PRACTICE OBSERVED

Practice Research

Surgery computer: a quiet revolution for general practice

FRANK M AKERMAN

Abstract

This paper shows how a well planned computer system can transform a practice's programme of prevention and surveillance, for long the Cinderella subjects in our Health Service. It was not necessary to employ specially trained staff to operate the computer and our receptionists adapted quickly and successfully. In fact, a new and interesting job coordinating the new routines has evolved which will include the preparation and presentation of a wide range of practice statistics.

After initial hostility the computer has been accepted by the staff and its ability to increase the efficiency of the practice at all levels is now well recognised. Attention to the manual records, including updating summary sheets, was a vital part of our transition, and satisfactory office routines for recording all information daily is essential.

Since the computer was introduced the accuracy of our filing has improved dramatically. Rates of uptake for all immunisations and cervical cytology examinations are much better and the surveillance of various groups, whether by health visitors, nurses, or doctors, is no longer haphazard. The costs are within the scope of any practice, but positive encouragement by government (probably financial) would make acceptance of computers more likely. This would certainly encourage practitioners to take the initiative in prevention and surveillance, thereby ensuring that general practice remains the focus of a patient's overall care in the next decades.

Alma Road Surgery, Romsey, Hampshire SO8 8ED
FRANK M AKERMAN, MB, DRC, general practitioner

Introduction

The apparent decline of media interest and promotional activity, together with the posturing of various committees on the subject of computers have largely obscured the fundamental changes that a computer may bring to the organisation in a general practice. Stripped of some of its alien terminology (and spelling), which has tended to create a barrier for so many potential users, the computer may be presented simply as a revolutionary office tool. Having restored this more realistic perspective, the general practitioner may take comfort in the simple analogy that though he may expect to drive and operate a car this does not imply a detailed knowledge of what goes on under the bonnet.

At this, its most basic level, the new office tool may then be assessed and compared with the many other devices, such as age-sex registers, which have been designed to help in the organisation of a general practice and which have been well tried over many years. There will of course be many further stages in computerisation in general practice, but these other aspects, such as its exciting potential as a help to diagnosis, the use of free text, and finally the total electronic record, require much research and development that will not necessarily be applicable to the ordinary general practice for many years. Indeed, the concept of an electronic record might seem fatally flawed unless we can clearly show our ability to control the Orwellian implications of storing centralised records and the probable nationwide exchange of information that this will bring.

This paper, therefore, concentrates on how a computer has improved the use of a general practitioner's current records and describes how it may be used to initiate and monitor a programme of surveillance and prevention based on these records.

Background

A computer was installed in our practice of five full time principals and 15 000 patients in October 1979 after nearly a year of developing the programme with G Lynch and D Robinson of Xitan Systems Southampton, who wrote the software. We had

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NAME	AGE	SEX	DATE
1. BROWN, J. K.	45	MALE	10/12/79
2. SMITH, J. M.	32	FEMALE	15/01/80
3. JONES, P. R.	28	MALE	20/02/80
4. WILSON, D. L.	18	FEMALE	25/03/80
5. TAYLOR, A. B.	65	MALE	30/04/80
6. DAVIS, G. H.	55	FEMALE	05/05/80
7. MILLER, N. O.	40	MALE	10/06/80
8. ROBERTS, C. J.	35	FEMALE	15/07/80
9. THOMPSON, E. F.	25	MALE	20/08/80
10. WHITE, S. G.	15	FEMALE	25/09/80

FIG 1—There are 128 variable codes. In this example 804 represents hypertension, 1104 renal problems, 301 first tetanus injection given, 302 second tetanus injection given, 303 third tetanus injection given, 305 indicates that the patient is eligible to be included in the surgery's immunisation programme for tetanus (shown as 30-123 5) and 902 represents a peptic ulcer.

Reorganisation required

Three members of staff are able to operate the system, which gives sufficient cover for holidays. All have worked as secretaries or receptionists and required no special training. There is a new, exciting, and challenging post for a member of the ancillary staff to plan and prepare statistics daily, and her expertise should quickly replace general practitioners from daily concern, so that their participation may be restricted (thankfully) to overall practice policy. A registration secretary is responsible for coding administrative and geographical details when a new patient joins the practice, and is in overall control of the filing system. Each partner in the practice has his own secretary-receptionist. Their responsibilities include extracting all details of immunisation (including reports from casualty departments referring to tetanus, investigation for rubella immunity, and school immunisation records) and cervical cytology. Nurses code all immunisations when they are given and keep family planning codes up to date. Health visitors record and code their interval preschool examinations. The partners are left to code only episodes of major morbidity.

Functions

Sticky labels

The sticky label has transformed our filing accuracy. When converting to A4 record envelopes we decided to file numerically, each doctor being allocated a block of 4000 numbers which are reused when a patient moves. Sorting out which Smith from the 300 who are registered proves to be feasible and with the addition of a numbered label to all pathology reports the problem of misfiling has largely been eradicated. Labels identifying the address only are used for personal invitation recall letters and our secretaries and dispensers find the label with commonly used addresses helpful. On such labels up to six lines of text are available, which is useful for routine instructions in the pharmacy or collection of, for instance, midstream urine specimens.

Immunisation

(a) *Children*—Appointments for infant immunisation are sent out by our district health authority. Their service is efficient, but inevitably lacks the advantages of rapid updating of information, such as addresses, is cumbersome and slow to identify defaulters, and cannot bring the same personal pressure that staff can in a

patient's own practice. Regular presentation of details, such as the following, at our practice meetings enables us to examine more realistically practice policy on immunisation, identifies immediately trends of response to advice (is one health visitor being overcautious in her counselling for pertussis or measles?), and finally allows us to concentrate on the defaulters by flagging their notes or even speaking on the phone or visiting (figs 2 and 3; table 1).

FIG 2—Rates of tetanus, polio, and pertussis immunisation uptake by doctor for 1981 and 1982.

FIG 3—Measles immunisation of 2 year olds for the whole practice, showing children who have failed to attend or whose parents declined immunisation.

TABLE 1—Improvement in rate of uptake of booster immunisation in preschool children

Age (years)	Uptake (%)
10	84
9	84
8	74
7	82
6	92

Rubella immunisation was carried out in the schools until three years ago when the practice started its own programme and the level of immunity achieved is now above 92%, compared with just over 80% before. It is likely that more children have in the past been immunised but details are not always recorded in their notes and this certainly requires unnecessary blood tests in later years. Not only is this immediate improvement possible if the practice undertakes rubella immunisation, but clear identification of defaulters will ensure that on any subsequent surgery visits few children are likely to be missed and results of near 100% should be possible.

(b) *Adults*:

(i) *Tetanus and polio*—The practice decided to offer immunisation to adult blood pressure checks to all patients in the 35th year, sending appointments to a fifth of the patients each year. During the first year the response to complete immunisation was 53% and the next two years produced similar results. Another way of

expressing these results is to show the level of payment from the family practitioner committee (fig 4).

(ii) *Influenza*—Patients who have been advised to have influenza immunisation are coded, which makes ordering appropriate stocks simple. Identifying defaulters in December enables us to complete the programme by the end of the year.

FIG 4—Annual immunisation payments from the family practitioner committee before and after the start of the practice immunisation programme.

FIG 5—The increase in payments for cytology from the family practitioner committee since the practice started its own screening programme.

Cervical cytology

The practice offers a screening examination to all women between the ages of 25 and 60 every five years and we have been sending appointments to a fifth of this group each year if their smear test is out of date. Results are encouraging; less than 15% of women in each year group fail to attend (fig 5). It is, of course, in the failed group of 15% that many problems might be expected, but, having identified these women, the practice now has the opportunity to take positive and specific action.

prided ourselves on our record system since converting to A4 records in 1972, and one member of staff had always been responsible for maintaining these folders and the age-sex register. We were dismayed to find that inaccuracies occurred in nearly 20% of the records selected by the Medical Research Council when they included our practice for their survey on hypertension in 1978. Automating our age-sex register manually had long been feasible, but with the dawn of the cheaper computer our aims were translated instead on to floppy discs.

Four of our five partners agreed to summarise and codify episodes of major morbidity: the secretarial staff coded all details of administration and immunisation for all five doctors and all of this was completed in 16 months. We resisted the temptation to use the age-sex register simply to create the computer file, for although we would have been operating much more quickly we would have missed the invaluable opportunity of reexamining our records under the pressure of two staff who insisted on their daily quota of updated records.

The initial effect on staff, the occasional chaos when records went missing or the hardware malfunctioned, and the general antagonism in the early days are now historical fact. Slack as our previous record system had become, our staffing levels and office organisation required only minor modifications to accommodate new routines. A practice that is not in this state of readiness would be foolhardy to accept the discipline and rigidity imposed by a computer without first putting its "house in order." The computer has been totally integrated into the running of the office: operating under a 24 hour rule, patients are registered, addresses are amended or changed, details of, for example, cervical smears, rubella immunity, and tetanus immunisation by casualty departments are accurately recorded, and the screening functions of the computer operate without interfering with the daily running of the office.

Indeed, the creation of a single new staff post has been instrumental in our beginning to realise the enormous potential of the system, and in a 20 hour week one staff member is able to extract all the information that we have requested, organise the various screening and immunisation appointments, and, finally, present meaningful statistics. The results show how efficiently the secretarial staff operate their part of the system: the morbidity data, which are the responsibility of the partners, are less well done and underline a basic lesson for an effective general practice system—that is, doctors are the weak link and should be excluded from operating the core of the system and its unreliability must be recognised in the design of the system.

The system

Early in 1981 our system was made multiuser (up to five terminals) and was transferred to a 20 megabyte hard disc using a Comart Communicator. We now have two visual display units (VDUs) and two printers, one of each being exclusively used for repeat prescriptions: the whole system is now more streamlined and no longer at the mercy of temperamental disc drives, although in fairness we had no breakdown in the six months before this conversion.

The format of the system is shown in fig 1. The coding system allows for up to 128 features to be recorded and we have devised our own code sheet, some codes being used for multiple problems which are regularly separated by visual checks of an updated summary sheet in the notes. A number of "free" codes may be used for specific and often short term applications: one partner, for instance, records all patients who have been treated with acupuncture, which will allow for easy regular assessment. A reminder code has also been valuable for monitoring patients whose smear tests need repeating, those who have marginal hypertension, or those who do not keep appointments regularly, such as mothers with children whose hearing is suspect. New codes are added to or deleted from patients' notes and alterations to the system are made within 24 hours so that notes are out of circulation for the minimum amount of time.

Hypertension

After screening by the Medical Research Council in 1978 we now offer blood pressure checks to all patients in the 35th year to coincide with a review of their tetanus and polio immunisation. The procedures for this type of screening are well tried by the system and may be extended to include many other problems if and when this seems appropriate.

Oral contraceptive pill

After recent publications it has been simple to identify all patients who take the oral contraceptive pill and to start an orderly review of their prescriptions.

Health visitors

Our health visitors have used the computer at two levels:

(a) *Checking on defaulters in their regular developmental checks*—Our health visitors, unfortunately, tend to follow a strict geographical area and, although they work from our premises, they are often not responsible for some children in distant parts of the practice area who may even cross district health authority boundaries. These lists have been invaluable in helping to rectify the anomalies and there has been pronounced improvement in the attendance figures for routine interval examinations.

(b) *For use of health visitor assistants*—The easy production of lists of elderly people in a particular age group has rationalised their work considerably, whereas the age-sex register was often inaccurate and extracting information was time consuming.

Contact with family practitioner committee

Checking a practice list regularly with the family practitioner committee "within 10 days" is simply not practical without the help of a computer. Our three monthly summary gives us a total list of patients by doctor and shows the numbers of patients aged between 65 and 74 and those over 75. After nearly four years of regular checking we are still in agreement, but the error is now small (0.25%) compared with 7%, originally, and most of these anomalies were in our favour. Should it be necessary later on there is no reason why the computer could not check the various other payments.

Repeat prescribing

Repeat prescribing is a part of practice that lends itself well to computerisation. Our system is simple and incorporates an efficient recall mechanism (fig 6). Analysing the prescribing of a drug interaction programme and even generic substitution of drugs are options that may be added. The multiuser system installed earlier in 1983 has meant that our dispensers, who monitor all repeat prescriptions, can produce scripts throughout the day and not just in batches when the machine is free of other users.

Morbidity registers

Each partner supervises his own list of patients and patients are firmly encouraged to adhere to this arrangement. Morbidity studies based on such a defined list are therefore highly relevant provided that the information has been accurately coded. If sufficient practices pooled their data, which are so easily produced, the epidemiological study of many diseases would be transformed. Moreover, the implications for planning health services might be enormous (fig 7). We now have the data for a realistic discussion on diagnosis and methods of treatment for

many diseases, and the term "clinical audit" need no longer sound so threatening (table 1).

Cost

To the practice—The initial system in 1979 cost roughly £7500 and this year's replacement computer with an additional

FIG 6—Repeat prescribing: the number at the foot of the prescription reduces by one with each issue; a minus number acts as a reminder to see the patient.

FIG 7—Comparison of the incidence of the most common diseases on one doctor's list of patients.

TABLE 11—Patients with hypertension treated by four doctors

	Dr A	Dr B	Dr C	Dr D
Total No. of patients on list	3002	2974	3362	2938
No with hypertension	111	127	180	180
No per 1000	37	43	54	61
Men	30	21	37	32
Women	43	36	74	51
England & Wales, 1971*	16.4	16.4	16.4	16.4
Men	16.4	16.4	16.4	16.4
Women	22.4	22.4	22.4	22.4

* Mortality statistics from general practice 1970-1.

visual display unit and printer, together with adapted software, cost roughly £5000. From the increase in income generated in the past two years (figs 4 and 5) it is clear that the expenses and outlay are at least covered.

For the National Health Service—Our experience shows that a

Rubella immunity in pregnant women in a north London practice

JEANNETTE NAIISH

Abstract

Congenital malformations due to rubella embryopathy are preventable. All women embarking on pregnancy should be immune and know that they are immune to rubella to guard against the risk of contracting the disease during pregnancy. A previous history of clinical rubella or rubella vaccination is not reliable, and women should be screened for antibodies when possible before planning to conceive, and particularly before a first pregnancy. As general practitioners committed to the practice of prevention, we should undertake rubella screening for all our women patients before they conceive. This could easily be incorporated into our contraceptive services. We will be greatly helped if family planning clinics adopted a policy of screening for rubella antibodies, always remembering that good documentation and communication will avoid duplication and confusion and reduce costs.

Introduction

The immunisation of schoolgirls between the ages of 11 and 13 was introduced in England, Wales, and Scotland in 1970 to prevent congenital abnormalities occurring as the result of rubella infection during pregnancy. Owing to low acceptance of vaccination and occasional vaccine failure, not all women embarking on a pregnancy are immune. I believe that the best way of achieving this aim is by screening women before they conceive.

Health Centre, 2A Forest Road, London N8 8RZ
JEANNETTE NAIISH, MR, MRCGP, general practitioner

practice is able to organise its own immunisation and screening programmes. A cost conscious practice, however, is a time when the alternative service provided by health authority facilities, together with the bureaucracy and central computing facilities that are required for operating the service, might be demanded. Some of the savings would provide a capital outlay (for computers or appropriate manual systems) to any practice showing a satisfactory response to their own programmes (such as a 90% rate for immunisations and an 80% rate for cervical cytology). In addition, community health physicians might then have more time and resources to fulfil their greatly undervalued potential as advisors to general practice.

I am grateful to my long suffering partners—Dr P G S Johnson, Dr A D S Johnson, Dr M Summerhayes, Dr O J C Perry-Jones, Dr J Birch, and Dr C Grant—and to all practice staff whose efficiency has made this paper possible.

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I am in a group practice of 8500 patients, with four principals working from a health centre. My personal list is nearly 3000. Our patients are mainly in social classes III, IV, and V. Early in 1978 a programme was initiated to screen for rubella antibody all women who came to me for family planning. Those who were susceptible were vaccinated and rechecked two months later to confirm the presence of antibodies. This policy was later extended to those who were not on the family planning register, and became part of a preconceptional service, available to all women in the child bearing age group.

The effect of this programme was studied by assessing the rubella status of women who came to me for maternity medical services with pregnancies confirmed between 1 August 1981 and 31 July 1983. Apart from asking the Public Health Laboratory to help, no special arrangements were made. The project was seen as part of good clinical practice, and remembering to "think prevention."

Method

Beginning in early 1978 all women who came to me for family planning services were counselled at some stage about the dangers of contracting rubella during pregnancy. They were offered screening for rubella immunity as part of family planning service. If they accepted, which most did, a serum sample was sent to the Public Health Laboratory for estimation of rubella antibody, initially by haemagglutination and since 1979 by single radial haemolysis. Susceptible women were vaccinated, using RA27/3 vaccine, and rechecked two months later to confirm the presence of antibodies.

The records of women who were seropositive at this visit, at antenatal screening, or after vaccination were tagged. The date at which rubella immunity was confirmed was entered in our age-sex register. The study group consisted of 138 women with pregnancies confirmed between 1 August 1981 and 31 July 1983, including nine who miscarried. Pregnancies that were terminated are excluded because of difficulties with data retrieval. No termination for rubella infection was requested during the two year period. All the patients had shared care from us and the obstetricians.

Results

Table 1 gives the numbers of women who had preconceptional screening during the study and those who were found to be seronegative at antenatal screening. All the women had antenatal screening. None of the seronegative women was susceptible conceptually. Four women (6%) went through their pregnancies at risk of rubella infection. All four were primigravidae. They had a vaccination potentially at the time of conception, but in the 1981-2 group the two susceptible women with a record of school vaccination had not seen me before becoming pregnant.

TABLE 1—Rubella immune status of women with pregnancies confirmed between 1 August 1981 and 31 July 1983

Date pregnancy confirmed	Total	Preconceptional screening	Seronegative at antenatal screening	Record of school vaccination
	No.	No. (%)	No. (%)	No. (%)
1 Aug 81 to 31 July 82	64	35 (55)	4 (6)	6 (2)
1 Aug 82 to 31 July 83	74	53 (72)	3 (4)	12 (0)
Total	138	88 (64)	7 (5)	18 (2)

Three women (4%) in the 1982-3 group were susceptible, two of them primigravidae. One went to term safely and has now been vaccinated and rechecked. One contracted rubella at 18 weeks during the 1983 epidemic and elected to continue with the pregnancy, but is not yet at term. The third has so far escaped contact with rubella and not yet delivered, but, interestingly, she was screened during a previous pregnancy. The antibody titre was less than 8, but she had not been vaccinated potentially.

It is alarming that of the total of seven women at risk for rubella infection during pregnancy, four were born after 1958 and should therefore have been vaccinated. Not all the women in the study group were known to me before they became pregnant. Some registered at the time pregnancy was confirmed, and some obtained family planning services elsewhere. Table 11 compares rubella status between women who came to me for conception and those who did not. The results show a reduction in the percentage of susceptible women embarking on pregnancy in the family planning group.

TABLE 11—Number and percentage of seronegative women according to parity, time of screening, and whether on family planning list

	On family planning list	Not on family planning list
	Primigravidae Multiparae (n=21) (n=36)	Primigravidae Multiparae (n=42) (n=29)
Preconception No tested	16 (85)	36 (100)
Seronegative on antenatal screening No tested	1 (6%)	0
	5 (11)	5 (14)

Discussion

The national rubella immunisation programme is aimed at 11 to 13 year old schoolgirls. By not immunising the girls until 11 to 13 and not immunising boys, this policy ensures that a periodic rubella epidemics occur because of the reservoir of infection in girls under 11 and boys. This is borne out by the results of rubella surveillance between 1978 and 1983.¹ The take up rate of the school vaccination programme is, at best, 85%. It may be some time before all health districts reach the target of 95%.

Antibodies may persist for up to 16 years after rubella vaccination, but 6% of susceptible women do not produce antibodies.^{2,3} The woman who is vaccinated at 13 but does not

embark on her first pregnancy until the age of 30 may do so unaware that she is no longer adequately protected against rubella. Most antenatal clinics screen women for rubella antibody at booking, but though this provides valuable epidemiological evidence on the efficacy of rubella vaccination and data for future pregnancies, it is far too late for the current pregnancy.

Screening programmes conducted by general practitioners over recent years have shown that over 12% of women of reproductive age are susceptible to rubella.⁴ In one study girls aged 13 to 21, who should all have had rubella vaccination, were 11% of those girls with rubella immunity.⁵ This is reflected in the 11% of susceptible primigravidae at antenatal screening in the study group (table II).

National publicity campaigns to encourage women to seek screening for rubella immunity are not cost effective since this only generated a 3% response, whereas a campaign conducted by one general practice, while probably more productive, still only achieved a 62% response,⁶ and may not be feasible for all general practitioners.

The practice of screening 11 to 13 year old schoolgirls and vaccinating the susceptible ones followed by rescreening two months later to ensure seroconversion,⁷ is unlikely to be widely acceptable or practicable because schoolgirls dislike needles, and there are rather too many.

Present measures have not reduced the number of malformations due to congenitally acquired rubella nor neonatal deaths, birth,^{8,9} or the number of terminations of pregnancy carried out on the grounds of rubella infection during early pregnancy.¹⁰ We may not know the full extent of congenital rubella after the 1983 epidemic until 1985, since abnormalities of hearing may not become apparent until children are 18 months to 2 years old.

The programme presented above has resulted in a lower proportion of women with seronegative results antenatally (5%) against the 10 to 12% reported elsewhere.⁴ An appreciable number of pregnancies, however, are not "planned," nor do all women use family planning services, and the preconceptional rubella screening rate in primigravidae is disappointing. This might be because younger, fit women without children are not in the habit of "thinking prevention." I believe that this may be improved by increased vigilance.

I thank Teresa Pershutti for researching the records and age-sex register, all ancillary staff, our practice manager for typing, secretarial, and clerical work for this audit, Ann Crick for typing, and the Public Health Laboratory for doing all those tests.

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Young Practitioner Groups

Challenges and contacts

E J HOLMES

During my training as a doctor, and in particular as a vocational trainee, I enjoyed the stimulation and contact with my peers. Such temporaries and the opportunity to exchange views and ideas and share the excitement of newly acquired skills and knowledge. The first few years in general practice with the inevitable problems and additional responsibilities can be onerous, and although group practice provides some support, it is easy to become isolated and lose one's direction. In 1975, at the same time that I joined my teaching practice as a partner, one of the first small groups in the region was established. Based in Ashington, Northumberland, it was formed by local general practitioners who undertook to audit their care of patients with hypertension. After the success of this exercise, general practitioners from the region received a written invitation to join a group studying "clinical standards" which was to meet regularly during the next year. This invitation provided the opportunity to pursue the type of task that I had found so stimulating in my years of training. It would also form the core of a group of general practitioners that would meet to meet in Durham during the next six years.

The range of ages and experience in the "clinical standards group" was wide; some were newly appointed principals, others were trainers or course organisers; only a few had experience of working in a similar group (Ashington). The 30 general practitioners who attended were split into three small groups, each to study one of the three aspects of care—structure, process, or outcome as described by Donabedian.¹ At first I felt apprehensive, most of the group members were older, more experienced, and more confident than I was. I was used to terms with new concepts—the idea of determining our own task and working with and relating to other members of the group, most of whom were unknown to me. I soon realised that many of these difficulties were shared by other members of the group. Recognising that one could not criticise without being criticised allowed individuals to participate more freely in discussion, and thus to become more involved as time went by.

Process of care

The task was to consider the "process" of care, and during the monthly meetings the care of the wheezy child was discussed and analysed. Criteria for diagnosis, management plans for acute and chronic care, and descriptions of the tools best suited for care were produced and continually amended by referring to our own clinical practice, to published work, and to expert opinion. In 12 months a model of care for all children with asthma was developed which was both practical and, it was hoped, would improve the quality of care. Primary care and the other groups provided an opportunity to learn from their experiences. In addition to developing a clinical standard that

Claythorpe House, 65 Claythorpe, Durham DH1 1QU
E J HOLMES, MR, MRCGP, general practitioner

could be used in clinical practice, I had found the meetings challenging and a new source of contact with my peers. Such was the positive feeling in our small group that even before the end of the course on clinical standards most of the members had expressed a wish to carry on with the meetings during the next year. It was important that the number of members in the group was maintained to allow it to function effectively, and although some members from more distant areas decided to join other more accessible groups, they were replaced by young principals in the Durham area who were invited to join. In retrospect the intention to follow the tried and tested format of the previous year was short sighted. We continued in our role of standard setters, concerning ourselves with the care of patients with diabetes in general practice. This seemed to satisfy our needs for a short time only; although the clinical material was different, much of the work followed the same pattern and, as a result, was less stimulating than before.

A recurring theme to arise from discussion of clinical medicine was the belief that many of the management plans used were traditional, not based on any sound scientific evidence or the evidence that was quoted tended to come from outside general practice. Was research material from a London teaching hospital really relevant to general practice in the north east? How much of our clinical practice was based on our experience in hospital or reflected the views of consultants in local hospitals? Should we accept the dictates of these doctors, or were we, as ordinary general practitioners, qualified to provide acceptable guidelines on standards of care? This change in attitude led to another approach to the task that we had defined. We moved away from the clinical model and concentrated more on the delivery of care; the role of the hospital diabetic clinic and the resources available for diabetic care in our practice and the ways in which they might be improved. Having developed a standard for delivery of care, we met hospital consultants and arranged meetings with patients through the local branch of the British Diabetic Association to test their reactions to our ideas.

Part of the concept of developing a standard of care was concerned with implementing it in practice. It seemed sensible, therefore, to look at the records of children with asthma to check whether the guidelines that had been established in the previous year had been observed. To some extent we felt that we had achieved our aims, but, possibly more important, the exercise raised serious doubts as to the value and accuracy of records—a question to which most small groups have addressed themselves at one time or another.

Waning interest

Towards the end of the second year it became obvious that if the group was to continue it would have to change. Enthusiasm waned, attendances at the regular twice monthly meetings dropped, and for a short time during the summer the group disbanded.

Expansion of the Newcastle vocational training scheme in the mid- and late 1970s led to an increasing number of trainees and

ex-trainees in the Durham area. The network of personal contacts made through the scheme enabled two of us to generate enough interest in the local young practitioner population to start a particular task. In the group, the first year membership of 12, it lacked some of the expertise that had been apparent during the course on standards, and although most were committed to regular meetings, they remained unsure of the various roles that they were to play in the group. The group, therefore, should take. A great deal of experimentation took place while trying to allow the group to evolve. Although convened by two of us, neither wanted to adopt a leadership role by imposing on the group a particular task. The group, therefore, was formed, accepted this non-authoritarian style of leadership that it began to function properly. For a time trainees from hospital and general practice participated in the meetings but the mixture of what were essentially two separate groups (trainees and principals) provoked resistance from both and the idea was abandoned.

The times and venues of the meetings were changed. Until now meetings had always been held for two hours in the evening at the local postgraduate centre in the city hospital. The facilities were good, there was adequate parking, lecture and conference rooms were available, and it was accessible to most members. For a time we met at lunchtime to ease the pressure on evening and out of hours commitments. This was popular but it was difficult to book rooms in the postgraduate centre. We therefore chose to meet in our own practice premises on a rota. Initially, lunch was provided by drug firms, but as their presentations eroded the time available for business we decided to provide our own—less grand—refreshments. We did, however, continue to use the educational material they provided—for instance, video tapes, tape-slides, multiple essay questions. Topics were agreed at the beginning of each term and were planned to run for two sessions only. The variety of the content and format reflected the interests, weaknesses, and expertise of the members. Clinical themes such as urinary tract infection, arthritis, and management of low back pain were researched and discussed. Peer group review of random case analysis, records, video consultations, and examination of practice premises and organisation was used. The wide range of subjects was paralleled by the increasing use of additional resources, such as film and video presentations, the attendance at our meetings of hospital consultants and members of the extended primary care team, and presentations by group members of subjects in which they had a special interest or knowledge. The task that encompassed problems with which most of the group identified was often more diligently pursued and thus a much greater level of success was achieved.

It seemed inevitable that the growing number of trainees in the group would want to discuss topics related to teaching. The workshops for those of us concerned in vocational training were held infrequently, and there was dissatisfaction with the standard of teaching provided in the practices. The type of work that the group had already done was readily transferred to the one to one relationship of trainer and trainee, and to the seminar or small group work in half day release courses. The members of the group that we had used to learn could just as well be applied to trainee groups. Recognising the type of presentation or material that had been most stimulating, the accumulated experience of the various techniques in random case analysis, and the critical skills that had allowed assessment of the value of particular aspects of practice organisation proved invaluable for training. Seminars for four to six trainees from local practices were arranged and led by group members; trainers and non-trainers participated in teaching. The transition was successful, providing a new dimension and stimulation for the group. Acquiring the necessary equipment to enable us to have our own training material from the MSD Foundation as a teaching aid and for analysis of techniques in consultation and group work.

For 18 months the two groups ran in parallel, the trainee group meeting weekly during the time and the group of 11 principals meeting monthly to discuss teaching and group practice. Inevitably, the latter group became stale, it began to contract in

members left and the pressure on the remaining members increased. To swell the ranks and provide some new impetus the two groups amalgamated, but, as before, the mixture of two distinct, yet groups was not successful.

Despite the demise of the group, in a few months the next generation of the Durham practitioner group had begun to form. A nucleus of the old members serving to attract new members and leaving the way open again to develop new leadership, new ideas, and new tasks.

The lifespan of any group is limited—either predetermined or by death from natural causes. During the life of the group there is corporate desire to preserve its integrity, to protect and support its members, and eventually, a sense of loss when the group disbands. Much of the pressure to succeed falls on the group leader. It is his or her lot to motivate and stimulate, to try to achieve the task, to manage the change of attitudes between individuals, to use his or her skill to avoid the problems and pitfalls which may lead to dissatisfaction in the group, and, ultimately, to accept responsibility for its fate. The proliferation of the small group must to some extent be due to the enjoyment that may be derived from the experience of group work. Its value, however, should not be measured simply by its popularity. It is the subsequent implementation of the acquired skills and knowledge and the changes in attitude that will become evident in the practice of medicine which will ultimately reflect the success of small groups.

Reference

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Diary of Urban Markar 1880-1949

As a natural sequence of events the record of my army life should be inserted here but who you read this may have the opportunity of perusing that as a separate volume which I completed on my way home. There are however a few outstanding events which I think it would not be out of place to record here.

In addition to obtaining Dr Bell's a locum for the practice I turned the conduct of my affairs over to John Puntan, a solicitor who was more than a brother to me. John acted under power of attorney and as such had complete control of my estate. He was as pleased as I was when Bell undertook the management of the practice. John took care of the financial part of it and kept strict accounts for me not dating from the time that he took over but well stayed for three months and then took over the practice or what was left of it, of the late Brynmor Evans at Landore. The executor of Brynmor's estate had been trying to sell the practice as a going concern since the day of Brynmor's tragic death but no one thought that at such a time a buyer could be found. It has to be remembered that there were hundreds of practices vacant in the British Isles and very few medical men were left in the country. However, there was and Bell left. John found another man and was extremely pleased to inform me of a letter which he sent to Mesopotamia that an old colleague of mine by name of Groves had consented to take charge at the salary paid to Bell. I was not quite as fast as John at the news knowing full well what kind of a man Groves used to be. Still, I could do nothing in the matter as I was pleased at his going. It was too expensive to even if one could get a message through. This could only be at the weekends, always provided that there was no fighting taking place and the authorities did not want the wires. So, perforce I had to rest content and wait. From the letters I received from May, Groves turned out to be a very peculiar man. He would not dine with her and insisted on having his meals alone. This was undoubtedly due to the old disease of the nose as well as the fact that he was a confirmed bachelor and probably hated the society of women. May told me that the thought he took drugs but could never prove this. He held a surgery if he thought fit and did as little work as possible. What caused him to leave, I do not know. He was here about four months and then I suspect that Puntan gave him notice.