Essentials of Health Economics

Part VI (concluded)—Challenges for the future

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In this article we set out a number of possibilities for change which represent joint challenges for the NHS and economists. We have not intended, even if it were within our ability, to suggest a comprehensive solution to the NHS's economic ills. Rather our suggestions should be seen as possible moves in the "right" direction. In any case the comprehensive economic solution would cut across what we said earlier, namely, that the economist's approach represents just one way of looking at the world. They are joint challenges in that not only do they require the NHS to counteract some of the sources of inefficiency already identified but also require health economists to enhance their own contribution along the lines suggested.

Setting priorities in a cost-benefit framework

Priorities are set at a number of levels in the NHS; in national and local planning, in the clinical sphere, and in commissioning research. These should be determined in accordance with costs as well as with benefits. Firstly, for example, health authority plans could be presented not only with each option fully costed but also with some attempt being made to quantify the likely effects on health or health care, so that each proposal could be assessed (no matter how crudely) in terms of costs and benefits. This would require corresponding improvements in the handling of financial information (see part III¹). Secondly, requests for clinical developments could be presented in a more formalised cost-benefit framework along the lines of some of the examples discussed in part V.² Finally, research priorities could be set with reference to the economic perspective. There has already been some discussion in the United Kingdom about setting priorities for medical research in relation to the burden particular diseases impose on the community.³ In Ontario requests for medical research monies are evaluated not only in terms of their methodological soundness but also in terms of whether "the proposal is likely to have an important economic impact in reducing the costs or increasing the efficiency of health services."⁴

Giving incentives for efficiency

In the clinical sphere the experiments with budgeting should be encouraged, although there needs to be a greater balance between research on the mechanisms for setting up budgets and that on the outcomes of the exercise. Do clinical budgets always

lead to more cost-effective clinical decision making? Also the proposals for presenting requests for clinical developments in a cost-benefit framework would reward those clinicians who are prepared to be more efficient. Another initiative which has been explored in a number of countries is to use guidelines for health care practice to promote more effective and efficient care.⁵ For example, in Scandinavian model health care programmes⁶ the incentive for clinicians is to work together with those providing the resources to improve the quality of care within the resources available. Such programmes have been developed for a number of health problems, including hypertension, diabetes, low back pain, and stroke.

Developing administrative incentives may be more difficult. Certainly we would like to see reform in the area of budgetary virement generally. If a new piece of equipment, such as an oxygen concentrator, can be shown to be more cost effective, why not have a mechanism for transferring funds from the family practitioner committee budget to that of the health authority who would provide it? Or why not give patients a year's prescription for a concentrator rental instead of repeat prescriptions for oxygen? (The actual example here is not important in terms of funding, of course; rather it embodies the principle of thinking more widely about budgetary arrangements.) With respect to the interface between NHS and local authority budgets, the recent consultative document on community care begins to get to grips with the problems and sets out possible options for change.⁷ The more radical suggestions, such as setting up a separate agency with its own budget for the care of the elderly, would doubtless pose practical problems but may be worth experimentation. It seems perverse that these more limited institutional changes are not tried, when there have been two wholesale reorganisations of the NHS within the last 10 years.

Strengthening the role of evaluation

The new proposals for appraising capital schemes in a cost-benefit framework⁸ represent the first formal requirement for more evaluation since the reorganisation of the NHS in 1974 and are welcome. Similarly, in evaluating new medical technologies economic appraisal of the new treatment should be carried out in conjunction with the medical evaluation. For this, medical researchers should be encouraged to seek the help of economists. To gain the breathing space for evaluation the diffusion of new technologies should be regulated more closely until the results of the evaluation are known. There may also be good medical reasons for controlling diffusion; new treatments often require new medical and nursing skills and there are benefits from a small number of clinical teams gaining vital experience in a few selected locations. These proposals could be implemented by the granting of research monies and the funding by regions of regional specialty centres.

The vast majority of NHS expenditure would, of course, be untouched by these proposals. Hopefully, the current financial

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stringency, coupled with the proposals for priority setting and giving incentives for efficiency, will encourage clinicians and managers to adopt an economic way of thinking. Several new measures, including the setting up of a management advisory service,⁹ have been designed to encourage more efficiency on the part of health authorities. Only time will tell whether these are successful.

Providing more education in health economics

Since the resources are not available to evaluate every resource allocation decision formally, clinicians and managers should understand the economic way of thinking and the ways in which it can be applied to the difficult choices that have to be made in the health care field. NHS managers have some experience of health economics during the various management courses they attend, but until recently the same opportunities have not been open to clinicians. The DHSS and some English regional health authorities, however, are now providing management courses for consultants and general practitioners, some of which include an economics component. As far as we know the position is not so encouraging in medical undergraduate education, where in Britain health economics has made very few inroads. Medical educators need to find space in the curriculum and economists need to develop suitable teaching material. (The students at the University of Aberdeen have one and a half hours of economics in five years.)

Conclusions

As economists our biggest challenge is in trying to gain wider acceptance by doctors and other NHS professionals of the ideas

put forward in this series. Perhaps the biggest challenge the NHS faces today is the one it has always faced since it was founded: to ensure, within the resources available and within some commonly agreed view of fairness, as healthy a population as possible. In this we see no conflict between economics and medicine. As health economists we try to understand the functioning of the NHS and see how economics can contribute to an equitable, efficient health service. We hope that doctors in their turn will see the value of trying to understand and apply the principles of economics in their pursuit of the same goal.

References

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A woman aged 50 has made a remarkably good recovery from an extensive cerebral infarct two years ago. She was advised at the time to take 300 mg aspirin daily for the rest of her life and is most scrupulous about it. Despite various manoeuvres with soluble aspirin and alkali she gets a great deal of epigastric discomfort and has asked if vitamin E in a daily dose would be an effective substitute. Is this so?

If the patient had a definite cerebral infarct it probably resulted from either heart disease or carotid artery disease. Thrombi originating on atheromatous arterial walls are composed largely of platelets, and there is much interest in the role of antiplatelet drugs (such as aspirin, sulphinyprazole, and dipyridamole) in the prevention of arterial thrombosis. In a large trial of patients with both transient and completed stroke¹ aspirin in a dose of 325 mg four times a day reduced the risk of further stroke in men but not in women. Indeed, women taking no antiplatelet drugs had a lower incidence of stroke than those who had been taking aspirin.² The patient has taken her medication scrupulously, and it may be difficult to dissuade her from continuing to take it. If so she might be persuaded to take a single aspirin tablet, say twice a week. A lower dose such as this is theoretically more logical, but whether it would reduce her chances of further cerebral episodes is not known. In vitamin E deficiency lipid peroxides form in advanced atherosclerotic lesions. These peroxides selectively inhibit generation of prostacyclin by the vessel wall without affecting production of platelet thromboxane A₂.³ They may therefore predispose to thrombus formation. The administration of the antioxidant vitamin E to reduce formation of lipid peroxide would seem a reasonable approach. We have, however, no clinical data to show that vitamin E prevents the recurrence of strokes.—GRAHAM P MULLEY, consultant in geriatric medicine, Nottingham.

The garden of a community unit for mentally handicapped children has several mature yew trees. These trees are said to be toxic and thus a potential hazard to the children. Is this so, and should they be chopped down?

The main toxins found in the yew tree are the alkaloids called taxine A and taxine B. They are found in all parts of the tree except the red fleshy part of the berry¹ and are capable of producing serious cardiac problems including hypotension, bradycardia, and depression of myocardial contractility and conductivity. Although the alkaloids are reported to be highly toxic, this is disputed,² and in 19 years of monitoring the National Poisons Information Service in London has received no reports of fatalities and only a few cases with symptoms. In practice, only minor gastrointestinal symptoms have occurred, and these may be due to irritant oils rather than to the alkaloids themselves.² This is because the part of the tree usually ingested is the berry and, although the seed inside contains the alkaloids, this is not broken down by gastric juices and passes harmlessly through the gut.¹ There is one recent report of a 28-year-old female "mental patient" who died after respiratory and cardiac arrest. She had eaten four to five handfuls of leaves from a yew tree used for a Christmas decoration.³ Despite this, we do not think that the yew tree is as serious a hazard as some authorities would have us believe and suggest that provided that the staff of the unit are made fully aware of the potential danger there should be no need to cut down the trees. At the same time, we would advise that any severe cases of yew poisoning should be reported to the National Poisons Information Service to ensure continuous monitoring of this problem.—GLYN N VOLANS, director, and SUE PERRY, information officer, Poisons Unit, London.

¹ Lampe KF, Fagerström R. *Plant toxicity and dermatitis: a manual for physicians*. London: The Williams and Wilkins Company, 1968:37-8.

² Proudfoot A. In: *Diagnosis and management of acute poisoning*. Oxford: Blackwell Scientific Publications, 1982:214.

³ Schulte T. Lethal intoxication with leaves of the yew tree. *Archiv für Toxikologie* 1975;34:153-8.

¹ The Canadian Cooperative Study Group. A randomized trial of aspirin and sulfinpyrazole in threatened stroke. *N Engl J Med* 1978;299:53-9.

² Thompson JE. The Canadian trial of aspirin and sulfinpyrazole in threatened stroke. *N Engl J Med* 1978;299:954.

³ O'Grady J. Prostacyclin. In: Turner P, Shand DG, eds. *Recent advances in clinical pharmacology*. Vol 2. Edinburgh: Churchill Livingstone, 1980:113-28.