JAMES MACKENZIE LECTURE

The very stuff of general practice

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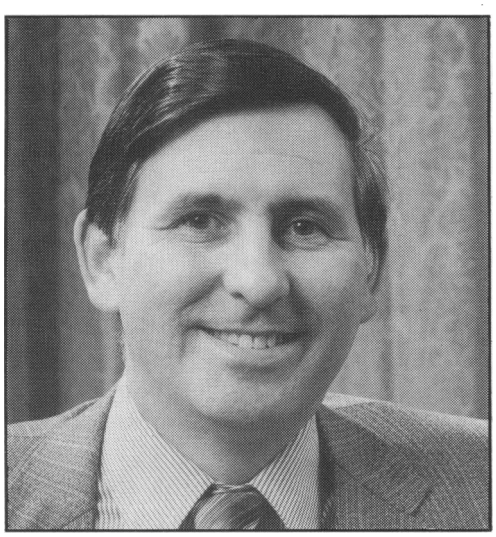

John C. Hasler

Introduction

JAMES Mackenzie was a famous general practitioner who was born just over 130 years ago and who spent a major part of his practising life in the Lancashire cotton town of Burnley. In his address at the opening of the Leeds Postgraduate Course in 1907 he stressed the central role of the general practitioner in observing and managing chronic disease throughout its course. Indeed, he was highly critical of the imbalance between hospital and general practice teaching in the medical school, particularly because of the opportunity for the general practitioner to monitor the changes that herald and follow established disease. While much of his interest was in the field of cardiology, his concern that the general practitioner use his talents generally with the long-term problems of his patients shows through in much of his work.

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Sixty years after Mackenzie's death, and a little over 20 miles from where he practised, Professor David Metcalfe from Manchester University's Department of General Practice has written how the populations of so-called developed countries survive all the perils of birth and early life only to live into old age beset by the disability of chronic diseases which are, as he says, becoming 'the very stuff of general practice'.[1] It is this very stuff of general practice — the management of long-term health problems — that I want to consider.

The size of the problem

The number of people in the United Kingdom requiring some kind of continuing medical support is staggering. The original concept of the Health Service gradually producing a race of healthier individuals, needing medical care less and less, became a myth long ago.

John Fry's figures[2] suggest that the average general practitioner (whoever he may be) will have getting on for 100 persons consulting in any one year for high blood pressure, another 100 for arthritis, 30 for asthma, 20 for diabetes and over 450 for chronic mental illness. These figures have to be set against steadily rising numbers of elderly people in our population. But perhaps the most remarkable figure is from the General Household Survey in 1978.[3] Over half the men and nearly three quarters of the women interviewed reported that they had a health problem all the time or one that kept recurring. Oscar Wilde's Lady Bracknell would have been singularly unimpressed. 'Illness of any kind,' she said, 'is hardly a thing to be encouraged in others. Nor do I in any way approve of the modern sympathy with invalids. I consider it morbid.' Well, morbid or not, illness is not something that we general practitioners can ignore.

In our own practice at Sonning Common in south Oxfordshire we monitor numbers of patients with chronic disease on the practice computer. The total list is nearly 7,000 patients. Figure 1 shows the number of patients who are identified as having one or more of the following diseases — asthma, diabetes, epilepsy, hyperten-

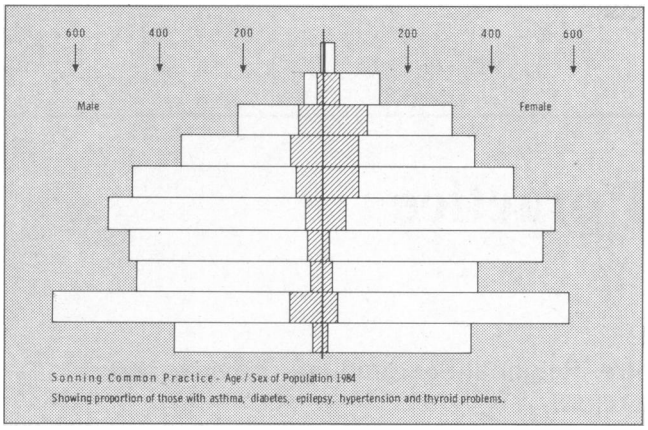

Figure 1

sion and thyroid problems. Although the proportion is relatively small, it is nevertheless significant and yet does not include patients with arthritis or continuing mental or emotional problems; these would add significantly to the numbers but as yet we cannot guarantee the accuracy of the figures. In Figure 2 you will see the number of patients with three of the chronic diseases, where the shaded portion of each bar shows the proportion that is currently being managed solely by the practice without the involvement of the specialist services. It is practice policy that we expect to take full clinical responsibility for all patients with chronic disease wherever appropriate.

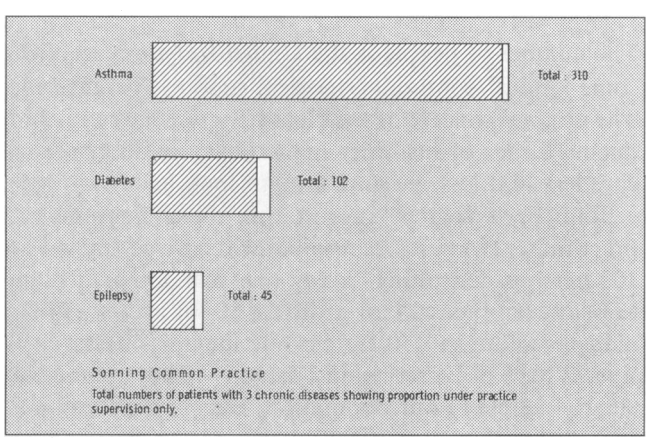

Figure 2

Three common conditions

I want now to move on and consider three chronic conditions and see what lessons we can learn from them.

Let us start with asthma.

Asthma

There is quite a lot of recent evidence to suggest that doctors do not always diagnose and manage asthma properly and though this relates mainly to general practitioners, it does not do so exclusively. General practitioners' views on asthma in children may have been shown to be quite widely divergent,[4] but so too have specialists'.[5] In 1983, some paediatricians in Newcastle-upon-Tyne and North Shields described how only a tiny minority of wheezy seven-year-olds had been reported as having asthma.[6] This highlights two shortcomings — an apparent reluctance to make a diagnosis (at any rate as far as the parents were concerned) and apparent inadequate treatment. Half of the regular wheezers had lost more than 50 days from school because of their wheezing. There have been other papers and letters describing underdiagnosis and under treatment and stressing the need for improved health education.[7,8]

A survey of acute asthma was carried out in Oxfordshire during 1979/1980. In 261 episodes of acute asthma, even among a group of interested general practitioners it appeared that a number of hospital admissions might have been avoided if more energetic treatment had been employed.

The main need in the management of asthma is to make an accurate assessment and this involves measurement. The peak flow meter is just as essential in asthma as the sphygmomanometer is in hypertension. Furthermore, it must be used round the clock. The case of James illustrates the importance of this: the satisfactory readings were all recorded during the middle of the day — the sort of readings you would expect in the consulting room — but as soon as James was asked to take a peak flow meter home and use it in the bedroom the true state of affairs revealed itself. The low readings at these times indicated quite severe asthma, which cleared dramatically once adequate treatment was started.

What can we learn from asthma? First, the need to measure properly. Second, the need to educate and involve patients. Third, the need to use an adequate range of drugs. Fourth, the need to respond quickly in emergencies. Finally, the need for good records.

There is no reason why the vast majority of people with asthma should not be under the sole supervision of their family doctors. No complicated manual skills are needed, and if doctors respond quickly and adequately to emergency calls there is no evidence that self-referral direct admission services to hospital, except possibly for a very small minority of patients, will improve care.

Diabetes

While some general practitioners may fail to diagnose and manage asthma, in diabetes it appears that the main failing might be too great a tendency to dispatch all patients to hospital care. Indeed, the present move to return the management of routine diabetic care to the community seems to be as much to do with the inability of the hospital outpatient department to cope with the numbers as with general practitioners' wanting to have it back.[9,10]

Why does diabetes seem to reduce some general practitioners to gibbering wrecks? It certainly cannot be because the disease is rare. There are said to be roughly

half a million known diabetics in the United Kingdom and possibly another half million unrecognized.

The management of diabetes in the practice raises the question of organization because of the part that professionals other than the doctor can play.

Cox has described the enormous satisfaction of establishing his own mini clinic in general practice and how hospital admissions and referrals dropped by two thirds.[11] In a study from Wolverhampton reported in September no significant difference in control could be found between those patients attending general practice mini clinics and those attendng hospital outpatients.[12] On the other hand, another study from Cardiff in the same month showed that general practice care for diabetics not on insulin was less satisfactory than hospital care and some of the deficiency appeared to be due to poor organization.[13]

The advantages of a mini clinic seem to be the ability to use other professionals and to have a system which ensures that patients are systematically examined and investigated; the disadvantages are that the patients all have to attend at a certain time and that some of the doctors may not get involved.

At Sonning Common we run a clinic once a month. Although one partner has a special interest and has the majority of the patients, any of the partners attend their own patients thereby ensuring personal continuing care. One of the health authority dieticians takes part and is an invaluable help. All the dieticians we have had over the years have believed that they are able to provide a more effective service in general practice clinics than they can do in hospital. Blood glucose estimations are done routinely by the nursing sisters before the patients see the doctor. Increasingly, patients are doing their own blood glucose monitoring at home, which has been shown to be associated with improved control,[14] and the laboratory is now able to do glycosylated haemoglobins for us.

In spite of these facilities now becoming generally available, the care that general practice provides is not all it should be. Professor Eric Wilkes in Sheffield found that although discharging patients from hospital care was popular, many were not being properly monitored, about half had high blood glucose readings and over 20 per cent of the patients thought they were cured.[15]

What lessons can we learn from diabetes? Once again, as for asthma, there is the need for relevant measurement, the need to educate and involve the patient in his or her own management, and the need to respond quickly in emergencies. But in addition there is the importance of effective organization and effective teamwork as well as good records. And once again, as for asthma, there is no good reason why the vast majority of diabetics should not be under the routine care of their general practitioner.

Hypertension

Finally, what about hypertension? Here it does seem that the routine management has been accepted as one rightly for the general practitioner. With the numbers involved, there is no way that the hospital service could provide follow-up and no reason at all for it to do so.

It has been said that the rule of halves applies — half those hypertensives that should be treated are unknown, half of those known are not treated and half of those treated are not controlled.[16]

An examination of records of 900 young and middle-aged adults in practices in north-west London between 1972 and 1982 showed some considerable deficiencies of care.[17] Nearly half the patients had been started on treatment after only one reading while over two thirds had no readings for periods over one year. Three quarters had apparently had no physical examination.

In a leader in the *British Medical Journal* earlier this year [1984] further doubts were raised about the general practitioner's ability to manage this minor epidemic.[18] What is needed, it was pointed out, was organizational change, not greater clinical acumen.

Yet, is all gloom and doom? In a study in practices in the Oxford Region Martin Lawrence, a Chipping Norton general practitioner, and Douglas Fleming from this College's Birmingham research unit have shown how the rate of recording blood pressures improved considerably between 1980 and 1982.[19] We have noticed similar changes during our inspection visits to Oxford Region training practices, during which large numbers of records are scrutinized.

The answer is that general practitioners can cope with the routine management of hypertension but, as with asthma and diabetes, certain messages are apparent. Accurate measurement, educating and involving patients, organization and teamwork, and good records are once again the activities that are needed.

Although I have only briefly touched on three chronic conditions, most of these aspects of care are relevant also for many other long-term diseases. I want now to examine two of these aspects in more detail. These are the education and involvement of patients, and practice organization and teamwork. We will start logically with our patients.

Patient education and involvement

In the work on general practice consultations carried out during the past few years by Dr David Pendleton and three other of my colleagues at Oxford, seven main tasks for a consultation have been identified.[20] These tasks include defining the reasons for the patient's attendance, sharing understanding and involving the patient in his management. Note immediately the involvement of the patient in sharing understanding and in the management of the

problem, with the aim of encouraging the patient to accept appropriate responsibility. That is the first point to underline: in the management of chronic disease, the patient has to accept most of the responsibility for himself. It is not for the doctor to remove that responsibility, and indeed if he does so, it is likely to mean that the management is only second best. Our job is to educate and advise, not to dictate.

Let us look at those tasks in a little more detail.

Task one is to define the reasons for the patient's attendance. As far as chronic disease is concerned, this is mainly relevant at the time the diagnosis is first being made. The nature, history and aetiology we are pretty good at: this is very much part of what we learned in medical school. What we are not so good at is getting at the ideas, concerns and expectations. We are good at guessing — sometimes. If you do not believe me, I would ask doctors to look carefully at some of their consultations, or alternatively ask a few patients what they think. Many ideas and concerns never surface. Now, if you think about it, it is very important that those ideas and concerns are discussed openly: the mother who thinks little Jimmy's acute wheezing after five minutes football does not matter: those patients from Sheffield mentioned earlier who thought their diabetes was cured because they had been discharged from hospital outpatients. In fact, for most of the patients who seem to run into trouble with their various long-term problems, their health beliefs are likely to provide the clue. And what effect will the disease have on their job, recreation and domestic life? All these strands must be unravelled.

Now look at these three other tasks. Choosing an appropriate action may take some time. I am sure that, like me, many colleagues may take several months to persuade a hypertensive patient to swallow pills for a condition which has no symptoms. How much more likely he is to stick to that decision if he takes it himself than if he is simply handed a prescription. Sharing understanding is more than simply giving information:[21] it has been shown that it involves discovering the patient's own ideas, offering relevant explanations and finding out if the message has got home; involving the patient in the management means exactly what it says.

It can be seen that all these various tasks influence each other, as sharing understanding and management will themselves modify the patient's health beliefs. This has been described by David Pendleton as the cycle of care (Figure 3).[22] If one starts at the top and moves anticlockwise you see the patient bringing his ideas, concerns and expectations to the consultation, which then modifies his health understanding both immediately and in the longer term.

That brings me logically on to the word 'compliance' which a well-known medical journalist, Michael O'Donnell, has placed high on what he describes as his irking index,[23] harking back, as he says, 'to days when doctors issued Doctor's orders and patients were expected to do what they were told'. From what I have already said you will realize I share Michael O'Donnell's view, but I find the word compliance holds no problems providing we turn it upside down and suggest that the doctor complies with the patient.

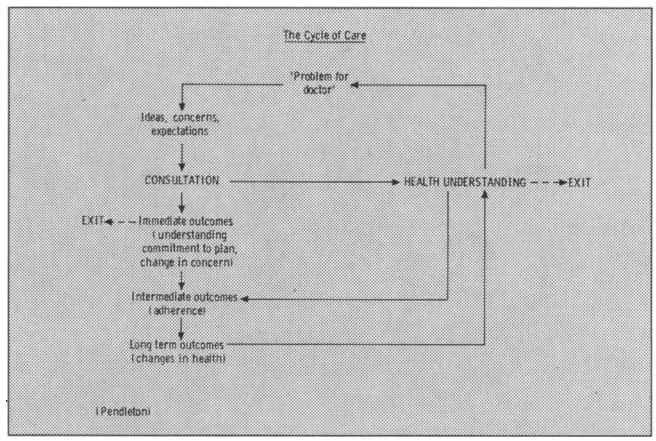

Figure 3

The message for doctors is then clear. To be really effective in the management of chronic disease they must do two things. First, they must understand the areas just described. Second, they must hand the responsibility for the disease back to the patient, while remaining available for advice and follow-up. The involvement of patients in their own health care is one of the big issues of the eighties, and one reason why the College has set up its Patients' Liaison Group.

There are two other tasks in the consultation that we need to consider finally. Clearly, as far as chronic disease is concerned, there are very significant implications for time and resources and I will return to these in a moment. But as far as the last task is concerned, most general practitioners would recognize the importance of the doctor–patient relationship and its effect on disease management. The importance of this relationship was highlighted for me at a recent residential course for Oxford Region general practice trainees. For the whole of one afternoon these young doctors role-played quite difficult consultations with a group of amateur actors. At the end of it all, when we were sitting around discussing what had been learned, each of the patients in turn said, in different ways, 'we do not mind if you admit you do not know all the answers, we do not mind if you do not even know all the questions, provided that you show you care and that our relationship means something to you'. The relief for some of those doctors, once they realized that the relationship was more important than knowing all the answers, was one of the most rewarding sights for the course tutors in the whole two days.

Organization and teamwork

Now we turn to organization and teamwork including that knotty problem of time and resources. One of the most frequently heard complaints by both general practitioners and their patients is that there is too little time. So if general practitioners are to take over a substantial part of all chronic disease care, where would they get the time?

When you look at the average length of a consultation in general practice in this country, which is still less than 10 minutes, you might be forgiven for thinking that all general practitioners are up to their eyes in work and quite unable to do anything about it. And yet, paradoxically, we are in face to face contact with our patients for fewer hours each working week than our colleagues in many other western countries. Moreover, there is no evidence to show that reducing the list sizes of doctors improves patient care. So how well do we manage our time each week? The Mad Hatter, you remember, who regarded Time as a person, could change the hour at will until he quarrelled with Time, after which it was always six o'clock and hence always tea time. We may not be in quite the same position as the Mad Hatter but it is clear that we could manage time a great deal better.

Consider, too, the fact that the majority of general practitioners do not even appear to employ their full quota of secretarial and nursing staff for which they are entitled to receive 70 per cent reimbursement.

There are many indications that when nurses are involved in the long-term care of patients, the standard of care goes up: for one thing, nurses do not seem to have those large scissors which doctors use for cutting corners. The Medical Research Council's trial for hypertension has used nurses exclusively for taking routine blood pressure measurements.[24] Professor Michael Drury from Birmingham has described an investigation recently into the use of nurses, with computer assistance, for following up hypertensives: it showed an improvement in the proportion of patients' achieving target blood pressures and weight with greater general acceptability.[25] A recent study from a Glasgow hospital has produced similar findings.[26]

But perhaps the biggest single influence on general practice in the next decade will be the introduction of the microcomputer.

We have been enormously excited by its potential. First, it enables us to identify all patients with certain diseases. When we want to look at questions such as how many consultations we need to plan for, whether a clinic session would be useful and, if so, how frequently, we have the necessary information at the touch of a button. Further, we can use these listings to extract the records of all or of a sample of patients when auditing our standards of care. Our computer can, for example, identify everyone for whom we have no blood pressure readings at all, thereby helping us to see who might be in need of care and not getting it. It can also analyse the latest readings of all hypertensive patients to show what proportion fall into an acceptable range. And perhaps even better still, it can identify all patients on long-term drugs and what they are taking. So for us it was child's play on the day doubts were raised about Opren and about certain contraceptive pills to have a list of everyone on these drugs by coffee time. While these may be relatively rare occurrences, it is much more common for us to use this facility to monitor and audit our prescribing: it goes without saying that all our repeat prescriptions are computer printed each morning in less than a quarter of the time it used to take the staff to write them. The auditing of prescribing is just one step removed from auditing the whole care of the patient, with the monitoring of all relevant measurements — as some hospital outpatient departments are now doing.

These activities I have described are becoming increasingly commonplace, but are only the first step. Computers will enable us to transmit information rapidly between laboratory, outpatients, hospital wards and general practice. The days of the inadequate emergency referral letter or the non-existent hospital discharge letter will become merely an irrelevant bad dream.

Go out and buy yourselves a computer.

Education of the general practitioner

The education of the general practitioner divides logically into two — the vocational training of young doctors for general practice and the continuing education of the established general practitioner.

It is necessary for general practice trainers to be very clear about what they believe their trainees should be learning and, to be aware of what clinical problems are being seen. In our identification of what has to be learned — or priority objectives, as we have called them at Oxford[27] — we argue that since it is clearly impossible for trainees to learn everything, they must understand general principles and possess certain basic skills. In relation to chronic disease we emphasize that trainees must be able to show for example, that they include the patient's beliefs and ideas in their assessments of problems, that they involve other members of the health team effectively, that they understand the application of new technology, that they respect the patient's autonomy, and so on. All trainees should be able to do all of these things by the end of their training.

The difficulty for trainees is that their actual experience of chronic disease may be skewed and sometimes very small. In my research into this in the Oxford Region in the late seventies[28] some of the problems became apparent. For example: for asthma, while three dozen trainees had an average of nearly 13 patients to manage during six months, six of these trainees had only between one and four; for depression these same trainees averaged nearly 14 patients but four of them only saw from one

to four; for diabetes the average was 4.5 but four trainees had no diabetic patients at all; and for rheumatoid arthritis it was an average of 2.2, with 10 trainees having no cases. But what was perhaps more interesting was that, for many conditions, even over 12 months a large percentage of patients never came back to the trainee for further management.

For asthma, for instance, 50 per cent of patients were seen once only and 22 per cent twice only, and you can see the other figures in Figure 4. Incidentally, the figures for 12 other conditions showed similar results. Trainers cannot assume their trainees are seeing either enough patients or that those patients come back to the trainee. Trainers must log clinical experiences and they must help trainees to learn as much as possible from each consultation. Furthermore, all training practices must be able to demonstrate effective management of chronic disease in all the fields we have been discussing and the continuing medical education that we will now consider.

IN ONE YEAR

PATIENTS SEEN	ONCE ONLY	TWICE ONLY
ASTHMA	50%	22%
DEPRESSION	38%	21%
DIABETES	53%	22%
RHEUMATOID ARTHRITIS	45%	27%

Figure 4

The crucial link is the relationship between the doctor's education and the improvement in his care of his patients. It is not right for sums of public money to be spent on educational activities, some of a dubious nature, unless we can show that our patients are benefiting as a result. Fortunately, we can now begin to make that connection.

Some years ago the Thames Valley Faculty of the College devised a three-day residential course and this has now become an annual event. Each year the general practitioners who attend choose a particular subject in advance which involves some preparatory work. During the course, much of the time is spent in small groups studying with an expert: many of the subjects have been chronic diseases. In the Fleming and Lawrence study mentioned earlier,[19] significant improvements were found in various preventive activities in the records of the doctors concerned, after the course. A similar finding was apparent in relation to asthma following the first course, when all members of the asthma group realized they needed to know a lot more about their asthmatic patients.

The most relevant continuing education of all is based in the doctor's own practice with his own patients. Education, you may remember, was what Christopher Robin did in the mornings: so some two years ago we, like many others, followed his example and decided that education should be part of the working day. Since then, all the doctors, and sometimes nurses and health visitors as well, start every Wednesday with our own education. While all of the sessions are educational in the broadest sense, some of them involve the agreement of a practice policy for long-term prescribing or management of a long-term problem, and in later sessions we look to see how well we are doing and whether we should make further changes. This is what we understand by the buzz words of medical audit or peer review. For some doctors the whole idea seems difficult and problematical, and the College has been accused of unreasonable suggestions. The key to this sort of education is not how big the shortfall of care is — it will always be bigger than we want — but how we can help and encourage one another to close the gaps.

But if these developments are taking place in practice, there are new developments in the health district as a whole. The Oxfordshire Health Authority, too, has made the connection between education and standards of care and has appointed a general practitioner tutor to begin to forge that link. Her role is not confined to coordinating education but also to relate this to health service planning in the community. Further appointments have been made for specific diseases such as asthma and gastric disorders, with the help of the Nuffield Provincial Hospital Trust. We are now beginning to see coordinated activity between consultants and general practitioners, with the increasing management of patients in the community and the development of means of measuring the standard of that care. That is real education. Furthermore, for the first time, the health district will have information from general practice as well as hospitals. If we really want a proper say in health care planning, general practice has to provide proper information about what it is doing, and nowhere is this more important than in the management of chronic disease. All too often we react to questions about our patient care with a mixture of coyness, indifference and paranoia.

Implications for the future

Finally, if we can make this shift of long-term care from hospital outpatients to general practice, what implications does it have for the future? We have already looked at what it means for general practice, but what of the hospital services? If we are asking our consultant colleagues to hand back many of these long-term patients, what would that mean? They would want to know that we were taking the job seriously; we have some way to go before we can demonstrate that confidently. They would want to know that the falling attendances in outpatients would not jeopardize their own position and some of their resources. But think of the possibilities: for

every outpatient session closed down, visits could be substituted for many of the practices or groups of practices in the district; consultants (and registrars) could consult with the general practitioners and patients together; in the course of a year many practices or groups could be visited regularly once or twice with everyone benefiting. There is nothing new in this for a minority of practices, but as yet it is only a minority.

These are organizational changes. There are wider questions to be answered.

Professor Rudolf Klein, in his book on the politics of the National Health Service,[29] asked what impact — if any — has the NHS had on the health of the people of Britain and, as everyone knows, that is a difficult and daunting question. Most available information is not about how people live, but how they die. Klein argues, and this College could hardly disagree with him, that what is badly needed is a definition of the role of the NHS in terms of its contribution towards the quality of life. Could we not begin to revise our criteria for measuring effective care in certain chronic diseases that depend not only on the serum rhubarb, but also on aspects of quality that matter to patients? It goes without saying that patients would have to be involved in producing the criteria.

Looking ahead, as we approach the middle of the eighties, we can see two possible scenarios. On the one hand, if we fail to provide effective care in chronic disease the secondary specialist services will continue to move into direct patient contact in the community, whether it be with self-referral systems or hospital-based nurses. Relationships between primary and secondary care will become more difficult and confused, and patients will suffer. On the other hand, comprehensive effective care by all general practitioners will result in increasingly relevant close consultations with specialists, with the patient getting the best of both worlds. Which do we want and, more importantly, which do our patients want?

The College's Quality Initiative is now over a year old. In it we have all been asked to look at what services we provide for our patients, what objectives we have for health care and how we can evaluate them. In this lecture I have argued that our patients with chronic diseases need better care from us in general practice and discussed what that involves. It involves a more equal partnership between patients and doctors, more careful appraisal of the clinical problems and of treatment, better emergency care and better organization and teamwork; and it involves making this information available for health care planning. None of this is beyond the capabilities of general practice, but serious questions will be asked if we shirk our responsibilities. For if the general practitioner is not able to deal with chronic disease well, what is he capable of?

In conclusion, I challenge every general practitioner to consider how he will apply the Quality Initiative to his patients with chronic disease. I think that is what James Mackenzie would have wanted.

References

1. Metcalfe D. Foreword in: *Continuing care: the management of chronic disease.* Hasler J, Schofield T (eds). Oxford University Press, 1984.
2. Fry J. *Common diseases.* 2nd edition. Lancaster: MTP Press, 1979.
3. Office of Population Censuses and Surveys. *General household survey 1978* London: HMSO, 1980.
4. Marks BE, Hillier VF. General practitioners' views on asthma in childhood. *Br Med J* 1983; **287:** 949-951.
5. Henry RL, Milner AD. Specialist approach to childhood asthma: does it exist? *Br Med J* 1983; **287:** 260-261.
6. Speight ANP, Lee DA, Hey EN. Underdiagnosis and undertreatment of asthma in childhood. *Br Med J* 1983; **286:** 1253-1255.
7. Arnold AG, Lane DJ, Zapata E. Current therapeutic practice in the management of acute severe asthma. *Br J Dis Chest* 1983; **77:** 123.
8. Henry RL. Asthma. *Update* 1983.
9. Baksi AK. Non-consultant peripheral clinics: a new approach to diabetic care. *Health Trends* 1984; **16:** 38-40.
10. Hill RD. Follow-up: in hospital or general practice? *Update* 1984; 28 May: 581-592.
11. Cox IG. Treating diabetes and dementia. *Br Med J* 1983; **287:** 1031-1032.
12. Singh BM, *et al.* Metabolic control of diabetes in general practice clinics: comparison with a hospital clinic. *Br Med J* 1984; **289:** 726-728.
13. Hayes TM, Harries J. Randomised control trial of routine hospital clinic care versus routine general practice care for type II diabetes. *Br Med J* 1984; **289:** 728-730.
14. Gibbins RL, *et al.* Does home monitoring of blood glucose work in general practice? *Br Med J* 1983; **287:** 8001-8004.
15. Wilkes E, Lawton EE. The diabetic, the hospital and primary care. *J R Coll Gen Pract* 1980; **30:** 199-206.
16. Schofield TPC. Hypertension. Chapter in: *Continuing care: the management of chronic disease.* Hasler JC, Schofield TPC (eds). Oxford University Press, 1984.
17. Kurji KH, Haines AP. Detection and management of hypertension in general practices in north west London. *Br Med J* 1984; **288:** 903-908.
18. Coope J. Hypertension in general practice. What is to be done? *Br Med J* 1984; **288:** 880-881.
19. Fleming DM, Lawrence MSTA. Impact of audit on preventive measures. *Br Med J* 1983; **287:** 1852-1854.
20. Pendleton DA, *et al. The consultation: an approach to learning and teaching.* Oxford University Press, 1984.
21. Tuckett D. *Final report on the patient project.* London: Health Education Council, 1982.
22. Pendleton DA. *Doctor patient communication.* Doctoral dissertation, University of Oxford, 1981.
23. O'Donnell M. One man's burden. *Br Med J* 1984; **288:** 331.
24. Barnes GR. Nurse-run hypertension clinics. *J R Coll Gen Pract* 1983; **33:** 820-821.
25. Kenkre J, Drury VWM, Lancashire RJ. Nurse management of hypertension clinics in general practice assisted by a computer. *Fam Pract* 1985; **2:** 17-22.
26. Rubin PC, *et al.* Preliminary experience with a hospital blood pressure follow-up clinic with nurse practitioner assessment and microprocessor based data retrieval. *Br Med J* 1984; **289:** 537-539.
27. Oxford Region Course Organizers and Regional Advisers Group. *Priority objectives for general practice vocational training. Occasional paper no. 30.* London: Royal College of General Practitioners, 1985 (in press).
28. Hasler JC. *Clinical experience of trainees in general practice.* MD Thesis, University of London, 1982.
29. Klein R. *The politics of the National Health Service.* London: Longman, 1983.

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