PRACTICE OBSERVED

Conference Report

The future of general practice: more elderly, less money, and scattered computers

RICHARD SMITH

Earlier this month about 300 general practitioners deserted the daily worries of their practices and motored up from Cornwall to the Hyde Park Hotel, took the overnight bus from Port Talbot, or cycled in from Brixton to contemplate the future of general practice at the Royal College of General Practitioners' annual symposium. Even if that future did look more bleak than bright (but then the future always does), and even if there was much nigh on incomprehensible talk of "liveware versus software," "paradigm shifts," and "Illich options," it must have been delightful to have been in London—for when the talking was over, or even before it was over, there were the theatres, the fine restaurants, and the dens of iniquity for which London is famous. Many of those at the conference must have jumped at the opportunity to "eat, drink, and be merry" for there seemed to be agreement that quite likely "tomorrow we die" en masse.

The possibility that general practice might not have a future was touched on briefly. One reason that it might not have is because maybe none of us have a future. Professor David Metcalfe put the probability of there being a "thermonuclear exchange" in the next 20 years at 50%, while Dr Julian Tudor Hart thought it inevitable if doctors didn't get their heads deep into the muck of politics and change the course of our society. But, nuclear obliteration apart, the feeling was that primary care would be around in 20 years' time, and maybe it will have to expand considerably if there is to be a shift from hospital care to community care. Professor Alan Maynard, professor of economics at York, sounded a warning note, however, when he pointed out that community care might well turn out to be more expensive than institutional care and it might be necessary to

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"reinvent the wheel" and return groups such as the mentally handicapped and the elderly to institutional care.

The possibility was also raised that primary care in the next century might be dominated not by general practitioners but by generic health workers—beasts that will be neither doctors nor nurses but much better suited to practice medicine in the thin air of the future.

Change from without

One of the central questions of the conference was how much general practice would be changed by outside influences and how much from within. The other important question was how much general practitioners in general, and the college in particular, will be able to control the future. By encouraging general practitioners to consider the future, Dr Luke Zander, the conference's organiser, clearly hoped that they will be able to adapt sensibly to changing circumstances. The underlying philosophy was given away when Miss Wendy Pritchard from Shell International talked on how to achieve change: the best way to do so, she said, was to sit down together and think where you wanted to be in the future; next you considered where you were in the present; and, finally, you thought carefully how you might move from the present to the future you wanted. Some speakers found this too tricky and concentrated on present problems and immediate solutions, but others, particularly Professor Metcalfe, played Miss Pritchard's games with enthusiasm. A general practitioner who is a "college man" at heart knows the importance of games and plays them with energy and dedication.

Nevertheless, much of the future is not under the control of college members no matter how many games they play, and Professor Donald Acheson, the next Chief Medical Officer, and Professor Maynard were given the job of spelling out some bitter facts and prophecies about the future. One fact, and facts

about the future are necessarily scarce, is that there will be the end of the century by which more old people and fewer younger people to support them. By the year 2000 there will be a 16% increase in those aged 75-84 and a 61% increase in those over 85, whereas those aged between 65 and 74 will decline by 13%. After giving these figures, Professor Acheson pointed out that all was not gloom because improved pension schemes should mean that the elderly of 2000 should be better off than the elderly of 1981, and also the elderly of the future should be less dependent. He reminded the meeting that general practitioners have a large part to play in ensuring that dependency rates do fall—for instance, by being more effective in managing hypertension and so reducing the incidence of stroke.

Although he emphasised that every effort should be made to keep the elderly as independent as long as possible and with their own possessions about them, Professor Acheson sounded ominously like a chairman when he said that in the future it might be necessary to "concentrate the elderly" to be able to cope. This statement was especially ominous because it followed Professor Maynard's observation that the elderly might have to be cared for in institutions simply because they were cheaper.

Other social changes

Other social changes that Professor Acheson touched on were that family stability might fall further over the next 20 years, leading to more people living alone and more single parents. Single people use health care resources more than those who live with others, and so here was another factor leading to rising demand. Professor Acheson also spoke briefly, as he was expected to do, about inner cities, saying that he thought that depopulation, with the poorer and more dependent being left behind, would continue—at least in London and on Merseyside—until the end of this decade. He did, however, insist that he was "pleased" by the government's recent response to his report of two years ago on inner city primary care. Some of those at the conference thought that the response had been inadequate and that Professor Acheson was being uncharacteristically politic because of the difficulties of his new position.

Perhaps general practitioners should be grateful that any money at all has been earmarked for inner cities because another theme of both Professor Acheson and Professor Maynard was that money was going to get progressively shorter and that the era of uncontrolled financing of general practice was over. Those who doled out the money were going to become much more concerned about how it was spent, and Professor Maynard said they were going to want to know which activities gave best value for money. General practitioners, he said, would have to take a leaf out of Mao Tse-Tung's red book and start studying hard—particularly economics and how to minimise costs and maximise benefits. In the fight for money with hospital services and others, they would have to be well armed with economic ammunition or they would go to the wall. Neither Dr Tudor Hart nor Sir George Goddard, a past Chief Medical Officer, were happy with this view of the economics of health care. Dr Tudor Hart didn't like the idea of his practice in south Wales being stripped down to some sleek, efficient, monetarist machine that employed few people while 40% of his village was unemployed, whereas Sir George thought that reducing everything to money terms was shortsighted. All were agreed, however, that general practitioners would have to become more canny about resources. Dr Tudor Hart advised everybody at the conference to go home and employ as many ancillary staff as the reimbursement scheme allowed because the government would "plug that loophole soon."

The theme of people versus technology and efficiency ran right through the conference, and Professor Metcalfe made some doctors' blood run cold by describing a high technology future in which every aspect of general practice would be computerised. But he tried to make it clear that he thought that imaginative and

cooperative use of computers should mean more freedom for doctors to do what they were best at and improve the doctor-patient relationship. Linking together two themes on which the college is very keen—computerisation and the doctor-patient relationship—was a marvelous sleight of hand, but much of the audience remained sceptical. Yet Professor Metcalfe was very persuasive that "civilised hardware" (printers that don't deafen you, and screens you can see), and "advanced software" (the artificial intelligence type—really smart machines) that would prompt, remind, and correct the erring doctor, together with information being shared between doctors and patient would lead to a new dawn of both being happy with their machines and their relationships.

The idea that patients should be given access to their records was one that came up time and time again, and many doctors were clearly strongly attracted by the possibility. Others were worried that medical problems might result, but the end impression was that patients will by the end of the century have much better access to their records—be they on computer or in a Lloyd-George envelope. This sharing would fit together well with another expected development of patients taking much more responsibility and interest in their own health. This was a theme advanced enthusiastically by both Dr M A C Dowling from the World Health Organisation and Mrs Anne Richardson from the Policy Studies Unit, and it had a welcome effect of inevitability about it.

Written records were discussed much less than computers, which is perhaps to be expected at a conference concerned with the future, but at the same time this emphasis illustrates one of the great problems of general practice. While 300 general practitioners were sitting in a hotel in London arguing about the possible benefits of complete computerisation, many of the other 24 000 were out in what the Americans expressively call the "boondocks" practising with records that are utterly inadequate for modern general practice. Similarly, while college members are being called on to audit their practice and participate in the "quality initiative," a good many general practitioners are simply getting their teeth and bearing it. The question of how the college could help to raise the standard of general practice right across the board came up several times, but people didn't really get their teeth into it.

A question that provoked more discussion was the future of the relationship between doctors and nurses. Miss Sue Mowat, director of nursing in Tower Hamlets, thought that health teams hadn't come up with the goods and that "teams" should be replaced by "groups" where conflict was minimised and it was recognised that each member had distinct skills. She was worried, too, that the work and status of district nurses were being undermined by practice nurses. In contrast, Dr Tudor Hart thought that district nurses were so constrained in what they could do by the nursing hierarchy that their contribution to the care of general practice patients was very limited. This statement was applauded, and, although many doctors clearly get on well with their nurses, all is by no means well with the team group concept. It is hard to imagine that teams groups will disappear from general practice, but more thought needs to go into making them work better.

How to change

The conference appropriately devoted much time to considering the education of future general practitioners. Professor David Morrell looked at the whole process from A levels to retirement and found some sad deficiencies. He started by saying that we needed much better ways than three good A levels of selecting medical students. He then suggested that medical training should have stated objectives, and he offered the conference some: two central ones were that future general practitioners should be better at changing, and evaluating both their own standard of practice and the claims of researchers and drug companies. The abilities to change and evaluate were at the

moment, he thought, sorely lacking. He thought, too, that more of vocational training, and particularly the first year, should be spent in practice rather than in hospital. Dr Dowling was also keen that more medical training all round the world should be done in the community. He made the interesting statement that in many developing countries doctors are the major obstacle to raising health standards. This couldn't help but remind me of Ivan Illich's statement in 1975, which seemed outrageous at the time, that doctors were the main threat to health in the modern world. Yesterday's heresies may be today's establishment wisdom. Professor Morrell concluded by saying that more thought needed to be put into continuing education, particularly into supporting young principals, if a doctor were off the rails in the first few years of practice he was unlikely to return.

The college obviously has an important part to play in attempts to raise education standards, but Dr John Hasler, the retiring secretary, saw it as able to do very much more as well. He reminded the conference of the recent creation of the patients' liaison group and of the "quality initiative," and then went on to

say that he wanted the college to do more in helping its members to manage time and handle change, to do more research into cost effectiveness, to encourage more responsible prescribing, to adopt a higher profile in the media, and to be more political and improve relationships with the government, the civil service, the General Medical Services Committee and the local medical committees. Such an energetic programme can perhaps be advocated more easily by somebody who is finishing his spell in office rather than just starting, but Dr Hasler has been a very successful secretary. In any case if progress is to be made within the profession the college will need to go hand in hand with the General Medical Services Committee and its local committees.

So will this conference have fitted those who attended to face the future in a more intelligent way? I think it must have done, and I think that individuals and groups both large and small have more to gain by following Miss Pritchard's advice and setting time aside to consider the future—even if at times such consideration can be very painful.

What Annoys Me Most

The telephone

OLIVER SAMUEL

What annoys me most about general practice? It's the damn telephone of course! I've spent my whole professional life entangled in a love-hate relationship with that penetrating, persecuting electronic intruder. I really should have paid greater respect to my elderly senior partner who refused to have a phone in the consulting room. His marvelously patient wife took phone messages in the kitchen and only ever summoned the doctor to the instrument if it was absolutely unavoidable. This she did by banging heavily on the wall that divided the living room from the small surgery at the side of the house. The doctor then had the option of not hearing the signal or taking so long to come through to the phone that only the most persistently importuning caller had the opportunity of actually speaking to him. Patients quickly learnt that they had a much better ally in the doctor's wife, and if the matter could actually be dealt with over the phone then she would cope with great courtesy and expedition. As soon as I took over the practice I had a phone installed on the desk and it has been downhill ever since.

As a medical student and then as a junior houseman I remember a surge of self importance in having a phone by the bedside ready to summon me in a flash to lifesaving deeds of great skill and critical importance. The glamour didn't last very long, as in my last job I had to share a bedroom with a colleague who was on duty those nights that I was off. In a busy one in two rota this meant interruption night after night until we could stand it no longer and threatened to quit unless we were housed

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separately. In almost no time I had become so sensitised to the telephone that I would wake and reach for the instrument even when the phone was ringing in the house next door. Curiously, after our first daughter was born my wife reacted similarly to the first sign of any baby whimpering anywhere in the street. I never ever heard the babies, but those phones . . .

Surely I am not the only sufferer from paranoid telephonic tinnitus being got at by the telephone bell wherever I go. I suspect that our local hospital is exclusively staffed by telephonic telephone operators. They probably spend all morning huddled in the rest room, drinking tea, and trying not to notice the ringing. Funnily enough though, I have actually been into the switchboard room at the hospital and met the supervisor and some of the staff. Face to face they all seemed friendly, concerned, hard working people doing their best with rather inadequate equipment. An astonishing change in my perception took place when I discovered that those brisk disembodied voices actually belonged to real people who get frustrated in the struggle to contact doctors who don't answer their beeps or staff who won't pick up their extension no matter how long it rings. From the exchange it seems clear that the real winners are at the other end of the line and they have plenty of witnesses to prove it. It is disturbing the way that the people you only know over the phone turn out to be completely different when you actually meet them for the first time. It is as if you are only then seeing the real person. Yet on the phone some people seem astonishingly unimpaired and able to demand attention and become angry, laconic, hysterical, or pathetic in a way that they would never risk in a face to face confrontation. There seems to be a professional quality to a conversation with someone who cannot be seen or touched, see how anyone can. Small wonder that the Samaritans are so effective in helping lonely people who need to talk anonymously with a friendly voice.

Relentlessly pursued

My trouble is that I feel too accessible, too exposed, to anyone who wants to talk to me on the phone. I find it impossible to leave a ringing phone unanswered as it really might be important. So I resent it when my patients discover that they can quickly and easily cut through the tedium of waiting at the surgery to see me by just giving me a ring when they feel like it. I'm not busy, "I don't want to trouble you doctor, I just need a word of advice," "I didn't want to take up your time, so I thought I'd just have a few words." The requests are perfectly reasonable, but it is nice that they have been put so consistently. How can the callers realise that I have been relentlessly pursued by such trivial interrupting telephone calls all my life. Even when they matter, I resent being pestered by them. They transform me from being a kind and considerate Dr Jekyll into brusque and evil temper as I struggle to deal with their maddeningly disembodied voices. They reach out and distract me during meal times, when I

am in the bath, trying to read, or asleep in bed. I find it almost impossible to give patients sensible advice on the phone, as all my experience dictates that having heard the story I need to see and examine the patient before I try to decide what to do. As I resent the phone calls I can hardly take a proper history over the phone anyway. I really don't see how anyone can feel confident of a telephone diagnosis when the information is electronically filtered and can be perceived only by one of the five senses normally engaged during a real consultation.

Although I couldn't possibly work without one, I have very mixed feelings about phones and I think them a very poor substitute for actually meeting, either for professional or sociable purposes. Why then do my children spend hours on the phone moaning desperately at friends they have only just left and are due to meet again very shortly? Damn it, don't they know I'm on call? For God's sake get off the line, someone might be trying to get through to me.

Practice Research

Evaluation of screening for hypertension in general practice with an automatic machine

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Abstract

An automatic device for measuring blood pressure was used to screen all patients aged 30 to 65 years registered at a health centre. Of those who were eligible, 58% attended. Patients with previously recognised hypertension were more common among the attenders than among the non-attenders. High readings obtained on the automatic device possibly deterred some patients from reattending for follow up measurements of blood pressure. Although the device is quick and easy to use, the logistic challenge of formal blood pressure screening is considerable. Hypertension was discovered in 52 patients (mean diastolic pressure > 100 mm Hg). Retrospective analysis of their medical records showed that a third had had an abnormal blood pressure reading noted during the past 10 years and no further action had been taken, and almost three quarters had attended their practitioner during the previous year without having a blood pressure measurement recorded. One year after the screening procedure two fifths of the newly discovered hypertensive patients had defaulted from follow up and treatment.

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Automatic devices are not a short cut to the discovery of occult hypertension. Case finding by routine measurement of blood pressure at surgery visits is more efficient.

Introduction

The availability of automatic devices to measure blood pressure has rekindled interest in screening populations for occult hypertension. One such machine was temporarily installed in a local health centre to screen the patients in the practice. We have investigated the practical problems posed, the range of people attracted by the offer of automated blood pressure screening, and the subsequent response of newly discovered hypertensive patients to their problem. Furthermore, we attempted to compare the efficiency of automated blood pressure screening in the community with case finding by the routine measurement of blood pressure at unrelated health centre attendances.

Methods and results

PRELIMINARY WORK

The Prestwich Health Centre has 13 000 patients on its list, who are shared among four practices and five general practitioners. It had been decided to screen all those aged 30 to 65 years: 5367 patients (42% of the practice population) fell into this age group. Because of the large numbers it was thought essential to prepare a computerised age-sex register—a time consuming procedure, taking more than 200 hours of secretarial time. Roughly 6000 letters were sent to patients during the study: an explanatory letter with the invitation to have a blood pressure check and then a second letter to all those with a high initial reading. The computerised record allowed all correspondence to be automated.

Statistical analysis was done by standard parametric tests. Contingency tables were analysed by the χ^2 test with Yates's correction where appropriate.

INITIAL SCREENING

We used the Vita-Stat blood pressure computer (Electramed, Ireland Ltd) for initial screening, an automatic device that measures the systolic and phase V diastolic pressure in a patient in the seated position. It can accommodate a maximum of 25 patients an hour. It was manned by a technician and was available five days a week between the hours of 10 am and 4 pm. The initial screening of the 2931 patients who attended 95% of the practice population aged 30-65 years took six weeks to complete (table).

Distribution by age and sex of the attenders and non-attenders at the initial blood pressure screening using the Vita-Stat blood pressure computer

	30-34	35-39	40-44	45-49	50-54	55-59	60-64	Total No.
Attenders								
Men	228	198	167	169	178	170	218	1220
Women	181	139	106	109	127	137	181	791
Non-attenders								
Men	121	250	164	157	122	134	124	1327
Women	108	143	112	95	79	126	147	710
Total	608	431	323	326	297	286	287	2436
Ratio	1:2.1	1:2.2	1:1.9	1:1.9	1:2.3	1:2.1	1:2.1	
Female:male	1:1.7	1:1.4	1:1.5	1:1.6	1:1.7	1:1.6	1:1.5

Figure 1. Prevalence of blood pressure abnormalities in patients aged 30-65 years as measured by the Vita-Stat automatic blood pressure computer

The ultimate diagnosis of hypertension was to be based on the results of three consecutive manual measurements of blood pressure with a mercury sphygmomanometer. But to choose which patients to recall for detailed observations, the practice decided to use the Vita-Stat machine. The line between the readings obtained by the automatic blood pressure machine. The positioning of this division, whether based on systolic pressure or diastolic pressure and at what arbitrary level of pressure, has a profound effect on the workload in manual screening. The figure

shows the relation between the blood pressure and the frequency of its abnormality as measured on the Vita-Stat machine, and can be used to predict the workload required to set an arbitrary division at different levels of pressure. We had hoped to investigate further all individuals with a diastolic pressure over 90 mm Hg, but such a commitment proved too great. Manageable numbers could be accommodated only by recalling all those with a diastolic blood pressure of ≥ 93 mm Hg.

MANUAL SCREENING

Two hundred and seventy eight patients (144 men, 134 women, 9.5% of the screened population) were recalled for a manual blood pressure measurement. This was taken with the patient seated, using a Hawksley random zero sphygmomanometer and phase V diastolic pressure was recorded. Comparative studies using a double-headed stethoscope showed a coefficient of variation of 1.4% between the readings obtained by the two observers (WPS and DT).

Seventy four patients failed to attend for the first manual reading; 70 had diastolic pressures of less than 90 mm Hg and were excluded from further follow up. Nineteen were already taking medication for hypertension. In four the pressure was so high that it was without treatment for a longer period of observation was thought to be unethical and treatment was thus started.

The remaining 104 patients (41 men, 63 women) had diastolic pressures of 93 mm Hg or more and were all recalled for two further manual readings. Eighty eight complied with this follow up; 17 individuals attended for only one further manual reading. Of the original group of 104 patients, 48 had mean diastolic pressures above 100 mm Hg when all available readings on a single individual were examined. In this group of 18 men and 30 women the mean systolic pressure was 172 mm Hg, range of individual readings 144-226 mm Hg and the mean diastolic pressure was 106 mm Hg, range of individual readings 95-134 mm Hg.

PATIENTS WITH NEWLY DISCOVERED HYPERTENSION

Fifty two new hypertensive patients were discovered during this study. 48 of these after sequential manual readings and four after a single very high manual reading and a single high automatic reading. Retrospective examination of the practice records showed that during the previous 10 years 17 had had an abnormal blood pressure noted without further action being taken. Thirty seven had consulted their general practitioner at some stage during the previous year for unrelated problems but their blood pressure was not taken. Two had a normal blood pressure recorded during the previous year and in these the development of hypertension seems to have been a new event. Twelve had been seen at a hospital in the previous year. Clearly, some patients fell into two or more of these categories.

One year after the screening procedure had been carried out the practice records were examined to see how the hypertensive patients had fared. Twenty five were taking medication and were being reviewed regularly. Their mean systolic pressure was 156 mm Hg and their mean diastolic pressure was 92 mm Hg. Five were thought not to need medication but were still having their blood pressure reviewed regularly. The remaining 22 had defaulted from follow up. They had never received treatment, had no further blood pressure measurements recorded in their notes, and had never consulted their general practitioner about the importance of the screening procedure.

ANALYSIS OF THE NON-ATTENDERS

Of the 5167 individuals invited to attend the initial screening, 2931 accepted and 2436 declined. The male:female ratio was 0.9:1 in the attenders and 1.2:1 in the non-attenders ($p < 0.001$). There was a uniform age distribution among the attenders, whereas there was a disproportionate number of young individuals among non-attenders ($p < 0.001$). Retrospective examination of the practice records showed that 12.5% of the attenders and 9% of the non-attenders had previously recognised hypertension. In the practice records of newly discovered hypertension it was assumed to be the same in both the attenders and non-attenders then about 45 individuals among the non-attenders would be expected to have had mean diastolic pressures above 100 mm Hg.

Of 278 individuals invited to attend the manual screening, 204 accepted and 74 declined. The male:female ratio was 0.9:1 in the attenders and 1.2:1 in the non-attenders ($p < 0.001$). There was a uniform age distribution among the attenders, whereas there was a disproportionate number of young individuals among non-attenders ($p < 0.001$). Retrospective examination of the practice records showed that 12.5% of the attenders and 9% of the non-attenders had previously recognised hypertension. In the practice records of newly discovered hypertension it was assumed to be the same in both the attenders and non-attenders then about 45 individuals among the non-attenders would be expected to have had mean diastolic pressures above 100 mm Hg.

appointing. One year after the screening programme 42 of the patients with newly discovered hypertension had defaulted from follow up. The desire to know about their blood pressure did not seem to be motivated by an insight into the therapeutic implications of the discovery of hypertension. This attitude seems to have changed little over recent years.

The definition of hypertension used in this study: mean diastolic pressure ≥ 100 mm Hg would be widely regarded as a level at which treatment is indicated. It may be calculated that a detected less than half the patients attending the health centre with pressures above this level, indicating the relative inefficiency of screening in the community. The simple expedients of careful history taking, a single manual reading, and a single automatic and routine measurements at surgery visits would have discovered three quarters of our new hypertensive patients without the need for an elaborate screening programme. Furthermore, a cross sectional study of this kind provides only an instantaneous analysis and would have to be repeated at intervals to detect the development of new cases of hypertension. Mail has attempted to predict the number of individuals whose diastolic pressure rises to over 100 mm Hg over four years.¹ The return achieved from regular screening to detect these new hypertensive patients would be small.

Blood pressure screening discovers a great many patients with "borderline" hypertension, and there is a great dilemma about what to do with this group. Ideally all should be reviewed regularly but this could be an unacceptable burden to some practices. In our study more than 1800 patients had systolic pressures greater than 150 mm Hg, but Vita-Stat readings should be interpreted in the light of evidence suggesting an exaggeration of systolic pressure measurements.²

We conclude that automatic devices to measure blood pressure tend to attract patients who are already known to have hypertension and may actively deter some individuals from seeking further help. These devices are not a short cut to efficient blood pressure screening and the better method of detection seems to be routine measurement of blood pressure at surgery visits.

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References

1. Whetton PK, Thomson SG, Barnes GR, Malt WJ. Evaluation of the Vita-Stat Automatic Blood Pressure Recorder. *Am J Hypertens* 1983;1:17-21.
2. British Hypertension Association Committee. Trials of the treatment of mild hypertension. An interim analysis. *Lancet* 1982;1:149-50.
3. Bannan IJ, Beevers DG, Jackson SHD. Detecting hypertension patients. *Br Med J* 1981;282:1213-5.
4. Barber J, Hawthorne VM. Screening for mild hypertension: costs and benefits. *J Epidemiol Commun Health* 1979;33:217-21.
5. Barber JH, Beevers DG, Fife R, et al. Blood pressure screening and supervision in general practice. *Br Med J* 1979;3:83-7.
6. *Health and prevention in primary care*. London: Royal College of General Practitioners, 1981.
7. Hawthorne VM, Grayes DA, Beevers DG. Blood pressure in a Scottish town. *Br Med J* 1974;3:680-3.
8. Hawthorne VM. Possible dangers of the label hypertension. [Editorial.] *Lancet* 1979;2:147-8.
9. Heller RH, Rose G. Current management of hypertension in general practice. *Br Med J* 1977;3:197-201.
10. Malt WJ, Chinn S. Screening for hypertension: some epidemiological observations. *Br Med J* 1974;3:595-600.

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Continuing Education

No man is an island

ALISTAIR D GRASSIE

What I do not know about continuing education in general practice causes me concern: if it has not already begun to it soon will affect the continuing education of our patients. I have chosen to do something about it, I am not sitting in a medical library or chewing over the finer points with interested colleagues. I am here alone, actively aware of being a fully paid up member of a medical minority group. I have spent much of my life as a doctor constantly being vetted and measured by senior colleagues and I am now finding out the hard way how to be my own devil's advocate. It is at once interesting and unique that the *BMJ* should permit someone to ventilate their ignorances in its columns, but I hope you will see that there is a point to be made.

A doctor who takes on an isolated practice off the west coast of Scotland deserves everything that is coming to him in the way of educational deprivation. He casts himself in a mould which will ultimately leave him working in ways that could be described only as idiosyncratic. Do his patients deserve this? Beyond undergraduate training is vocational training and beyond this is the development of the doctor as a general practitioner. On Arran the latter remains haphazard and arbitrary and is left almost entirely to the individual.

My education

I can identify four main aspects where I am being reached by postgraduate education. Firstly, I am being educated by my patients. I think that in the old days this used to be called experience. The 25 year old fledgling still commands a comparable salary to his pre-graduate senior partner. Seniority payments recognise experience and no more, and general practice has no system of merit awards. My age-sex register is a way in which I am being educated by my patients. Similarly, any feedback from research will provide its own educational stimulus. For knowledge of a person's phobia for needles is one fragment of the experience that will influence the course of immunisation for foreign travel.

Secondly, I am being educated by the media. There are journals in my car, cassettes in my car, and videos on offer if I had the machine to show them. Radio and television concentrate more and more of their resources on health care topics, as it seems that they attract high ratings. I have no doubt that all doctors would judge the media as their main source of topical information. I have a comprehensive reference library, which is so vital on the few occasions when the evening news rears its ugly head or on the more frequent occasions when I am stumped for an answer. My growing experience in practice and the media are the two main areas of influence in my continuing education.

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ALISTAIR D GRASSIE, MB, FRCS, general practitioner

The third and fourth aspects are personal contacts and medical audit. Surprisingly, there are some slight difficulties in trying to separate these two. Personal contacts mean the usual lively social intercourse among doctors at clinical meetings, courses, and social gatherings. Medical audit, on the other hand, would presumably be the same game played on the home ground with some stealthy changes of the rules to include constructive criticism. The *Future General Practitioner* identifies three component parts of audit: gathering information about the performance of the practice and the quality of patient care that it offers; evaluation of this information; and, where appropriate, making new policies. The "evaluation of this information" is carried out either by the primary care team or by that team with some outside agency. Audit therefore attracts its enthusiasts on the one hand and its sworn enemies on the other.

The formal audit conjures up visions of the grand visitation by appointed members of our peers to pry into our patient services. We are further charged with the fear that if it is not taken up by the profession some public arm of government will do it for us. An external audit would indeed be an attractive prospect for me. But who would do the auditing? In a low income practice like mine finance dictates rigidly every aspect of practice administration. As an inducement payment practitioner and a member of its association, I know that few of us understand the complex financing of these practices. It is a curious anomaly of the history of National Health Service semantics that describes as an "inducement payment practice" one that attracts a lower income for providing more items of service per patient and continuous duty on call. Being beginning on a serious audit of my practice I would need to go on prolonged study leave to the Scottish Home and Health Department to learn the rules governing the arbitrarily applied decision. I am filled with wonder at the Health Department, which has administered the finances of this practice since the beginning of the Health Service, without ever having visited any of the incumbent doctors. Would private industry permit such a thing?

What has this to do with my continuing education? In simple terms my future development will be dictated strongly by NHS financing. Even now, if I were to take a half day off every week and employ a locum I would forfeit all my annual leave. It is becoming clear that we must audit our services accurately to show plainly what a bargain basement offer we provide. My predecessor described the inducement payment practice as a salaried service with none of the advantages of being salaried.

Financing the NHS

Only a few travellers would appreciate the full implications of my clinical workload. It is a very lonely feeling being in sole charge of a serious clinical problem in a small general practice hospital on an island. The buck ends here, and no amount of helpful advice from mainland colleagues over the telephone

will change that. Most doctors would be aghast to learn that routine work results in a net financial loss. On a low and fixed income and with increasing costs, this personal financial position to the National Health Service is becoming a burden which I will soon have to shed, causing considerable penalty to my patients and resulting in a much greater cost to the NHS.

Casualties occurring in my practice area are dealt with by me, working from my surgery and local general practitioner hospital. Many casualties are transported to the hospital by me, given a x-ray examination if necessary by me, and definitive treatment by me. Often I transport them back home. This arises because there is poor local transport and only one ambulance. It would be grossly inefficient if I had, say, a patient with an ankle injury—to call the ambulance out from 20 miles away, embark the patient, follow the ambulance in my car, and, having dealt with the patient, ask the driver to make the extra distance to the hospital. I may be able to see that my contribution saves the ambulance 80 miles of travelling time, of course, it must return to its base. The convenience to the patient is naturally the foremost consideration. As I am paid only on the "bed fund" system, I cannot even cover my travelling expenses because I earn an income only if the patient occupies a bed. It may not be quite so easily seen that if I were not contributing time and personal finance to the hospital service it would cost the NHS an extra full time ambulance and driver. Carefully reasoned discussion with hospital administrative staff has so far failed to make them aware of these arithmetical progressions. It is probably time now to surrender the arguments and cut my losses by pulling out of the general practitioner hospital.

What on earth has this to do with postgraduate education? My one and only contact with colleagues on this island is at the local hospital. Financial considerations are compelling me to relinquish my hospital responsibilities and therefore further isolate me and my patients. The opportunity to discuss problems with colleagues will be lost and the public offers will be further depleted.

Having deviated somewhat cynically from the subject of audit, I must return to it once again. Surely this is not so gloomy; there must be a solution somewhere. As I see it, attendance at clinical meetings on the mainland will always be an occasional activity for the island general practitioner, and I sincerely believe that we must try to get the mountain to come to Mohammed. Informal visits by consultants on holiday are always welcome and I eagerly pick their brains. These are not

fair pickings, as the poor souls are on holiday to forget about medicine. Students find there was here regularly and we willingly give them free accommodation at our home. They taste the flavour of remote rural practice and gain an insight into the daily domestic disruption of a doctor's life.

One of our colleagues has embarked on the task of producing a series of talks by visiting "experts" and we are determined to make this work. This "expert" will have to set aside two days of his time in the winter for one evening's talk, and he may well be asked to bring with him any necessary audiovisual aids. I would like to go a step further and suggest some sort of teaching with a mainland practice. This might be done with a teaching unit or a university department, and if it was an informal link it might promote a lively academic interchange between two completely different practices. Short term exchanges might be organised and the experiences gained mullied over afterwards by the whole primary care team. By anyone's definition this would be mutual medical audit. There is absolutely nothing original in this suggestion. Approaches were made about 10 years ago by my predecessor, but there were no takers. In fact, it was suggested that he might be pursuing my avenue of the provision of a steady supply of reliable locums. Locums in an area like mine are really no problem and I have a regular and devoted helper. An exchange of practices is not the same thing as a holiday locum.

The problems facing us here on Arran as regards continuing education must be typical of many remote practices. Our education will remain haphazard and unstructured without outside help. Despite large and comprehensive national organisation of postgraduate medical education, we remain untouched. Becoming a member of a royal college still leaves the ball firmly in my own court. How could I be an active member of such an institution when, if I were to take one half day off a week and employ a locum, I would consume all my leave for the entire year?

This type of practice is thoroughly enjoyable and challenging and I have no intentions of leaving it, but when I do I hope some progress will have been made in redressing the balance in the educational aspects.

Reference

1. *The future general practitioner: learning and teaching*. London: BMA, 1972.

Diary of Urban Marks: 1880-1949

And so 1908 rolled on and 1909 dawned with debts hanging over my head to the tune of over £300 which was being paid off in dribbles every month as the practice increased and the money came in. Very early after I started practice I started a club for the poorer members of the community who could not afford to pay the regulation fees. The subscription to this club was one shilling per month and to the patient got advice and medicine. Everything beyond this was extra. Altogether the club brought me in about £100 yearly, but the work of bookkeeping for it was tremendous. At this time I made out my own bills and posted them every month. This took up two nights each month of clerical work in the surgery, but I had plenty of time on my hands. I adopted the idea of sending out the accounts

monthly from the very beginning and I have always found this method to pay well. People have no chance to forget they are owing me. Chronic cases bills are sent just the same so that the individual has a chance to pay something on account. Later on, as the practice increased, I employed a lady clerk who did all the clerical work for me at so much per hour and after a bill had been sent six times she drew my attention to this fact. Then the bill was put into the hands of a private collector with instructions to report if the patient could pay, and I found to be able to do so he or she was promptly used for the money. If unable to pay the debt was written off but I found that I made very few bad debts, and moreover the people who were called on by the collector or were used by him on my behalf came back to me as patients.

SD) systolic pressure in the non-attenders 171.18 mm Hg was significantly higher than in the attenders 166.17 mm Hg ($p < 0.05$). Similarly, the mean SD) diastolic pressure in the non-attenders 102.80 mm Hg was significantly higher than in the attenders 99.0 mm Hg ($p < 0.02$). If the prevalence of hypertension in the two groups had been the same then about 19 individuals among the non-attenders at the manual screening would be expected to have had mean diastolic pressures above 100 mm Hg.

Discussion

The detection and treatment of undiagnosed hypertension are important means of reducing cardiovascular morbidity and mortality. It is generally thought that the prime responsibility for detection of hypertension lies in general practice and broadly two methods are available: firstly, by formally screening the whole practice population and, secondly, by routinely checking the blood pressure during attendance at the surgery. Blood pressure screening programmes in the community are criticised for being expensive and not cost effective. About 80% of the adult population consult their doctors in a three year period and case detection by routine measurement of blood pressure is now the favoured policy.

The prospect of using an automatic device as a cheap and easy solution to the problem is deceptive. The economic and logistic difficulties encountered may be substantial and the decision to embark on a large scale screening programme should not be taken lightly. Practices that have an age-sex register will have an advantage in the preparatory stages, but the time and effort required to check all those patients with higher readings are still considerable. The times that the automatic machine is available may influence the range of patients presenting. In our study the choice of normal weekday working hours ensured that fewer men and fewer young patients were seen. Ultimately, this contributed to the discovery of more women than men with previously unrecognised hypertension. The overall attendance rate of 55% was disappointingly low and challenges the claim that automatic machines have a wide acceptability in the community. The attendance rate of 73% at the manual screening was similar to that reported at other screening programmes, the rates usually varying from 70% to 80%.¹⁻³

Invitations to attend were sent to all patients aged 30 to 65 and yet known hypertensive patients were more common among the attenders than among the non-attenders. This supports the view that the public may see an automatic machine to measure blood pressure as a means of checking on their control rather than as a means of detecting new cases of hypertension. Furthermore, the unexpected finding of high blood pressure may frighten some patients and possibly deter them from seeking further help. All those with high readings on the machine were recalled and yet the mean automatically measured blood pressure of the subsequent non-attenders at the manual screening was higher than among the subsequent attenders. This seems to imply that the future attitude of an individual to his or her hypertension is adversely affected by how high the reading is. The automatic machine conveys an alarming figure to the patient with no reassurance at all, whereas the same finding by a doctor would place less emphasis on the individual reading and should provide immediate verbal reassurance plus an invitation to return for another reading.

After the automatic blood pressure measurement three quarters of individuals with high readings attended for manual screening, thus most patients showed a genuine concern. Even among these highly motivated individuals, however, the long term attitude to newly discovered hypertension was dis-