General practice through the looking-glass*

E. V. KUENSSBERG, *C.B.E.*, F.R.C.G.P.
Edinburgh

"And the White Queen said: The rule is jam tomorrow, and jam yesterday, but never jam today."

MANY of us might well think this could apply to general practice in the National Health Service and expect this title to relate to an economic political anlaysis. I hope, however, to show with the help of a looking-glass and begging permission of Lewis Carroll that in general practice today there is the opportunity for much academic jam: fascination, excitement and truly professional scope.

"And though the shadow of a sigh
may tremble through the story
for happy summer days gone by
and vanished summer glory—
it shall not touch with breath or bale
the pleasure of our 'practice' tale!"

Being the seventeenth Mackenzie lecturer both honoured and dismayed me. Could there be anything left to say? Eminent predecessors had already uncovered and illuminated everything. However, the helpful librarian at Dundee University unearthed from the archives of the Medical Research Council in London the very document, corrected in pencil, which Sir James Mackenzie sent to the Medical Research Council, possibly in order to obtain a grant for his St Andrew's Institute for Clinical Research. Like all experienced research workers he knew the way to the heart of the MRC via a draft document to sound the secretary, who would then make suggestions and comments which would do wonders when incorporated into the actual application.

Fifty years ago, Sir Walter Fletcher received Mackenzie's memorandum on some medical aspects of the National Health Insurance Act. Four areas specifically are pinpointed:

1. The defects of medical knowledge with particular implication of medical record-keeping, and medical terminology based on the pathology of the dead;
2. The defective knowledge of drugs and particularly the absence of knowledge of the interaction of drugs taken and prescribed outside the hospital;
3. The defective knowledge of prognosis, particularly in relation to capacity for work and the patient's future history;
4. The defective teaching of the general practitioner.

Fifty years later all this has an all too familiar ring: Mackenzie then continued to examine the possible contribution by the general practitioner, having warned Sir Walter that—"Whilst the appointment of the Medical Research Council with funds for the prosecution of research was a recognition of defects in medical knowledge and an attempt to provide the means for making good these defects, yet that step will fall

*Being the seventeenth James Mackenzie Lecture delivered in B.M.A. House, Tavistock Square, London, on 14 November 1970. Reprinted by courtesy of the editor of *The Practitioner*.

short of success unless the opportunities of the panel doctor are fully realized and made use of".

With these strictures from Mackenzie ringing out loud and clear, it is proposed like Alice's pawn to move two squares in its first move to Record-keeping, then to examine—Research as search amongst the information available in family records. We shall then explore—The matched comparison technique as a method of enquiry demonstrating Therapeutic pollution on the way. In demonstrating the results of Operational studies it will be shown that rationalization of general practice work can give us professional 'jam today', satisfactory clinical work and possibly better patient care. I hope to show that though we have chosen general practice as our love we must not allow ourselves to be blinded to the need for continuous critical self-appraisal.

On record-keeping

In applying to the Medical Research Council for financial support for the St Andrew's Institute for Medical Research, Sir James Mackenzie set out some of the defects of medical knowledge. He singled out *diagnoses* especially of the early stages of disease and went on to say: "If these early symptoms of disease are to be unravelled it is necessary that the 'panel' doctor should not be tied down to a diagnosis made in the terms of textbook medicine, and further, that he should be encouraged, for his own advancement in knowledge, to keep a record of each individual case, however trivial it may appear."

We know from other reports how bitterly Mackenzie opposed the system of record-keeping—and, incidentally, certification—introduced and encouraged by the National Insurance Act, which, bar a few improvements, is much the same as we have in the National Health Service. In his memorandum he emphasized: "It would be far better to spend a fraction of the money which is now being spent in this vain and useless manner to obtain a method of record-keeping. It must be apparent to everybody that properly kept records by panel doctors would be of inestimable value". In view of Mackenzie's prophecy that the present system as started off 50 years ago would be confusion worse confounded, we might excuse some of today's general practice record-keeping housed in a system which contains the seeds of self-destruction—a pocket too small to accommodate a lifelong history.

Contents of records and their use

In 1969, the Research Committee and Practice Organization Committee of the Royal College of General Practitioners undertook a study amongst 48 organized practices. On a specially designed pro forma, each doctor reported on how information was acquired in 20 to 25 consecutive consultations. Out of a total 1,187 consultations, 480 were first contacts. In a third of these 480 new episodes in known patients, the doctors required only the patients' and/or relatives' history. That most fresh episodes in this study were decided upon without recourse to the clinical record, may be a reflection on the records, the system of record-keeping, the way medicine is being practised by those who took part and their training.

Nearly 6,000 hospital reports were available in these 1,158 records, of which only 3 per cent were utilized. What an amazing effort of labour this represents to produce 6,000 reports in order to satisfy a utilization of 3 per cent. Similarly, out of 291 "other doctor" letters, only seven letters were looked at.

" 'When I use a word,' Humpty Dumpty said to Alice in a rather scornful tone, 'it means just what I choose it to mean, neither more nor less'." I suspect that like Humpty Dumpty, practitioners know that reports only appertain to a special interpretation and are often not relevant to similar or new situations. This uncertain use of presently recorded data does not bode well for computerization which will have to be considered

presently and which should have its greatest use for general practice in retrieval of information, and the follow-up of patients and their subsequent supervision.

We must examine whether much of the information contained in the conventional record may be superfluous and redundant, except that which the practitioner himself records and initiates. Records should have a particular value between doctors seeing the same patients.

In our practice recently, the introduction of a new partner as a replacement, gave us the opportunity of finding out whether this theory was false or true. Over a period of two weeks, the incoming experienced practitioner, Dr A completed a small pro forma at each consultation. One of the original members of the partnership, Dr B, acting as a control, did the same. Analysis showed that in *just over half* of his consultations, Dr A referred to details inside the record envelope, whereas Dr B referred to the content of the records in only *a quarter* of his consultations The incoming doctor found 85 per cent of the records so consulted 'satisfactory' in giving him the information needed. Dr B found his own records inadequate on this point—as many as 52 per cent. Although there was a great variety of information to choose from, this again indicates that only a small number of facts were needed from the available records at these particular times. It is here that Mackenzie's prediction has come true.

Over the last 50 years the general practitioner's mind may well have been firmly wedded to the 5-in. × 7-in. English and 5½-in. × 8-in. Scottish size of record in his thinking and recording. Yet all this must not make us too despondent about our ability to keep records; we must continue to experiment; it may well be that the 3 per cent of hospital letters utilized represents the crucial problem-solving information, invaluable for the patients' care.

Family records

In 1907 when Leeds University had the foresight to have a postgraudate course for general practitioners opened by the man from Burnley, Mackenzie said:

"It would have been impossible for me to have made the observations if I had not the opportunity of watching patients for years while successive changes were taking place in their conditions. . . . The family physician has the opportunity of seeing trouble begin, and if he cares to keep his eye on the patient, he can note the changes that are gradually taking place."

This underlines the opportunity available in general practice, which is clearly open to expansion, for not only do we have the chance to wait and see what happens to the individual, but the whole family is equally under our observation. It is appropriate therefore to develop a system of record-keeping which includes the family. This does not necessarily mean that we must slavishly strap, clip or file together the records of family members, but rather that we institute a cross-reference system which allows us to recognize the family composition and its disease pattern long after it has ceased to exist as a single closely-knit unit living under one roof. One such method is the 'Family book', a simple visible index system which allows planned recording on the family. Using the surname and address as the indicator on the household index sheet, selected information regarding a limited group of illnesses and other personal details are indexed for each family member.

The 'F book' proved a useful tool in the search for answers to special problems which will be illustrated later.

" 'The time has come', the Walrus said,
'to talk of many things,
Of shoes and ships and sealing wax
Of cabbages and kings
And why the sea is boiling hot
And whether pigs have wings.'"

Matched pair technique

A simple method of discovery in general practice is to construct a group of patients who have one illness in common and compare them with a control group, matched for age and sex and any other criteria thought to be relevant—'comparing the problems of matched pairs'. This technique can be developed without special equipment or difficulty. Here research is simply 'search' amongst the information available.

In a preliminary analysis of our family recording in 1960, a marked association was found in the occurrence of duodenal ulcers in parents and children of both sexes. It was also found that although duodenal ulcers were considerably more common in this particular practice population than in the Doll and Jones MRC survey in England and Wales (1951), prevalence rates were remarkably close to those reported in another Edinburgh practice of similar social stratification. It seemed a simple matter to test various hypotheses we all develop in the course of our work based on our own experience and perpetuated without active proof.

Thus, using the 'Matched pairs technique', 135 peptic ulcer patients and their families together with an equal number of controls and their families were studied in 1967. The aim was to prove or disprove some of the generalizations one makes about duodenal ulcer patients. With the aid of the family recording system and the help of a part-time research registrar, the 135 matched pairs were interviewed along with their spouses and sibs. The detailed questionnaire as validated by Doll and Jones in their study was used.

The simplicity of the matching technique and its success are demonstrated in table I which shows the marital status of index patients and controls. The asterisk denotes that two control patients and three index patients had been divorced and remarried and two of the index patients had been widowed but were remarried, giving adequate matching even for second marriages.

TABLE I

SOCIAL STATUS OF MATCHED PAIRS

Social status of matched pairs	*D U patients*	*Controls*
Single	7	7
*Married..	111	113
Widowed	11	12
*Divorced/separated ..	6	3
TOTAL ..	135	135

We tend to pontificate to our patients about eating habits: the frequent fish and chips; no cooked breakfast; the absence of porridge; the regular main meal in the evening; or irregular eating; insufficient meals; sandwich carrying; gobbling; alcohol. We hold over their heads the threat that over or under indulgence in the appropriate cases will result in doom for the digestive tract. When examined with the help of the matched pair study, all these promising theories went by the board. The prim attitudes found no support in fact, in this admittedly small, but well controlled series. Even false teeth did not seem to be a contributory factor. Patients are often convinced that the intolerable strain of life is responsible for their 'bad stomach'. Financial troubles, unemployment, serious family illness, bereavement, family rows, children with illness, with behaviour disorders, disturbances from neighbours, all these factors were examined in these matched pairs. Once again the search produced negative correlations in all cases but one.

When the industrial status was examined it showed what Richard Doll had shown before, i.e. the histories of duodenal ulcer patients contained more evidence of responsibilities in skilled work during their middle years than the non-duodenal ulcer group. As the high incidence in the Edinburgh practice could not be explained by finding an association with Edinburgh as a risky place of birth regarding duodenal ulcer or by any

dietary or social circumstances, Could a social, biological inheritance be at work? This began to seem probable when the following results were demonstrated (Table II):

If family history played no part in the occurrence of duodenal ulcer there would be an even chance that the duodenal ulcer family histories, confirmed, and unconfirmed, would turn up equally in the controls. In fact, we found that there were 48 pairs where the duodenal ulcer patient had a positive family history of duodenal ulcer, and the non-ulcer matched controls had no such family history. In the reverse situation there were only 12 pairs where the ulcer patient had a negative family history of duodenal ulcer, and the non-ulcer control a positive one. This is statistically significant. You may rightly raise the objection that a family history by hearsay is not the same as one confirmed by x-ray or operation notes. Let us then take out the unconfirmed cases, treating them as negative history, and re-examine the previous figures. Under this stringent criterion the excess duodenal ulcer patients with a positive family history and their controls with a negative family history are obvious: 24 as against five (*see* table III).

TABLE II

FAMILY HISTORY OF PEPTIC ULCERS

Family history of peptic ulcer in peptic ulcer patients and controls

Family history	*Peptic ulcer patients*	*Control patients*
Confirmed ..	26 } 63	7 } 33
Unconfirmed ..	37	26
None	72	102
TOTAL ..	135	135

TABLE III

FAMILY HISTORY (CONFIRMED) IN 135 MATCHED PAIRS OF DUODENAL ULCER PATIENTS AND CONTROLS

D U Patients	*Non-D U controls*	*Number of pairs*
With family history	*With* family history	2
Without family history	Without family history	104
With family history	Without family history	24 } $p<0{\cdot}1$
Without family history	*With* family history	5
		135

If the family history is to mean anything, it might also mean that those with a genetic load might have a decidedly earlier onset of symptoms than those without. In table IV the under 25s seem to bear this out in this matched pair study, a relevant point when we are considering vague abdominal symptoms in a member of such a family (figure 1). Speculation as to a rise or fall in the incidence of duodenal ulcer was quickly dispelled when it was found that the cumulative prevalence for the under 45 years of age in 1960 had, in 1969, increased by 187 new cases for this same age group; yet the perforations dropped from 41 to 21 in 1969.

Therapeutic pollution

In his document to the MRC, Mackenzie highlights the defective knowledge of drugs as something on which his Institute would be required to make a contribution. We read:

"There are two difficulties which will for a long time hamper an intelligent theory: first, the belief

of people that for each ailment a drug or remedy of some kind exists, and the natural desire that something should be given or done.

"The second difficulty is the belief of the doctor in the efficacy of his remedy. While the real cause of the disease is hidden and its removal therefore impossible, treatment will continue to be directed towards signs and symptoms."

How true this is today, and how compelling the evidence. I shall not quote the drug consumption of the nation, nor the cost, nor the increasing self-poisoning or other

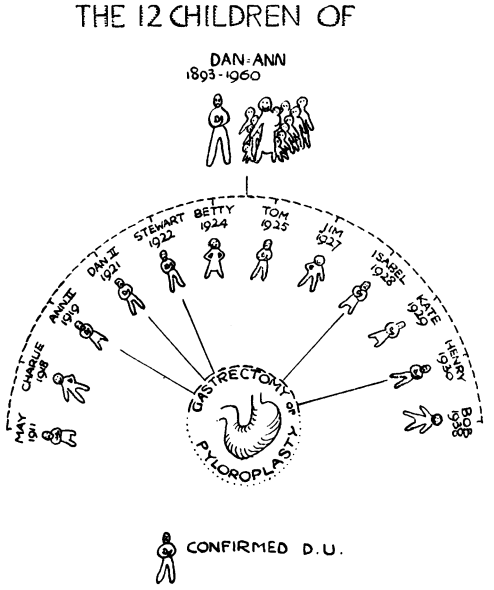

Figure 1.

TABLE IV

MATCHED PAIRS ANALYSIS

AGE OF ONSET OF SYMPTOMS

Duodenal ulcer patients: family history and age at onset of symptoms

Onset age (years)	*Family history of DU*	*No family history of DU*	*Total*
< 24	21	12	33
25—34	12	24	36
35—44	9	11	20
45—54	4	7	11
55—64	—	6	6
65+	—	—	—
TOTAL	46	60	106

misuse of drugs. When we look at bathroom cupboards and bedsides littered with tablets we cannot but gain the impression that not only have we to fight the pollution of nature in this national conservancy year, but we must call a halt to the therapeutic pollution which we are facing today—man-made like the other pollution, but encouraged by commercial advertising, and worst of all, doctor-induced.

For some years in our practice group the family recording system has been used to record drug habituation. Initially it was instituted to act as a warning to the partners that a second look was needed at somebody's apparently harmless request for certain analgesics, a barbiturate or sleeping pill or even placebo. The figures to be presented can only be regarded as minimal estimates of the situation. The highly individual circumstances arising in a seven doctor group make it difficult to lay down strict criteria. What one doctor regards as 'habituation' may differ assessed by another, though the cases being treated are apparently similar. Yet even with these qualifications the figures are alarming:

TABLE V

DRUG HABITUATION IN A GENERAL PRACTICE, EDINBURGH 1969

Age group	*Male*		*Female*	
	Number	*Prevalence rates*	*Number*	*Prevalence rates*
15 — 34 ..	6	0·28	13	0·76
35 — 54 ..	20	1·60	80	6·37
55 — 74 ..	47	6·74	189	21·48
75+ ..	13	7·83	22	6·63

'Habituation' excludes patients to whom drugs are prescribed for epilepsy, psychosis or any progressive disabling disease, but *includes* those patients where therapeutic substances are prescribed for periods of six months or longer where no pharmacological actions are any longer required or expected. This habituation or 'reliance on drugs'—admittedly often on a seemingly innocuous therapeutic agent—is a problem, certainly in the higher age groups of women, which is often associated with other inadequacies which only come to light when an attempt is made to stop this dependence. That such habituation is 'catching' is obvious from the family records: in 139 husbands or wives so habituated, there was a statistically significant higher incidence of drug habituation—three times greater—when measured against the expected figures for the total male population of the practice. Certainly in the higher age groups most patients so coded are candidates in need of the supportive services such as health visiting or the social services (table VI).

TABLE VI

DRUG HABITUATION IN HUSBANDS OF WIVES SO HABITUATED

Drug habituation in husbands of 139 habituated wives
Both registered with the same practice and alive at December 1969)

Age group	*Number of husbands*	*Husbands habituated*	*Expected number of habituated husbands*
30 — 49 ..	24	1	0·09
50 — 59 ..	45	6	0·93
60 — 69 ..	43	3	1·83
70+ ..	27	4	1·39
TOTAL ..	139	14	4·24 ($p < \cdot 05$)

It is suspected that much drug habituation arises from social crises and this therapeutic pollution may really be a reflection of the unfulfilled need for social manipulation or adjustment or support. It may be less effort to prescribe a sleeping drug for a lonely person than to re-arrange her way of life so that she is no longer so utterly lonely. Yet surely the quality of life will be more significantly improved by such adjustment than by drugs which can only blunt the edge of misery.

We have two possible ways of dealing with therapeutic pollution—by turning it off at the source, or by treating it, hoping to ameliorate it. The first would be extremely difficult for the reasons Mackenzie stated: "the belief of the people that for each ailment or disease a drug or remedy of some kind exists", and because the dividing line between habituation and the needs of human nature is so fine. Thus we are left with the alternative—attempting to prevent by increased education, health education, and the greater involvement of the social worker, particularly as a member of the general practitioner's team. I believe these to be the main answers, along with the recognition of the size of the problem.

Screening

The need for screening is a focus of much medical discussion—but what about the factual evidence to support or refute the screening need in your own practice? If one has persistently looked for, say diabetes throughout 30 years of general practice, is there

still a need for screening?

The figures presented in table VII from our F books show that the known diabetics in the practice, above the age of 30, correspond closely to or exceed those comparable figures from the general population worked out by our College's Working Party on Diabetes published in 1962.

A deficit in the under 30s clearly indicates that we must do some thinking and take some action. A profitable exercise before plunging into general screening.

TABLE VII

COMPARISON OF RATES PER CENT OF KNOWN DIABETICS (BOTH SEXES) IN THE GENERAL POPULATION AND AN EDINBURGH GROUP PRACTICE

Age group	*General population*	*Group practice population 1970*
0—29	*0·2*	*0·017*
30—49	*0·4*	*0·48*
50—69	*1·3*	*2·07*
70+	*2·1*	*4·1*

Operational studies—the team

In the introductory paragraph of his memorandum to the Medical Research Council, Mackenzie stresses that: "the success of the National Insurance Act depends upon the degree of efficiency with which the general practitioners of the country can carry out their work, especially in the diagnosis and treatment of the ordinary disabling diseases which affect the industrial community". It seems appropriate therefore to have a look to see the degree of efficiency with which one's own general practice is carried out. Since we lack Alice's facility, our looking-glass must be that of an analytical examination of the facts and figures which are available. There we will see reflected our failures and deficiencies.

'Research'—operational research are the big words for this examination, but surely it simply means search for the way to do the job most effectively. Such search requires analysis and measurements.

Today, because there are too few of us, general practitioners must evaluate who does what, by considering delegation of a considerable amount of work. Crombie and Cross showed in 1957 that if a nurse is allowed her full clinical responsibility, 16 per cent of episodes seen in general practice could be her sole responsibility and she could assist with a total of 24 per cent. Others, notably Scott, Anderson and Cartwright (1960) put this figure a good deal higher. Keith Hodgkin and his group from the north east of England have shown that the nurse can save 10 per cent of the doctor's time. Here at any rate is a theoretical possibility: If we delegate one fifth to one sixth of our work there will be more time to do what we are particularly trained to do—be a clinician. In the practice then, the doctor should be able to use the time allocated for each patient

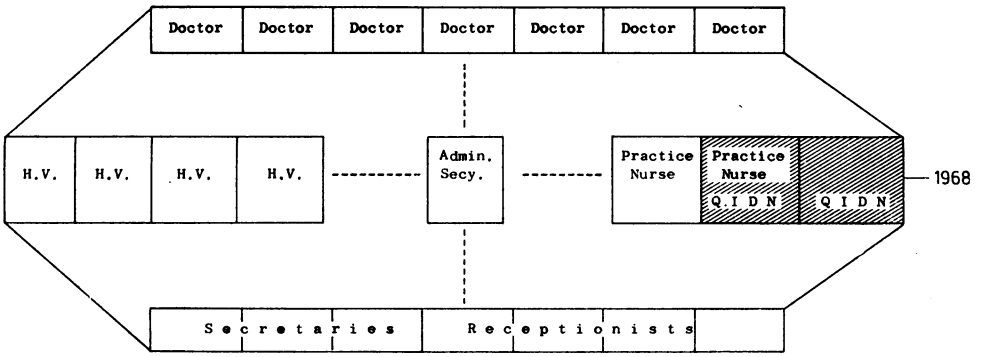

Figure 2.

for a full clinical confrontation devoted to problem-solving or listening—listening as Mackenzie prompted us to do for the patient to tell us the diagnosis.

Having the good fortune to practise medicine in a setting where experimentation is possible, we tested the theory by organizing our work round a 'team' and carrying out an enquiry into the situation both before and after reallocation of duties. As figure 2 shows, two district nurses were attached from the local authority, one of them replacing one of the two practice nurses employed till then. They were introduced into a situation which was already taking shape with four health visitors, two practice nurses, and secretarial and receptionist help. It was soon found that the two attached nurses were not enough to meet the patient needs and they were augmented by another state registered nurse, a state enrolled nurse, and a bath attendant. However, all the results refer to the early situation as outlined in the diagram. It is difficult to substantiate with figures the claim that in working as a 'team' we gave our work a more purposeful look and performance. The professional members of the 'team', the health visitors, the nurses, and the partners, found they were working in their own special fields on a wider base than previously. This greater clinical content of the daily work undoubtedly gave rise to greater satisfaction all round.

To claim greater *quality* simply by having the support of staff—(health visitors, nursing sisters) is clearly rash, though it might be justifiable to say, as in Mackenzie's stipulation, 'a greater degree of effectiveness' in the care given to the patient population can be assumed if, for instance, an additional 10 hours per 100 patients per week are given as extra nursing skills.

The epoch of changes for the nurse in the community was heralded by the publication of two basic reports—Lizbeth Hockey's *Feeling the pulse* (1966) and Vera Carstairs' *Home nursing study in Scotland* (1966). In both, the main criticism was the low rate of utilization of the skill of a highly-trained professional and the inevitable low work satisfaction. So it seemed that if we were to keep our nursing team it was important to analyse the procedures they undertook on our behalf (*see* table VIII). This showed a marked increase in the professional content, so we are not altogether surprised that we still have them two years later.

To achieve this change, a learning period of six months was required, during which, through full team discussion, the principles of delegation and co-operation with the nurses were developed.

It is depressing to note the persistence and perseverance required of us as Pavlovian animals to change the habits of 20 to 30 years. The cherished belief that

TABLE VIII

PROFESSIONAL CONTENT OF NURSES' WORK

		Per cent
Clinical procedures	increased by	+ *56·2*
Technical procedures	increased by	+ *53·8*
Injections	decreased by	— *6·81*
Exchange of information with doctors ..	increased by	+*200*
Discussion with patient	increased by	+*107·7*
Local examination	increased by	+ *61·5*
Local dressing and treatment	increased by	+ *22·6*
Taking of specimen and examining ..	increased by	+ *33*

it must be we—the doctors—who do it all, or most of it, is difficult to dispel. The salutary dose of corrective was soon apparent. The patients' reactions, sampled and analysed by an independent university-department doctor, experienced in both research and

general practice, showed where our selection for delegation might be faulty (table IX).

TABLE IX

PATIENT PREFERENCE

	Preference for doctor	*Preference for nurse*	*Either*	*No comment*	*Total*
Patient receiving first visit from nurse	10	12	8	1	31
Patient visited by doctor then followed up by nurse	45	3	21	—	69
TOTAL	55	15	29	1	100

It is interesting that the patients were well content with the carefully selected visits by the Queen's nurse. If one refers to nurse's 'selected first visits' as 'assessment visits' the raucous cry of those who gainsay the nurse this activity is more likely to subside. 'Assessment visit' puts into perspective the nurses function under these circumstances. When search for more clinical time becomes research into reasons and motivation, we hope debate on such facts will result in benefit to the patient. It has been stated repeatedly that more thorough history-taking differentiates the consultant from the general practitioner (table X). In view of the need for more time for careful history-taking, I believe that this 14 per cent is the right kind of evidence and justifies the impression that team work is a gain for the patient.

TABLE X

PROCEDURES OF DOCTORS' WORK BEFORE AND AFTER ATTACHMENT OF NURSES

Type of procedure	*Before*	*After*	*Per cent change*
History-taking	3972	4528	*+14·0*

When we analysed the use of diagnostic instruments (haemoglobinometer, ophthalmoscope, sphymomanometer, peak flow meter, and the frequency of rectal or pelvic examinations) the post-reorganization period showed an increase of 40 per cent in diagnosic procedures aided by instruments. These indices show: (1) support for the demand to care more fully for the patient in the community and (2) a greater clinical and laboratory investigative content in general medical practice if so organized and supported.

When looking at the mass of facts that emerge from a practice audit and that could mean a greater operational effectiveness of the 'team', it is difficult to avoid bias, yet, as it helps the patient, such partiality may be forgiven.

The recording of a 19 per cent increase of longer consultations lasting ten minutes or more, after reorganization, is possibly another index of greater effectiveness for the patient. This 19 per cent did not lengthen the doctor's day, his workload having been reduced minimally by 1.6 per cent. Yet much of the argument about quality of care given in general practice is reminiscent of the battle between the Red and the White knights:

> "I wonder now, what the rules of battle are", Alice said to herself as she watched the furious banging away at each other:
>
> "One rule seems to be that if one knight hits the other he knocks him off his horse, and if he misses, he tumbles off himself."

Keith Hodgkin has stipulated, and I think rightly, that one measurement of an effective general practice is the time spent on chronic cases, particularly as a ratio over the acute cases. Hodgkin's factor was looked at for the practice as a whole—as a team: How were we giving time and care to the chronic cases? Table XI shows some success for the 'team' after reorganization.

TABLE XI
CHRONIC/NON-CHRONIC RATIO AFTER ATTACHMENT OF NURSES

	Non-chronic cases	*Chronic cases*
Contact with doctor only	— 2·9	+ 2·9
Contact with nurse, health visitor ..	+ 4·5	+ 8·4

In his memorandum to the MRC Mackenzie deplored the level of knowledge in relation to prognosis. This particular 'defect in medicine' became more obvious when working with the 'team'. When delegating supervision, follow-up and treatment to nursing or health visitor staff, we must indicate clearly what is expected in the development of the clinical situation, and in the therapeutic effect of treatment. No single necessity this, but a constant need to let sister or health visitor know what she can expect to find on follow-up. Take for instance the follow-up of a pyelitis at home: If sister is told: "This patient's temperature will be down, he should have regained his appetite, his backache should not be such that he wants analgesics, his dysuria should have ceased", and a different situation is found by her on visiting, sister will put the alarm system into operation and ask you to return to see your patient that day. Your mistake in prognostication will cost you a late afternoon or evening visit. The opportunity of having such follow-up supervision instead of vague instructions to the patient or relatives—"Send for me if it is not better"—, or when shortage of time for observation makes you play safe with an antibiotic—has certainly increased the quality of thinking through and anticipating possible future events.

If more thorough supervision, made possible by the expanded services provided by the 'team', can bring illness in the younger age groups under control, with perhaps greater certainty of cure or eradication, this will achieve better quality of care and may well prevent relapsed and subsequent chronic illness. Ear infections, urinary infections, chest infections, come to mind. That this is beginning to happen was emphasized when the audit produced the figures for the nurse work contact by age group of patient, which demonstrated an increase of 53 per cent in the age group up to 25 and a further 40 per cent in the next 20 years.

An additional aspect of prevention through follow-up and supervision by the whole team is rehabilitation. This points to an illuminating case history:

A young girl of 19 had been in renal dialysis for six weeks following a fuminating septicaemia. Whilst still recovering in hospital she suffered from depression and a personality problem and was referred to a psychiatrist. Labelled by him as 'a rejection of femininity problem' she was discharged home weighing 5½ stone, sulky and difficult after her eight months illness. When the doctor went on holiday, he asked the 'attached' nursing sister to follow up the case, the so-called personality problem making him disinclined to ask a partner to take over. Sister was asked to ensure that Jessie took her iron, vitamins and food; to obtain urine for repeated MSUs and to see whether she could encourage this girl to get out of bed and if possible out of doors. An optimistic outcome of these efforts was not really expected and a partner was briefed to step in should sister so request.

On the doctor's return from holiday he received a cryptic note:

"Jessie no problem.

Now attending consulting room regularly for urine and weight checks:

gained 18lbs in weight:

eating like a lion:

blood urea normal."

When he asked how the miracle had been achieved, the answer came in a flash:

"No woman would want to show such spindly legs in public—not with today's fashion. I spoke to the health visitor who got Jessie a pair of trousers and thereafter there was no holding her."

Personal doctor

We have spoken of 'groups of doctors'. Are they not a contradiction of what the personal doctor stands for? Again a short 'look and see search' gives a clue. Fifth-year medical students in their elective were asked to act as observers in the reception area to record whether or not patients were able to see their own doctor or whether they had to see one of his partners or another member of the team. The result of these spot checks over representative periods in the two premises is shown in table XII. The student observers judged only one case as being unfair in the delay offered on the information given at reception. In fairness, however, the students did not know what the receptionist knew about the patient's long history and character. Three patients were assessed as being 'angry' or 'dissatisfied' at not obtaining what they requested.

TABLE XII

AVAILABILITY OF PERSONAL DOCTOR IN A GROUP PRACTICE

	Per cent
Patients seen by doctor of first choice at approximately the time requested	*50·5*
Seen by the doctor of first choice but conceding an adjustment of time on the same or next day	*25·0*
Not seen by doctor of first choice but seen the same day by a partner	*6·4*
Patient spontaneously asked for, or accepted to see sister or health visitor that day rather than an alternative doctor ..	*12·1*
Accepted appointment with first choice of doctor two or three days later	*6·0*

The case for 'Team support' seems irrefutable, and figure 3 gives the staff ratio per 1,000 registered patient population and the total weekly hours worked by each group in the team. The hours per patient per week given by each supporting group of professionals in our crowded urban setting are a generous minimum, an optimum being impossible to define without fuller studies. Yet this minimum, I believe, allows us to have professional and intellectual fascination, clinical excitement, satisfaction in our work, scope for research—in short 'jam today'. The practitioner can give more time to history-taking and diagnostic investigation; he gives more support for selected chronic cases; the nurse's work increases in professional range and the patient supports and appreciates it.

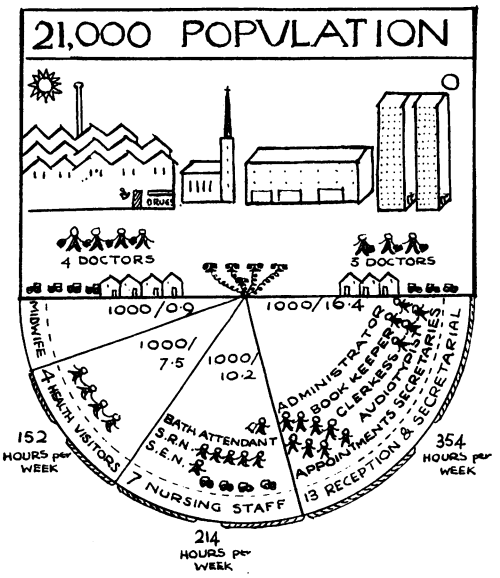

Figure 3.

Research

Fifty years ago, Sir James Mackenzie appealed to the MRC not to neglect the research potential of the general practitioner and he himself embarked on the great venture to prove that a contribution can be made by a systematic approach. In the 50 years since his stricture concerning the lack of resources for general

practice research our progress has been abysmal. Less than 1 per cent of the total medical research resources are being developed in general practice today, though we must acknowledge having doubled—nay trebled—the facilities of 50 years ago. We have at least three institutions entirely devoted to general-practice research as against one in 1920:

1. The Royal College of General Practice Research Unit incorporating the records and statistical unit at Birmingham under its dual leadership financed from central health service funds. There with the help of a research registrar, co-ordination of general practice research is carried out.

2. The second unit was born whilst this lecture was in preparation with Scottish council of our college and the Scottish Home and Health Department the parents, ably supported by Dundee University and the Research Foundation of our college as midwives. I refer to the Scottish General Practice Research Support Unit in Dundee, not far from the only unit of 50 years ago, The Mackenzie Institute in St Andrews.

3. We acknowledge with special pleasure the research unit which has banded together over 1,400 general practitioners for the five-year oral contraception study centred on the recorder at Manchester. The sheer magnitude of this project is as yet not fully recognized. A quarter of a million clinical observations are recorded annually in relation to the taking or not taking of the Pill.

" 'It's a poor sort of memory that only works backwards' the Red Queen remarked." and, taking this point from Alice, 1974 will see the Manchester Unit conducting therapeutic drug assessment trials on a large scale, these having developed from the present multiple observer research oral contraception study.

We in the College have all accepted the need to participate in research; indeed research is one of the reasons for our college's existence. Yet all too readily we are daunted by the word. I firmly believe that *search*, all kinds of *search* for facts and figures, whether operational or clinical, general or demographical, contributes to the understanding of our work. Such *search* may lead to *research*, but at any rate it is a beginning with which we can make our work more stimulating and certainly more successful.

As the place of medicine in our cultural pattern changes profoundly; as the preciousness of the individual's life and the right to it becomes adamant; as the past acceptance of suffering and pain becomes totally unacceptable; as the dimensions of interference with life and its biology become altered and revalued, we are in need of analysis and reappraisal. Like Alice, we must explore—though not in a dream—and realize that to reach our goal we may have to walk in the opposite direction, or, when apparently running very fast we may finish up under the same tree; but the basic need for success and progress is to look at our own reflection and study what we are doing, and how and why we are doing it.

Acknowledgements

The patient co-operation of my partners and their sufferance of my foibles is gratefully acknowledged as is the help received from Dr Isobel Alexander, S. A. Sklaroff, B.SC. Professor J. D. E. Knox and the administrative secretary of the West Granton Medical Group.

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Duodenal ulcer and recurrent dyspepsia. G. K. H. HODGKIN, B.M., M.R.C.P., F.R.C.G.P., R. FREEDMAN, M.B., B.Chir., M.R.C.G.P., I. FULLER, M.B., M.T.C.G.P., D.Obst.R.C.O.G. J. WHEWELL, M.B., M.R.C.G.P., D.Obst.R.C.O.G. *British Medical Journal*. 1970. **3**, 368.

A survey of recurrent indigestion in four general practices (19,619 patients) showed awide range of dyspeptic complaints. Of these 82 (4.2 per 1,000) already had a proved ulcer and 144 (7.3 per 1,000) had symptoms suggesting a duodenal ulcer and had either not been investigated or had previously had a normal barium meal. A duodenal ulcer was found radiologically in half the men (46 out of 95) but in only 16 per cent of the women (eight out of 49). In 11 (25 per cent) of the 46 men shown to have an ulcer barium meal had previously been reported as normal. Evidence is put forward that ulcer symptoms in the large residue of patients with a normal barium meal (38 men, 29 women) were produced by a primary duodenal condition (duodenitis) of which ulcer was one complication. (Author's summary).

Fascioliasis—a large outbreak. E. W. HARDMAN, M.B., Ch.B., R. L. H. JONES, M.B., B.Ch., A. H. DAVIES, M.B., D.Obst.R.C.O.G. *British Medical Journal*. 1970. **3**, 502.

Forty-four cases of liver fluke infestation occurred near Chepstow in patients who all admitted eating wild watercress from a bed near infected cattle. Further symptomless cases almost certainly occurred in the area at the same time. Adults were treated with intramuscular emetine and children with oral chloroquine. Both treatments were usually well tolerated and effective. The severity and extent of the outbreak underline the necessity for control over the growth and sale of watercress.

Design of surgery premises and employment of nurses. IVOR COOKSON, M.B., F.R.C.G.P., and F. W. MILLARD, M.B., M.R.C.G.P. *British Medical Journal*. 1970. **4**, 44.

The surgery premises of many general practitioners have no accommodation for a nurse. Some have only a nurse/treatment room away from the consulting and examination rooms. Modern designs are no better, and are inadequate in view of the present trend to employ more nurses in group practices. Much of the value of a nurse is lost if she cannot help patient and doctor at the time of examination. The premises described here were designed to enable her to do so by combining the treatment room and a set of examination rooms. (Authors' summary).