

Most of the information is in the list. There has been little loss of detail and specific items such as the number of hospital referrals can be extracted fairly quickly by going down the appropriate column, in this case H, on each page.

The material contained on the sheets can be used again by re-arranging them. As an example, in this survey they were re-arranged in households by class and similar re-arrangements could be continued indefinitely. The flexibility is due to the recording unit being a consultation, hence loss of information is only for the duration of any particular arrangement of the sheets. (Kedward 1962)

The great disadvantage of the method is that information is not grouped for easy extraction as it is in the punch card method. It would not be practical if large numbers of consultations were analysed in this way to find out, say, the consulting habits of women over 45 years of age.

For this reason it is only suitable as a method for small surveys with a limited number of aims, and it is important that the design of the survey should be carefully prepared.

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KEEPING UP TO DATE IN GENERAL PRACTICE

E. J. HOPKINS, M.B., CH.B.

Liverpool

Medicine is one of the spheres in which the modern advance of knowledge is most active. There has been more advance in medical understanding and techniques in the past hundred years than in the previous thousand years. Despite the obvious benefits that have accrued from this, difficulties have also arisen.

There are many general practitioners who qualified before antibiotics, the Rh factor, or A.P.C. and E.C.H.O. viruses were discovered; yet, if they are to serve their patients well, they must assimilate some knowledge of these and other modern discoveries. At the same time they must also revise and consolidate what they have already learnt. The task, if performed conscientiously, is not easy.

There are many ways in which the general practitioner can try to keep up to date. The most obvious method is by reading. But

soon after qualifying the doctor's text-books become outdated and unless he goes to considerable expense in renewing his books at frequent intervals they will not enable him to keep abreast of the latest developments. Even then the rapidity of modern advances is so great and the speed of publication of a book so slow that medical works are often out of date within a short time of being issued.

Because of the rapid extension of medical knowledge there is so much that can be learnt that, although he must have a wide range of knowledge, the family doctor will fail if he attempts to study too deeply in restricted fields remote from his own requirements. For example he must avoid wasting time reading about details of surgical techniques. This is prudence; not laziness. The general practitioner must be aware of the types of modern heart operation available so that he can refer patients who may be benefited by surgery. Although a knowledge of criteria for deciding suitability for operations such as mitral valvotomy is of use to the family doctor, any time spent in learning the variation of pressures and oxygen saturation in the different chambers of the heart and the significance of these data in the differential diagnosis and assessment of congenital hearts could have been more profitably used. In order to cope with the vast amount of knowledge to be consumed the doctor must be highly selective. To gain the most from his medical reading he must subject himself to a comparatively rigid discipline.

Unfortunately, the inability to make a realistic approach with strict pruning of inessentials is a fault often found in medical schools. Despite the many additions to the curriculum valuable time is wasted on teaching obsolete matter. Students spend hours rolling pills in a pharmacology laboratory in an attempt to learn a skill they will almost certainly never require, and yet they never have time to see a general practitioner at work or see a case of measles or chicken-pox before they qualify. Moreover, consultants tend to be highly specialized in these days and many of the younger ones seem to be unaware of the general practitioner's problems. This is reflected in their teaching which is not always germane to the needs of the family doctor.

Medical journals provide an excellent source of up-to-date information. But the practitioner must be discriminating for there is a limit to the amount he should read. Reading most of the leading articles in the *British Medical Journal*, and also, possibly, *The Lancet*, helps to keep the doctor abreast of new developments. In this way he can learn the orthodox views on various topics and be aware of the modern climate of opinion on different subjects without having to read lengthy original articles by authors whose ideas may well differ from those generally held. This is not to say

that the family doctor should eschew original articles entirely, but if he is to spend his time most profitably, he should concentrate on reading articles on topics which are pertinent to his problems or are of special interest to him. Time is valuable and articles dealing with the immediate problems of everyday practice are more important than discussions on rare types of haemoglobin occurring in some distant tropical country. For this reason *The Practitioner* provides features of more help to the family doctor than most of the original papers published in the two major weekly journals.

Reading is not the only method of keeping up to date. Much can be learnt from colleagues. One of the advantages of a resident hospital post is that the young doctor gains much from hearing the day to day discussions of his colleagues. This too is one of the advantages of partnerships as, if there is close co-operation between the partners, useful ideas are inevitably exchanged. In a group practice in which each partner has special interests the individual doctor will be able to introduce the latest important views in his own field.

Whereas hospital doctors by the nature of their work tend to remain in constant contact with each other, the same is not true of general practitioners. For this reason the formation of a College of General Practitioners to facilitate closer relationships between family doctors and foster postgraduate education is gratifying. Not only are the meetings of the College directly informative, but they stimulate doctors to take a fresh interest in clinical subjects.

But occasional weekend meetings are not enough. All doctors should be encouraged to take short refresher courses at regular intervals. There should be no great difficulty in arranging such a programme within the structure of the National Health Service. The introduction of the National Health Service, although mainly intended to provide free medical facilities, has undoubtedly produced many indirect consequences some of which were foreseeable but others not so obvious. Now that nearly all the doctors in the country are integrated under one organization it becomes possible to use the scheme as an educational implement. To some extent this has been done, for example, by the distribution of memoranda and, more recently, *Prescribers' Notes*. Again, through the medium of obstetric lists, doctors are encouraged to obtain extra experience in midwifery by financial inducements. But far more positive efforts to improve medical standards should be undertaken. Although doctors should not be coerced or feel that pressure is being put upon them; they must be at liberty to choose for themselves and, above all, there must not be the slightest suspicion of clinical dictation. The value of educational courses is now well recognized in the armed forces and in commerce. Large industrial concerns have apprenticeship

schemes and training projects for their employees. These are not merely provided as a public duty, they are essential if the firm concerned is to flourish in the future. The expenditure is not a question of altruism, it is really a matter of enlightened self interest. The same argument is applicable to the health service and it is futile to object that it is not concerned with education. If its medical standards are to be maintained and improved it must be involved in education. The health service should finance revision courses and possibly sponsor television programmes. The expenditure entailed would be justified by the improvement in the quality of the doctors in the service. The number of doctors in the College of General Practitioners, who readily give up their leisure time to attend meetings, shows that provided proper facilities were conveniently available doctors would willingly attend.

In the field of therapeutics information about the large number of different steroids, including their relative merits, side effects, clinical indications and contra-indications would be of great value. The average general practitioner is confused by the advertisements of the drug firms each praising a particular steroid and claiming that it is the drug of choice. Reliable, balanced views on the wisest method of using these new products, in say the treatment of asthma, are only just being formed and the text-books are not yet sufficiently up to date to give guidance on these problems. The general practitioner is interested in this type of information; he will learn it avidly and make good use of it. Similar themes in the realm of therapeutics leap to mind, including such subjects as the antibiotics. These antibacterial substances are multiplying at such a pace that it is difficult for the practising doctor to be thoroughly acquainted with the properties and merits of each of them. The host of oral diuretics, which have stemmed from chlorothiazide, constitute another group of drugs of great clinical interest to the family doctor.

During the revision course a pathologist could explain the nature and significance of such new developments as the S.G.O.T. and A.S.O. tests, which might prove useful to the general practitioner.

The majority of doctors find the new Mental Health Act difficult to grasp and would be grateful to hear a clear, simplified account of this given by a psychiatrist. Again, most general practitioners would welcome guidance on the use of the newer drugs in psychiatry. This is yet another field where advertising pressure seems to have confused the issue. Few doctors have a clear idea of the best way to use modern drugs, such as the monoaminase inhibitors, imipramine, and the older chlorpromazine compounds.

A discussion of prophylactic inoculations and their timing and contra-indications would be of value. Also a public health official

could give information about the various facilities for convalescence, home help, domiciliary nursing, meals-on-wheels, care of the old, and provision of wheel-chairs and similar equipment, which are available in the area.

Far more important than formal lectures or discussions would be clinical demonstrations and ward rounds. Many new advances the doctor can read about in his own time, when his interest is aroused, but subjects, such as dermatology can only be learnt by seeing patients. Moreover, when a doctor feels he has made a correct diagnosis in a difficult case he can trace his success more often to remembering a patient with a similar condition than by reading about it.

Many teaching hospitals may be fully committed by virtue of a full complement of students, but a vast amount of clinical material is available in the larger non-teaching hospitals. These hospitals probably provide more examples of "bread and butter" medicine, which is of greater interest to the average general practitioner than the rare syndrome which he knows he is never likely to encounter in his own practice. The contribution which non-teaching hospitals can make has been amply displayed in clinical meetings of the College of General Practitioners and various medical societies in the past.

When the educational facilities have been created general practitioners should be made fully aware of these opportunities. This could very easily be done through the existing National Health Service organization. In order to remove other barriers, which would deter practitioners from embarking on such revision courses, arrangements for providing, and paying for, the necessary locum services should be made for the doctor.

There is no doubt that television could be used to a far greater extent as an educational implement. We have numerous popular medical programmes, and there seems no reason why there should not be broadcasts specifically designed for doctors.

In a television programme a leading authority can speak to many viewers and thus command a wide audience. Visual aids, planning, and research can be on a far greater scale than is feasible in an ordinary lecture. The Americans have demonstrated that it is possible to use television for higher education. There are, of course, many difficulties, particularly regarding medical subjects, but none of them is insurmountable.

An obvious difficulty is that a patient, hearing that a disease he suffers from is about to be discussed, might watch. He might hear an eminent professor, from one of the leading teaching hospitals, state that the latest evidence has shown that the diet his own doctor has put him on is useless or that there is no evidence that the drug

he is receiving is of value. Patients might have the misfortune to discover that the prognosis in their condition is bad, or be completely unnerved by hearing a recital of the possible complications of an operation they are about to undergo. Most of these objections for that matter could apply to medical books, which a determined patient might misguidedly consult. It has been suggested that a special scrambling device, to enable only doctors to receive the programmes concerned, would solve such difficulties as these. But this seems unnecessary. Many of the drawbacks associated with "eavesdropping" lay viewers can be dealt with by careful choice of subject, scripting, and editing. Most clinical teachers are accustomed to choosing their remarks tactfully when conducting discussions at the bedside. These problems have been tackled already on medical programmes designed for the layman. It must be remembered that the technical nature of postgraduate medical programmes would probably deter the inquisitive layman from watching for long.

By far the most serious barrier to the use of television for systemic postgraduate medical education is finance. Possibly this could be overcome by drug firms sponsoring programmes to doctors on the commercial television. Programmes at non-peak viewing times would not be prohibitively expensive when one considers the vast amount of money spent by pharmaceutical firms on paying representatives and sending doctors advertisements, many of which are never read. If the broadcasts were good, a large proportion of the doctors to which the drug firms' advertising was directed would probably be watching. It goes without saying, of course, that advertising should be confined to the so-called natural breaks: any attempt to include advertising material within the framework of the actual programme, even if it was on pharmacology, would greatly reduce the value of the presentation.

Not only should doctors be able to attend courses at hospitals, but they should be given more opportunity to work in them. By keeping in touch with the hospitals the family doctor would learn much and also be stimulated to acquire more knowledge. Clinical assistantships are not enough; general practitioner beds should be provided so that the family doctor can carry on the supervision of his own patients in the hospital. In most cases it is not the inability to treat the patient that forces the doctor to send him into hospital, but lack of nursing and ancillary facilities. It is not suggested that there should be a return of the general-practitioner surgeon: major surgery is outside the scope of the family doctor. In America, where practising doctors have access to hospitals, there is more enthusiasm and a greater stimulus to master up-to-date medical developments.
