Physicians and family doctors: a new relationship

J. P. HORDER, OBE, FRCP, FRCGP, MRC.PSYCH
General Practitioner, London

MANY general practitioners now think and feel that the future relationship between specialists and generalists will be one between two kinds of doctor who have different and complementary functions but on the same level. This contrasts with the past when they considered the relationship was in some respects as superior to inferior, with functions that were often the same. One-to-one relationships are not in question; specialists and generalists are often personal friends and, when they meet in consultation, the relationship is excellent. The point is the way in which one *group* considers the other. In this context general practitioners are defined as the generalists and specialists are those who hold career posts in hospital, particularly those working in medical specialties, many of whom act as consultants, and a few of whom are truly general physicians.

Although the relationship of specialists and generalists is changing, many of their old attitudes still motivate both groups today. These can be recalled by examining the relationship of 25 years ago.

How general practitioners saw specialists

General practice was going through a major crisis in 1950, which at the time seemed to have been caused by the start of the NHS, but which actually had much deeper causes, since the same difficulties had been experienced in many other countries with different systems of care. But it was the Health Service that was blamed and bitterly resented by a proportion of general practitioners. They feared that they would be overwhelmed by the free access which patients now had to their services, and felt that they had lost any financial advantage from better work. In many instances they had lost the hospital work which they did alongside their practice; they saw their specialist colleagues being better paid and given better resources. Patients asked to see a specialist because specialists were viewed both as better doctors and as people who had the use of technology denied to the general practitioner.

Recruitment to general practice began to fall. The first career choice of the great majority of students was for a specialty. Lord Moran (1960) spoke of general practitioners falling off the specialist ladder, implying that they were losers in the race to climb it. This was indeed true for many people who became general practitioners. It made a beginning for them in which jealousy of their more successful colleagues was combined with a degree of contempt for the inferior circumstances of the job they had been forced to take and for which they had not received any special training. Even worse, the job did not appear to merit special training.

How specialists saw general practice

Specialists thought of the problems which patients present to general practitioners as mostly minor ones, of which a high proportion were psychological or social. A general practitioner was therefore nearly the same as a social worker, except that he had some medical knowledge, much of which was wasted. His main diagnostic task was to sort out what was minor from what was major and to refer the latter to specialists. General practice was mostly common sense. The practitioner was a very busy man and so, much as he would have liked to, he seldom had time to listen to patients, examine them, do tests, or talk to them. He could not afford to be as precise or scientific as the specialist. All this being so, the less intelligent doctors should go into general practice, which was most suitable for people good at games. There was no need for them to have a special training, because common sense cannot be taught. If a general practitioner found himself discontented with this role, he could hear about hospital medicine on a ward round at the local hospital, or do a

Dr Horder was invited by the Royal College of Physicians of London to reply to the address on the subject delivered by Sir Cyril Clarke (1976) at the Spring Meeting of the Royal College of General Practitioners. He delivered this lecture on 28 October 1976 at the College of Physicians and it is reproduced by kind permission of the Editor of the *Journal of the Royal College of Physicians.*

bit of it as a clinical assistant, or, in rare circumstances, aspire to be a specialist by passing a specialist examination.

In view of all this, certain assumptions followed naturally:

1. Patients would really prefer to be treated at a hospital.

2. It did not matter much if general practice or primary care was of a low standard because there was the safety net of hospital outpatients or secondary care. No great harm was done by transferring a patient from the first level to the second.

3. It was not important for the hospital to be concerned with the standards of primary care in its neighbourhood. It was even less important for a regional teaching hospital to be so concerned.

All these were predominant views 25 years ago. I held them myself when I worked in hospital. I defy any reader to deny that he has ever held any of them. They formed the kernel of the old relationship, but today they form a source of resentment to general practitioners and a destructive influence on the system of medical care that is developing in this country; also, they are out of touch with reality. This is most obvious if one looks at clinical work in general practice.

Clinical work in general practice

I shall start by introducing one of my patients, a widow, now 69, a well-preserved talkative lady who makes her presence immediately felt in my waiting-room. She arrives in a hired car, which waits for her. She has the following proven disorders: diabetes mellitus, myxoedema, gout, osteoarthritis, auricular fibrillation; a liability to pulmonary emboli, for which she has been on anticoagulants for nine years since a carcinoma of the body of the uterus was successfully removed; diverticulitis, which two years ago led to a near fatal intestinal obstruction after a four-month illness treated at home; and benign hypertension: a total of nine diseases, for six of which treatment has been maintained. I take a deeper breath when I see her name on the list or her eyes glued on me from the waiting-room. As I am always late, I think of the hired car, but I have not mentioned what is for me the most important problem: she is lonely. She lost her husband in the war; he was in command of a ship. Over the 25 years I have looked after her, I have seen her lose, in turn, her father, her only brother, her boyfriend, and her two favourite pets. She is left with a dependent boyfriend who drinks too much. In other words, she is bereaved and often depressed. However, perhaps the most difficult problem for me is how to cope with her in the surgery, where she normally has a 15-minute appointment. It is not just the business of thinking simultaneously of her nine diseases, but the fact that she will come to problem two before I have had time to sort out problem one, so that she makes me angry. At the same time, she wants to consult me about her boyfriend's drinking and ask about my wife and children. After 25 years, I have not yet mastered the art of coaxing her out of the room. This case is not exceptional, it is merely an extreme example.

The last five patients seen consecutively on a recent evening were:

1. An old lady with a badly sprained ankle, doing badly, a deep vein thrombosis, visited at home with an orthopaedic surgeon. She uses any malady as a weapon to control her middle-aged children.

2. A single girl of 30 who has been depressed for eight years and has been resistant to all forms of treatment by anyone. She does not work; she is getting weekly support from both our social worker and me.

3. A senior social worker who finds that hard work allays her tendency to depression, which is partly constitutional and partly marital.

4. A Polish man of 60, with coronary disease, gall stones, diabetes, and an undiagnosable left-sided abdominal pain. Seen twice weekly at least for the last seven years. His speech is almost unintelligible.

5. An Irish lady with seven children who is never well. She suffers from postvagotomy diarrhoea after years of pain. Terrible low back pains.

With the exception of the social worker, who came to the neighbourhood recently, I have looked after each of these people for between seven and 20 years. Most of my practice consists of people like them with problems which are part physical, part psychological, and part social. Their problems are neither minor nor trivial, nor transient nor obvious. I cannot just pass them off to a specialist and be rid of them; their problems are too complex and too chronic. Most of them have been shared with a specialist at some time, but the specialist has proved more capable than I of finding solutions in only one out of three. They would not prefer to be treated at hospital, but they are sensible people and are grateful to know that the hospital and the specialist are there when I cannot cope.

They prefer to be treated in general practice because it is nearer and easier to reach at the crucial moment; they can talk to a familiar person and switch from one problem to another without changing doctor; it is easier to understand what the doctor says, and altogether less complicated and less alarming.

They tax me to the full. They require high-speed pattern recognition in diagnosis. They all require time, whether it be for collecting information, examining, listening, or responding. With one exception they all impose an emotional strain. I can deal with the Polish man in five minutes, but not with any of the others.

General practitioners, of course, unconsciously select their patients over the course of their life in practice. I cannot be sure that 100 patients I see resemble 100 seen by a doctor in another practice. I cannot even be sure

that another doctor will always see the same problem in the same patient. Nevertheless, I do not think that the gap between the cases I have outlined and the traditional picture—a minute's consultation, a chat, a certificate, and a bottle—is a mere artefact of my own.

Psychosocial problems are of course common and important in general practice. There is a long tradition in the whole of our profession that they are less important than physical ones. This is an error comparable to pre-Harveian ideas about the circulation of the blood or the practice of bleeding and purging. One has only to ask patients who have experienced both a serious physical and a serious mental illness; nine out of ten will have found mental pain harder to bear than physical, longer lasting, and harder to relieve.

The prevalence of psychosocial problems in general and hospital practice will depend, above all, on the doctor's willingness and capacity to recognize them. There is a most interesting paper by Querido (1963) about the extent to which they are missed in hospital practice and the extent to which they influence the ultimate outcome even of surgical operations. I believe that they are still being missed in both types of practice.

It is certainly crucial that they should be detected at first contact if the patient is not to be led up the wrong track. It is still potentially dangerous for a patient whose depressive illness presents with abdominal pain and constipation to be referred to medical outpatients, especially if he runs into an inexperienced doctor or the sort who says, "I practise sound clinical medicine; we hear too much of this psychosocial stuff". The risks range from future hypochondriasis to the occasional unnecessary laparotomy. This is one example of the disadvantages that do exist in transferring patients from primary to secondary care.

The general practitioner's role

The following job description (Leeuwenhorst Working Party, 1977) produced in 1974 by a working party from 12 European countries, owes most to this country and is accepted by the Royal College of General Practitioners as a policy document. It helps to summarize the clinical work of general practice.

> "The general practitioner is a licenced medical graduate who gives personal, primary and continuing care to individuals, families, and a practice population, irrespective of age, sex and illness. It is the synthesis of these functions which is unique. He will attend his patients in his consulting room and in their homes and sometimes in a clinic or a hospital. His aim is to make early diagnoses. He will include and integrate physical, psychological, and social factors in his considerations about health and illness. This will be expressed in the care of his patients. He will make an initial decision about every problem which is presented to him as a doctor. He will undertake the continuing management of his patients with chronic, recurrent or terminal illnesses. Prolonged contact means that he can use repeated opportunities to gather information at a pace appropriate to each patient and build up a relationship of trust which he can use professionally. He will practise in co-operation with other colleagues, medical and non-medical. He will know how and when to intervene through treatment, prevention and education to promote the health of his patients and their families. He will recognize that he also has a professional responsibility to the community."

The technical task is therefore early diagnosis, prevention where possible, and then a great variety of responses. The essential qualities are accessibility and continuity. Sir Theodore Fox (1962) was right when he rated continuity as the most important prerequisite for personal care. To say that continuity is also one of the few things that distinguishes the general practitioner from all other doctors is not to deny all possibility of personal care to specialists, but it does confirm the obvious fact that it is more difficult for the specialist to be personal, just as it is more difficult for the general practitioner to be technical.

The unique quality of the general practitioner in clinical work is the breadth of his approach. He cannot say: "This is not my business". He has to accept the problem, even if he may seek someone else's help in trying to solve it. In the 1950s this quality was regarded as impossible and even undesirable. Even today, it must be very difficult for anyone who specializes to believe that the generalist has a valid role which can be done well. The specialist finds it hard enough to keep up with his own literature and new techniques. How can anyone whose field overlaps with that of most specialties do a good job and remain up to date? The case for the generalist depends on the facts that common diseases occur commonly and allow him a core of skill; that there has been a shift in morbidity away from acute diseases to recurrent and chronic ones seldom requiring hospital admission; that many patients have multiple problems which cut across the bounds of different specialties, especially those between medicine and psychiatry; that the generalist is willing to recognize the borders of his own competence—he can only exist today because the specialist is also there. Above all, the case rests on the obvious fact that people are whole units who go wrong as a whole and do not take kindly to being divided into organ systems. As one patient of mine put it, "It's not any of my parts that have gone wrong, doctor, but what holds me together". In addition, as Lord Snow (1967) has emphasized, the general practitioner has a pastoral function as one of the few fixtures in a fragmenting and changing society. It is a fact of observation that in countries where the general practitioner does not exist someone else has to mimic his role.

The new relationship

A new relationship is emerging between two sorts of doctors with different and complementary functions, but on the same level. This is a stage in a long historical process. Stevens (1966), when writing of the referral system which gradually grew up from the end of the last century, put it concisely: "The physician and surgeon

retained the hospital, but the general practitioner retained the patient". Her statement is useful, even if it oversimplifies, because it shows succinctly the base of power from which both groups operate.

This suggests separate worlds. Recently there has been truth in this. General practitioners have been rebuilding their world and rediscovering its fascination. Some doctors find people more interesting than physiology or pathology; people are more interesting in their natural setting. Common diseases can be as interesting as rare ones.

Recreating personal medicine outside hospital means creating new centres of excellence, where high quality care is given in the way people need and want, where the young are taught, and where research is done. General practitioners are no longer prepared to concede that, to attain excellence, they must work part-time in hospital or become specialists or hospital doctors. The idea that most of them really want to become hospital-based general physicians is not acceptable.

To realize this new relationship, there are three essential conditions that must be fulfilled:

1. Specialists and general practitioners must have clearly defined and distinct functions.
2. Each group must earn the respect of the other for the quality of the work that is done by it.
3. Members of the two groups must meet.

1. Distinct functions

The work of an obstetrician, a chest surgeon, or a radiologist is very obviously different from that of a general practitioner; the specialist and the generalist clearly complement each other in their roles. The generalist will consult the specialist on limited issues, the specialist will rely on the generalist to watch the rest of the patient's problems.

The situation becomes much less clear if the work of the general physician in hospital is compared with that of the general practitioner. There are few truly general physicians left. It would be more realistic to talk of the general physician with a special interest, since this is much more common. Between this doctor and the general practitioner there is a much greater overlap. Lord Rosenheim used to say that he was really a general practitioner working in hospital. In some of his work, for colleagues and their families, that was indeed true, but in the rest of his work there were subtle differences which made me disagree. First, he was seeing a different range of problems from those I saw, as Professor Keith Hodgkin (1973) has demonstrated. Secondly, most of his patients were referred for problems that had already been sorted out by another doctor. Thirdly, he always had two patients, the usual one plus a general practitioner or, in hospital, his houseman, so that, like other consultants, he was in a triangular situation; this gave him a different and more complicated audience.

Nevertheless, in taking Lord Rosenheim as an example, I make things particularly difficult for my own argument, because he possessed the basic doctorly qualities in the highest possible measure.

2. Mutual respect for quality

This is the second condition on which a new relationship depends.

Stein and Susser (1964), in a paper on failures of medical care, suggest that the characteristic failures of hospital practice are in personal care, of general practice in technical competence. As a generalization, this fits my experience.

Hospital failures arise from the attitude which tries to turn patients into facts, theories, and nothing more; from excessive investigation and treatment; from the inevitable results of shared responsibility in a large team in which nobody is ideally qualified to look after the patient's thoughts and feelings, and responsibility easily slips between two members.

General-practice failures have mainly been in clinical method, through inadequate history-taking and absence of examination and investigation; but there are also failures in caring. We hear too often that the doctor is too busy to listen or talk or explain. We begin now to see failures in accessibility and continuity: appointment systems can be barriers, replacing the fee that kept poor people away 50 years ago; arrangements for night and weekend relief diminish continuity; group practice contains strong pressures that lead the patient into the wrong doctor's consulting room. We might all remember Bernard Shaw's comment that all professions are a conspiracy against the laity.

There is little objective evidence about quality in primary care or in general practice. One of the few straws to catch hold of is in the work of Peterson and his colleagues (1956) who showed a relationship between quality in the consultation as they defined it and the number of internships done, notably those in general medicine. It is not surprising that the Royal College of General Practitioners has put its major effort into education, although it has many other activities of comparable importance.

The development of three years of vocational training, now accepted by Parliament in the NHS (Vocational Training) Act 1976 as an obligation for all future general practitioners, has been a major effort in the last 25 years. It was Lord Cohen and a committee of the British Medical Association (1950) who first proposed this, but the Royal College of General Practitioners has been the main force in promoting this change since 1964, with the help of other bodies (College of General Practitioners, 1965).

We now have enough training practices and practically enough hospital posts, provided that specialists do not retain their senior house officers for more than six months. The content of training falls into these areas of knowledge: health and diseases; human development; human behaviour; medicine and society; and practice organization (RCGP, 1974).

A recent study by Byrne and Freeman (1976) proves

that training schemes do produce the hoped for change in direction, particularly in attitudes, but also in knowledge and skills.

It has been immensely encouraging to see the quality of the young men and women who have been entering general practice recently, after three years' training taken at financial disadvantage. This has justified the initial act of faith that increasing the challenge at entry would be more likely to encourage than discourage young doctors. It is through this training that we can hope for the most fundamental change towards higher quality in general practice in the future.

The Royal College of General Practitioners' examination is not meant to resemble the Royal Colleges of Physicians' famous endurance test. It took half the life of the College of General Practitioners to decide to have an examination at all. Now it is virtually the only way to become a member. It is voluntary and will not become obligatory like the three years' training. Starting in 1968 with 30 candidates, it had 430 in one half-yearly sitting in 1976; some had to be turned away. It tests a minimal level of competence. The Royal College of General Practitioners was a light shining in darkness when it started in the 1950s and today it is the most important single influence for raising quality in general practice.

A new relationship with specialists depends on mutual respect. On the general practitioners' side there is still a great deal to do. Only one third of general practitioners are fellows, members, or associates of our College. There is still a tiny minority of general practitioners who do not have a couch or wash-basin, and keep their case-notes under the stairs in a covering of dust. They represent the medical slum of general practice and, along with the other failures listed, they raise the question: "What actions are going to be taken by whom to determine minimal standards and to maintain them?" The quality of general practice is much more widely variable than that of hospital practice, but the aim of high quality, low technology medicine is valid and is seriously pursued. One measure of success is the recent change in choice of career made by young doctors about the time of qualification.

3. Meeting

If a new relationship depends on distinct functions and mutual respect for good work, it also depends on meeting each other. Bad relationships thrive on isolation.

It is crucial that general practitioners meet the hospital world and the specialists who work in it. Without this, general practitioners are cut off from vital sources of new knowledge and the specialist from the world of the well, to use Sir Geoffrey Vickers's term (1958). The contexts in which the two can meet can be the specialists' ground, the general practitioners' ground, or neutral ground.

General practitioners should have direct access to laboratories and x-ray departments, including contrast media. There can be no justification for denying these to doctors who were trained to use them nor for giving them second place when resources are short. In referral, the general practitioner should write good letters about the patient's background, about what he has been told and about the precise question asked of the specialist. The specialist should send a report to the general practitioner even before the patient is discharged, not forgetting what he has been told.

However, in neither of these instances do general practitioners and specialists actually meet. In a study in south-east England, Long and Atkins (1974) found that in a four-week period half the general practitioners studied had had neither formal nor informal meetings with any specialist.

To what extent in fact do general practitioners work in hospital? We must distinguish clinical responsibility from education. How many general practitioners are able to look after their own patients in hospital beds? Published figures vary from 20 per cent to 39 per cent, and the actual variations must be even greater, especially between big cities and rural districts (Warren, 1962; Wessex Regional Hospital Board, 1964; DHSS, 1971; RCGP, 1971). Israel and Draper (1971) showed that the only increase in general-practitioner beds between 1955 and 1970 has been for obstetrics. The literature suggests a much more important and promising role in community hospitals than in district general hospitals at present. In the latter, bed occupancy in general-practitioner beds has been 70 per cent at the highest, more often considerably lower.

How many general practitioners hold clinical assistantships? Published figures vary between 13 per cent and 23 per cent. How much do general practitioners *want* to work in hospital? Published papers give an average of 75 per cent for hospital beds and a slightly lower figure for clinical assistantships, but my own impression is that when it comes to making firm proposals and plans, the figure drops; in the cities it drops so much that plans have sometimes been abandoned. It may now be unwise to assume that general practitioners will rush in where foreign doctors have ceased to tread.

There is no doubt that many inpatients in any hospital could be looked after by their general practitioners; they are there because they cannot be nursed at home. Loudon's figure of one third (1970) is often quoted. But from the point of view of general practice, it has never been proved that doing hospital work improves quality and it can be argued that the time so spent is time lost for the main task and used uneconomically. This argument, to my mind, does not apply to rural areas and small towns with community hospitals, but it may apply in big cities. In the meantime, a paper by Polliack and Shavitt (1976), from Israel, points in the opposite direction. They showed how they halved their national rate for hospital admissions from their practice by the use of their general practitioner/nurse/social worker team.

Is there not a more fundamental task for the general practitioner in a hospital—simply to visit any patient that is admitted? It has been suggested to me that one of the weakest areas in our service at present is in continuity and personal care during and after hospital episodes. To quote Lady Wootton (1969): "To the seriously ill patient entering hospital, one of the most devastating experiences is the loss of contact with the general practitioner, who alone has watched over every phase of his previous illness and been the recipient of his confidences". Cartwright (1964) found that only seven per cent of patients in hospital beds all over the UK were being visited by their general practitioners (apart from the six per cent directly looked after by them). I believe that general practitioners have given this too low a priority in the working day and that the hospital episode is for most patients a crisis from which the general practitioner should not be absent.

What about the specialist on the general practitioners' ground? The community hospital is now an important and promising context for meeting, about which I have too little personal experience to comment. True consultation has always been ideal in the domiciliary visit. The number of such visits has increased, but they are too often done separately. A number of group practices, including mine, now have the experience of specialists coming regularly to work in their premises. Our experience in a large health centre suggests that, when the clinical and educational values are combined, this is a good use of specialist time, but careful organization is needed for success.

Conclusion

My argument has been that specialists and generalists in medicine have functions that are becoming increasingly distinct, and that the two roles are complementary. In principle, specialists know more about a smaller segment of medicine, generalists know less about a larger segment.

The success of our future relationship depends not only on having distinct functions but also on the mutual respect which comes from recognizing that both doctors are striving for the highest quality they can achieve within inevitable constraints, and also on meeting face to face as often as possible.

In stressing some of the ways in which general practitioners have been striving to develop their world, I have risked the impression of advocating separatism. I accept this charge only in so far as we have had to look inwards to put our own house in order.

We are only too well aware that we could not possibly cope without the specialist in the hospital. We need to be informed, to be advised, and to share responsibility for patients with problems that we cannot understand or solve; in fact we need consultants. In a comparable way, consultants depend on general practitioners to protect their beds, their outpatient clinics, and their casualty departments from being overwhelmed, and for seeing that they are presented with patients to whom their special knowledge and skills can most valuably be applied. Because they do not see the rest, it may be more difficult for them to appreciate what they owe to general practitioners than for general practitioners to realize what they owe to consultants. In future, preventive work by general practitioners may have a profound effect on consultants; consider only what will happen if all the hypertensives in the community are identified and treated by general practitioners.

Consultants and general practitioners are together facing a bottomless pit of human need and both lack enough resources. This situation is unlikely to change in our lifetime, but we are fortunate in the referral system which is so firmly entrenched in this country. It removes many causes for rivalry between specialists and generalists that are only too obvious in other countries.

We all belong to the great world of medicine. The distinction between 'hospital' and 'community' is essentially false; the hospital is and must be part of the community. In the last analysis, patients look to all of us for the same two things, technical competence and personal care. I believe that, at present, we have more cause to be concerned about the supply of personal care than technical competence, whether in hospital or general practice. It is in this respect that we should all be looking at ourselves most critically.

Individual behaviour is not the same as group behaviour and I believe that the relationship which has developed between the officers of the Royal College of Physicians and the Royal College of General Practitioners exemplifies the answer to most of the problems which can arise between the specialist and the generalist parts of our one profession. When two people get to know each other face to face, group attitudes recede. We all know that when consultants and general practitioners see a patient together, history and politics count for nothing. Each gains from the other, and the patient gains most of all. Essentially, it is as simple as that.

References

British Medical Association (1950). *General practice and the Training of The General Practitioner.* London: British Medical Association.

Byrne, P. S. & Freeman, J. (1976). *The Assessment of Vocational Training in General Practice. Reports from general practice No. 17.* London: *Journal of the Royal College of General Practitioners.*

Cartwright, A. (1964). *Human Relations and Hospital Care.* London: Routledge & Kegan Paul.

Clarke, Sir Cyril (1976). *Journal of the Royal College of General Practitioners,* **26**, 520-521.

College of General Practitioners (1965). *Reports from General Practice No. 1. Special Vocational Training for General Practice.* London: *Journal of the College of General Practitioners.*

Department of Health and Social Security (1971). *The Organization of Group Practice.* A report of a subcommittee of the Standing Medical Advisory Committee. London: HMSO.

Fox, T. F. (1962). *Bulletin of the New York Academy of Medicine,* **38**, 527.

Hodgkin, K. (1973). *Towards Earlier Diagnosis.* 3rd edition. Edinburgh & London: Churchill Livingstone.

Israel, S. & Draper, P. (1971). *British Medical Journal,* **1**, 452.

Leeuwenhorst Working Party (1977). *Journal of the Royal College of General Practitioners,* **27**, 117.
Long, A. & Atkins, J. B. (1974). *British Medical Journal,* **4**, 456.
Loudon, I. S. L. (1970). *The Demand for Hospital Care.* Oxford: United Oxford Hospitals.
Moran, Lord (1960). *Evidence to Royal Commission on Doctors' and Dentists' Remuneration.* London: HMSO.
Peterson, O. L., Andrews, L. P., Spain, R. S. & Greenberg, B. G. (1956). *Journal of Medical Education,* **31** (12), part 2.
Polliack, M. R. & Shavitt, N. (1976). *Journal of the Royal College of General Practitioners,* **26**, 420.
Querido, A. (1963). *The Efficiency of Medical Care.* Leiden: H. E. Stenfert Kroese, N.V.
Royal College of General Practitioners (1971). *Journal of the Royal College of General Practitioners,* **21**, suppl. no. 1.
Royal College of General Practitioners (1974). *The Future General Practitioner—Learning and Teaching.* London: *British Medical Journal.*
Snow, C. P. (1967). *Proceedings of the Royal Society of Medicine,* **60**, 153.
Stein, Z. & Susser, M. (1964) *Medical Care,* **2**, 162.
Stevens, R. (1966). *Medical Practice in Modern England.* Newhaven & London: Yale University Press.
Vickers, G. (1958). *Lancet,* **i**, 599.
Warren, M. D. (1962). *Lancet,* **ii**, 601.
Wessex Regional Hospital Board (1964). *What Do They Really Want?* A report on a questionnaire addressed to general practitioners in the Wessex Region.
Wootton, B. (1969). *Journal of the Royal College of General Practitioners,* **17**, suppl. no. 1, 15.

Acknowledgement

I wish to thank all who have helped me directly or indirectly with the preparation of this article. They are too numerous to name.

Antibody responses to influenza vaccine

Antibody responses to subunit influenza vaccine prepared against A2/England/42/72 (H3N2) were studied in 69 volunteers aged 60 and over, and 231 people aged 59 and below, over a period of 12 months in 1973 and 1974. After two doses of vaccine seroconversion frequencies and geometric mean haemagglutination inhibition (HI) titres were higher in the elderly, but no differences were observed between the two groups in the length of their responses. Sixteen (23 per cent) of the elderly volunteers seroconverted only after receiving a second dose of vaccine or seroconverted twice after receiving both doses of vaccine. It was considered justifiable, therefore, to recommend the continuation of a two-dose schedule for patients in a high risk category. Within 30 weeks of vaccination 87 (29 per cent) volunteers had considerably reduced HI titres (<48), which might indicate potential susceptibility to influenza during an epidemic, and the number had risen to 132 (44 per cent) by 50 weeks. It was suggested that high risk patients should receive annual vaccination two to four months before the possible epidemic period.

Reference

MacKenzie, J. S. (1977). *British Medical Journal,* **1**, 200-202.