
PEOPLE AS PATIENTS *and* **PATIENTS AS PEOPLE**

Papers delivered at an
Office of Health Economics
Symposium held on 5 July 1988
to mark the 40th Anniversary
of the introduction of the
National Health Service.



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Office of Health Economics

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Despite much of the current discussion, Britain's National Health Service has been an outstanding success during its 40 years of existence. Its present problems stem primarily from the way in which the scope for medical care within the service has been extended so dramatically since 1948.

In spite of these problems, the NHS has achieved a great deal of what was expected of it by its architects in the 1940s. It has made medical care available to the population as a whole, regardless of the ability to pay. The present serious shortages are often for treatments which were undreamt of in the 1940s – transplants, and heart surgery, for example. Waiting lists are often for treatments which would have been impossible 40 years ago.

The OHE symposium on 5 July 1988 was therefore planned to look positively at the NHS. It re-emphasised the fact that the NHS was above all conceived to treat *individuals*. Although community initiatives for the prevention of disease continue to be of vital importance, the great majority of NHS care is for the treatment of individual patients. That is, people as human beings rather than statistics.

No one in the NHS must ever forget that the individual patient is the most important person in the system. This OHE symposium reinforced this central message as the NHS entered its fifth decade. Above all, in this context, it was about the long-term responsibilities of the NHS rather than its immediate problems.

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Chairman's introductory comments

JOHN BUTTERFIELD

I was immensely honoured, ladies and gentlemen, when George Teeling Smith invited me to take the Chair today. Now that I've seen the list of who is here, I am even more honoured and I welcome you all.

May I begin by paying homage to the Office of Health Economics. I have brought with me the OHE Compendium of Health Statistics and if there is any dispute about numbers I shall refer to it! It is an important Compendium that has seen me through a number of difficult questions both in the distant past and more recently in these days of NHS reviews.

It is almost impossible to know how to begin a birthday party like this one. I should remind you that our great National Health Service was conceived more than 40 years ago. The gestation period between the publication of the Beveridge Report and the implementation of its proposals was a long one.

The Beveridge Report had a profound influence on me personally. I was a student at Johns Hopkins at the time, and found many of its features extremely attractive. It fitted in with the spirit of this country that had stood through Dunkirk. At the time I was being trained, everyone in the UK was involved in winning the war at home, alongside the troops overseas. And everyone was included in the arrangements adumbrated in the Beveridge Report and while private practice was by no means prohibited, it was generally expected that the development of the NHS would not encourage it.

The NHS was not 'as it were' to have stratifications. This fundamental point of the state controlled system of access to medical care upset many of the young American medical students who were my peers at Johns Hopkins. I was however, confirmed in my views when I discovered through the Swiss Professor, Henry Seigrist, Librarian at The Hopkins Medical School, that there were vast tracks of the United States that were without any form of health cover and Americans are sometimes taunted by being reminded that even today there are still 38 million of their citizens without proper access to medical care. The spectrum of their medical services available privately or through insurance is therefore much wider than ours, from the highest and most modern treatments to emergency care in state institutions to having to be taken somewhere in a car or ambulance wherever you can find a charitable hospital.

The way in which the debate of the 1940's moved forward meant, inevitably, that there would be political disputes. Many of us – we were wearing uniforms of various hues at the end of the war and on into 1948 – hoped that the political issues would be kept to a minimum. The establishment of the NHS seemed to be a marvellous opportunity to express the charitable impulse of the British medical profession towards the patients in the whole nation.

We must recognise that the Health Service has been under political control from the start. As a medical student in America, I found myself in many difficulties with that concept. In the 1940's the American Medical Association was led by Dr Maurice Fishbein whom I then mistrusted. I met him later and found he was a most charming physician with an extremely straight-forward message. It was his view that the most precious moments in the practice of medicine were those that were spent with the patient usually on a one to one basis. Fishbein was prepared to draw his sword if anyone, even the receptionist, tried to interfere with that almost divine relationship. To him, it was certainly beyond the comprehension of politicians and therefore should be kept outside state intervention.

At Hopkins, I supported the Health Service openly and was branded a 'red' in the USA. It was rumoured later that

my name was even on the documents clutched by Senator McCarthy when he was speaking about subversion on the Floor of the House of Representatives in Washington. I suppose I should try now to find out whether there is any truth in that!

The Health Service got off to a great start in 1948. It is unfortunate that it stands in various difficulties now, one stemming from the inevitable political attempts to change the medical effects of the railway lines which used to carry patients down to teaching hospitals in London. RAWP has embraced the idea that consultants should be spread evenly throughout the country and this is of course, still causing pain here in the Metropolis.

We are also all aware of the problems over the administration of the Health Service from the DHSS through the Regions and Districts to hospitals and practices. There are those involved in NHS management who are so adept in passing the buck that it is clear that they must have been marvellous rugby football players in their youth! One of the examples of that buck passing arose when the Regional Health Authorities got told from above: 'we have raised the salaries of this group of workers or that, you must now find the money for the rise somewhere'. What can one possibly do? Threaten to close wards? There have been difficulties of that sort but I believe we must find improvements presently. It needs not only better management but better information and much much better communication with the people who are doing the work on the wards and in the practices.

Another difficulty has had to be faced trying to keep up with all the developments in medicine. When I was at Johns Hopkins, a young diabetic woman developed a clostridium infection of her uterus following a Caesarean Section. I told the Professor, Eastman, that we had something in England called penicillin. He was convinced and arranged for the US Air Force to bring some to us for our case. She survived, and when she left the hospital a Union Jack was attached to her wheelchair. Sadly the reputation of British medical research isn't that good these days in America.

For those who had difficulty with their medical finals could I just add that I got an A in Obstetrics at Hopkins but promptly failed the subject when I returned to Oxford. I suppose I concentrated too much on patients' diabetes and penicillin than on what was going on in the delivery ward upstairs, but it was perhaps also a preview of my career!

We are now all well aware of the real differences that have come about in the care and cure of our patients through the pharmaceutical revolutions that have taken place over the last 40 years. At the start of my medical life we were concerned with what was going on outside the cell. We are now much more concerned with what is happening on the surface of the cell and within it and recognise the activities of the myriads of nomads through our bodies – the macrophages and lymphocytes repairing and defending our bodies. There have been various important therapeutic revolutions because the pharmacologist and pharmaceutical industry has throughout the last 40 years been quick to see the potential of each new medical discovery, whether it be in neurophysiology, in membrane receptors, in immunology or anything else and today we must include these therapeutic revolutions in our birthday celebrations, anyway here. Others elsewhere are celebrating various treaties that have been struck between the consultants, the general practitioners and the Government, but we here are going to talk about the real theme of the NHS, people as patients and patients as people.

The taxpayer and the patient

GEORGE TEELING SMITH

The original title of this paper was 'the taxpayer as a patient'. However, in starting to write it that title seemed to be inappropriate. Although the taxpayer is, of course, sometimes a patient and may certainly become one in the future, the more fundamental issues arise when the taxpayer and the patient are different individuals – one paying and the other one benefitting. This basic concept of the 'wealthy well' paying for the 'poor sick' was of course implicit in the original 1946 National Health Service Act, and has remained the fundamental principle of the NHS during its first 40 years. The need to accept the finance of medical care as a community responsibility – whether publicly or privately organised – is an essential conclusion of welfare economics. Those most in need of costly medical care are almost invariably those least able to afford it at the time.

Having stated that very elementary principle, it is worth pointing out that the National Health Service in Britain has been outstandingly successful in achieving the objectives envisaged for it by Beveridge and Bevan in the 1940s. Diseases like tuberculosis, for example, have been virtually eliminated, and the commonest cause of death for male teenagers is no longer disease at all, but accidents. Even such accidental deaths are now much less frequent than they were in the 1930s, as a result of the achievements of the NHS emergency services. In turn, much of the overall success of the Health Service has been due to the outstanding record of innovation in the international pharmaceutical industry over the past 40 years, but that is another subject. The problems which now exist for the Health Service do not arise from its failures. They are the result of its success. It is now possible to do so very much more for so very many more patients, that the original achievements of the NHS have been forgotten in the light of the 'shortages' which have appeared because of its vastly extended scope. This expansion of its scope was never envisaged in 1948; but now in 1988 it is recognised that scientific progress is likely almost indefinitely to extend the potential for medical care over the next 40 years. The basic conflict between the interests of the taxpayer and of the patient is therefore likely to become more acute. This will be true even if private medical care and private insurance relieve much of the burden.

Indeed the fundamental conflict of interest is only resolved in the comparatively rare cases where the taxpayers are indeed themselves the patients. In these cases, the only problem is one which economists have rather obscurely christened 'moral hazard'. This is the principle that if a service – or, for example, a meal in a restaurant – is being paid for collectively by a large group, each individual tends to incur higher expenditures than they would have done if they were paying individually. In other words, they feel they are entitled to 'get good value for money' for the service which they are collectively financing. If they make excessive use of the service – or order a particularly expensive meal – they will add only very marginally to their own personal expenditure. If, on the other hand, they personally consume parsimoniously, they fear that they will see others benefitting more liberally at their expense. This 'moral hazard' must indeed always be a problem in a service which is completely 'free' to its users.

However, the real conflict in the NHS arises in the more general situation where the taxpayers are financing expensive care for others who are no longer able to pay taxes, such as the elderly poor. Here the healthy taxpayers – or, in private insurance, the healthy insured – want to reduce their outlay, whereas the sick consumers want the best available care regardless of its cost. This problem is so self-evident that it is scarcely worth repeating, but it is the

essential underlying factor in the discussion which is to follow.

In the market place, individuals each pay what they can afford for the goods and services which they choose. But in a collectively financed economy, services are provided regardless of the consumers' ability to pay their immediate cost. They are in principle made available at the discretion of those who are running the 'system', although in practice their availability is influenced by a very complex pattern of factors. In this situation, there is a special responsibility on behalf of the providers to ensure that their services give good value for money. They are spending the taxpayers' – or the private insurers' – contributions, and they have a responsibility to the taxpayer as well as to the patient. This is a basic principle which, forty years after the start of the NHS, pharmaceutical manufacturers have fully accepted and which doctors are now beginning to recognise. Clinical decisions must inevitably be influenced by economic factors.

This introduces another piece of economic jargon – the 'opportunity cost'. Every time a doctor makes a decision to spend time or money providing a particular treatment, he is implicitly taking a decision to forego the opportunity to use those resources for some other purpose. He is acting, whether he likes it or not, as an economist as well as a clinician.

This fact leads back immediately to the title of this symposium *People as Patients and Patients as People*. It is often assumed that an economic decision disregards human factors. That is nonsense. Economics is all about human values, and human behaviour. Money is an incidental yardstick, and certainly not the ultimate criterion for an economist. In the *Wealth of Nations* Adam Smith used the word 'wealth' in the same sense as it is used in 'commonwealth'.

Thus on the fortieth anniversary of the National Health Service, it is important to recognise that the appropriate use of NHS resources must be measured against the human outcomes which they achieve. These outcomes are not only reductions in mortality – which are obviously important – but also improvements in the quality of life and in the wealth of society as a whole. The contribution which professional economists have been making is to provide techniques for the quantitative measurement of these improvements, to set alongside more traditional measures of clinical improvements. Much recent work at the Office of Health Economics and at Brunel University has been devoted to examining ways in which patients' wellbeing can be assessed. The measured increase in wellbeing can then be set against the cost of achieving it, and – in a sense – an 'account' can be given to the taxpayers to show that their contributions have been well spent. This is a relatively new way of looking at the outcome of medical treatment, but is important because it will almost certainly show that *more* resources for medical care can be justified in human and economic terms. The present international fashion for excessive concentration on 'cost containment' will be shown to be misguided.

These new measures of the improved quality of life of patients are being used alongside more classical cost-benefit analyses, which can demonstrate the ways in which medical care pays for itself in financial terms. However, in the context of today's conference, it is the patients' wellbeing which is most important. 'Health profiles', 'health indicators' and the much maligned 'quality-adjusted-life-year' have all entered common parlance for those trying to improve the efficiency of the National Health Service. It seems likely that these pieces of economic jargon will be as familiar as the 'randomised double blind clinical trial' within a few years.

This leads on to the final point in this paper. In the 1930's

and as late as the 1960s it was invariably assumed that the doctors were the proper arbiters of the state of health of their patients. Indeed medical sociologists coined yet another piece of jargon, when they concluded that doctors alone had the right to confer the 'status sick' on invalids.

Just as the efficiency of medical care is now starting to be judged in formal ways by measuring its 'outcome', so the balance of power between doctors and their patients is shifting. It is implicit in the principle of measuring a patient's quality of life that he himself is the judge of how well he feels, and how fully he can live his life. This principle of 'whole person' medicine is now recognised by the professions.

Thus the outcome of a treatment is no longer assessed only by the doctor, but is now judged also by the patients themselves. This is not just a matter of semantics. The patient, possibly using quite different criteria, has become the judge of the success or failure of medical intervention. The patient feels entitled to criticise what he judges to be 'unsuccessful' therapy, rather than meekly accepting it. This shift in the balance of power is part of an overall trend in Western society. The individual feels that he should be the master of his own fate, with the professionals there to support him rather than to rule him.

Returning to the earlier discussion, it is this new awareness of the patient's own degree of wellbeing which economists are starting to measure. This is the criterion which is being used to judge the effectiveness with which the taxpayers money is being spent.

Pharmaceutical manufacturers and the medical profession owe it to the taxpayer to demonstrate as clearly as possible that their products and their treatments are providing good value for money in terms of making patients feel better and live longer. The economic instruments are being developed to make it possible to measure more precisely the effectiveness of treatments in this way. It is only when these instruments have been fully developed and are routinely being used that the taxpayer – or the third-party payer, whoever he is – can be satisfied that his money is being used to provide the maximum benefit for patients. On the basis of 'opportunity costs', it should then be possible to demonstrate that the NHS, and medicines in particular, are providing very good value indeed for the taxpayers in terms of the wellbeing which they are purchasing for patients.

The prescriber's viewpoint

CHARLES GEORGE

Introduction

It has been estimated that men visit their general practitioner on average 3.5 times and females 5 times annually.¹ The majority of consultations end with the issuing of a prescription, often for more than one item. As a result, nearly 400 million prescriptions are dispensed.² Prescribing is also commonplace in hospital: for example, in a previous study we³ found that patients admitted to medical wards were prescribed an average of 4.2 different medicines in a stay of 10 days and this figure is significantly less than others published from London teaching hospitals and the USA. In view of these figures it is hardly surprising that Sir William Osler observed that 'A desire to take medicine is perhaps the great feature which distinguishes man from other animals'. However, in contrast to the times in which Osler practised in North America and England, the range of medicines available on prescription has changed markedly as has their specificity. No longer is it appropriate to follow the advice proffered by Osler: 'One of the first duties of a physician is to educate the masses not to take medicine'.

The introduction of the National Health Service occurred in the early part of the so-called 'golden age of therapeutics'. Some idea of the therapeutic revolution which has occurred in the past 50 years can be gleaned from the medicines identified in Table 1, together with the year of their introduction to therapeutic practice. More impressive still are the changes in the size and nature of the formularies which span the last 40 years. When the Health Service was introduced the most recently printed formulary was that produced by the Ministry of Health entitled 'The National [War] Formulary, Third Edition' and published in 1947. This measured 16.6 × 10.5cm and ran to 84 pages (price 6d). The year after the National Health Service was introduced saw the first edition of the National Formulary which measured 17.0 × 10.5cm and had risen to 128 pages at a cost of 2/6d. The most recent edition of the British National Formulary⁴ (No 15 in the new series) measured 21.5 × 13.0cm and ran to 515 pages and was priced at £7.10.

Table 1 Dates of introduction to the UK market of some important therapeutic categories of medicine

Year	Drug	Use
1899	Aspirin	Analgesic
1918	Quinidine	Cardiac arrhythmias
1923	Insulin	Diabetes mellitus
1931	Digoxin	Positive inotropic agent Control of atrial fibrillation
1934	Heparin	Anticoagulant
1939	M & B 693	Bacterial chemotherapy
1941	Penicillin	Bacterial infections
1948	Reserpine	Hypertension
1954	Chlorpromazine	Schizophrenia
1954	Hydrocortisone cream	Eczema
1958	Chlorothiazide	Hypertension
1961	Ampicillin	Oral broad spectrum antibiotic
1961	Conovid	Oral contraceptive
1963	Fruzemide	Potent diuretic
1963	Diazepam	Anxiolytic
1963	Indomethacin	Non-steroidal anti- inflammatory agent
1965	Propranolol	Angina, hypertension
1968	Salbutamol	Asthma

Another way of illustrating the differences has been to examine the prescribing for patients under my care at the end of 1987. At the time there were 30 patients in hospital who had received a total of 55 different medicines – rather more than usual. I have performed an analysis of those medicines with actions on the gastrointestinal system, cardiovascular system, respiratory system and others which are active against infective organisms. Details of this are shown in Table 2, from which it is apparent that very few of the medicines currently in use were available in 1948 and that many of these represent highly significant advances. Further details are considered in section 2 of this paper.

Information/advice

The British National Formulary is now distributed twice yearly to doctors and pharmacists throughout the United Kingdom. Besides giving information about what is available it provides a guide to prescribing. Each section is sub-divided to consider the range of preparations available for the treatment of diseases affecting the relevant system. For example, bronchodilators, corticosteroids and substances used for prophylaxis of asthma form the first three categories under 'Drugs used in the treatment of diseases of the respiratory system'. Each has a monograph to indicate the relative advantages and disadvantages of the drugs in question. The individual agents are then described in terms of their indications, the cautions which should be observed, their side effects, dosage and the preparations available, as well as their cost. Prescribers receive other impartial information as well. Copies of *Prescribers' Journal* are distributed in alternate

Table 2 Drugs in use on a medical ward – December 1987

BNF Section			
No	System	Old	New
1	Gastro-intestinal	Magnesium trisilicate	'Gaviscon' Ranitidine* Lactulose
2	Cardio-vascular	Digoxin Glyceryl trinitrate	5 diuretics* 1 potassium sup. 2 antiarrhythmics 2 vasodilators* 2 anticoagulants 1 fibrinolytic agent*
3	Respiratory	None	Salbutamol* Terbutaline Ipratropium Beclomethasone*
5	Anti-infective	Benzyl penicillin	Flucloxacillin ¹ * Ampicillin ¹ * Pivampicillin Cefotaxime ¹ * Netilmicin ² * Erythromycin Sodium fusidate ¹ * Vancomycin ² * Co-trimoxazole Nystatin

* significant advances

1 treatments for staphylococcal sepsis

2 treatments for bacterial endocarditis

months, and the *Drug and Therapeutic Bulletin* every two weeks. Doctors also receive copies of the Data Sheet Compendium from the Association of the British Pharmaceutical Industry. Collectively, these sources of information can cope with almost all of the situations in which people present as patients. But, occasionally there is a need for the prescriber to obtain additional information: sometimes from the Medical Information Department of an individual pharmaceutical company; alternatively, from the nationwide hospital based Regional Drug Information Centres.⁵

Limited lists

Although medicines have to satisfy three major criteria – those of quality, efficacy and apparent safety – in order to gain a licence of marketing, this system allows for the introduction of numerous products with similar effects and others which may be inferior in one or other of these three criteria. The enormous cost of modern medicines (more than £2 billion to the NHS annually) has led to initiatives to contain expenditure. As a result, there have been both governmental and local initiatives to limit the range of medicines available on prescription. Thus, most Health Districts have now established Drug and Therapeutics Committees (or their equivalent) with the intention of improving the cost effectiveness of prescribing. An increasing number of them have produced limited lists with the intention of reducing expenditure commensurate with good patient care.⁶

Patients as people

'Ah, the paradise that awaits us in 1984... For every ill a pill. Tranquilisers to overcome anxiety, pep pills to wake you up, life pills to ensure blissful sterility. I will lift up mine eyes unto the pills, whence cometh my help.'

Malcolm Muggeridge, 1962

Despite the cynicism of these remarks, they illustrate the fact that the majority of illnesses can now be treated. If we return to the data given in Table 2, it is possible to identify the benefits for individual people who happened to be patients. As to be expected for a medical unit responsible for the care of acute emergencies, patients with cardiovascular problems predominated. Individual life saving/prolonging treatments included:

- a) intravenous frusemide for acute pulmonary oedema complicating myocardial infarction;⁶
- b) streptokinase therapy for acute myocardial infarction: thrombolytic therapy leads to recanalisation of recently thrombosed coronary arteries, thereby reducing mortality and subsequent morbidity;⁷⁻⁹
- c) captopril: ACE inhibition has been shown to improve the quality and duration of life in patients with cardiac failure;¹⁰
- d) infective endocarditis: one of the patients had infective endocarditis, due to *Streptococcus faecalis*. Combination therapy with ampicillin and netilmicin led to a rapid improvement in the patient's condition and the dosage of the aminoglycoside was adjusted according to her individual needs by means of:
 - i) a nomogram
 - ii) regular monitoring of her serum concentrations pre-dose and 1h subsequently.

She subsequently developed an allergy to the ampicillin and that therapy was replaced with vancomycin.

Other major therapeutic advances in use included ranitidine for a patient with peptic ulceration,¹¹ salbutamol as a bronchodilator for patients with reversible airways obstruction¹² and beclomethasone by inhalation.¹³ The

latter is a potent corticosteroid which has the advantage of avoiding (in many patients) the occurrence of systemic adverse effects associated with corticosteroid therapy.

Infectious diseases remain a major problem. Not all of the antibiotics and other anti-infective agents are new. For example, benzyl penicillin remains a treatment of choice for erysipelas. However, besides the patient with infective endocarditis, another, a young male diabetic, would certainly have died without modern antibiotic therapy. The patient had developed a paraplegia due to an extensive paraspinal abscess, the causative organism of which was *Staphylococcus aureus*. His overall condition improved and neurological signs resolved following therapy with cefotaxime, flucloxacillin and sodium fusidate.

Current deficiencies

Despite the achievements of the past 40 years, there remain problems to be solved. Drug therapy can produce adverse effects and as yet we do not fully understand why some patients are particularly vulnerable. There is, however, increasing evidence for genetic susceptibility relating to enzyme deficiencies; for example, debrisoquine hydroxylation.¹⁴ In addition, there is an increasing amount of evidence for an altered responsiveness to drug therapy in the elderly.¹⁵ Some patients (particularly the elderly) receive more medicines than they can manage and this leads to problems with compliance.¹⁶ Furthermore, all drug treatments represent a potential hazard to women of child-bearing years. Finally, many patients are dissatisfied with the amount of information they receive about medicines prescribed for them. Many remember being told little or nothing by either their doctors or pharmacists and most would like to know far more about potential side-effects.¹⁷ The use of printed information leaflets improves knowledge about medicines,¹⁸ as well as satisfaction with information received (and treatment in general). It is encouraging to note the recommendations of The Association of the British Pharmaceutical Industry that leaflets should be included with original pack dispensing.¹⁹

Conclusions

As a prescriber, I have an enormous range of medicines available to treat people who come to me as patients. In addition, I have ready access to information about the range of medicines available, how to use them, their potential adverse effects, interactions and dosage. These treatments are curative in the case of infectious diseases (and some cancers), preventive as in the case of vaccines and the contraceptive pill, while many others provide symptomatic relief as well as prolonging life. However, although we are good at treating people as patients, I believe that we are less successful in our attempts to cope with patients as people. This is not altogether surprising in view of the changing demography of our population, their increasing expectations and the mystical origins of therapeutics. Improved education, better targeting of therapy and improved information systems should solve many of these problems.

References

1. Office of Population Censuses and Surveys (1984). General household survey 1982. HMSO, London.
2. Office of Population Censuses and Surveys (1985). *Social Trends* 15. HMSO, London.
3. George C F and Houston A H (1983). The role of drug and therapeutic committees in controlling drug usage. *Cronache Farmaceutiche*, 36, 13–15.
4. British National Formulary, No 15 (1988). British Medical Association and the Pharmaceutical Society of Great Britain, London.
5. George C F and Hands D E (1983). Drug and therapeutics committees and information pharmacy services: the United Kingdom. *World Development*, 11, 229–236.
6. Dikshit K, Vyden J K, Forrester J S, *et al* (1973). Renal and extrarenal hemodynamic effects of furosemide in congestive heart failure after acute myocardial infarction. *New England Journal of Medicine*, 288, 1087–1090.
7. Koren G, Weiss A T, Hasin Y, *et al* (1985). Prevention of myocardial damage in acute myocardial ischemia by early treatment with intravenous streptokinase. *New England Journal of Medicine*, 313, 1384–1389.
8. Schroder R, Biamino G, Leitner E-RV, *et al* (1983). Intravenous short-term infusion of streptokinase in acute myocardial infarction. *Circulation*, 67, 536–548.
9. Spann J F, Sherry S, Carabello B A, *et al* (1984). Coronary thrombolysis by intravenous streptokinase in acute myocardial infarction: acute and follow-up studies. *American Journal of Cardiology*, 53, 655–661.
10. The Consensus Trial Study Group (1987). Effects of enalapril on mortality in severe congestive heart failure. *New England Journal of Medicine*, 316, 1429–1435.
11. Brogden R N, Carmine A A, Heel R C, *et al* (1982). Ranitidine: A review of its pharmacology and therapeutic use in peptic ulcer disease and other allied diseases. *Drugs*, 24, 267–303.
12. Paterson J W and Shenfield G M (1974). Bronchodilators. *BTTA Reviews*, 4, 25–40 and 61–74.
13. Brogden R N, Pinder R M, Sawyer P R, *et al* (1975). Beclomethazone dipropionate inhaler. A review of its pharmacology, therapeutic action and adverse effects. *I. Asthma. Drugs*, 10, 166–210.
14. Idle J R and Smith R L (1979). Polymorphisms of oxidation at carbon centers of drugs and their clinical significance. *Drug Metabolism reviews*, 9, 301–317.
15. A Report of the Royal College of Physicians. Medication for the elderly (1984). *Journal of the Royal College of Physicians of London*, 18, 7–17.
16. Parkin D M, Henney C R, Quirk J, *et al* (1976). Deviation from prescribed drug treatment after discharge from hospital. *British Medical Journal*, 2, 686–688.
17. Ridout S, Waters W E and George C F (1986). Knowledge of and attitudes to medicines in the Southampton community. *British Journal of Clinical Pharmacology*, 21, 701–712.
18. Gibbs S, Waters W E and George C F (1987). The design of prescription information leaflets and feasibility of their use in general practice. *Pharmaceutical Medicine*, 2, 23–33.
19. Information to patients on medicines (1987). The Association of the British Pharmaceutical Industry, Whitehall, London.

Pharmaceutical service – a personal viewpoint

BERNARD SILVERMAN

I have an eighty-nine year old mother. Remarkable woman she is with a mental agility the envy of many only two-thirds her years. She never forgets the birthdays of any one of her ten great-grandchildren or her six grandchildren and I haven't yet discovered where she has written down the dates. Her favourite television viewing is the snooker followed by tennis and football in that order, yet I can never remember her being interested in or participating in sport when she was much younger. She enjoys a high quality of life for a woman pushing into her nineties. Let me tell you a little more about her and then it will become apparent why I should have singled out my mother as an introduction for my presentation as part of this symposium.

She lives in a residential home for the elderly – calls it her hotel, not a home: 'homes are for old people needing nursing care and attention' she says. Until just a few weeks ago she cared for herself in a small flatlet, part of a sheltered accommodation complex. The timing of the move from sheltered to residential home was crucial for the question of independence and its preservation is vital if one is determined to keep the limbs moving and the brain active.

This mother of mine is a patient. She is, first of all, mildly diabetic; managed by diet, not insulin or hypoglycaemics and my goodness she needs managing because she enjoys her food, particularly the chocolate eclairs and a measure of medicinal brandy daily. She's moderately hypertensive too, controlled by a daily dose of diuretic frusemide with amiloride hydrochloride. I think she takes her tablets regularly each morning. I once found that she was taking, additionally, some 40mg Lasix tablets prescribed previously because she didn't want to waste them. But then she might have misunderstood doctor's directions for her hearing isn't what it used to be. Not that she will admit to her hearing being in any way impaired – 'I can hear the television can't I' she says, not realising that the volume is turned high.

The sight of one eye has long since gone and the other one is kept going with 3 per cent pilocarpine eye drops controlling the glaucoma. She's experienced at applying the drops, keeps them in the refrigerator as she was told to do. Oh! she put the tablets in the fridge too and I had to spend half an hour counselling her to make her understand that the damp refrigerator is not the place for a month's supply of tablets.

She doesn't see the doctor very often but she has a good rapport with the receptionist who repeats her medication. 'Lovely lady – gives me as much as I want. I do like to keep a good supply in reserve; must ask her for another prescription for my elastic support stockings next week.'

A few months ago she fell and injured her thigh. The wound became infected and she was prescribed some Ampicillin capsules. 'Do you know' she proudly proclaimed, 'they are marvellous, the wound healed in a couple of days and I didn't need to take even half the 24 capsules prescribed'. Nobody had insisted that she finished the course of treatment even though it was included on the label.

Now my mother is, as well you know, in no way unique; neither is she a statistic. She is of the people and people are patients. She is a typical example of a multitude of elderly patients requiring the attention of and the management by a team of health professionals included in which is the friendly pharmacist. But be assured, although she is of the multitude and although she may be typical she and her kind cannot be treated collectively, for they are individuals and need to be treated individually.

Forty years ago at the inception of the National Health Service it would have been exceptional for a patient to have reached the stage where medication, health care, life style and well being needed to be managed. And now, forty years

later, we are just beginning to awaken to the problem (if it is considered a problem) brought about by the very efficiency of our Health Service – the problem of longevity. Here let me quote my first statistic:

The elderly population is expected to grow in the next 25 years: those aged 85 will almost double in number and the rate of increase among those aged 65 and over is more than twice that of the general population.¹

Effective medication, compliance and health care education in the elderly is but one aspect of the pharmacist's role, an extended role, which has been endorsed by Government in its plans to develop the services of the health professionals. In this short presentation it is my intention to describe to you the development of the pharmacist's contribution both in community care and in the hospital service and to establish without misunderstanding the relationship which pharmacists increasingly enjoy with their fellow professionals and their patients.

The availability of medicine suitable for the treatment of almost every condition has hardly ever presented a problem. The effective, appropriate and economic use of medicine has, on the other hand, presented an increasing challenge to all those involved in supply. To meet this challenge requires the finest co-operation between prescriber and pharmacist and an individualised advisory service to the patient by both.

There are 36,000 pharmacists on the British register, 10,000 more than in 1948 at the start of the NHS. Three-quarters of those who work are involved in community practice and a further 16 per cent are employed in the hospital service. Throughout the lifetime of the NHS the efficiency of the medicine distribution role of the pharmacist has been beyond doubt. The commissions of inquiry into the pharmacy profession have been emphatic in describing the pharmacist's role of yesteryear but, at the same time, the inevitability of a change in that role and the reasons why change is necessary have been spelled out. Using modern jargon for the sake of brevity, the pharmacist's function is moving from PRODUCT ORIENTATION to PATIENT ORIENTATION.

However, this change in function is as slow to be accepted by the patients, by the medical profession and by pharmacists as is the pace of change itself. Moreover there is a positive resistance to change for change is strange. The patient visiting the local surgery looks to the doctor rather than anyone else for advice on prescribed medicine. The patient in the hospital ward is satisfied supremely by the wisdom and the consolation of the consultant. General practitioners are quick to dismiss the intrusion of pharmacists into what they regard as their domain. 'They are trying to play barefoot doctors and they are not educated and trained for such a role' they say. And who can blame a sizeable number of pharmacists for not wanting to emerge from the confines of their dispensaries; after all the system of remuneration for dispensing favours those who dispense speedily and submit lots of pieces of paper for payment. Counselling and advising patients brings little reward other than professional satisfaction.

Despite this resistance it is encouraging to observe the extended use of the pharmacist's skills, the plans for the immediate and the medium term future to harness those skills and the acceptance by Government that new patient orientated pharmaceutical services will be provided within the NHS.

Clinical pharmacy in hospitals

Midway through the forty year lifespan of the NHS, ie, about twenty years ago saw the move by hospital pharmacists out of the pharmacy – the hospital dispensary – and on to the wards. Until then hospital pharmacists were engaged in traditional dispensing activities and in the small scale manufacturing of specialist pharmaceutical products. The move was undoubtedly accelerated by the high incidence of medication errors on the wards but the presence of the pharmacist in the wards led rapidly to the development of new functions. Starting modestly with a control on stock and supply of drugs, the function expanded to the monitoring of prescriptions for individual patients, consultation with prescribing physicians, the detection of unwanted and adverse drug reactions and the introduction of new forms and routes of administration. Going even further, the development of this role under the banner of a new title CLINICAL PHARMACY, the function branched into two paths:

First, through a participation with the medical staff in decision making on treatment, an input by the pharmacist before or at the time the prescribing is taking place.

Secondly, by establishing a positive pharmacist/patient relationship from the time a medication history is taken on entry to the hospital through therapeutic drug monitoring whilst hospitalised, examining the pharmacokinetics, the assay of the drugs in body fluids, the metabolism and finally the counselling of the patient being discharged on a drug regimen.

Both branches of the function are supported by a comprehensive drug information service available within and beyond the hospital.

Let it be known that the term CLINICAL PHARMACY does not denote practice as a clinician, a diagnostician or a medical role. It should not lead to any position of distrust between the two practising professions; on the contrary, where clinical pharmacy practice is well developed the responsible role of the doctor is enhanced, for he is better informed in the decisions on prescribing which are his alone.

The evaluation of benefit to the Health Service and the contribution to patient care of Clinical Pharmacy Services is being researched continually but there are glowing reports of success from far and wide. An example is:

'A clinical pharmacist appointed to each district general hospital could ensure continuity and understanding by forming links between the patient and the health care team on drug matters. Over the past six months in this unit the following contributions have been made by a clinical pharmacist. 1. A tenfold increase in the recognition and reporting of adverse drug reactions. 2. Twenty-five interventions by the pharmacist each week during ward rounds nearly three-quarters of which were adopted as policies. They included policies on dose schedules, incompatibilities, the use of alternative drugs, patient inquiries and counselling.'²

As part of the development of clinical pharmacy practice there is bound to be a more systematic management system for formularies in hospitals and in districts. The benefits to patients of systemised formulary choice are not to be overlooked and, whilst the prime objective of this symposium is to concentrate on the treatment of individuals, the cost containment spin-off is worthy of recognition when the savings generated and re-introduced into the budget can only result in better service to the patients under the NHS.

We pharmacists now look to Ministers to endorse the positive advantages to be obtained by extending the well

established services of clinical pharmacists throughout the hospital service.

The services of the community pharmacist

I did record that three-quarters of working pharmacists are engaged in the community sector of practice – retail pharmacy as many prefer to call it – regrettably often with an implication of scorn and disapproval for 'However can a proper professional service be provided in a commercial environment?' they say. As one of the few having been fortunate enough to have made a world wide study of the vexation and as one who has had the experience of the large scale provision of professional service in the epitome of commercial environment, I retort resoundingly 'Rubbish'. There is no correlation between good service to patients and the exclusion of the sale of everything except medicinal and allied products. The Nuffield Inquiry into pharmacy, having studied the dilemma, made several pronouncements. Among them:

'Professionalism is an attitude of mind and what matters is that pharmacists, wherever they may be, should not allow their professionalism to be compromised. The fact that a pharmacy is part of a shop may make it more user-friendly and so encourage people to use it who might be put off by a more formal looking establishment.'

The results of a Consumers Association survey showed that people clearly recognise the professional nature of the pharmacist and his service and the fact that other goods might be on sale did not bother them or diminish their respect.

Individualised attention, personal service, having regard for the variation between individuals is far more likely to be given in the chemists shop than it is within the cold clinical environment of the Health Centre or Hospital.

It is in such an environment that the Community Pharmacist is going about changing his role and his attitude to patients. I should preferably have said *her* role and *her* attitude for it is worthy of note that women now number 37 per cent of the profession's members and that is increasing rapidly with a 63 per cent intake of females. 'What a good thing that is' some might say, for from the patients' point of view, women are perceived as more gentle, more caring, more painstaking.

Dispensing of prescriptions, the sale of medicines, the supply of aids to invalids, purveying healthy food, selling body caring toiletries and so on – all these functions are well established, highly regarded and are bound to remain prime for the Community Pharmacist into the foreseeable future. But the extended role of that pharmacist is concerned with advice in several directions. 'It is important to stress that medicines are not ordinary commodities and the associated software in terms of advice and instructions is just as important as the chemicals themselves.'³

A major area where advice is sought and is being given is in the response to symptoms usually minor illness. It always has been acknowledged that patients turn to the pharmacist as a first step in the treatment of their self-diagnosed minor ailment. Prior to the free for all services of the doctor introduced in 1948 it was commonplace to visit the chemist for a bottle of 'physic', 'tonic' or 'cure-all' supplied cheaply, speedily and readily. Patients expected or demanded a remedy rather than a referral to the physician and they got it. It satisfied them. But with the ready availability of a medical service the advisory services of the chemist became used less as the demands placed upon the doctor increased. Forty years later in 1988 we are experiencing a reversal of

this process. Patients are being encouraged to consult the pharmacist, they need to, they want to and they do.

However, these days the consultation process, the assessment and the supply of medication with the accompanying advice takes on a far more scientific dimension than it did when the patient could be satisfied with a cure-all of little more value than a placebo. The science is not simply the advanced science of pharmacy in which most practising pharmacists have been educated and trained and are expert, it includes the science of communication, a behavioural science. The approach needs to be more formalised, more individualised and more sophisticated. The treatments are more selective and more potent and the illnesses are potentially far more serious and debilitating. The possibility of contraindication of choice of remedy due to chronic condition of a present day nature is strong as is inter-action with prescribed medicine for such conditions. The pharmacist requires an algorithmic approach to his or her interrogation of the patient before deciding on a proper course of action. A cursory reference to the doctor would be an abrogation of responsibility, a hurried despatch with the cash register filled would be professionally irresponsible.

Moreover, the age of consumerism has placed greater demands upon professionals to be competent in the services they provide. Pharmacists are, therefore, not allowed any longer to wrap their medicines and their advice in white demy and mystique sealed with red wax; they are surveyed, analysed and criticised and there is no room for shortfall or error.

It is against this background and to satisfy these demands that the Community Pharmacist is developing his role and his service. Pharmacists are introducing 'quiet areas' where advice, counselling and patient/pharmacist communication can take place in privacy or without being overheard by a shopful of customers. Those pharmacists who are desirous of retaining a regular clientele through the excellence of service are introducing computer recorded patient medication records either for prescribed medicines or for both prescribed and OTC purchased medicines. Experimentation is under way into the capture of medication data on 'Smartcards' – computer recorded information carried by the patient.

The process of visiting patients who are elderly, long-term sick and on specialised and multiple medication is getting under way. Residential homes are the first to receive such services from pharmacists and I am confident that the personalised service will spread to the visiting of patients in their own homes – a domiciliary service.

Meanwhile, the in-pharmacy provision of Health Education literature is becoming very well established. Regular campaigns which are designed to make the public aware of healthy living, drug misuse and abuse, prevention of killer diseases and the benefits of family planning are all being conducted through the pharmacy and with the co-operation of pharmacists and their professional bodies. The importance of health promotion and the pharmacist's contribution to it are acknowledged by the Government in its programme for improving health care and funds for this purpose are being made available. It is the intention of the pharmacy profession that pharmacists' involvement in health promotion shall not be confined simply to the distribution of literature. That would be too simple. Plans are afoot for the participation of pharmacists in Health Care Education presentations to the public all designed to establish a personal relationship between patients, people and professionals.

Pharmacist/doctor relationship in community practice

Following the Clinical Pharmacy Practice success in hospital pharmacy as I have described, there would be every good reason to extend the relationship between general practitioners and pharmacists in the community on similar lines. At present we have fine examples of advantageous co-operation through research based experiments and through the establishment of Drug and Therapeutic Committees. The benefits to patients in general through regularly reviewed and revised formularies and to individuals by the monitoring of their prescribed medication is quite obvious. Time must be found by doctors and by pharmacists to get together with the objective to perfect prescribing for patients. Whilst the professional leadership and the DHSS are promoting co-operation, it is the practitioner at the sharp end who must resolve to participate.

Education for a new extended role

It is regrettable that among those who receive the services of pharmacists there is such a large proportion who are uninformed, misinformed or just doubtful about the education and training which prepares a pharmacist for practice. Over the years, the forty years of the NHS, the scientific knowledge and the practice experience has improved by leaps and bounds. Nevertheless, as we move into the next decade of the NHS, radical changes are being made to prepare pharmacists for their patient-orientated role. I have already referred to the education of a new science, the science of communication, dealing with people. This skill is now being taught within the degree course to which every pharmacist is exposed before registering. Modern teaching methods of case study, role play and computer assistance combine to ensure that the emerging professional is well suited to serve his or her public.

But what about those pharmacists who were not so fortunate as to be provided with the excellence and sophistication of present day education? The continuing education programmes available now and developing rapidly are designed to ensure that every practising pharmacist will be able to offer patients the type of personal service which they have a right to expect within a forty year mature NHS. And if that is not sufficient, there are plans being made for the profession's governing body to be able to insist upon evidence of competency in practice for all those who are registered and are practising.

Pharmacy's service to its patients throughout the formative years of the NHS is one of which it has good reason to look back upon with pride and satisfaction. The next forty years are going to be far more demanding, far more challenging. But the plans are made and preparation is giving way to implementation so that pharmacists will be able to meet their obligations. We look forward to the years ahead with unreserved optimism. It is our intention that the population of the United Kingdom shall receive pharmaceutical services unsurpassed anywhere in the world and that those pharmaceutical services will be personalised.

References

1. Department of Health and Social Security (1987). 'Promoting Better Health'. The Government's programme for improving primary health care. London: HMSO.
2. Martin A M, Bussey R, Scott S, et al (1984). *British Medical Journal*, 288, 1160.
3. Teeling Smith G (1985). *British Journal of Pharmaceutical Practice*, October, p 274.

The pharmaceutical manufacturer's viewpoint

JOHN P GRIFFIN

The second part of the title of this symposium, *Patients as People*, was the title of a book by Dr A E Clark-Kennedy in the early 1950s.¹ This and the other book he wrote in this vein was *Medicine in its Human Setting*.² Both were classics of caring medicine. In these books Clark-Kennedy presents as his philosophy 'Disease should be presented through the minds and bodies of patients in order to correct the bad habit of thinking of them as if they had a real existence apart from the men, women and children who suffer them'.

'The application of science to practical medicine is gaining so much power and such a hold on us that our real object, the relief of individual suffering, is sometimes in danger of being forgotten.'

The value of the common sense that great London Hospital teachers such as Clark-Kennedy and Donald Hunter attempted to impart has been largely forgotten to medical practice at large in the 1980s. Their writings were in the early and heady days of the National Health Service and also at the beginning of the therapeutic revolution and since then the medical curriculum has become so overcrowded with the imparting of scientific knowledge that the caring aspect of the art of medicine has been displaced. This danger which was foreseen by Clark-Kennedy had in fact also been foreseen half a century earlier by Robert Hutchinson who wrote: 'from putting knowledge before wisdom, science before art, and cleverness before common sense from treating patients as cases, and from making the cure of the disease more grievous than the endurance of the same good Lord deliver us'.

As medical science has progressed rapidly the media became swamped with 'wonderdrug' stories; but these have been followed by 'shock horror' stories as the new advances fail to live up to the exaggerated reputation built up for them by the financial analysts in the City and by earlier media coverage.³

The media had created, in the early years of the therapeutic revolution, in the mind of the public and thus the patient an unrealistic expectation which can best be summed up as 'a pill for every ill, but it must be 100 per cent effective and 100 per cent safe'. But the media have also created a litigious environment where products that fall short of this impossible ideal, particularly on grounds of perceived lack of safety, are seen as a suitable basis for litigation.

There has also been a burgeoning of 'wonder drug' stories for alternative 'natural remedies', the word natural being equated unjustifiably with 'safe'. The major scope for such exploitation lies in those very areas where the patient is suffering from a chronic disease and current treatment is only palliative, for example, rheumatoid arthritis. In this area products ranging from extract of yucca, a hardy desert plant widely available as a house plant; green-lipped mussels, gathered in New Zealand; and dimethylsulphoxide given intravenously in dextrose have all been promoted to the gullible. Perhaps the real short-coming of modern medicine has been the fact that most patients can be treated with a prescription for a pill and as a result we have become a victim of our own success and the art of talking to the patients and treating them as people has been lost particularly in inner cities where the general practitioner often does not see his patient in the same family context perhaps over several generations that fortunately still pertains in more rural areas.

I believe that much of the present discontent with medicine and medicines in this country reflects the loss of the personal relationship between patient and doctor, and a consequent lack of confidence in his therapy due to poor

communication and the patient perceives a lack of compassion for him or her as a person. I believe that there are four elements to correction of this particular problem, namely:

- a) Demonstration of CONCERN
- b) Instillation of CONFIDENCE
- c) Better COMMUNICATION
- d) The transmission of a sense of COMPASSION

Each of these has an importance for pharmaceutical manufacturers as well as prescribers and members of the caring professions.

Concern

Doctors, nurses and those in direct contact with patients should make it clear that they understand their patients' problems, and they can only do this by demonstrating to the patient that they have taken the trouble to ascertain these. Even for patients with the same condition their worries and problems surrounding their illness may be quite different. In this sense they are indeed individual 'people' and not simply 'patients'. It may seem strange to make a point of the next remark but it would often help if doctors and nurses made it clear to patients that they actually wanted them to recover, or that they were wanting to relieve their distress. So many patients complain that 'my doctor does nothing for me unless I nag him'. When this is pursued it comes to the problem that the doctor had not asked if the prescribed treatment worked or if it had given rise to problems. The patient had expected him to enquire because he could not know by telephatic means.

In many cases a doctor may show concern by not prescribing a medication but by taking the time to discuss the patient's condition at length. Much of the problem of demonstration of concern is by good communication.

The caring professions are conventionally regarded as those having day to day personal contact with the patient rather than those involved in diagnosis and treatment at a distance. It is therefore customary to regard the caring professions in the context of doctors, nurses, physiotherapists etc. It is however my thesis that the appreciation of people as patients and responsibility to demonstrate concern stimulate confidence, and to communicate is one that falls equally upon the pharmaceutical industry as upon those having a more immediate contact with the patient. Easily understood information made available with the medicine provided by the manufacturer is essential.

Concern is revealed in other ways such as increased patient acceptability of medicines which should be designed to be user-friendly, sustained release formulations such as once-per-day therapy, consumer convenience leading to greater compliance, calendar packs, containers specifically designed to be easily opened by patients with arthritis, or tablets which are easier for rheumatoid or elderly patients to pick up.

Concern is shown by preparing package inserts which are designed to help and inform the patient rather than to cover every eventuality to protect the manufacturer from product liability actions. Concern is also expressed in the manufacturers' determination to prevent overdosage in children by production of medicines in child-resistant packaging.

Confidence

Confidence in the ability of those caring to diagnose and treat is paramount for the peace of mind of patients. Ultimately creation of confidence is again one of good communication. Such confidence has several components, firstly, confidence of the patient in the doctor, surgeon,

nurse etc. Secondly, confidence of the doctor and support in the quality, safety and efficacy of the products the pharmaceutical industry has made available for prescription. Thirdly, the community should have confidence in their doctor, the NHS and their medicines. In this context the media have served us ill by undermining public confidence, creating scare stories, and promoting quackery.

As far as the pharmaceutical industry is concerned patient confidence is increased if there is familiarity with a producer's name which is well-known and highly respected. Familiarity with a branded medicine known to have worked for one of their family in the past is important. Loyalty and confidence of asthmatic patients to the colour of the adapter of their metered dose aerosol is well-known. Anonymous white tablets in little brown bottles with computer printed labels do not inspire the same confidence. Reassurance by the pharmacists that a generic medicine or a parallel imported product is 'really the same' does not always restore confidence. Although patients will pay lip-service to the acceptability of generic prescribing as a possible means of cost saving when it comes to their own treatment they often resent being given a cheaper alternative. This is the therapeutic equivalence of the NIMBY – not in my back yard – philosophy.

Original pack dispensing is a concept whereby the patient receives a medicine in an intact tamper-evident package from the manufacturer without any intermediate handling by the wholesale dealer or pharmacist. The advantages or original pack dispensing are many. The identity of the product, batch and company are preserved, which may have medicolegal importance and also allows more effective recall. The product can be more rapidly identified in cases of accidental overdose. The security and stability of the product are improved, and tamper-evident and child-resistant packs can be developed. Patient compliance may be better and dispensing faster and more efficient. Dispensing errors and mislabelling should also be avoided. Original packs also make provision for patient information leaflets to be distributed and clearly identified with the appropriate product.

Original packs not only maintain the integrity of the medicine, but in addition storage in the manufacturer's pack ensures that it reaches the patient in the container designed with the patient in mind. Medicines repacked in a pharmacist's container do not show the batch number and expiry date and can provide no guarantee of the integrity of the source. The batch number has important advantages for patient safety, and over-the-counter medicines must by law be labelled with a batch number; yet ironically the usually more potent dispensed products are not required to bear such identification on the package received by the patient. Dispensing from bulk containers into similar bottles may also confuse patients because so many of their medicines will look the same.

Now that the European Community directive on product liability has been adopted its requirements have been introduced into British laws. The directive introduced strict liability, which means that a patient damaged by a medicine will no longer have to show that its manufacturer or supplier has been negligent. An important provision in the directive is that if the claimant does not know the source of the product and his immediate supplier is unable or unwilling to tell him then the immediate supplier himself will be liable. This might be a dispensing doctor or a pharmacist, and both groups have been warned. Original pack dispensing would obviously mean that the manufacturer could be

identified and this absolves the dispenser from responsibility.

Whatever system of no-fault liability for drug-induced injury is devised in the UK, and a variety of such schemes exist in Sweden, Germany, New Zealand etc, all such schemes require that causality must be demonstrated and this can be extremely difficult. The classic example of this is the reported association between pertussis vaccination and brain damage in children. An active political campaign was fought by the Association of Parents of Vaccine Damaged Children (APVDC) in 1979. The then Labour Secretary of State, David Ennals, set up a state-funded compensation scheme, and several hundred children received payments under the scheme. Since the amounts paid under the state scheme were small a number of test cases have been put forward by the APVDC for further compensation from Health Authorities, individual doctors and pharmaceutical companies.

In the recent Queen's Bench Division decision (*Loveday versus Renton*, 29 March 1988) Mr Justice Stuart-Smith ruled that there was no evidence of causal relationship between pertussis vaccinations and brain damage. This makes the increase in whooping cough mortality over the last decade in non-vaccinated infants tragic, and that in the last few winters since 1982 even more tragic since the National Childhood Encephalopathy Study published in 1981 concluded that the occasional febrile convulsion following vaccinations did not lead to brain damage.⁴ Undermining of public confidence can lead to failure to accept treatment with fatal consequences and the pertussis vaccine story is an example. When looked at in terms of inoculation against other infectious diseases the position is worse since the uptake of polio, measles and other vaccines also fell in these years. The journalists and politicians who made capital out of this non-event will in years to come be regarded as having done this nation a disservice.⁵

One proposal which is being discussed is that any person who is handicapped or permanently injured should be entitled to financial provision being made whatever the cause of the damage. This would avoid the unfairness implicit in a scheme where one person would be compensated because his or her handicap was associated with a medicine, whereas another equally handicapped person would receive no compensation because no medicine was involved. If a medicine could be proved to be genuinely at fault, the compensation fund could claim later from the manufacturer. This is an interesting proposal which merits discussion. It could allay public and parliamentary concern that compensation should be available in appropriate cases.

According to two public attitude surveys the issues that erode public confidence in the pharmaceutical industry are in order of priority:

1. Public perception that the pharmaceutical industry is not prepared to compensate for therapeutic misadventure.
2. Inadequate advice on how to take prescribed medicines.
3. Stories of overprescribing – eg tranquillisers.
4. Allegations of irresponsible promotion.
5. Failure to understand the price regulation scheme for pharmaceuticals.

Communication

Patients wish to be treated as rational human beings and require more information about their diagnosis and treatment. Bad communication at all levels is interpreted as lack

of concern or ignorance, and both create lack of confidence. I have said much about communication between doctor and patient earlier and I will now concentrate on better communication with patients about their medicines which is essential if the patient is to be aware that the pharmaceutical industry is concerned and they are to have confidence in the industry and in the medicines they take. Communication must therefore be at two levels. First to place the pharmaceutical industry in the public mind as a vital member of the health care delivery team, to deal with the general issues that concern the public and either to dispel these concerns as groundless or to put our house in order if that is required.

Second to communicate effectively with the patient on the correct use of prescribed medication. This can be best achieved by providing patients with a patient information leaflet appropriate to the individual preparation prescribed to them. The basic information on each leaflet should include the advice which has been laid out in the ABPI guidance on *Information to Patients*.

The ABPI recognises that it is important that doctors and pharmacists are aware of the information being given to patients by the manufacturers and we consider it desirable that a 'Compendium of Patient Information Leaflets' should be prepared and circulated to the professions in the same manner that the *Data Sheet Compendium* is circulated currently. The concept of a Patient Information Compendium is workable and has already been introduced in Sweden and Holland. Concerns that have been expressed in some areas of the need for complicated and technical patient information leaflets to avoid legal liability problems have been overcome in these countries. They should not be allowed to become a barrier to good, simple and effective communication.

Conclusion

Patients are demanding more information on the medicines they take. They wish to become more involved in the decision making processes that involve their own treatment. CONCERN for the patient's needs will stimulate CONFIDENCE in the industry and its products and for this good COMMUNICATION is essential. Results of treatment are better if the doctor transmits a sense of COMPASSION. Good communication will improve COMPLIANCE with prescribed therapy. Better compliance should lead to better therapeutic outcome with an improved CURE rate, and less COMPLICATIONS.

The year 1988 has been a year with many major anniversaries being commemorated, eg the conquest of the Spanish Armada in 1588; the Glorious Revolution of 1688 in which King James II was deposed in favour of King William III; the Berlin Airlift of 1948 and the foundation of the World Health Organisation (WHO) and the British National Health Service both in 1948.

Will the next 40 years of the NHS see 1988 as a time when the beleaguered NHS won a victory for adequate resources equivalent to the beating of the Armada in 1588? Will it be radically changed in a revolution equivalent to that of 1688, or will it struggle on with resources coming in dribs and drabs like the Berlin Airlift of 1948 or will it have an objective of 'Health for All' like the WHO and the means to obtain it?

Finally I would like to say a few words on a topic that has been the subject of much debate in recent months – the funding of the NHS. Earlier on in this presentation I referred to the *unrealistic* expectations that had been created in people's minds by 'there is a pill for every ill' concept. This, in turn, has led to an unrealistic expectation of what a

taxation-funded National Health Service can deliver in terms of patient needs.

The needs of patients are infinite yet the funds that can be allocated to a state-run health care delivery system have to be apportioned from the national budget revenues. Whatever we spend, or our Government Ministers spend on our behalf as taxpayers, there will never be enough out of direct taxation to meet all requirements of all patients from cradle to grave. Alternative sources of funding must be identified and exploited to allow the service to be expanded to meet the demands of an ageing population and the rapid advances in technology.

References

1. Clark-Kennedy A E (1957). *Patients as People*. London: Faber.
2. Clark-Kennedy A E (1954). *Medicine in its Human Setting*. London: Faber.
3. Griffin J P (1986). *Medicines and the Media*. In: *Iatrogenic Diseases*, Eds D'Arcy P F and Griffin J P. Third Edition. Oxford University Press.
4. Miller D L, Ross E M, Alderslade R, *et al* (1981). *British Medical Journal*, 2, 1595–99.
5. Miller D L *et al* (1985). The Proceedings of the 4th International Symposium on Pertussis. Joint IABS/WHO Meeting, Geneva, Switzerland, 1984. *Developments in Biological Standardization*, Vol 61, pp 389–394.

Personal care in practice

MICHAEL DRURY

The starting point of my paper is a thirty page report on general practice which appeared in the *Lancet* of 25 March 1950.¹ It was thus written at the time of the arrival of a new infant whose birthday we celebrate today. The author, Joseph Collings, an Australian with an experience of New Zealand practice, visited 55 English practices and a number in Scotland to report on general practice and was deeply shocked by what he had seen. Of one practice he wrote: 'the surgery consisted of a small dilapidated waiting room, three equally small and untidy consulting rooms and a kind of cupboard which served as a dispensary. The consulting rooms were dirty and ill-equipped. There were no examining couches and no apparent means of sterilising anything... I made my visit during an afternoon consulting hour, and found a queue of people extending about 200 yards up the street, waiting their turn to see the doctors; they were standing packed in the waiting room and I had to force an entrance. I was made welcome "to see the procession", given a cup of tea and invited to stay "as long as I liked". I was told, not without pride, that "we have seen 500 already today"; and I have no reason to doubt it. During my stay of an hour and a quarter about 120 more patients came in. They were seen by three different doctors, who replaced one another with almost bewildering rapidity. No pretence was made at real examination of any of these patients. An occasional temperature or pulse-rate was taken; four or five times a stethoscope was applied to a point somewhere below the thyroid gland and some such utterance made as "ah, seems a bit chesty".'

A few days ago I visited a practice in just the same sort of area, urban and dilapidated, that Collings had described. Indeed the senior partner of this practice said: 'it could have been of ours that he was writing'. It was set on one side of a busy street opposite a brewery and occupied two floors of a renovated and greatly extended Victorian house. It was clean and light and looked refreshingly modern. The large uncrowded waiting room had comfortable seating and the walls hung with posters and childrens drawings. It was overseen by an office in which worked white-coated and trained receptionists and a practice manager. The five doctors and two trainees had each commodious consulting and examination rooms and another suite of rooms housed the practice nurses. Patients were booked for every ten minutes and the records were exemplary. A consultant whom I met there said: 'we are lucky to have such practices in our patch'. These two practices present a startling contrast and are a salutary reminder of the journey we have done since our first birthday party.

In many other countries, during this period, general practice almost disappeared.² Here four features have protected it almost by chance. The separation of primary care from secondary care inherent in the design of our National Health Service has been much wondered at by visitors from other countries particularly North America. How, they ask, is it possible to have a system that excludes half the doctors from the intellectual challenge provided by care of major acute illness and how is it possible to have a system that denies to a patient the care of his trusted physician just when he is most ill? Paradoxically this has been one of the most powerful factors in its preservation. It protected the primary care doctor from competition by the specialist and this allowed him to explore and develop the full potential of work in this field to the eventual admiration of other countries. Three other features have contributed and it is worth remarking that all of these are being questioned as our service moves into middle age. Ninety-five per cent of the population is registered with a National Health Service

doctor and so receives care free at the point of entry. This has been crucial in minimising the distortions that financial barriers introduce in other systems. Next the referral system has been maintained. Whilst it was developed to protect doctor's incomes it has long ceased to be of any importance in this connection. It is, however, of vital importance in protecting secondary care from inappropriate demand and the patient from over zealous investigation and treatment. Lastly, the registered list has been an essential tool, imperfectly used as yet, in allowing preventive care for a small defined population to be organised and has been of the greatest importance in protecting continuity of care.

The great changes that I have illustrated in the structure and staffing of most of our practices, for the great majority have now been rehoused, have been accompanied by equally dramatic changes in the quality of personal care they offer. The kernel of this care is the consultation and this has the feature, unique to my field of work, of accepting any presenting problem without differentiation. Patients of any age and either sex may come with troubles relating to any part of the body. They receive attention to the whole person within the context of the family and this frequently means that the psychological or social component of the consultation complements or outweighs the physical component to a marked degree. For this reason the consultation requires a degree of privacy, unknown and sometimes unnecessary in most other medical disciplines, if the real underlying problems are to have sensitivity and depth of attention and personal relationships, upon which continuity of care is based. However, this privacy does produce for the general practitioner a measure of isolation from professional scrutiny that his hospital colleague, with a retinue of junior staff, does not suffer from. This is now being met by the spread of small group learning and audit within the group practices that make up more than 80 per cent of general practice units.

In order to provide this form of consultation the first requirement is sufficient time. During the forty years we celebrate, the number of patients for whom the doctor exercises responsibility has fallen by more than 25 per cent.³ For this, and other reasons, the consultation time has increased in our better practices from the two minutes that Collings observed to between eight and ten minutes, a time that compares favourably with hospital out-patients.

The second requirement is for enhanced communication skill. Most students are exposed to teaching in this field using video cameras and it will usually be the Department of General Practice that takes the lead; it will almost invariably be complemented by similar teaching in greater detail during vocational training in one of the thousand training practices and tested in the MRCGP examination which some 1,500 candidates now sit each year. An exciting recent development is that from now on the general practitioner will be expected to develop it further during higher education, and to be assessed in it when he aspires to the FRCGP which is to become a fully assessed qualification.⁴ We have a lot of evidence of the need for this: some from studies and some, more anecdotally, from complaints by patients to official and unofficial sources. Curiously there are still doctors, mainly from other disciplines, who regard this area as 'soft' and unworthy of the attention of a scientist. They need to remember that all their knowledge about Tsutsugamushi disease and Rocky Mountain Spotted Fever avails little if the patient can neither talk to the doctor nor can either understand or recall what is said in reply.

There has also been, during these forty years, a revolution amongst the primary care team and much thought has had

to be given to stratagems for maintaining personal care synchronously with team care. The care of patients, about whom Collings wrote, was usually shared with no-one else but a District Nurse with whom the doctor would communicate by means of a note left on the mantelpiece in the patient's bedroom. Amongst the 10,000 practice units of today there are now several thousand practice managers with increasingly sophisticated skills and 60,000 receptionists who are signing up in their thousands for courses sponsored by this College concentrating upon communication skills and attitudes as well as technical achievements.⁵ One of the most important developments today is the appearance of Practice Nurses working in a greatly extended way. They are the fastest growing group of nurses in the UK and their work in areas such as diabetes, hypertension, asthma, family planning and well person care is well documented.^{6, 7, 8} Studies show high clinical quality and great patient satisfaction.^{9, 10} But there is a problem on the horizon. How do we retain personal care when the volume and sophistication of work demands team care by different people with complementary skills? It is a bit like the comparison between the corner shop and the supermarket. We need to offer a range of choice and still maintain the personal touch and proper continuity of care.

The near demise of the general physician within the hospital and the advent of a much better trained entrant to general practice has widened the horizons of the family doctor. Shared care here presents a similar problem. We now need explicit protocols for shared care between the hospital and the practice defining who does what and when.

Two other features are worthy of comment for they are different from practice forty years ago. The initial assessment of problems is now enhanced by open access to diagnostic facilities and studies show that we use them appropriately. This will increase. Lastly, there is now increased awareness of the vital need for general practitioners to be really skilled and involved in the care of the dying at home. Compassion is essential but it is not sufficient alone.

I would not wish to imply that all is right in the world of general practice. There are unexplained and unacceptable variations in standards, but I do believe that if Joseph Collings were to survey his practices again he would tell a very different tale and that the National Health Service can be proud of its achievements in this field.

References

1. Collings J S (1950). General Practice in England Today. *Lancet* 1, 555–585.
2. Fry J Ed (1980). Primary Care. Heinemann, London.
3. Health & Personal Social Statistics (1986). HMSO, London.
4. *Journal of Royal College of General Practitioners* (1988). News Section: Education Division. 38: 185–186.
5. Drury M (1988). The Practice Receptionist Programme. *Journal of the Royal College of General Practitioners*. July (In press).
6. Kenkre J, Drury M and Lancashire R J (1985). Nurse management of hypertension clinics in general practice assisted by a computer. *Family Practice* 2: 17–22.
7. Greenfield S, Stillwell B and Drury M (1987). Practice Nurses: social and occupations characteristics. *Journal of the Royal College of General Practitioners* 37: 341–345.
8. Agius L and Gregg I (1984). The roll of the practice nurse in the management of asthma. *Nursing* 2, 815–819.
9. Drury M, Greenfield S, Stillwell B and Hull F M (1988). A nurse practitioner in general practice. *Journal of the Royal College of General Practitioners*. (In press).
10. Reading S (1987). Developing the role of the practice nurse in diabetic care. *Practitioner* 231 (1439), 1559–1562.

Hospitals for human beings

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The first 40 years of the National Health Service has witnessed enormous changes in medical practice and patterns of patient care. Life for a patient in a hospital in this country in 1988 is very different to that in 1948. But do these changes represent an improvement in the provision of care? In order to address this difficult question it is necessary to examine briefly the changing roles of hospitals over this period and also to explore how medical practice has developed, with particular attention to the impact of new medical technology on the life of the individual patient.

Some simple statistics make it quite clear that the pattern of life in hospitals must have altered quite dramatically over the last 40 years. There has been an overall reduction in the number of available beds since 1949 from 160,000 to 129,000 in 1985. Yet whereas in 1949 only 1.99 million patients were treated in the nation's hospitals, by 1985 this figure had risen to 4.9 million. Consequently, the average number of patients treated per hospital bed increased from 12.4 to 38.1 between the two years. And one of the key factors underlying this development has been the increasingly rapid rate at which patients have moved through hospitals. In the mid 1950s the mean length of stay in hospital was 19.6 days; by 1985 this duration had fallen to just 7.3 days.

The changes observed at the national level are equally visible in the experience of my own teaching district of Central Oxford. Table 1 shows that the average medical patient spent 5.9 days in hospital in 1986. The average length of stay for three particularly common medical disorders is shown in Table 2. It is clear that there has been a dramatic reduction in the time spent in hospital for the treatment of most common medical disorders. Furthermore, these figures hide the important fact that as the population has increased in age many general medical admissions are made up of elderly patients who often are difficult to return immediately to the community. This suggests that younger patients are moving in and out of hospital extremely rapidly.

I believe that this extraordinarily rapid turnover of patients, leading to what has been called 'revolving door medicine', has had profound effects on the lot of patients in hospital. Of course, some of the reduction in the duration of inpatient stay reflects changes in clinical practice. For example, in 1948 it was often thought necessary to keep people in bed after myocardial infarction for up to a month.

Subsequently, however, well designed clinical trials have shown that there is no advantage in keeping patients with uncomplicated infarcts in hospital for more than five days. Nevertheless, with bed occupancies running at over 90 per cent, and an extremely rapid turnover in patients, the question of whether the pastoral sides of medical care are being dealt with adequately must be raised.

Unfortunately, there have been few investigations of consumer reactions to hospital. An exception, however, is the extensive questionnaire study carried out in Cardiff from which a number of worrying features emerged.¹ In particular, there was a perceived defect in communication during patient stay in hospital reported by between 30 per cent and 50 per cent of the patients who were interviewed. About 44 per cent of the respondents felt that communication at the time of discharge had been insufficient and around 30 per cent sensed some loss of personal identity in a modern teaching hospital. Another interesting feature of this study was the extraordinary variation in standard among the nine hospitals analysed. Although more data of this type are needed it is clear that despite efforts to maintain patient service, areas of shortfall remain, particularly on the pastoral sides of medical care.

Apart from these changes in the pattern of patient throughput in our hospitals, there have been major organisational changes in both the medical and nursing professions. In most teaching or district general hospitals there has been a remarkable move to sub-specialisation in all the major specialties. And the various reorganisations of the nursing profession have changed the rather personal approach to patients that characterised British nursing in the 1940s; the hierarchy of administrators has not always led to a better quality of nursing and the disappearance of the matron and the experienced ward sister has been to the detriment of the pastoral side of nursing which, until the reorganisation, were better than anywhere else in the world.

Of course there have been enormous changes in medical practice over the last 40 years. When the Health Service was started very little could be done for many of the common diseases of western society. In contrast, today, although little progress has been achieved in understanding the pathogenesis of heart disease, degenerative disease, and the major psychiatric disorders, enormous advances have been made in the management of these conditions through the development of high technology patch-up procedures. The start of the Health Service followed the heady period of medical research with the development of vaccines and antibiotics. The community thought that anything was possible in medicine and expected instant therapies against the major killers of western society. However, the high technology patch-up approach to medicine changed hospitals into what came to be perceived as rather terrifying factories where patients lost their identity. And the failure of the medical profession to get to grips with the basic causes and management of many common disorders led to some disillusionment with standard medical practice and the move towards alternative medicine. These factors, together with the increase in adverse media comment that the Health Service received in the 70s and 80s, must have had a deleterious effect on morale for patients coming into hospital.

Table 3 summarises some of the problems of revolving door high technology medicine. Undoubtedly the major difficulty has been to maintain high standards of doctor/patient interaction, and if there is one problem that stands out it is communication. Because of the rapid turn-over and high pressure on beds there has also been some loss of

Table 1 General medicine, Central Oxford 1976-1986

	Beds available	% occupied	Dis/deaths	Alos*	Throughput
1976	159	88	7,050	8.3	39
1986	138	94	8,586	5.9	58

*Average length of stay

Source: Private Communication, Oxford District Health Authority.

Table 2 General medicine, Central Oxford 1976-1986

	Average length of stay	
	1976	1986
Ischaemic heart disease	16.1	8.7
Respiratory disease	10.4	4.6
GI disease	10.5	6.5

Source: Private Communication, Oxford District Health Authority.

Table 3 Problems of revolving-door high technology medicine

1	Lack of time for communication
2	Loss of corporate spirit
3	Reduced standards of clinical care
4	Reduced standards of clinical teaching and research

corporate spirit; the old team spirit with ward sister and medical staff has suffered. In addition, despite the improvements in the general health of the community as evidenced by standard mortality figures, there is a feeling that there may have been some reduction in the standard of individual patient care, most notably in its pastoral aspects. And, finally, there is no doubt that our medical students have found considerable difficulty in getting to grips with the basics of clinical practice in an environment where patients are in and out of hospital so quickly that they barely have a chance to see them. At the same time, it has become more difficult to carry out clinical research in these overheated environments. There is therefore a very real dilemma to resolve: how to create efficiency in a teaching centre without reducing the standards of education and clinical research.

The difficulties are not unique to the NHS but are being encountered in all developed countries. To quote from the 1988 Shattuck Lecture given by Paul Ellwood: 'The health care system . . . is unstable, confused, and desperately in need of a central nervous system that can help it cope with the complexities of modern medicine. The problem is our inability to measure and understand the effect of the choices of patients, payers, and physicians on the patients aspirations for a better quality of life.'² This is the description of the current scene in the United States, a country which spends more of its Gross Domestic Product on health than almost any other major industrial nation. In reviewing Ellwood's Lecture, Caper has commented that 'It is unreasonable to expect physicians – or patients – to trade immediate benefits at the bedside for longer term benefits to society, without clear signals about what limits have been or will be set'. It is my belief that these problems have arisen because of the enormous expansion in medical technology, the rapidly increasing elderly population, and our inability to get to grips with the basic causes of, and methods for preventing, the common killing diseases of western society.

Looking to the future, substantial opportunities clearly exist to improve patient care and the lot of the individual patient. Some of these are summarised in Table 4. New developments in molecular biology offer, for the first time, the possibility of understanding the basic causes of heart disease, diabetes, cancer, rheumatic disease, and the major psychiatric disorders. These advances, combined with clues from epidemiological study, may allow us for the first time to treat these conditions logically and gradually to reduce the

prevalence of high technology practice in the future. The benefits of new understanding in the molecular sciences are already filtering through to clinical genetics but there is clearly some time to go before they will have a significant impact in polygenic diseases such as cancer and heart disease. At the same time, more solid scientific methodology is becoming available to aid decision making, to measure the outcomes of modern medical practice and to facilitate the development of information systems which have a key role to play in helping order priorities in, and devise more logical approaches to, medical practice.

Overall, the NHS has been extremely successful and its current problems are a simple reflection of those of all western societies. The last 40 years have seen an enormous expansion in what can be done for patients without similar progress in understanding the basic mechanisms of disease and the ways in which to analyse the mechanisms and outcomes of patient management. Recent developments in the basic sciences, and in medical decision making and outcome management, should promote a more logical approach to patient care. The current difficulties in the United States underline the problems that arise with a multiplicity of sources financing medical care. Given the current prospects for improvement of medical practice at every level we should jealously guard the future of the NHS: we are in a better position than almost any country in the world to take advantage of the new prospects for rationalisation of medical practice because the infrastructure (or 'nervous system' as Ellwood calls it) is already there. I firmly believe that the next few years will see a major change in our approach to disease and to the analysis of health care delivery. The advances can, most easily, be integrated into our present structure. The methodology is becoming available for us to advise government on health care priorities and for more logical ways of organising health care. But this will only work if we maintain a single centralised NHS. The urgently needed advances in preventative medicine, medical decision making, and outcome management will require sophisticated information systems for their dissemination. The gap between the innovators in our university departments and teaching hospitals and our health service administrators is still one of the major factors in delaying progress. It is clear from the American experience that wider diversification of the funding of our health services will simply accentuate this problem.

The quality of young people coming into medical schools today is higher than it has ever been before. Their interest in the pastoral aspects of medicine is much greater than it was for those of us who were in the Health Service in its earlier years. There are substantial opportunities for progress in understanding the basic causes of the common complaints that fill our hospitals as well as for rationalisation in the delivery of health care. All of these factors should combine to make our hospitals much better places for our patients during the second 40 years of the NHS.

Table 4 Future directions for research into health care

1	<i>Aetiology and prevention</i> Molecular medicine Epidemiology
2	<i>Health care delivery</i> Medical decision making Outcome management Information systems

References

1. Moores B and Thompson A (1986). *The Health Service Journal*, 3 July issue, 892-93.
2. Ellwood PM (1988). *N Engl J Med*, 318, 1549-56.
3. Caper P (1988). *N Engl J Med*, 318, 1535-36.

Individuality in treatment: hypertension

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Individualising the treatment of patients with arterial hypertension depends on a mixture of art and science. The factors that need to be taken into account include the cause of hypertension (if known); its severity; the presence or absence of complications caused by the raised pressure; the demographic context; the presence of other cardiovascular risk factors; co-existing disease; the efficacy of different drugs; and side effects of particular drugs experienced by the individual patient.

The cause of hypertension

A small but important sub-group of hypertensive patients have secondary hypertension. Causes include coarctation of the aorta, renal disease, and various endocrinopathies. The treatment of a patient with, say, a pheochromocytoma or a Conn's tumour is surgical and will differ from that of one with essential hypertension. Some patients with renal artery stenosis or coarctation may be cured surgically or by angioplasty.

The severity of the hypertension

Other things being equal, treatment is influenced by the magnitude of the elevation in pressure. Therapeutic measures of low efficacy but with correspondingly low, or no, morbidity (such as weight loss, reduction of heavy alcohol intake, or dietary salt restriction) may be inadequate in severely hypertensive patients, but may be all that is required in those with borderline elevations in pressure. The decision whether or not to initiate drug treatment in a particular patient with mild hypertension is, however, also influenced very markedly by a number of other factors discussed below.

Complications of hypertension

Uncontrolled hypertension leads to a number of vascular complications. The left ventricle undergoes concentric hypertrophy which may ultimately be succeeded by a dilated chamber with poorly contracting walls and the syndrome of heart failure. Arterioles undergo fibrinoid necrosis in accelerated or malignant hypertension, and larger vessels may burst, as in cerebral haemorrhage, or dissect. Athero-thrombotic disease is also increased in hypertension. The mechanism of this association is not yet understood, but vaso-occlusive disease, particularly in the coronary arteries, is responsible for most of the excess mortality in mild and moderate hypertension in men.

Evidence of such complications, such as an elevated serum creatinine or T-wave changes in the lateral leads of the cardiogram, influences the decision to treat. It may also affect the choice of drug. Negative inotropes (such as β -blockers) are avoided in patients with heart failure, in whom converting enzyme inhibitors may have a uniquely beneficial effect. Conversely, β -blockers or other negative inotropes such as the ganglion blocker trimetaphan are favoured in emergencies such as aortic dissection in which it is desirable not only to reduce mean blood pressure but also the rate of rise of pulse pressure (dp/dt). The diagnosis of accelerated hypertension also influences the whole approach to the tempo with which the patient is managed.

Demographic context

A number of patient characteristics influence the decision whether to treat with drugs, and if so with what. Important factors include age; sex; a family history of vascular disease; racial background; pregnancy; obesity; salt intake; alcohol

consumption; co-existing medication (particularly oral contraceptive use); and physical fitness. The importance of most of these is self-evident. The significance of a blood pressure of, say, 150/105 in a 16-year-old girl in the second trimester of her first pregnancy is clearly quite different from that of the same blood pressure in a 70-year-old man. Racial background is relevant because of evidence that black people are more sensitive than whites to diuretics or to salt restriction, but are correspondingly unresponsive to β -blockers. Such generalisations are useful guides to choosing first line treatment, but are not absolutes: some individual black patients respond very well to β -blockade for instance. Borderline hypertension in obese drinkers with high salt intake may be more appropriately managed by lifestyle modification than drugs.

Cardiovascular risk factors

Since hypertension interacts supra-additively with other risk factors for cardiovascular disease, the co-existence of hypercholesterolaemia, diabetes and/or cigarette smoking critically influences the decision of whether to treat in patients with mild or moderate disease. Other risk factors such as an increased concentration of one or more of the circulating coagulation factors, may prove to be similarly important. The existence of hypercholesterolaemia may also influence the choice of drug. Diuretics adversely affect plasma lipids in some individuals, at least in the short term. In longer term studies of large numbers of patients (for example, the MRC mild hypertension study) the overall effect of diuretics on cholesterol has been very small. Several newer agents do not appear to increase cholesterol at all, and some α -blocking drugs actually improve the profile of plasma lipids (high density lipoprotein to low density lipoprotein ratio). New antihypertensive drugs may be discovered that favourably influence clotting factors or platelet function, and which may be targeted to particular sub-groups of hypertensives at risk.

Co-existing disease

Co-existing disease may limit the choice of drugs for the individual patient. Obstructive airways disease (for example, asthma and chronic bronchitis), peripheral vascular disease, disease of the cardiac conducting system or diabetes, contraindicate the use of β -blockers. Diabetes mellitus, gout, and hypercholesterolaemia (either primary or secondary), are relative contraindications to diuretics. Ca^{2+} antagonists that act on the AV node (for example, verapamil) can not be used safely in patients with partial degrees of heart block. A sizeable proportion of patients do have contraindications to one or more first line drugs, and one of the favourable aspects of drugs such as clonidine or prazosin is that they have relatively low toxicity and few such contraindications.

Drug efficacy and cost

Drug efficacy should be measured, ideally, against clinical endpoints of stroke, death, myocardial infarction etc. In the case of severe hypertension it is likely that drugs that lower pressure will be beneficial, irrespective of their mechanism of action. This is not necessarily the case with mild hypertension in which excess mortality is mainly due to vaso-occlusive events. Both diuretics and β -blockers have been demonstrated to be effective in reducing stroke in mild hypertension. There are pharmacological reasons to hope that drugs with different mechanisms of action (notably converting enzyme inhibitors) might additionally reduce myocardial infarction, and further clinical trials using these

drugs are eagerly awaited. Meanwhile the choice of first line treatment lies between diuretics and β -blockers. When other things are equal the first choice is usually a diuretic, on grounds of cost. However, hypertensive patients do not behave as a homogeneous population as regards response to drugs. It is a well known clinical observation that some patients respond dramatically to one category of drug but not to another and *vice versa*. At present, the pathophysiological mechanisms underlying these differences are not understood. The clinician must therefore adopt an empirical approach, judiciously substituting or adding drugs as he follows the clinical response.

Tolerability

It is a truism that drugs can only exert benefit if taken. Non-compliance with chronic treatment is often related to side effects. Common adverse effects reported by patients taking antihypertensive medication include: sexual dysfunction; fatigue; poor concentration; depression; postural dizziness; ankle swelling and constipation among many others. Such effects impair the quality of life, and clinicians attempt to minimize them by sensible first choice treatment followed by trial and error changes on an *ad hoc* basis. The object is to tailor the regimen so that the individual feels well. In the future it may become possible to achieve this goal more precisely by the use of psychometric or other predictive methods.

Individuality in treatment: arthritis

FRANCIS DUDLEY HART

There are around 200 conditions in which joints and surrounding tissues can be, and often are, affected; many are of short duration and are painful and unpleasant for a time, but soon disappear. Examples of this type of transient arthropathy are Rubella arthritis and gout. They can on occasion, however, though rarely, run on, persist and cause those alterations in the patient's way of life that disturb and upset physically and emotionally. Any chronic arthritis can cause or aggravate pre-existing anxiety and/or depressive states, particularly rheumatoid arthritis and degenerative changes in the spine, and a doctor dealing with the chronic arthropathies has to be an able diagnostician, applied pharmacologist, rehabilitation expert and physiotherapist, psychiatrist and sometimes a kind of father confessor and always a sympathetic human being. These chronic arthropathies are characterised by daily pain and discomfort, sometimes remitting and relapsing, sometimes unremitting. This 'pain' in rheumatic disorders often has many components, being based on inflammatory, traumatic, systemic and other changes and added to by anxiety, depression and frustration. Many friends and relatives feel they know the correct therapeutic answer to these. Over 200 'cures' have been sent in to me by well-intentioned helpful people from all over the world.

No group of disorders has a richer therapeutic folklore to which most patients are subjected, and often such old fashioned measures re-appear on the market in expensive new forms. A patient with any chronic arthritis must, therefore, be educated in his or her disorder and told something about it, what he can and should do for himself and what he should not do. Every case is an individual problem and needs individual attention and a 'talk-out' with proper rapport between doctor and patient. Talking time is part of the management of such a case, and management is a better term than treatment for it involves advising the patient how to modify her life-style and how to adapt to her disorder at home and at work. She must also understand what her treatment is meant to do and what it is not meant to do, so that her physician is rapidly informed of any therapeutic side effects, whether physical or pharmacological. Even the simplest analgesic produces different effects, good or bad, in what appear to be very similar patients. Charles Ragan, an eminent American rheumatologist in his day, used to say that no two cases of rheumatoid arthritis were the same; it was impossible in drug trials, in his opinion, to get two absolutely comparable groups of patients.

Gout

This used to be a familial disorder of middle-aged or elderly males, who were often obese and lived rather too well. Effective treatment lies now in controlling the acute attacks of gout far better than at any time previously and long-term agents are available to control hyperuricaemia and prevent tophus formation, but we are now occasionally seeing in elderly ladies on long-term diuretic therapy tophaceous gout appearing, a great rarity in pre-war days but an iatrogenic overtone of today. An individual approach in treatment is essential here, and the gouty subject should be his own day to day physician, knowing what he should and should not do to maintain positive gout-free, good health. Economic distress is relatively rare in this group of patients but their life style has often to be greatly modified.

Rheumatoid arthritis

Rheumatoid arthritis is a disorder that may affect one or dozens of joints and the patient may be of any age. It may last

a few weeks or a lifetime; it may persist, remit or relapse. It may be accompanied by much or little systemic upset and the pains may be severe, moderate or slight. It is, in fact, a different disorder in every patient and the extent to which it is accompanied by anxiety, depression or despair, varies with the individual and the extent and severity of the disease. Mothers cannot cope with their families adequately, fathers cannot do their work and earn their living as before and children miss school and games. As one patient said: 'I wake in the morning and look at the ceiling and life seems one long grey tunnel with no light at the other end'. The inability to live positively and do something useful or helpful for self or others is a great strain on even the strongest of characters and in no disease is the personal approach of the physician, therefore, more necessary.

The management team of today includes general practitioner, rheumatologist, physical and occupational therapist, chiropodist, nurse and social services; and often orthopaedic surgeon, dermatologist and psychiatrist and sometimes an adviser in financial affairs as loss of health often leads to loss of income.

Sero-negative arthropathies

This untidy group of inflammatory arthropathies includes Reiter's disease, the enteropathic arthropathies associated with ulcerative colitis or Crohn's disease, Ankylosing Spondylitis and many others, each of which carries personal problems apart from the actual arthritis. Each arthritis also requires its own therapeutic approach. In general younger patients wish to know what the future holds, not only in terms of general health and ability to cope with life, but also the prospects as regards marriage, childbirth and the possibility of bearing children with a similar disorder. The young arthritic from teenage onwards wants much helpful advice on his or her future.

Osteoarthritis

Once considered a wear and tear, progressive, degenerative condition, it is now realised that there are many different forms of this disorder and that many aetiological factors are involved. Genetic, traumatic, inflammatory, metabolic, nutritional and several other factors may play a part in its aetiology, evolution and progress, and while most patients are past middle-age, not all are.

London and any large city is full of elderly, solitary individuals living alone, having lost all close relatives, crippled in varying degree but anxious to maintain their individuality and their own way of life, however restricted. The Social Services, Arthritis Care and similar organisations are very helpful, as are kindly neighbours and relatives but often the village dweller fares better in a smaller well-knit community than the patient living in a big impersonal city.

The generalised type of osteoarthritis often coming on in women at, or soon after, the menopause, although usually less crippling than many other types of arthritis, often has a considerable emotionally upsetting effect on the sufferer.

Conclusion

In no group of disorders is the personal approach to patient care more necessary than in the management of the arthritic disorders. The diseases of the 'Long Pain' as they have been called, often disrupt the life patterns of the individual greatly, affecting his or her ability to work and to live a near normal but modified life. Wage earning, marriage, childbearing, clothing, residence, travel to and from work and many other factors have to be considered in every case.

Pain thresholds, and the effects of symptoms on function vary immensely in different individuals.

After some 40 years dealing with arthritic sufferers I am constantly amazed how courageous and how stout-hearted most are in fighting their complaint and living their lives to the best of their modified abilities. But they do need spiritual, physical and often economic assistance and advice, and happily today this is more readily available than before 1948 when the National Health Service was born.

When I started the rheumatism unit at Westminster Hospital in 1946, there was no such thing as rheumatology as a recognised specialty, and only two rheumatism units existed in London. Departments of physical medicine coped with physically disabled sufferers of all sorts – traumatic, neurological, rheumatic and orthopaedic. Forty years on, rheumatological centres and professorial units are scattered throughout the land, though still too thinly in some locations, and the arthritic patient has now vastly more assistance therapeutically and socially than he or she ever had before the last war. Even so, the arthritic sufferer is still an individual problem at any point in time and needs individual attention and assistance.

Individuality in treatment: the elderly

TOM ARIE

The care of the elderly is like the care of any other group, 'only more so': in our field most of the issues are at their sharpest and most concentrated. The balance is different, but the issues are all there.

It is one of the glories of modern times in countries such as ours that ill health has been pushed back into later life. AIDS, alas, may change that, but for the present it means that the aged are the main group of users of the NHS, and among the main beneficiaries of the advances in medical services and in medical technology, including pharmaceuticals. They are also the most vulnerable, either when medical technology goes wrong or when the NHS wobbles or sags.

Britain is the Mecca of geriatrics. I don't think that people always realise how much this is so. I doubt that there are many other fields that bring so many visitors from all over the world. In the *BMJ* this week¹ people will have seen reports that an inquiry into the care of the aged in America concluded that what they most need is geriatrics as we have it. They haven't got it. Three years ago I said to the New York Academy of Medicine:

'In geriatrics, as in other things, you have an astonishing way of shooting forward and overtaking the rest of us. When America gets going it really moves. But in one essential I think we in geriatrics in Britain are likely to remain for the present well ahead of you. For the essence of geriatrics is the ability to operate a comprehensive service which sees people through. And this is something that our National Health Service enables us to do. Our services are unified across home and hospital and allow staff to move freely between the two, bridging primary care and specialist services.'²

I think that that is the great glory of the National Health Service and should be celebrated today. It is nowhere easy to be old, and to be ill and infirm as well is very hard. But taking it all in all, and particularly taking the wish of most old people to be enabled, with appropriate support, to remain as private citizens in their own homes, we are entitled to be proud that Britain is a better place than most similar countries to be old and infirm in. Whether in the light of the recent great growth of institutional care I shall be able to say the same on the 50th anniversary of the NHS is by no means certain.

We have naturally said much today about drugs. It is good that there is now greater concern with the safety and efficacy of drugs which are given to old and particularly very old people. As a long-serving member of the Committee on the Review of Medicines I have seen this concern grow in importance on the agenda of regulatory bodies and of the industry. As a teacher I see it as a prime responsibility to ensure that all our doctors who work with the aged – and by no means those only who will specialise in the care of the aged – use these drugs in an informed and sensible way.

Medical intervention is often the best bet for old people's social well-being: it is not the whole story, but health and its maintenance is a very big part of a happy old age. Today's drugs are a marvellous source of potential benefit for old people in enhancing both their health, and in what is so often dependent on health, their independence, dignity, their social functioning and their well-being. But when things go wrong with drugs, or when doctors do not think or do not know, old people usually pay a bigger price than younger people, often irremediably.

The unity of technology and care

Two events happened very shortly after I became a consultant in January 1969, and I remember both with the proverbial vividness with which everyone remembers the murder of John Kennedy a few years earlier. One was the announcement that levodopa was now available for patients 'on the National Health'. The other was the brave release by Richard Crossman³ of the Ely Hospital Report, which was soon followed by a series of reports of other scandals in hospitals and long-stay institutions, most of them concerned with the care of the aged. At the same time Crossman created the Hospital Advisory Service, which is now the Health Advisory Service, and which keeps an eye on those parts of the NHS which are too easily forgotten. Both events were landmarks for old people, and they together emphasise how in the care of the aged technological advance and good caring services are both indispensable. I hope that by this 40th anniversary we have at last got rid of the false and silly antithesis between the two. Old and very old people need good caring services, but they very often also need high technology, not only to preserve life but to ease suffering and to sustain the quality of life.

Reading Sir Roy Griffith's recent report on community care,⁴ in many ways an admirable document, it is clear that he too recognises this. But it is also clear that he does not see how intertwined are technical medicine and 'care'. The growing desegregation of geriatrics and its establishment in good facilities in the district hospital is the fruit of the recognition of this interdependence between technical skill and good services. Geriatrics, it must be said, came into being by default of general medicine but it has become something that is neither the same as, nor, as some put it, 'just' general medicine. It is more and it is different, as George Godber has reaffirmed in this week's anniversary *British Medical Journal*.⁵ Geriatrics needs to be cheek-by-jowl working closely with general medicine – and not just with general medicine, but with all the facilities and skills of the DGH – just as it needs to be out there helping, rescuing and supporting old people and those who care for them, and 'seeing them through'.

Settings in which the aged are cared for

It is a cause for rejoicing that stigmatised and segregated workhouses for the aged are now almost (but not quite) a thing of the past. We must make sure that new mini-workhouses are not created among the host of small, long-stay units, both public and private, which are now favoured (probably rightly) for the long-term care of old people.

I want to read some lines from a report on such a smaller unit that was issued by the Centre for Policy on Ageing just the other day.⁶ It describes the place:

'The rural setting of the home with its surrounding fields, long approach drive, and duck pond, has attractions for some people. For others the isolation of the site has no charms, may well be a deterrent to visitors and inhibit community involvement. The fact that few of the Trustees and Directors visit regularly may also be a demonstration of the difficulty of access.'

Then that section concludes:

'For all, their most basic needs – for shelter, warmth and food – are being met. For most, these are supplemented by companionship and, as necessary, personal care. The missing element for the majority has been any degree of tenderness or human warmth from those in charge of the home.'



Figure 1



Figure 2

Corridor in General Hospital



Figure 3
Longer stay ward



Figure 4
Day hospital



Figure 5
Corridor in University Hospital



Figure 6
'Skegness'



Figure 7
The pier



Figure 8
Admission ward



Figure 9
Admission ward



Figure 10
Admission ward - Camellia House in Wollaton Park