

TRAINING FOR GENERAL PRACTICE*

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ARTHUR GALE made epidemiology his career, and spent most of his life as an epidemiologist. But his last years were spent in the field of medical education, and it is more through this interest that most of us knew him. The ultimate aim of medicine is the promotion of healthy and happy living in man; to Gale as a young man it may have seemed that the epidemiological field offered the best chance of the greatest contribution to this aim: in his later years he came to see, maybe, that one increasing problem of the twentieth century would be the application of rapidly increasing scientific knowledge—the very knowledge he himself so generously fostered. To this end, education, and particularly continuing education, becomes of increasing importance; Arthur Gale was able in a new field to continue his contribution to the ultimate aim of medicine.

During his time as Director of Postgraduate Medical Studies at Bristol University his main interest, as far as general practice was concerned, lay in “continuing education” to use the fourth of Ellis’ divisions of medical education (Ellis, 1962). Had Gale lived, he would, I am sure, have become more closely concerned with the other three divisions (undergraduate, graduate and postgraduate), as they affect and are affected by general practice. Indeed, he would without doubt have been a leader of thought in this field. I feel, therefore, in all humility, that my subject “Training for General Practice” would be acceptable to the man whose memory we honour today.

The general practitioner in history

It is appropriate, I believe, to look back first on the past. Clearly much of the general practitioner’s past work and training has, with

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scientific progress, become obsolete, and has had to be thrown out: sometimes, though, there has been a tendency to throw out the baby with the bath water; worse still, the existence and value of the baby has perhaps gone unrecognized.

In practical terms the general practitioner of today is the descendant of the old apothecaries and of the less privileged licence-holders of the Royal Colleges—many of the surgeons being ex-service, released at the end of the Napoleonic Wars to practise their skills on the civilian population: the expression “general practitioner” was first used in about 1815 and was taken up by Thomas Wakley in his new journal *The Lancet*. Their status was not won without difficulty: and the early history of the general practitioner is riddled with controversy and indeed with vituperative acrimony. Much of this controversy was between the rank and file—the general practitioners—and the Royal Colleges, respectively at this time effete and corrupt. Much more helpful, as Sir Zachary Cope (1961) has pointed out, was the Society of Apothecaries and the Apothecaries Act of 1815 marked the beginning of the end of chaos in medical education and practice: this transition period ended in 1858 with the formation of the General Medical Council (though not until 1886 was it compulsory to qualify in all three of the main subjects which comprise medicine).

During this time training for medicine was by a mixture of apprenticeship and formal medical school, with little or no regulation or inspection: it might be very good or equally appallingly bad. Gradually, the apprenticeship fell, probably rightly, into disrepute, but something of value went with it, something that is sometimes still missing in medical education. Nonetheless some ordered and creditable standard was reached and a medical qualification really began to mean something worth while.

In America, the development of the general practitioner was somewhat different. First, there were no specialist colleges to assist—or hamper—his progress. The pioneer days demanded that all “medical doctors” be capable of everything. This concept of the all-purpose doctor had died hard in North America, and the fight has been perhaps more bitter there between general practitioner and specialist. In the sparsely populated country areas the “compleat general practitioner” still reigns: at his best he is fine; at his worst he supplies plentiful fuel for the opponents of general practice. In the densely populated areas of the Eastern States the general practitioner has almost—or even completely—disappeared. His

successor is the group specialist practice, big, supremely well organized and technically very efficient. Based on the hospital, this type of practice despises domiciliary work, which it regards as anachronistic "horse and buggy medicine" with no place in the twentieth century. In this sort of group, say its opponents, the baby has indeed been thrown out with the bath water, and the bath as well. But, reply its protagonists, the baby wasn't viable and the bath was obsolete anyhow.

Training for medicine in North America was, as here, at first by apprenticeship and the proprietary medical schools, many of which had little or nothing to commend them. In Europe medical education gradually developed the teaching hospital: in the United States this was achieved almost at one blow, as it were, by the famous "Flexner Report" of 1910, which rated one medical school only as of sufficient standard, Johns Hopkins of Baltimore, and this school became the model and pattern for all others. On the broader view, almost overnight, the old order was changed and a new progressive scientific one took its place. All this change was necessary and beneficial, but like all violent change somewhat wholesale and indiscriminating. However, it achieved in a few short years what in this country occupied half a century of controversy, that is, some control of the standards of education and qualification of those practising medicine.

From here on the broad pattern of development in the two countries has not been vastly dissimilar. Scientific advance has made specialism increasingly necessary, popular, and respected, and at the same time, in contrast, has made more complex and superficially less attractive the task of those whose job it is to purvey to the consumer those very benefits the scientific advance has brought. (Or, indeed, to withhold from the more avid consumers its less admirable attributes.) The whole picture is now complicated by the increasing cost of good medical care, which has priced itself out of the range of the common man and made itself, inevitably, a political matter.

Specialist and generalist

Does this very brief historical survey in fact tell us anything? I believe certain conclusions are possible and relevant.

First, it must be accepted that specialists and generalists are both utterly necessary in the profession. Neither when the profession is ruled entirely from the specialist view-point—as in England at the end of the eighteenth century—nor when its mainspring is predom-

antly generalist—as in America at the end of the last century—is the state of affairs good for medical care. Both attitudes are as necessary as the two sides of a coin. One cannot criticize a specialist for not having a broad approach, nor a general practitioner for not having a deep knowledge of a narrow field, any more than one could criticize the Queen's head on a penny for not being like Britannia. The current not uncommon fashion of anti-specialist or anti-general practitioner criticism is to be deplored from whatever source it comes.

Second, it must be accepted that specialism will increase and must increase. Medical progress has already benefited enormously from specialist research and work, and will continue to do so. But it must also be recognized that this will tend to increase the gap between specialist and generalist, and, therefore, despite their continued interdependence, increase the possibility of misunderstanding and friction.

Third, the specialist must recognize that there is much in the work of the general practitioner which, though it is often intangible and difficult to define, though it tends to appear unimportant in the face of severe organic disease, is of vital importance to medical care, and therefore to medicine. Today organic pathology is no longer the fundamental science of medicine: this is something that it takes the average general practitioner some years to learn, for it implies the shedding of the specialist bias he acquired in training. The specialist never loses this bias, nor should he, but he should be able to accept and respect the general practitioner's knowledge of that wide and rather uncharted field that includes so much dis-ease of social environmental and emotional origin.

Lastly, it is my belief that the main onus of bridging the gap will always lie with the generalist—and I use the word generalist deliberately here, though I do not like it, for it is a wider one than general practitioner and can include some of our paediatric colleagues and the now rare general physicians. It is inevitable that the narrower the specialty, the less will the specialist see it in its wide context: the broader our training and work, the more we should see things in proportion; and if the generalist does not undertake this role of keeping the gap as narrow as possible, surely no one else will.

Unfortunately, for the general practitioner to fulfil this, much is going to be required of him that at present he is barely equipped to give. But it is not impossible for him to give it, provided he has the

two things that really matter—the time and the training.

Undergraduate training

We need not worry about the time, I believe, if the training is right: and this training must be right from the very beginning. I certainly do not wish to imply that the undergraduate medical course should be orientated towards producing a general practitioner—Heaven forbid. It could no more do that than it could produce a fully equipped surgeon. One would hope that this idea is now stone dead and, since the institution of the preregistration year, decently interred. I cannot do better to express what is needed than to quote Sir Theodore Fox (1963) who was told by an American professor that “this school is not here to train students for general practice”. “I know”, said Sir Theodore, “but do you train them against it?”

May I add one further comment from a paper by Kerr White and others from North Carolina which has perhaps some bearing. After analysing data from the U.S.A. and from Britain, the authors state:

In a population of 1,000 (16 years of age and over) in an average month 750 will experience an episode of illness, 250 of them will consult a physician, nine will be hospitalized, five will be referred to another physician, and one will be referred to a university hospital centre. (White *et al.* 1961).

I need hardly point out that this chap is the one who is being taught on, and while he is doubtless excellent, and indeed irreplaceable, teaching material, he is not enough. The acquisition by the students, of a balanced viewpoint, whatever their ultimate medical careers demand some attention to, and knowledge of, the 249 other patient–doctor contacts—and indeed some observation of the other 750 people, two-thirds of whom did not consult a physician at all although “experiencing an episode of illness”.

We accept then that undergraduate education no longer aims to produce a safe doctor ready to go into practice, but rather aims to produce a well-educated, totipotential, free-swimming “foetal physician” capable of developing into a useful member of any one of the many branches of activity that make up the profession, knowing his own branch well, understanding the others and co-operating with them.

This is easier to state than to achieve. I would not rush in too blindly where so many curriculum committees fear to tread, but in the particular case of teaching social and preventive medicine and the other fundamentals of general practice, there are certain hard facts that in my opinion should be stated.

I do not believe these important and complex subjects can be

demonstrated in the lecture room any more than can, say, the acute abdomen. No surgeon would tackle that subject without adequate clinical material, or without involving the students in the problems of diagnosis and treatment—history taking, examination, treatment—operative or expectant—and after care. Similarly, one can only teach on the sort of problems I have in mind with suitable material—and that means patients, their families, their homes and their communities. It means teachers who know their way around, as the surgeon knows the abdomen and its danger spots. Clearly, it cannot really be taught in a hospital; equally certainly there is need of careful selection of material for study, just as the surgical department must select its material for teaching. One other point arises from the analogy I have chosen: no surgeon would attempt to teach without the assurance that his students had some knowledge of anatomy, physiology, and elementary pathology: what these are to surgery, the behavioural sciences are to social and community medicine. Serious consideration should be given to instruction in developmental psychology, social psychology, sociology and kindred subjects if students are really to learn the lessons we want them to learn.

It seems to me that the only way in which the university medical school can acquire the facilities to create a teaching-learning situation of this type is for it to go deliberately out into an appropriate community in its area, and to some extent organize that community to provide what is wanted. I believe, too, that in order that the student may properly appreciate and be impressed by the lessons to be learnt, they should be seen in a context that is really meaningful to him. For nine out of ten students this will mean that there should be undoubted clinical connections in the work of this suggested community organization. It must have, at least, strong liaison with the traditional medical services in the area—family practice above all—so that the student may know that what he is seeing and doing is valid to medical care in general and therefore to his future medical career. It may be totally unfair that “public health” as a subject is unpopular with students, but it tends to be so. It is important that the new concepts of social and preventive medicine which are growing out of the old ideas of public health should not inherit this unpopularity and should be seen to be important. They should attract the student through his main interest, which is nearly always individual people and their illnesses.

Experiments have been made along these lines on both sides of the Atlantic. At home the Edinburgh and Manchester units are well-

known and well-documented, and I do not intend to discuss them further. They are bold experiments going in the right direction and succeeding to a greater or lesser extent in doing something to redress the imbalance in the students education. Many schools have general-practitioner attachment schemes: these with adequate planning and preparation could be valuable: too many are at present little more than a sop to the idea of broadening the student's vision.

The North American scene

In North America there are certain experiments which are of value and which I have had the good fortune to see at first hand. To understand the American scene one must examine some of the functions and attitudes of the North American general practitioner compared with his British counterpart, and one must comprehend the differences imposed by this on the student and his teachers, and on the medical curriculum. I will not spend much time on these differences, but some require mention. First and foremost, the average North American general practitioner has hospital beds, and does a lot in his hospital that in this country is considered a specialist's work—and a lot more we consider normal domiciliary medicine. I may say that much of this specialist work is extremely well done—but not all. Second, he has no "list of patients", as we know it in this country, for whom he is responsible, and this affects attitudes to practice. For these and other reasons he is more concerned with the technical and scientific aspects of medicine than the British general practitioner and conversely less concerned with its social and environmental aspects: and, frankly, medicine there is so much more a matter of business.

This might lead one to suppose that there would be less, therefore, in America to interest us than there would be in Britain. This is not so. The Americans are a people who love experiment—almost for its own sake sometimes—and there are many and varied schemes to interest the student in the wider aspects of medicine and medical care, and to take, in the popular phrase, a holistic view. Perhaps this apparent paradox stems from the fact that many university hospitals have a big load of work among indigents and among those dissatisfied with the care they have received from orthodox 'organized' medicine outside the university.

First, in the preclinical field most, though not all, the schools I have visited do have a course that includes something of the behavioural sciences. This course, perhaps entitled "Introduction to

Medicine", will often include among its lecturers the dean of the school, and various clinical teachers. Such a course is likely to start with a historical survey of the heritage of medicine, and with definitions of the diverse fields that make up the whole of medicine, and of their differing approaches to the same end. Thus the student is given a chance to see the whole wood, before he starts on the individual trees.

Later, concomitantly with his studies in anatomy and physiology, he will receive lectures designed to complete the picture of man, as an individual, as a member of a family, and as a member of a community: further he will study man as a continuing race. This is achieved, or at least attempted, by lectures and discussion on:

Human development—physiological, psychological and sociological.
 Medical and social psychology.
 Medical sociology.
 Biostatistics and genetics.

A practical method used at this stage in some schools to link up the various points of view from which a patient may be considered, is to present a patient suffering from some chronic disease. This patient may be an arthritic or poliomyelitis cripple, somebody with a cardiac disability or a chronic central nervous system disease, perhaps even an alcoholic. Short contributions are given by a clinician, a psychiatrist, a social worker, a social agency particularly concerned in the given problem. This is not done as a study of disease—though it has considerable impact on the student because disease is concerned in it—but as a demonstration of the many facets of care with which the physician is concerned, and which, if he is to work effectively, he must understand. This early introduction of the widest implications of medical care is important. If left until the clinical course, its impact is less, for the student is then more concerned with the vital problems of learning to elicit and evaluate clinical signs. Further, if he has already absorbed something of an understanding of the wide problems of medical care, he will be more able to consider his clinical cases in a continuing, rather than in a short hospital stay, context.

One other practical preclinical exercise is found in the type of programme pioneered by Western Reserve—at Cleveland, Ohio. Family study programmes of this sort are very much the fashion in North America: they vary from one school to another but have certain common features.

1. All such schemes involve the student with one or more families in their own homes, so that he may get a chance to study both the family and the indivi-

duals who make up that family: he will observe the relationships within the family, and the individual and family relationships with the local community and with society as a whole.

2. According to the length of time in which he is involved in the family study, the student will get some insight into the effects on, and reactions of, the family in certain situations. For instance, he may see the impact of such occurrences as acute illness, birth, death, and unemployment, and the different ways these things affect the different individuals he is observing. Certain families may also show the long term effects of chronic or incurable disease.

3. The student will—or should—see that while ‘medicine’ is often apparently an episodic thing to the layman, and even to the hospital doctor, true health care is a continuous process. Looked at in this way, certain facets of medicine often neglected assume their right and important place, for instance—preventive medicine, the care of the chronic sick, rehabilitation, mental health, and the like. Moreover, these things are seen to be as much a community problem as a medical one. Thus the doctor’s role in the community is more clearly pointed as being not only ‘medical’ in the narrow sense, but including a function as an educator and as a citizen with special training and obligations.

Broadly speaking, these schemes are either preclinical and long term, or clinical appointments of a short and intensive nature.

The long-term programmes are mostly of two years’ duration, occupying the student through the whole of his preclinical course.

He is introduced to a family—‘his’ family—early in his first year. Thereafter he visits them at regular intervals under any circumstances throughout the two years, with extra visits in times of need. The first introduction is made by someone who knows the family, perhaps a medical social worker or public health nurse. There may, or may not, be liaison with the family’s doctor, if, indeed, they have one: if such liaison exists, his records will be available. Hospital records that concern the family are there if the student wants them.

Each student is attached to a particular member of staff: this staff man will supervise 6–10 students, will be present at all group meetings, and generally oversees the formal teaching side of the programme for his students, that is:

1. Students’ general reports on the family, usually made at monthly intervals.
2. Regular seminars with presentation by the student of particular topics suggested by his contact with his family and their problems.
3. Occasional discussions, where indicated, of action that should be initiated with regard to the family’s health or social problems.

All the students in one group or year attend these discussions and seminars and, therefore, hear about other families and other problems, and discuss them. So, by the end of the two years, each student will know one family extremely well and will have had

discussions and debates about several more.

In some schemes there is room for criticism in the choice of families, for in general the families studied were very much in the bottom tenth of the socio-economic scale. A wider range of families, I was told, was impossible "without trespassing on private practice and organized medicine".

The short-term family study programmes are usually in the clinical years—probably the second—vary in length from two weeks to two months and are much more concerned with clinical matters in their social setting. The student's 'exposure' is short but intensive. He is far enough on in experience to benefit more than he could have in his preclinical years, but one rather doubts whether the exposure is long enough for a real appreciation of all the factors. The student has by this time a fair understanding of much acute illness, but the short course is not enough to give him the appreciation of long-term illness which he tends to lack. The programme suffers from the same fault as so much hospital observation of illness: the tendency is for "diagnosis, treatment, disposal" to be considered the whole story, instead of a very brief part of a life history.

All the various schemes I saw seemed to have their particular faults. The main common difficulty was, it seemed to me, one of staff—any such exercise must have a lot of tutors in full sympathy with the idea. The University of Alberta at Edmonton has made a bold plan to eliminate this and other difficulties.

1. It is designed as a two-year programme, involving third and fourth year students rather than freshmen. Students work in pairs, one from each year, the fourth year student acting as senior partner. Thus each student spends one year as junior partner and one as senior.
2. The families in the scheme are the private patients of at first 12, now 20, general practitioners who participate in the scheme as 'tutors', with a particular general practitioner as 'co-ordinator' of the programme.
3. The scheme is run by the university department of social and preventive medicine, the head of which is a specialist in internal medicine; and the department also has the services of a social worker.

Thus, relatively simply, many of the common difficulties are eliminated. The families are chosen as a reasonable cross representation: there is no lack of continuity in their care for they remain under their own doctor and the students 'overlap'.

The staff difficulty is solved by using the general practitioners as tutors. Not only do they already know intimately the families with whom they are concerned, they start out firm believers in the concept of "comprehensive medical care", and are not likely to forget its

importance. Further, the student will see such "episodic medical care" as may occur during the two years in its right and proper setting—as one function of the general practitioner in a continuous health care context. In addition, the senior student carries out "health checks" by means of regular physical examination, a great advantage to the family and their doctor, and which also provides interesting data for the university department.

To sum up: these family programmes are designed to indoctrinate the student with a wide and comprehensive view of the doctor's function in society. The preclinical programmes represent a sort of sociopsychological approach: some aspects of the others represent a clinicosocial one.

Another such clinical approach has been made by the reorganization of outpatient teaching (Barr, 1953; Hammond and Kern, 1960). Broadly, this entails setting up a general medical clinic, cutting across the traditional division of outpatients into specialty or even subspecialty services. Almost all new cases presenting in the hospital outpatient department—referrals for diagnostic evaluation and self-referred cases, medically indigent or not—will be handled by this general medical clinic, which thus receives largely unselected material.

In this clinic the patient is seen first by a fourth (final) year student, who has the initial responsibility of history taking, examination, diagnosis and confirmatory laboratory work: this is carried out in conference with a member of staff who acts as a tutor to the student general-physician. If definitive decisions and an outline of treatment can be made at this stage, then this is done. If specialist advice is needed, the student will refer the patient and attend the consultation. The patient, as far as possible, continues under the care of the student and his tutor in his subsequent hospital attendance.

Thus the programme is organized about the ambulant patient, and the student will follow the patient into his home or into the hospital wards, should full management and understanding demand either of these steps.

This general principle underlying the comprehensive medical care concept has been applied to cover the whole hospital service, inpatient and outpatient, at the new medical school of the University of Kentucky at Lexington.

Broadly speaking, the theory underlying their plan is this:

Only three divisions of medical service are really valid—adult

medicine, paediatrics and maternity care. Therefore, both inpatient and outpatient services are organized on this basis alone. As one doctor cannot embrace all the necessary disciplines, the adult ward and outpatient service is carried out by a team consisting of internist, surgeon, orthopaedist, psychiatrist, nurse, and social worker, with the appropriate residents, interns and students. A similar arrangement operates in the child service. Thus wards and outpatients are not exclusively medical or surgical but are under the care of one of these teams. The team works together on emergency intake, outpatients and so on, in rotation with other teams; it is responsible for supervision of all medical care, and for its own organization of teaching. On this point of teaching, it is interesting to note how many of the complications of the curriculum disappear, and the allotment of block-hours is simplified: as the student's basic ward and outpatient experience has included medical, surgical, orthopaedic and psychiatric problems, special time in these disciplines is much shorter than is usual in the medical course. The student therefore gets a well-presented broad view of medicine supplemented later by special experience and by community and field work.

This community work is akin to the traditional preceptorship with a practitioner in the field (general or public health), but has one definite difference. The relationship is not two-way between student and practitioner, but three-way, with a member of the university's department of community medicine as the third person in the triangle and acting as counsellor to the student. In this way this field experience is much more under the control of the university, and the lessons from it, good and bad, can be more surely drawn than in the usual preceptorship.

This sort of scheme is perhaps the natural outcome of the group-specialist approach to medicine, and certainly would seem to be an ideal training for this sort of practice. But I believe it has some lessons to teach training over here and I hope in the next few years we may see some reports from this relatively new school. Certainly I think they will be worth study.

The last type of scheme I wish to mention—and I have already touched on the Kentucky version of it—is the preceptorship scheme. In many medical schools I found established schemes whereby students spend varying periods of time with established practitioners or groups. These schemes always involve the student in his final year and are sometimes voluntary, sometimes mandatory. My impression was that the scheme works very much as it does in Britain, except

that the student probably is more of an active participator in the practice and less of a mere observer. Discussion of this form of student experience with faculty members, with students, and with some of the preceptors themselves, made it clear that the crux of any such scheme is the list of preceptors. Some schools which have no such scheme state that this is so because they dare not expose students to medical practice of whose quality they cannot be certain. Schools that run schemes rate this difficulty as the big one. The value of such a scheme lies not in the actual clinical material seen by the student, but in the way of life and practice of the man who copes with material; that sometimes, says the school, practice is not carried on in a manner which meets the standards which the student should learn.

One young student to whom I talked and who intended entering general practice, stated that he would do so one year after graduation on completion of his compulsory internship. To our query as to whether he would really then be adequately trained, his reply was, in effect, that he was already more competent than the preceptor with whom he had worked, and that if that preceptor could make a good living on such standards, then there was no need to take further training. In this way, the idea that one needs no special training for general practice, may be perpetuated, despite evidence that continued efficiency is related to the length and the type of graduate training (Peterson *et al.*, 1956).

This is perhaps the great danger of preceptorship schemes, but one can equally record experience of some excellent impressions gained by students. It seems almost a matter of luck; this should be eliminated by more careful selection of the participating practitioners. One reason why this more careful choice was not possible is the relative lack of knowledge shown by so many universities about the general practitioners in their area.

Family study programmes, general medical clinics, preceptorships. These then are the three main ideas which aim to introduce the student to the whole patient all at once, rather than piecemeal. There are other minor schemes, individual to particular medical schools, but these three are the fashionable talking points—or at least were in 1961: fashions change—and perhaps change faster in America than elsewhere.

So much for undergraduate education: it has no intention to train the student for general practice, but neither should it train him against it or towards specialism. It should equip him with a clear idea of

the function and potential of all the branches of the profession, and a respect for the part all play in the totality of medical care. It should give him some notion, though not necessarily a final one, of the choice he himself will have to make about his own career: at least it should give him the wide view on which to base that choice.

Graduate and postgraduate training

Supposing he makes a positive decision towards general practice. What should he decide to do? What hospital or other jobs should he apply for? Most of us who have some contact with students and young graduates have been asked these questions, and they are very difficult to answer. There is really extraordinarily little planned or considered training for general practice in this country. Dr George Swift (1963) has reviewed this subject and gives a concise account of what is available. The trainee assistant scheme is good in theory, but less so in practice: at its best it fulfils its function, at its worst it is little more than a cheap assistantship. One still sees the occasional advertisement, 'Trainee assistant *urgently* required', which does not promise any great regard for the educational idea behind the scheme. The Wessex Hospital Scheme, financed by the Nuffield Provincial Hospitals Trust, is a hopeful move in the right direction: there is food for thought though in the fact that this hospital board is the only one without a medical school in its area: we can be quietly pleased that our own Bristol University is moving ahead on a similar plan. A leader in *The Lancet* (1963a), under the title of "Towards Better Personal Care", said:

In looking to the future of personal care, perhaps nothing is more important than the training of the family doctor, for the well-trained practitioner is more likely to insist on satisfactory conditions of practice: . . . family practice requires like the specialties, a systematic course of training. This is being recognized in many countries abroad; but so far we in Britain have nothing to offer. Is there a university with the foresight, the courage, and the faculty, to start such a course?

Again, America is somewhat ahead of us in experiment in the fields of graduate and postgraduate education for the intending general practitioner, though it is sad to admit that the facilities exceed the demand made on them. Nonetheless, some of the ideas are sound and worth examination.

The North American graduate

For all North American medical graduates, it is obligatory to spend one year in "approved and accredited" hospital work. This year equates fairly closely to the British "preregistration year". Broadly speaking, this year of "intern training" is spent either in

an internship year in specialist training, or in a rotating internship. The first is for the graduate who already knows what branch of the profession he wishes to follow. There is, however, an increasing trend for the intending general practitioner to be advised to take an internship in internal medicine rather than a rotating one.

The rotating internship consists of a year spent in working in every hospital department and will follow some such scheme as:

Internal medicine	3/12
Surgery	3/12
Obstetrics and gynaecology	2/12
Paediatrics	6/52
Emergency room	1/12
Electives	6/52

I once held the view that this was an idea that was valuable and that might well be applied in the British graduate's preregistration year, but the rotating internship, in practice, does little more than give the young graduate in North America the practical experience he did not get in his two clinical years. In addition, there is a good deal of feeling that it does not even do that very well, and I believe this feeling is to some extent justified.

Unfortunately, many intending general practitioners do a rotating internship as their sole graduate training before entering practice, and the need for doctors in some of the more sparsely populated and remote areas is such that with this minimal training they can establish practices very easily. There has been some increase in interest in postgraduate training for general practice in North America concomitant with the increase in undergraduate teaching in comprehensive care, and to some extent fostered by the attitudes of and increasing respect for the College of General Practice of Canada and the Academy of General Practice of the United States. Both these bodies have made their views felt: the Canadian College particularly has, like the British, kept out of the political field and developed a strong interest in education at all its levels.

Much of this interest is centred on the training of the young graduate and one sign of this is the general-practice residency. This is normally a two-year rotating residency designed to follow the rotating internship. Some centres are, however, considering a three-year course which incorporates the intern year: others are suggesting alternative two or three year courses following internship, the third year to comprise that specialty training needed by the general practitioner in the rural areas where specialist resources are scanty or economically impossible. One university is planning a

three-year residency training in comprehensive family medicine which contains no surgery or obstetrics but includes didactic teaching in such matters as sociology and community resources, and which leaves six to eight months free for research or for elective study.

The Ohio Chapter of the American Academy of General Practice is the author of a proposal that family practice should be treated as a specialty, with a board comparable to other American specialty boards and responsible for standards of training, the conduct of examinations, and, very boldly, rules governing continuing certification. They recommend a period of special graduate training of at least five years, three in a hospital centred programme, two in approved family practice. A written examination would be taken after three years and a further oral one at the end of the five years (*Lancet*, 1963b).

But this lies perhaps in the future: in general now a general-practice residency of two years will have internal medicine, paediatrics and obstetrics as its main assignments.

Perhaps the best general-practice residency is that run by the University of Colorado at Denver (Eisele, 1957). Run as a two year training, with a third optional year, it is set out as follows:

Ward medicine	3/12
Psychosomatic medicine	}
Medical specialty clinics	
Emergency service	
Paediatrics	6/12
Obstetrics and gynaecology	3/12
Electives	3/12
Community hospital	3/12

The community hospital experience is a three-month assignment in which the young graduate acts as the only resident in one of two community hospitals which are staffed entirely by general practitioners. This is a very popular assignment and one which some of the residents increase by using their elective 3/12 in the same way.

I had the opportunity of quite lengthy discussion with some of the Denver general-practice residents. One of these young men divided intending general practitioners into three groups:

1. Those intending to become general practitioners as a deliberate choice of the best way of medical life. These, he said, were rare and were the men who chose to do special training for general practice.
2. Those intending to make enough money in general practice to afford to return later to hospital for specialist training. He estimated their number as 'considerable enough'.
3. Those intending to make money. This was said to be by far the largest group.

Clearly only group 1 are likely to avail themselves of a planned general-practice residency and it is unfortunate that only a proportion of the general-practice residency jobs are filled in Canada or the U.S.

Nevertheless, there are one or two hints, in Canada at least, that general-practice residency training is likely to increase. The climate of opinion in the profession backs it, and, most important, it is looked on with favour by the College of General Practice. (The U.S. Academy is embroiled in some arguments with the Accreditation Boards and with specialists over programmes for general-practice residencies.) The Canadian College's attitude is shown in two concrete ways: first, it has compiled criteria for, and, a list of, residencies suitable for general practice training (*Essentials of approved residencies in general practice*, 1960) and in a country (indeed a continent) short of junior hospital staff, this makes hospital managements think and will set them, perhaps, to devise residencies which the College will approve: second, it is considering certain criteria of training as being necessary for membership of the College. To the extent to which these are enforced and the extent to which college membership is valued, so will there be an effect on young graduates and on their views of the necessity of training for general practice.

Discussion

What really is the answer to the many needs in these first three phases of medical education? Perhaps at this stage I may be allowed to move from the fixed facts of past and present and try to look to a possible future. But first I must ask one fundamental question.

Who is really responsible for education after graduation? It is not I suppose, anybody's statutory obligation *yet*, although society has now accepted that qualification is not enough. The pre-registration year is to some extent under university control, though there does not seem to be any great exercise of powers here; but what after this? With whom does the moral responsibility lie? Surely it can lie nowhere except with the university medical schools and the various colleges; if individual hospitals and hospital boards are to take some of the onus, it should be only in full co-operation with the recognized academic institutions. As far as general practice is concerned, our own College hardly has, by itself, the material facilities to institute and maintain the necessary organizations which are needed to put this phase of education on a sound footing. It is my contention that this should be one of the functions of the university, but I must admit that this view is not held by everybody. Dr

John Ellis (1963), in writing of the difficulties facing certain aspects of education, said:

One of these difficulties has been the failure, for which the universities are not wholly responsible, to make the pre-registration year into a proper general vocational training. Another has been the failure, for which the medical schools are not responsible at all, to demand and provide a postgraduate training for general practitioners. Until this is done 50 per cent of our medical graduates will continue to go into practice without adequate preparation—what is worse, the undergraduate education of all our doctors will continue to suffer, because, as no one knows which 50 per cent of the students will get a seven-year postgraduate training and which will not, the hopeless attempt to give comprehensive coverage to all will inevitably continue. It is strange to think that if tomorrow every executive council and every general practitioner decided not to establish a man in practice until he had had an adequate post-graduate training, we would at once set about providing the facilities.

Now who Dr Ellis means by 'we' in this last sentence is not clear: but I believe the intellectual and academic component of this phase of education should largely stem from the universities, and that they have a moral obligation to society to tackle this problem, or at least to give a very strong lead. Whether they have or not is clearly open to argument, but in effect the university already largely assists in and sets the standard for this function for the specialties through its special departments. To perform this function for the present and future general practitioner, the university needs a special department whose concern it is—in other words a department of general practice. This department must have a staff of practising general practitioners just as a department of obstetrics has practising obstetricians and a department of child health has practising paediatricians. If it is to employ practising general practitioners in some part-time way, it will have, as it were, a part share in their practices. These practices will in effect become "teaching practices" in the same way as particular hospitals have become teaching hospitals; and, in the same way, the teaching practice would organize itself to teach while maintaining its service obligations and, one would hope, its research.

One can visualize facilities set up "alongside" a suitable practice, not essential to its purely service function, but able to observe the whole practice and to select from it suitable material for teaching and learning—material suitable for the preclinical or clinical student, for the postgraduate trainee, even for the research graduate. I would emphasize the importance here of selection: this must be done carefully for the undergraduate, but will be needed in lesser measure as graduate and postgraduate training proceed.

"What", you may ask "would this organization teach?" Before

answering that, I would quote Henry Sigerist (1952a), the great medical historian and sociologist. "All education" he wrote, "is self-education. All we can do as academic teachers is to inspire the student, to arouse his curiosity, and to teach him methods: the actual learning he must do for himself". I think that we are often too concerned with the minute details of the curriculum: what is needed is more concern with what students learn from what they see; the need is for stage-managed experience that will of itself throw up the questions that need asking—and answering.

Nonetheless, the "teaching practice" would have as its basis the demonstration of those things that cannot be demonstrated in hospital, or at best can only be poorly demonstrated. For example:

Medical care as a continuous process in health as well as illness, and the value of continuity of such care.

Routine health care, promotion and education. (Premarital counselling, marriage guidance, and family planning, advice on children's dietary and behaviour problems, immunization schedules, and programmes).

Study of the patient in his family and community setting, and demonstration of the social, environmental, and psychological complications of illness.

Demonstration of the pattern of illness seen in the community, and its marked variation from that seen in hospital practice.

Co-operation between community health and social agencies—government, municipal and voluntary—in the management of the patient (e.g. in poverty, old age, premarital pregnancy, delinquency).

Domiciliary management, disability limitation, and rehabilitation in cases of chronic illness.

And, incidentally, on the more purely clinical side as a bonus, the differential diagnosis and management of minor medical, social, and psychological illnesses that are rarely seen in hospital; and also the indications for consultation with and referral to specialists.

In all this, the student or graduate should be active: it is not enough that he should be just an observer.

Through such a training programme would pass not only future general practitioners but, in its earlier undergraduate phase and, one would hope, the graduate one, the future specialists also. This experience would thus be added to their training in those things which only the hospital can teach. Such a background for all medical graduates would promote a drawing together of the two branches of the profession, which is so needed and so valuable.

It would help fulfil another need of which Sigerist (1952b) wrote:

We still need a scientific physician well trained in laboratory and clinic. But we need more, a social physician, who, conscious of developments, conscious of the social function of medicine, considers himself in the service of society: . . . A new medical ideal is evolving, a physician, scientist and social worker, ready

to co-operate in team work, in close touch with the people he disinterestedly serves, a friend and leader who directs his efforts towards the prevention of disease and becomes a therapist when prevention has broken down—the social physician protecting the people and guiding them to a healthier and happier life.

An ability to see medicine as Sigerist's words demand is a valuable possession, but it is too rare; the more widespread we can make it the better. Where we do see it, we welcome it and praise it. It was, perhaps, just this ability in Arthur Gale that makes him, a specialist in epidemiology, worthy to be remembered in an annual lecture by the College of General Practitioners.

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