

Essentials of Health Economics

Part V (continued)—Assessing the costs and benefits of treatment alternatives

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In last week's article examples of economic appraisal—weighing the costs and benefits of alternative treatment practices—were given in a clinical context. What notice, if any, should clinicians, however, take of the results of such studies?

Economic appraisal and clinical practice

There are at least two difficulties in incorporating economic appraisal into day-to-day clinical practice. Firstly, the studies deal in the main with information relating to groups of patients; that is, they can indicate whether it was more cost-effective overall to treat a particular series of patients in a particular location by one method rather than another (for example, treating patients with hernias as day cases). The individual clinician faced with a particular patient could, however, probably improve on this assessment by examining patient-specific information such as the severity of the condition or home circumstances. Some patients' home circumstances may, for example, cause day-case surgery to be less cost effective in their case. The cost-effectiveness analysis could, of course, be refined by presenting results for subsets of the total patient population—by severity, home circumstances, and so on. This may not, however, be worthwhile in all situations given the sample sizes required, so the more general use of the economic appraisal for the clinician is as a way of thinking about treatment choices. The appraisal should serve as a stimulus to identify those subsets of the whole treatment population for which a lower cost method would be just as effective. Alternatively, appraisals might add to the debate about the extent of clinical intervention by indicating the implied cost of alternative clinical policies. For example, in a study of the indications for the surgical treatment of suspected acute appendicitis, Neutra¹ found that to save one more life by changing the symptom severity used as an indication for operation so many operations would need to be performed on normal patients that the incremental cost of saving one life would be \$43m and 2053 person-years of convalescence.

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PLANNING SERVICES

Appraisals are likely to be more often used in planning services; that is, an appraisal could assist a district health authority in deciding whether it should develop day-case facilities for the surgical treatment of some conditions or whether it should develop community, as opposed to institutional, care for the elderly. At the national level appraisals are beginning to have an important role in the planning of new hospitals or extensions to existing facilities. Also there has been increasing interest in encouraging medical researchers to incorporate an economic assessment into their evaluations of new treatment. Clinicians should not lack interest in some of these activities since the type of facilities provided and the type of research carried out mould clinical practice in the future.

CLINICAL RESOURCES

Another potential use of the cost-benefit approach in planning services at the local level is in evaluating clinicians' requests for resources to develop services. Often these requests consist merely of a list of the resources required, such as extra staff or beds. Perhaps instead the requests could consist of a statement of the likely benefits to be obtained from the proposed development in patient terms, the extra costs in terms of resources required within the clinical department concerned, and an estimation of the likely savings (if any) elsewhere in the district. While it deals with only the cost side of the equation, the study by Lawson *et al*² is an example of what can be achieved.

Economics and ethical choice

Within the problems of incorporating economic ideas in day-to-day clinical activity, there is of course the ethical issue of whether the cost of treatment should influence clinical action. This point was made forcefully some time ago by a GP. On presenting himself with ulcer-type dyspepsia the patient (one of us) was told that there was the "standard" alkali or something more expensive which the doctor believed to be better. "You're the health economist; which one should I prescribe?" remarked the GP with a wry grin. To find a way out of this dilemma we must return to the notion of costs and benefits to the community as a whole. It would be unethical to allow cost to affect treatment choices if the patient were really being treated in isolation, but that is never the case. Each clinician is treating a group or community of patients—those on the waiting list or those waiting at the surgery or clinic. He also has to consider the patients of his colleagues and those members of the community who may be ill but for one reason or another have not yet come to the notice of the health care system. The inevitability of considering cost is easiest to see for those resources where the

individual clinician holds the whole budget—such as his own time. It is probably less easy to see for other categories of resource; who knows what the cost of requesting an extra diagnostic test is? It certainly does not mean that another patient goes without a test, but it may add to overall delays or cause more resources to be devoted to the service department concerned and taken away from other clinical services. In short, once we acknowledge that more than one patient is affected by a clinical action it is not unethical to consider costs.

Conclusions

The mechanisms for building cost-benefit thinking into individual clinical actions are not well developed. Many clinicians are not aware of these notions, however, and more information about the implied costs of alternative clinical actions might result in a change in practice if the appropriate mechanisms for bringing about such changes existed. We mentioned in an earlier article the importance of budgeting and its extension into clinical areas.³ There are already a number of experiments in progress. Clinical teams may be given an incentive to save resources by being allowed to redeploy a proportion of the amount saved. In addition, the information gathered on clinical workload and use of resources can form a basis for agreements on how services should develop in the future.^{4 5} In some other

countries governments have encouraged the medical profession to derive guidelines for health care practice, which have as one of their aims the more cost-effective use of health care resources.⁶ At the local level there is no reason why cost-effectiveness considerations should not be brought into discussions of medical policy.

Part VI of the series will be published next week.

References

- ¹ Neutra R. Indications for the surgical treatment of suspected acute appendicitis: a cost-effectiveness approach. In: Bunker JP, Barnes BA, Mosteller F, eds. *Costs, risks and benefits of surgery*. New York: Oxford University Press, 1977.
- ² Lawson KV, Drummond MF, Bishop JM. Costing new services: long-term domiciliary oxygen therapy. *Lancet* 1981;i:1146-9.
- ³ Mooney GH, Drummond MF. Essentials of health economics. Part III (continued)—Developing health care policies. *Br Med J* 1982;285:1329-31.
- ⁴ Wickings I. Putting it together. *Lancet* 1977;i:239-40.
- ⁵ Wickings I. *The CASPE project—statement of research aims*. London: CASPE Project, 1980.
- ⁶ World Health Organisation (Regional Office for Europe). *Guidelines for health care practice in relation to cost-effectiveness*. EURO Reports and Studies No 53. Copenhagen: WHO Regional Office for Europe, 1981.

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Letters to a Young Doctor

Moving up the registrar ladder

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The jump from registrar to senior registrar can be the most difficult of all, for the structure of the grades in the National Health Service has been allowed to get out of hand. This has just happened because consultants have looked for help with their service work from junior staff, and they have wished to have juniors of some degree of competence—namely, at registrar level. It was not easy to see where this would lead, but now unfortunately we know: it leads to registrars in dead-end jobs from which the only escape seems to be into unemployment. Someone has to do the clinical work, and yet the registrar post is meant for training and so should be vacated every two or, at most, three years. So, there is constant tension between service and training, which is largely of the medical profession's own making.

It has been agreed that the only normal career grade in hospital shall be that of consultant and that there shall be no sub-consultant grade to carry out the daily chores of clinical work. It is a legitimate viewpoint, which is laudable because it safeguards the profession—until one sees the results of the system

for those who are (a) unable to get to the consultant grade for a variety of reasons and (b) at the same time are unable to stay in a training post because it is needed for someone else and must be vacated after a certain time. It is regrettable that more and more doctors are caught in this situation. They have to move on, and there is no place to go. By using some foresight and planning one should be able to avoid getting caught.

To assess the prospects of moving from a post as registrar to senior registrar you have to look again at the main tables in "Medical and dental staffing and prospects in the NHS in England and Wales," an analysis of hospital posts by specialty, sex, and grade, published once a year in *Health Trends* (see May 1982 issue, volume 14). By dividing the number of senior registrars in the discipline by four (the assumed number of years in post) you get a rough estimate of the likely number of vacancies. The number of registrars in the same discipline should be divided by two to get a rough estimate of those likely to be ready to proceed to senior registrar. For instance, traumatic and orthopaedic surgery has 136 senior registrars, giving, say, 34 vacancies a year for the roughly 19 likely consultant vacancies. And there are 358 registrars, which could mean about 180 people available for the 34 vacancies at senior registrar level, a ratio of 5 or 6 to 1. You must decide whether you accept this degree of competition or not. You must work it out for yourself in your intended discipline.

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