MEDICAL PRACTICE

*Essentials of Health Economics***Part I—What is economics?**

G H MOONEY, M F DRUMMOND

The growing interest in health economics is not surprising. National Health Service (NHS) funds have risen relatively slowly in real terms over the last few years. At the same time technological developments in medicine have conspired to increase costs, not only because they often require more expensive procedures but also because they increase the patient population who, at least potentially, could benefit from treatment. All this serves to put pressure on a health service which has stated priorities for quite different services—such as community care for the elderly, mentally ill, and mentally handicapped—and which is still reeling from the suggestions in the Black Report¹ that social inequalities remain.

Various solutions have been proposed for the ills of the NHS. The first group, which might be termed “radical surgery,” suggests changing the system of financing the NHS more towards those existing in other countries or attempting to promote health outside the confines of the NHS. The second group, which might be termed “medical management,” is more concerned with finding ways to use resources within the NHS more rationally. This is clear from the recent guidance from the Department of Health and Social Security (DHSS) on the appraisal of capital developments,² the new emphasis on monitoring performance at all levels,³ and the growing interest among doctors and others to find more cost-effective ways of deploying clinical resources.

Role of economics in health care

Economics is about getting better value from the deployment of scarce resources. Since the mid-1960s economists in many countries have been turning their attention to health services and have considered the economic aspects of different options in the financing, planning, and management of health care. Given the current interest, the time seems to be right to assess the contribution of the analysis carried out so far and to introduce doctors to some of these ideas.

In this series of 12 articles we hope to provide doctors interested in health economics with an appreciation of some of the basic issues in meeting the objectives of health care within the resources available in the best way possible. It should also allow them to see in a fairly practical way what economics has already contributed and what economists and doctors together need to do to enhance that contribution in the future. Since economics does not represent merely a bag of analytical tools but also, and more fundamentally, a way of thinking about choice we discuss in this first article some misconceptions about economics to highlight some of the more important underlying principles. Subsequent articles will indicate how economics can contribute (and indeed has done) to issues of financing, planning, organising, and evaluating health services. The concluding articles will present a critique of the state of the NHS and of health economics and outline some challenges for the future.

Some common misconceptions about economics**MONEY**

Like so many misconceptions there is an element of truth that “economics is about money.” But economics could exist, and indeed does so, in some guises without the use of money—for example, in barter economies or in the practice in rural areas of paying the GP with a chicken or a bottle of whisky. It is not money by itself that makes the world go round; it is resources—for which we frequently have money values—which are

Health Economics Research Unit, Department of Community Medicine, University of Aberdeen, Aberdeen AB9 2ZD

G H MOONEY, MA, director of health economics research unit and senior lecturer in health economics

Health Services Management Centre, University of Birmingham, Birmingham B15 2RT

M F DRUMMOND, BSC, MCOM, lecturer in economics

essential to the workings of any society, firm, organisation, or indeed family unit. Money is thus used in economics as a measuring rod to allow different resources to be summed together in value terms. Indeed, since resource "inputs" (cost) are already frequently measured in money terms, in order to compare inputs and outputs monetary values are put on the outputs (the benefits) as well.

COSTS

That economics is essentially about costs is correct, but it is incomplete and subject to misunderstanding. Costs are important in economics but no more so than benefits. Yet the two are very closely linked. The concept of costs which is of interest to economists is that of *opportunity cost*; that is, that since resources are finite deploying them in one way means that a benefit is forgone in not having them available to pursue the next best alternative. Thus cost is a measure of sacrifice. Yet in health care it is all too easy to lose sight of this concept of cost. Few clinicians have budgets. Consequently they are less aware of not only the total resources they consume but the cost of such resources. If their concern is only for their patients, they do not see the benefits forgone elsewhere if they succeed in obtaining an extra nurse or a new scanner. Economics is thus about opportunity cost and about benefits, because aiming to keep costs down (reducing opportunity costs) means maximising the benefits of health care—in other words, being efficient.

CUTTING COSTS

That economics is about "cutting costs" is true, but it sells economics short. Economists are interested in cutting costs as a means to an end and not as an end itself. If varicose veins can be treated as effectively by injection compression sclerotherapy as by surgery, but at less cost, then this more cost-effective policy should be pursued. Although the patients with varicose veins will not necessarily be better off the rest of us will be, since some of the resources previously tied up in surgery can be released to provide benefits elsewhere in health care, in the public sector generally, or even, through reduced taxation, in our personal consumption.

There is too an important difference between trying to economise and seeking out the most cost-effective policies to

meet particular objectives. Economising says nothing about the benefit side but purely cuts costs, whereas cost effectiveness means cutting costs but not at the expense of less effective outcomes.

LIKE ACCOUNTANCY

Both accountancy and economics deal with costs and both are concerned with issues relating to efficiency. Yet there are important differences. For example, accountants will normally be concerned only with those costs which fall on the organisation for which they work, while economists take a much broader view of costs and incorporate in any analysis all the costs no matter on whom they fall—for example, the cost of home helps falling on local authorities. Thus, often accountants analyse costs only in terms of cash expenditure and not by the economic concept of opportunity cost, which would include the time patients spend in attending for treatment. Accountants are often concerned solely with costs whereas economists compare different patterns of use of resources with the various patterns of the benefits arising.

Conclusions

The concept of opportunity cost and therefore the notion of sacrifice are central to health economics. Applying economic principles is aimed at maximising the benefits, however defined, from the resources available. To do this the Health Service needs to find the most cost-effective solutions in pursuing its objectives at all levels.

Next week's article will continue to examine the role of economics in health care.

References

- 1 Department of Health and Social Security. *Inequalities in health*. London: DHSS, 1980.
- 2 Burchell A, Gilbert BK. *Appraisal of development options in the national health service*. London: DHSS, 1982.
- 3 Anonymous. The search for efficiency. *Hospital and Health Services Review* 1982;78:133-5.

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Clinical curio: hypersensitivity after a sea urchin sting

I would like to report on what must be quite a rare syndrome that I personally experienced after a sea urchin sting in the palm of the left hand acquired when on holiday in Yugoslavia in July 1981. I have failed to find such symptoms recorded, though colleagues in certain specialties, in particular tropical medicine, have come across or heard of similar conditions—for instance, after bee stings, snake bite, or weaver fish stings. The initial sting resulted in 12 punctures with retained bits of the brittle spines in most of them. Some bits were teased out within about an hour of the incident but four or five remained deep and defied efforts at simple removal. About four weeks later these residual lesions remained swollen and painful, but hot soaking together with attempts at expression resulted in the extrusion of a few more particles and, in particular, a spine tip about 8 mm long. Four days later, after sunbathing with moderate exposure, I began to experience paraesthesiae in the exposed areas—mainly the arms, shoulders, upper back, and fronts of the legs. The skin reaction was moderate, but the skin appeared to be hypersensitive to touch in disproportion to the skin reaction, and the paraesthesiae were of a curious "tingling," burning, or cold character, the areas affected moving about and varying in a bizarre fashion. There was an accompanying malaise, nausea, feeling of agitation, and some transient feelings of faintness. Transient bouts of myalgia occurred in the legs,

mainly in the thighs, and these were accompanied later on by distressing sudden weakness of the affected muscles, on occasions quite severe. A few scattered itchy vesiculating spots developed within the ensuing four to five weeks. The syndrome continued with fluctuations and modified phases for eight to nine months before finally resolving, the final stages being characterised by periods of recovery and recrudescence. The phases of modification of symptoms are quite complex to describe and very bizarre, but it is worth mentioning that in the latter months the paraesthesiae had added to them an element of pain of a "stinging" or "burning" quality difficult to describe and that this pain tended to focus itself on the backs of the forearms and hands and on the ankles. Results of clinical examination and a range of special investigations were all negative. Three residual particles in the palm of the hand eventually absorbed satisfactorily. Radiography did not show the particles. The possibility of hyper-ventilation as a contributory factor to the symptoms was discounted by the failure of overbreathing or breath-holding to modify them. It would appear that a second systemic injection of material from the sea urchin (? neurotoxin) caused by the expression of particles four weeks after the initial experience produced this syndrome. Photosensitivity appears to have played a part. I would welcome comments on this report.—H E KANE, general practitioner, London.