Debate

What price excellence?

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Editor's note

The author, a cardiac surgeon specialising in heart transplantation, argues that excellence in medicine must always be pursued and confronts the problems of specialties and super-specialties with widely varying costs and benefit in which the pursuit of excellence results. He advocates that decisions on resource allocation should be the responsibility of the Department of Health and Social Security, acting on the advice of the public's elected representatives on the one hand and the medical profession on the other. The profession has an ever-increasing responsibility to ensure that its advice is soundly based on rigorous self-audit, which should include considering the costs and benefit of its work.

His commentator, Lady McCarthy, until recently chairman of an area health authority, responds by arguing that the tripartite system for resource allocation does not work. Doctors resent the imposition of any priorities other than their own. Their two-dimensional medical ethics, concerning doctors' obligations to individual patients, must be supplemented by concern for society as a whole.

Both papers are based on contributions to the 1982 annual conference of the London Medical Group on Appropriate Medicine.

The title given to me today is such a broad one that it is inevitable I should approach it from a rather personal standpoint and I trust I shall be forgiven for doing so.

I would start with the observation that the very way the question is phrased 'What price excellence?' smacks of rhetoric and tends to convey the implication that the price we pay for excellence in medicine is too high and that funds devoted to achieving this might be more appropriately directed towards other activities. Perhaps, also, the very fact that I am involved in one of the more expensive specialties, bringing benefit to the few rather than to the many, is not entirely coincidental to my having been invited to discuss this subject.

In any event, I propose to defend the practice of excellence in medicine. At the same time, I shall try not

to ignore the problems this raises, most of which are an inevitable consequence of the ever-increasing expansion of medical knowledge on the one hand, and a finite health budget on the other. Indeed the dilemmas presented by this conflict of interests are at the heart of many of the issues discussed at this symposium.

Before proceeding further, I would like to be quite clear about what we mean by the words 'excellence', 'medicine' and 'health'. If one looks at the *New Oxford English Dictionary*, one finds that excellence is defined as 'the state or fact of excelling; the possession chiefly of good qualities in an eminent or unusual degree; surpassing merit or skill.' Whereas medicine is defined simply as 'the art of restoring and preserving health'. Our concept of health is more difficult to define but for most of us it would imply a state of physical and mental well-being, associated with a reasonable expectancy of the duration of life.

One way of approaching an analysis of 'What price excellence?' would be to begin with the following two questions: Firstly, how is excellence achieved in medicine and, secondly, is the price paid for excellence too high and, if so, in what terms – by which I mean money, manpower or resources.

As far as achieving excellence in medicine is concerned, this must start with the selection of students for medical school, but I do not intend to get involved in that controversial problem. Let us therefore pass over this and examine where our responsibilities lie with regard to providing the best clinical and academic environment in which excellence can flourish.

I believe that a desire to excel in one's chosen work, whatever this may be, is a fundamental human quality and that, although this may sometimes be seen as a competitive element in a person's character, it is usually closer to one's creative instinct than to sheer ambition. Hence the great importance attached to teaching throughout our medical training. For it is the inspiration we receive from our teachers while acquiring our medical skills that is usually the most potent stimulus to excel in our own work. Put in a different way, centres of excellence are dependent upon the intellectual and human qualities of those working within them, rather than upon the grandeur of the buildings within which the work goes on.

One of the great advantages of medicine as an occu-

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pation is the wide range of activities that are open to us after qualifying. General practice, hospital medicine, community health or scientific research – all are possibilities and can be followed according to each individual's inclinations and talents. However, it is within the sphere of clinical medicine that I wish to confine my remarks. Here, as in other fields, the growth of knowledge has brought with it the inevitability of specialisation and, in some cases, 'super-specialisation'. There is no doubt that this has created problems, both with regard to the training of doctors at undergraduate and postgraduate levels and with the provision of a properly balanced health service.

An example of how far and how rapidly specialisation has progressed is that when I qualified, just under 20 years ago, the specialty of urology was in its infancy and most urological work was undertaken by general surgeons with an interest in the subject, with only a few specialist urologists in the postgraduate institutes and teaching hospitals. Recently, however, a urological friend of mine was telling me that his work is now almost exclusively confined to reconstructive surgery of the urethra, and that sub-specialisation within urology has proceeded to the extent that no one surgeon can possibly hope to be expert in all aspects of the work which includes urodynamics, reconstructive surgery, cancer of the genito-urinary tract and renal transplantation. Similar examples could be drawn from ophthalmology, spinal surgery, and many other specialties, so that I believe we have to accept, albeit sometimes unwillingly, that excellence in a particular field of medicine demands concentration on that subject to the exclusion of other areas of medicine of equal importance. Here there is an obvious potential conflict of interest between colleagues, particularly in hospital practice. Most of us are enthusiastic about our chosen specialty and it may be difficult to be objective about the value of another clinician's work, when all are competing for a limited share of the available funds.

However, rather than trying to examine how that thorny problem might be solved, let us simply accept that a high degree of specialisation in medicine is inevitable. If this is so, is it correct to assume that excellence within specialisation must always be expensive? Not necessarily I believe and would offer for your consideration the way in which we might refer to an 'excellent' maternity or rehabilitation unit. In such examples, we are usually defining our standards of reference in terms of the high quality of the personnel working within those units as being responsible for conferring excellence, rather than on the presence of a lot of expensive and sophisticated equipment.

Having said that, there is no doubt that many of the more technically advanced specialties are indeed very expensive, good examples being neurosurgery and cardiac surgery. These are expensive not only because they require the use of complex diagnostic and operative equipment but also because they depend upon the involvement of a highly trained multidisciplinary team, all of whom are necessary for a successful out-

come. Perhaps the most vivid example of this is in the sphere of cardiac transplantation where success is only likely to be forthcoming if the necessary expertise is available at every level of involvement of the work. This makes it very expensive in terms of manpower and resources, but, at the same time, we have found that the quality of the clinical and laboratory services associated with our programme has tended to improve as a result of their involvement, and this has obvious benefits for other patients undergoing routine admission to our hospital. But how do we attempt to assess the benefit of this sort of spin-off from the pursuit of excellence? And perhaps of even more importance, how do we take account of the associated, purely scientific benefits? I do not believe that this can be done in terms of strict financial equations, but this does not mean to say that we should exclude them from consideration. In this respect I would like to read to you a brief extract from a speech made last year by one of the great pioneers of kidney transplantation, Jean Hamburger. He was talking about the future of transplantation in general and how he thought developments in biomedical engineering might eventually make organ transplantation obsolete. He went on to say:

'I do not think that transplanters should be saddened by the idea that the art of transplantation might no longer be necessary for the treatment of disease 100 years from now. In the 22nd century children will learn that there was once an era of transplantation, when doctors were audacious enough to take the heart or the kidney of one person and give it to another. These children will be taught that this strange technique saved the lives of thousands of humans. But they will also learn that the era of transplantation produced the most fantastic change in the history of biology and medicine: the HLA [Human Leucocyte Antigen] story, the definition of personality, the importance of genetic polymorphism for species survival, the many secrets of cell-mediated immunology, the importance of the recognition of the self for cell interactions, the prevention and cure of a series of diseases that initially necessitated organ grafting, in brief, a hundred new approaches to the image of Man, in health and in disease – a true revolution will have resulted from a body of research which, at the beginning, had an apparently limited aim: to find a way of replacing a destroyed organ.' (1).

Having quoted from that speech, I do not mean to imply that the price of excellence in medicine should not be submitted to hard financial calculation. It is both inevitable and correct that, in these times of financial stringency this should be so. In our own case, the Department of Health and Social Security (DHSS) has initiated a cost-benefit analysis of the heart transplant programmes at Papworth and Harefield Hospitals. The main purpose of this is a comprehensive assessment of all capital and resource costs, but, at the same time, outcome in terms of patient survival and

quality of life will also be looked at. This, I believe, is an important component of the study, because, however difficult it might be to defend a particular branch of high-technology medicine, it becomes almost impossible to do so unless it can be shown to be effective therapeutically.

Clearly this makes for difficulties when trying to initiate an expensive new development like cardiac transplantation. During the period of clinical evaluation it would seem entirely reasonable that funding should come mainly from research monies and private benefaction. However, if, after the process of evaluation, cardiac transplantation is shown to be as cost-effective for treating patients with terminal heart disease as, say, modern oncological methods are for treating patients with terminal cancer, then it would seem to be the responsibility of the DHSS to determine what the relative funding for these two activities should be.

There are those who would argue that the means for making such difficult judgments and decisions are simply not available. However, I believe that our National Health Service, despite its many imperfections and bureaucratic restrictions, still provides the framework for a fairer distribution of health care to *all* members of our population than any other system past or present.

It would be unrealistic to expect such an ambitious endeavour to function smoothly and efficiently at all times and evidence for failure in this respect has been the regular need for governments to reorganise the NHS's administrative structure. It would be even more naive to anticipate that a correct and just balance between the limitless demands made on the delivery of health care will always be achieved. There have been occasions when medical decisions have been imposed on the profession as a result of predominantly political considerations, and there have been other instances when powerful pressure groups within the medical profession have effected expansion in a particular direction which has been at the expense of other developments.

On the whole, however, I am of the firm conviction that the basic structure exists for a fair and reasonable distribution of health resources now and in the future. What we have is essentially a tripartite structure, comprising firstly the general public in the form of its elected political representatives; secondly, a branch of the Civil Service as represented by the Department of Health and Social Security and thirdly the medical and associated health professions. As I see it, it is the responsibility of the Department of Health and Social Security to organise and administer the delivery of health care in a balanced and appropriate way on the basis of the wishes of the people as expressed by government policy on the one hand and on the advice received from the medical profession on the other.

As the complexity of modern medicine increases, it is perhaps in this latter area that our greatest responsibility lies. Not many doctors enjoy being drawn away from clinical medicine into the realm of what can only be called medical audit. But it is essential that we at least think about how to assess the costs and benefits of the content of our work for only as a consequence of this, and the subsequent advice proffered to the Department of Health and Social Security, can we hope for the balanced provision of medical services to be forthcoming that we all so earnestly desire.

Furthermore, I believe that the process of regularly reviewing the results of one's activities leads to an improvement in performance and helps towards the goal of achieving excellence in one's chosen specialty. An example of what I mean by this is the recent establishment of an annual register for cardiac surgery. Each year every practising cardiac surgical unit in the United Kingdom, of which there are now more than 40, is required to submit details of the number and type of operations performed, as well as the mortality from these operations, which is defined as death at or within 30 days of operation. A system for preserving confidentiality of the separate returns has been devised but each year an analysis of the total national experience is published, so that individual surgeons can compare their performance with the national average for all common types of cardiac operations. In this way the standards of units with poor results in terms of high operative mortalities are being encouraged to improve.

In conclusion then, I hope to have persuaded you that excellence in medicine is worth pursuing. Certainly from the consumers' point of view, that is from the patients' point of view, this is so. For them the price of mediocrity is always too high if it means that the risk of dying, or suffering morbidity, from a particular operation is needlessly high. And in many other less dramatic instances it is evident that the cost of mediocrity, both in human and in financial terms, is higher than the cost of excellence.

At the same time I am perfectly willing to acknowledge that the financial cost of the pursuit of excellence, particularly when this involves sophisticated methods of diagnosis and treatment, can be high and must somehow be brought within the perspective of the total available resources for health care. This means that research workers and clinicians must be more prepared to be accountable for their activities than in the past and also places great responsibilities on the Department of Health and Social Security and local health authorities for ensuring that health budgets are distributed as fairly as possible.

Reference

- (1) Hamburger J. The future of transplantation. *Transplantation proceedings* 1981; 13: 10-12.