular teaching, particularly postgraduate teaching.

Any obstetric department designated as a postgraduate school of obstetrics should be accepting postgraduate students continuously throughout the year. The continued organization of the department on this basis not only reduces the irritation of frequent alterations in the department's established routine, but also leads to a higher standard of performance in both work and instruction. Sporadic teaching, like the occasional obstetrician, is not favoured. To avoid this it would be worth considering having one such postgraduate school in each region, in the first place, with the director of the school being officially appointed as regional adviser in obstetric education for G.P.s to the regional postgraduate academic committee. The lecture and tuition fees received by my department from the Ministry of Health are paid into a postgraduate fund, and this fund is used to subsidize members of the staff who themselves wish to attend special courses or congresses. It is a small compensation for their efforts in meeting the needs of the visiting G.P.s, but, more important, it keeps all the staff up to date with obstetric developments. The fund also pays fees to guest lecturers from other hospitals.

Relationship with University Teaching Hospitals

While holding firmly that the regional hospital is the ideal centre for organizing individual attachment courses, I would deprecate any implication that the university teaching hospitals have no part to play. Nor, indeed, should the regional hospitals confine their courses to the type I have described above.

Running *pari passu* with the practical courses should be seminars involving demonstrations, ward rounds, films, etc., rather than conventional courses; with each involving

25 postgraduates for a week, two or three times a year. The teachers at the latter should include some consultants working in academic and research departments. Already 172 doctors have attended such courses in Chelmsford.

The individual attachment doctors could also benefit considerably, in my view, from one or possibly two days spent observing the work and research of a near-by professional obstetric unit. Clearly the future must lead to more formal academic links between the proposed regional postgraduate schools and their appropriate university teaching centres. Such linking would facilitate, and be facilitated by, the recognition of the regional hospital consultant as a teacher, holding either university status or a special position in the National Health Service. As any teacher, an obstetric consultant undertaking the work of a tutor should have a real vocation for teaching.

Research into Postgraduate Education

On first entering the field of postgraduate obstetric education for general practitioners I quickly became aware of the lack of information to guide me. The authority was there, being provided by the Ministry of Health, through the British Postgraduate Medical Federation. The Director of the Federation, Sir James Paterson Ross, has been a constant source of helpful advice and encouragement, and in this way has materially assisted me to expand both the resident practical and the lecture courses.

If the regional postgraduate schools of obstetrics become a reality, their teachers will have an enormous responsibility for the exchange of experience, information, and opinion.

Regular meetings of these teachers for this purpose therefore are essential, and the consultants of undergraduate teaching schools will be able to offer special contributions to these meetings. In addition each regional hospital consultant undertaking teaching duties will need to accept an even greater responsibility to himself by attending obstetric and gynaecological meetings, congresses, and conferences—in order to remain constantly abreast of all modern developments arising from the academic research departments.

In the course of time the postgraduate teaching centres themselves would offer papers at these conferences and congresses, such papers as are based on their experiences, both clinical and educational. The total effect of this comprehensive proposal would inevitably raise existing standards, not only of domiciliary but also of hospital maternity services.

One last word: These ideas, while of particular relevance to the field of obstetrics, are possibly applicable to other specialties.

Summary

A brief account is given of the organization of postgraduate refresher courses in practical obstetrics for general practitioners. Some suggestions are offered for the wider provision of such courses, and a plea is made for more academic study of the problems of postgraduate medical education.

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INFLUENCE OF DIFFERENT SOURCES OF THERAPEUTIC INFORMATION ON PRESCRIBING BY GENERAL PRACTITIONERS

BY

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There are very few data available about the extent to which a doctor interprets and correlates his scientific information when he is applying it to the needs of individual patients. Much has been written about the value of postgraduate education for doctors, but, apart from some work on prescription records, the sources from which doctors obtain information about therapeutic innovations have not been investigated. Also, very little is known, outside of hospitals, about the incidence of the diseases for which this information is used, although some data are available from the incidence of notifiable diseases and the recent reports from the College of General Practitioners (1962).

During his undergraduate career a medical student receives instruction in the basic medical sciences and in clinical subjects. During his final years he is instructed in medical and surgical diagnoses and to a varied but limited extent in treatment. In some schools he is allowed to undertake treatment of individual patients under supervision in general practice. During his registration year the newly qualified doctor continues to receive instruction, and he is responsible, under supervision, for the treatment of patients, but thereafter the acquisition of any further medical knowledge is entirely dependent upon the interest and initiative of the doctor himself. The rapid advances in pharmacology have made a very large number of compounds available for medical treatment, but there is no

necessity for a doctor to acquaint himself with any information about these new compounds; if he does attempt to do so, where and how he does this is wholly his own decision. The fact that compulsory medical education ceases one year after graduation from a medical school means that, though medical education may be one of the most important factors in determining the degree of success of any health service, doctors may avail themselves of parts only, or of none, of it during their postgraduate years.

In the present investigation the incidence of disease as diagnosed by a sample of general practitioners in Liverpool was examined during three one-week periods at the beginning of 1962. The practitioners were asked to record the sources from which they drew their knowledge when treating the diseases which they had diagnosed. The figures obtained from this investigation throw some light upon the most frequent diseases which a general practitioner is called upon to treat in a large urban area in the North of England, and they also show the extent to which his early medical education enables him to treat these diseases. In addition, a general practitioner may draw upon several other sources for his therapeutic knowledge when deciding upon treatment for individual patients. These other sources of knowledge had been determined by a pilot survey carried out in May, 1961, among a sample of Liverpool practitioners. It was found that those sources which were