The role of the hospital in teaching general practice in Holland*

J. C. van ES, HON. FRCGP
Professor in General Practice at the University of Utrecht, Holland

IT is a great honour for me to be invited to give a lecture at the annual meeting of the North-East London Faculty and I am particularly glad to have an opportunity of discussing some of the aspects of general practice which I find worrying. It is not difficult to compare the British with the Dutch general practitioner. We are very similar, but we differ enough to act as a mirror for each other.

My theme is the relationship between specialist medicine and general practice and I shall draw on my own experience as a general practitioner, and as a teacher at undergraduate and postgraduate level.

The development of general practice in Holland

When we look at the development of general practice it is all too easy to feel satisfied. The creation of a College of General Practitioners in Holland 22 years ago was the matrix for the development of ideas and plans for teaching, vocational training, continuing education, and research. Morale was raised and we were motivated to undertake research and increasingly to negotiate with government and university. It is easy to write an epic now about the results: a chair in general practice in Utrecht in 1967, subsequent chairs and undergraduate teaching in all the universities, and compulsory vocational training for all future general practitioners.

In 1971 a new medical school in Maastricht started with the appointment of six new professors, including a general practitioner. Viewed as a process this is satisfactory, but looking at it as part of the general practice in a wider context, I do not feel so optimistic.

As a general practitioner I feel that the content of my work has changed greatly during the last 25 years. In some ways I can do more, because I have more diagnostic facilities: pathology, radiology, and even electrocardiography and electroencephalography. I have better and more efficient drugs at my disposal. On the other hand, I can do less: I find in my daily work that increasingly I have to refer patients with problems I tried to solve myself in the past. This is partly a result of the development of medicine and medical techniques and partly a result of patients' expectations about the role of general practitioners and specialists and also the expectations of doctors themselves. This situation is also due to the system of remuneration: the specialist receives a fee for service and the general practitioner a capitation fee for the treatment of 70 per cent of his patients.

Another important factor is that every specialist trainee becomes a specialist within four to six years and then has the right, and in most cases the opportunity, to become a consultant. Furthermore, the existence of so many specialists has a decisive influence on the division of work between them and the general practitioners. This growing supremacy of hospital medicine has been discussed for many years not only by the profession but especially by the Government. The ministry has decided that the scales must tip in favour of primary care. However, the problem is that the Government has no effective means of promoting this development and only during the last few years has it tried to create them. Generally speaking, the philosophy for many years was to leave development to private enterprise, whereby population groups organized such services as health care programmes, sick funds, hospitals, and organizations for the disabled. The Government's role was to keep only marginal control and to give grants. In the last few years it has tried to design laws and procedures to guarantee a more coherent system.

There are also other forces which try to turn the tide of hospital-orientated medicine: self-help movements and patients' organizations which, although they may be weak at present, may be important in changing attitudes towards medicine.

The Dutch general practitioner

The Dutch general practitioner has about 2,900 patients on his list, two thirds of whom are members of a sick fund (paid for with a capitation fee) and one third of

This lecture was delivered to the North-East London Faculty of the Royal College of General Practitioners on 3 July 1979 at St Bartholomew's Hospital, London.

whom are privately insured (paid for with a fee for service). He is paid well, his gross income being about £40,000 a year, giving a net income of about £800 to £1,000 a month. He reaches this point after 10 years in practice, but before that time he has very high expenses, because in most cases he has to buy a practice. Ninety per cent of all general practitioners have their practices in their own houses but they all co-operate in some way with other general practitioners for holidays, weekends, and night duties. In large towns some use deputies but this is criticized. There is a very slow increase of group practices and health centres since the system of remuneration does not promote these rather expensive organizations. Fewer than 10 per cent of all general practitioners work in them. The general practitioner does not work in hospital: if a patient needs hospital care, he has to refer the patient to a specialist.

Besides hospital treatment, all specialists offer outpatient care. The general practitioner refers about 15 per cent of all patients with problems to the specialist, which I think is too many. The Government would like to shift the emphasis from secondary to primary care, but is unable to put this into effect through lack of steering mechanisms. As in England, the morbidity pattern has changed greatly, and in consequence so has the content of the work of the general practitioner. Generally speaking, his work is less surgical and more medical and psychiatric.

All general practitioners in Holland have very good laboratory and pathology facilities, as have specialists, and most general practitioners have x-ray facilities. Although the changing morbidity pattern has influenced the work, social changes, a raised standard of living, and increased educational levels have created other expectations amongst patients. These changes, and the nature of the problems create the need to give more attention to the behavioural aspects of medicine. Many doctors feel their shortcomings in this and thus there is a great interest in continuing education in psychological, behavioural, and especially interactional subjects. Sometimes there are critical discussions between general practitioners about whether they should develop more in the direction of psychologists or as internists.

In the past, the general practitioner worked very hard, between 10 and 14 hours a day. Nowadays, he still works hard but he is able to spend more time on continuing education and holidays. He feels dissatisfied because he lacks a job description which is accepted by everybody. This causes a discrepancy in role expectation and role performance. Thus the general practitioner is not a man with a well defined job. There are great differences between general practitioners in Holland. For example, in the past all general practitioners did obstetrics, but during the last 10 years an increasing number have not wanted to do it, mainly because they do not like the irregular hours involved.

This is the background against which I want to discuss our problems.

Some problems of general practice

First, I will describe the influence of hospital teaching and its relationship to vocational training. Secondly, I will discuss problems of hospital teaching in undergraduate training and thirdly, the contribution of general practice in this training with some remarks on specific features of general practice.

1. Vocational training

In Holland vocational training is strongly related to departments of general practice, which are responsible for educational programmes. There is also a national board, with representatives from the universities and professional bodies, which decides about the general outline of vocational training. When we started in 1968 with a provisional mixed working group to prepare a general outline for vocational training, it was accepted by all members, general practitioners and specialists alike, that the main part of the training had to take place in hospital. This was traditional in undergraduate training and there was no fundamental disagreement at that time. In our hearts we general practitioner participants had some reservations about this, but we were so familiar with the idea that we did not rebel against it. We were in fact pleased that we had succeeded in introducing six months' training in general practice in the programme with six months' hospital training. Today we all agree that one year's total vocational training is not enough, but we settled for six months because it made possible the introduction of compulsory vocational training instead of a longer training on an elective basis.

There were three reasons for this:

1. We did not want to create two types of general practitioner.
2. We did not have enough training posts at our disposal.
3. Reallocation at the undergraduate stage created a curriculum of six instead of seven years and as a result the chance to create a training period of one year.

In this way we started vocational training in Utrecht in 1971. Now we were confronted with problems of hospital training. We intended to adapt hospital training as far as possible to the needs and demands of general practice and for that reason we chose a sequence in which the trainee started with a two-week theoretical course, followed immediately by a training period in general practice, and then six months in hospital. The intention was that the trainee should experience and realize shortcomings in his knowledge and skills, which could be supplied during the hospital period.

One of the objectives of the weekly day-release course was to help the trainee with this process of becoming conscious of shortcomings. These days are held in our Department of General Practice in small groups under

the guidance of a general practitioner trainer and a psychologist. We consider these meetings, which have many other objectives, to play an important part in the vocational training programme. In practice we have not been able to realize this concept.

Other problems were as follows:

1. Our Department had contracts with a limited number of general hospitals, the smaller ones; the larger ones were involved in training specialists. It seemed it was impossible to mix both activities.

These hospitals wanted continuity in the fulfilment of the training posts, and we could not guarantee this, because of the wishes of the trainees to fulfil certain training posts.

2. If we did succeed in matching the needs of the hospital and the needs of the trainee, it then proved to be impossible to realize those aspects of training which we, as well as the trainees, considered important for their future work as general practitioners. It was impossible to fulfil these aspects in the day-to-day work of a hospital ward. Moreover, the hospitals did not like the absence of the trainees for a day a week to attend the release course.

This situation created strong opposition in the trainees against the hospital training programme and I now think there is indeed a fundamental incompatibility between the educational objectives of a general practitioner trainee and the needs of a hospital ward. This does not mean that hospital experience is without value for the general practitioner. On the contrary: it can help the general practitioner to understand the work of the specialist. This should improve interprofessional co-operation in the future, just as training in general practice is important for future specialists.

Hospital training is also valuable as a means of obtaining certain skills, such as skill in emergency care. Furthermore, hospital wards and outpatient clinics offer a concentration of some diseases which makes it possible to learn about them more easily.

Hospital training can be used in a really effective way only when the following conditions are fulfilled:

1. Educational objectives for the hospital training are agreed;
2. The hospital creates conditions in which the objectives can be realized;
3. Training in hospital has links with general practice.

The main point is that we general practitioners can decide what kind of training we want to receive, and no longer have to adapt to the need for help by the hospitals.

We could not realize this ambition and so we cancelled the hospital period. Contributing to this decision was our experience that the six-month training period in general practice was too short. We wanted to use the time previously given to hospital work to extend the period in general practice to one year. Only the universities of Utrecht and Nijmegen took this decision. The other departments of general practice kept hospital training as part of their vocational training. Now we are discussing in Utrecht how we can prolong the one-year vocational training period and include specific clinical experience in hospitals. Perhaps we will grow slowly towards a two-year programme, based upon real needs and educational objectives. I believe that this is essential if we want to promote high quality in primary care. In a way we have introduced this on a small scale since we cancelled the hospital period.

The trainee now has to undertake an additional programme. One of the electives is to attend one or more outpatient departments on 40 half-days in the specialties in which the trainee feels he has the greatest shortcomings. For this we do not use contracted or affiliated hospitals: the trainee tries to find a voluntary training post close to his training practice. In this way he can combine his work in general practice with his work in the outpatient department.

Our conclusion is that hospital training by specialists is valuable only when this is adapted to the educational goals of vocational training. This means that we have to define these goals in detail. Our department has prepared an extensive report with detailed educational objectives. We asked all departments of the medical schools, professional bodies, and other departments of general practice to give their comments. This year we hope to write a final version and hope that as a result we will begin to make better use of vocational training.

2. *Undergraduate teaching*

The second problem related to hospital training concerns the clinical teaching of undergraduates. Our students do full-time clinical work during the last two years of the undergraduate programme, that is, in the fifth and sixth years of their study. In the fifth year they rotate in the university hospital and in the sixth year they rotate again, bearing more responsibility but in a general hospital affiliated with the university.

The main goal of vocational training is to teach trainees how to solve problems in the specific setting of general practice and during their training. We have to reshuffle the use they have made of knowledge and skills acquired during their hospital training period. It seems that hospital experience does not suit the work of general practitioners without this conversion. Even the attitudes of the students have to change. One of the reasons is that general practice is not only a way to solve problems in a specific situation, but also a way of thinking. I will say more about the specificity of general practice later.

Indoctrination in hospital attitudes.

Throughout the first four years students have no direct contact with patients except in the third year, during a

'preceptorship' in general practice. Over these four years we get to know many of them quite well in the Department of General Practice. Their attitudes are suitable for general practice: they are by nature comprehensive in their thinking. However, after the clinical period in the fifth and sixth years of their study, many of them change completely. They are no longer aware of the social context of the patient. They have adapted to a disease-centred way of thinking and acting.

This, of course, has a profound and fundamental influence on the students: hospital work has all the characteristics of an innovative process which is very impressive for the young doctor. In this period he becomes a real member of the clan. One can even detect signs of brainwashing procedures: a man is exposed to very stressful situations, he is exhausted by much work and long hours, he receives much disparagement and, unexpectedly, sometimes appreciation. Under these conditions new values are internalized, a new way of thinking is introduced, and professional behaviour is established. Some students feel the threat of this indoctrination and try to resist, sometimes by critical discussions in spontaneously started groups, sometimes by rebellion or even by breaking off their studies. Yet, even for critical students, it seems very difficult to resist undesired changes.

During this period the student is training in diagnostic and therapeutic procedures which are different from those used in general practice. Of course many details are valuable for the future general practitioner, but priorities differ greatly. Bureaucratic procedures are developed to disclose abnormal processes in the body of a hospital patient. Medical technology plays a major role. The hospital procedure ends after discovery and treatment of a disease, or after exclusion of such a process. This differs greatly from the objectives of the general practitioner. However, the training process in hospital takes place under impressive circumstances which promote deeply rooted professional behaviour. To compensate for this during vocational training is a very difficult business. The process of professionalization in one direction which then has to be changed during vocational training, is very inefficient.

University hospitals and affiliated general hospitals

Furthermore, there are differences between university hospitals and affiliated general hospitals. The university hospital has to combine diverse objectives, its main task being to develop and provide advanced medical care. The result is that the hospital patient population is very highly selected. To give one example: 60 per cent of the beds for internal medicine in the university hospital in Utrecht are occupied by patients with malignant diseases. Many of the professors and their senior staff are involved in research and, consequently, the training of future specialists, yet they have to combine this with the first clinical training of young students. This is practicable, but the problem is that the first patient contact the student has is usually with a highly selected case. Thus it is not possible to build up a range of experience from the less pathological to the very pathological case. To compensate for this, the faculty tries to introduce teaching with simulated patients. I believe that a general hospital with a more 'normal' population, closer to general practice, offers better opportunities for teaching young students.

On the other hand, these hospitals are less involved in teaching than the university hospitals. This dilemma can be solved only by a closer co-operation between the two kinds of hospital, by temporary exchange of staff members, and by the design of an elaborate, comprehensive, and shared teaching programme. This is important for the knowledge, skills, and attitudes of the future general practitioner and the future specialist.

3. General practice in the future

On reflection I am still happy with the development of general practice as a discipline, which is accepted in university and community, but am unhappy that we have not fundamentally changed general practice itself nor its training and education. We have only added something to existing structures and contents. This is clearly expressed in the statement by the Leeuwenhorst Working Party appointed by the Second European Conference on the Teaching of General Practice (1978), of which John Horder and I are members. We said that the contribution of general practitioners to undergraduate education should be obligatory for several reasons:

1. To understand the way in which most of the population receive medical care.
2. To see medicine in its most integrated form and thus to see the patient as a person.
3. To know the work of the general practitioner.

Central position of the general practitioner

This is important but does not contribute to a real change. I want now to outline how I think things ought to be, even if this seems to be megalomanic. In my opinion the general practitioner has to become the centre point of the treatment of his patients. The specialist has to be in the position that he is, as it were, the consultant and technical extension of the general practitioner. To quote the Royal Commission on Medical Education (1968): "If in the future we can have a more equitable distribution of general practitioners with good back-up facilities and possibly an increase in their total number, we shall be able to do with fewer consultant physicians, and many fewer geriatricians and psychiatrists." If this were to come about we should achieve a better equilibrium in the health and disease behaviour of the population. Then specialist medicine could be reserved for those who really need it.

We must avoid the situation which now exists in the outpatient department for internal medicine in the university hospital in Utrecht, where between 60 and 80 per cent of all patients have functional complaints and many patients have a complicated history, caused by multiple referrals, frequent stays in hospital, and inadequate help from their general practitioner. I fear this is true of many hospitals.

When we give the general practitioner more opportunities to help patients, and when his knowledge and skills are greater, he can help patients to limit their sick role, prevent a long-lasting stay in the medical field, and to substitute normality for pathology. This can be realized only if the specialist supports the general practitioner in this approach. Even though their professional work differs in methodology, it is essential that their norms, values, and objectives are the same. All this has to be reflected in the curriculum. This should start with knowledge of normal human functioning, based upon the needs and demands of the population. We therefore need to start medical training in the extramural field and build on to this experience hospital-based knowledge and skills. Thus we go from the general to the specific. This is a good educational method which would help to make medicine more comprehensive and balanced.

However, this day-dream cannot be fulfilled all at once. I see two main problems. First, there is not yet a tradition of teaching in general practice as there is in hospital medicine. We have to develop and to train general practitioner teachers on a large scale. We have made only a small start. We shall never achieve a body of highly trained and qualified teachers in general practice if we do not solve the problem which I now want to discuss. If the essence of general practice is to be open for teaching, we need research at the very core of general practice.

A new paradigm for general practice

In my opinion the existing research methods of specialist clinical medicine and epidemiology can only partly contribute to this. What we need is a new approach concentrating on a new focus which is closer a) to the essentials of our work and b) to finding new methods. What will be its characteristics?

Is it possible to develop research in a new direction? To find an answer we can refer to Kuhn's (1970) concept of the paradigm. A paradigm is a set of common, theoretical premises and assumptions on which a scientific discipline is based. It exists in most cases for a long time, accepted without fundamental discussion. In most cases research workers are unaware of the paradigm which forms the base for their scientific theory and research. It is an angle of vision which allows the scientist to do relevant research within its boundaries.

For medicine the paradigm is disease as a process in increasingly smaller parts of the body: cells, parts of the cell in cell-biology, immunology, and so on.

Medicine has been drifting in this direction for many years and this is why specialized medicine is increasingly unsuitable for the solving of problems in general practice. One is confronted with patients with functional and psychosomatic, chronic and degenerative diseases, with patients with relationship and psychosocial problems, with patients who are dying. Sophisticated, specialized medicine is only a marginal help. If an increasing number of problems cannot or can no longer be solved with the existing scientific system, the need for a new paradigm is obvious. This has happened in the past with all sciences, more recently in the social sciences, and now in general practice.

Kuhn's view is that if an existing paradigm does not contribute to the solving of existing problems, a jump can be made to a new one. By choosing another angle of vision, the interrelation of facts will change, new relationships will become clear, and new explanations of certain phenomena can be discovered. We will know why things are like that or how things work. Kuhn emphasizes that a new paradigm can result when the old one is insufficient. The new paradigm does not grow out of the old one, but is the result of a revolution (Stevens, 1974).

It is like looking at the kind of picture which is used in Gestalt psychology: in this picture you can see either a duck or a rabbit but never both at the same time. The same sort of jump has to be made before the new scientific matrix can be developed further and relevant research can be done.

General practice is waiting for a new paradigm and the inspiration and the opportunity to find it lies in general practice itself. Does this mean that we have to jump into the dark? I do not think so; we are already able to define some aspects, some characteristics of the angle of vision we have to choose.

In my view there are at least three paradigms, and a major one linking the three together. Before describing them I want to emphasize that there is a distinction between general practice as a discipline and as a profession. Research along the lines of paradigms is a disciplinary task. The results can be valuable, not only for the profession of general practice, but also for other professions in specialist medicine.

1. Life history medicine. The first paradigm occurs when somebody asks my help as a general practitioner and I am aware that his complaint or illness does not concern the whole of his life, but is in most cases a temporary event. This means that I, as a general practitioner, experience the patient's life history in relation to medical facts.

I see that his complaints of today depend on his previous life experiences. These can create the conditions for later distress and disease, while life events can evolve disease as well. This relationship I can understand with the concept of stress. This expresses a disproportion between demands somebody experiences

and his response capability. The concept of stress can also clarify why a patient comes at a particular moment with this complaint. This depends partly on key events and the specific meaning of these events for the patient. This can create stress and one of the outcomes of stress is disease. Knowledge of the patient's life history offers the general practitioner more understanding of what happens. We can recognize this angle of vision as the paradigm of 'life history medicine'.

2. Integrated medicine. The second one occurs when I look at my patient as an integrated unit of physical, psychological, and social aspects. I understand that these three are constantly influencing each other, that physical complaints in some cases need psychological solutions, that social problems can be the result of physical distress, and so on. I know that I have to concentrate on one aspect in the complex totality of the patient later. According to Querido (1955) we can name this comprehensive way of thinking the paradigm of 'integrated medicine'.

3. Family medicine. The third one is related to the fact that the patient is a member of the primary group he lives in. In most cases this is the family. Particularly when I am the doctor of all members of the family I can perceive interactions of a different kind: they can infect each other, they live in a permanent psychological interaction. Looking at the patient as a node in the network of the family, I can understand more about his diseases and complaints. Huygen (1978) in Holland has done much work to illuminate general practice as family medicine. Thus, this angle of vision we name the paradigm of 'family medicine'.

However, the paradigms of life history medicine, integrated medicine, and family medicine do not exist outside of the interaction of the doctor with his patient. The result of the diagnostic/therapeutic process depends largely upon the interaction of patient and doctor, and on the priorities they choose. These are determined by their norms and values, their options and preoccupations, and these in turn are influenced by the sub-culture they live in. The three paradigms of general practice exist in the context of the paradigm of 'dual medicine'. The consequence of all this is that we have to develop suitable research methods for these paradigms.

Conclusion

I am aware of the megalomania of my thoughts. However, it is my conviction that we have to go in this direction, not only because it is valuable for general practice, but also for medicine as a whole. I am sure that, if we work along these lines, the medical profession as a whole can offer more to all those who need our help. Let us hope and pray that we will receive the opportunity, strength, and above all the creativity, to do this work for our patients.

References

Es, J. C. van (1978). Paradigms of general practice. *Huisarts en Wetenschap,* **21,** 451-458.

Huygen, F. J. A. (1978). *Family Medicine.* Nijmegen: Dekker and van de Vegt.

Kuhn, T. S. (1970). *The Structure of Scientific Revolutions,* 2nd edn. University of Chicago Press.

Leeuwenhorst Working Party (1978). *The Contribution of the General Practitioner to Undergraduate Medical Education.* Statement by a Working Party appointed by the Second European Conference on the Teaching of General Practice. *Journal of the Royal College of General Practitioners,* **28,** 244-250.

Querido, A. 1955. *Introduction to Comprehensive Medicine,* Leiden.

Royal Commission on Medical Education (1968). Todd Report. London: HMSO.

Stevens, J. (1974). Brief encounter. James Mackenzie Lecture 1973. *Journal of the Royal College of General Practitioners,* **24,** 5-22.

University of Utrecht, Department of General Practice (1975). *Characteristics of General Practitioners. Report on Educational Aims.* University of Utrecht.

Acknowledgement

This lecture is reproduced by permission of the Editor of the *North-East Faculty Newsletter.*

Community programme to control cardiovascular disease

A comprehensive community programme to control cardiovascular diseases (CVD) in North Karelia, Finland, was carried out between 1972 and 1977. The central immediate objective of the programme was to reduce the prevalence of smoking, the serum cholesterol concentration, and raised blood pressure values among the population of the area. The effect was evaluated by examining independent representative population samples in 1972 and 1977 in both the county of North Karelia and a matched control county. Over 10,000 subjects were studied each time, the participation rate being around 90 per cent. The decrease that occurred in the risk factors, especially in men, was in general greater in North Karelia compared with the control county. When a multiple logistic function was used for the three risk factors an overall mean net reduction of 17 per cent among men and 12 per cent among women was observed in the estimated risk for coronary heart disease in North Karelia.

This community programme effectively reduced the levels of the three main risk factors for CVD in the population, and thus mortality and morbidity from CVD should fall. This is assessed in further studies.

Reference

Puska, P., Tuomilehto, J., Salonen, J. *et al.* (1979). Changes in coronary risk factors during comprehensive five-year community programme to control cardiovascular diseases (North Karelia project). *British Medical Journal,* **2,** 1173-1178.