BRITISH MEDICAL JOURNAL

LONDON, SATURDAY 21 JULY 1984

Rationing health care

The National Health Service offers a paradox. Seen from within, it is a system which frustrates the aspirations of providers—doctors, nurses, and others—to provide the best possible service and a system where public parsimony compels health care professionals to compromise their own standards. Yet, seen from without, in the context of the health care systems of other advanced Western societies, the NHS is without challenge the best buy model in at least one crucial respect: it provides a comprehensive system of health care at the lowest cost as measured by the proportion of the national income devoted to it.

Not surprisingly, therefore, the NHS is the subject of a major American study by Professors Henry J Aaron (an economist) and William B Schwartz (a physician).[1] Given American concern about their health care cost explosion, and given that the obvious policy recipe would be to move towards fixed budgets in place of the present open ended, fee for service system of financing health care in the United States, Britain offers the obvious laboratory for exploring the implications of such a change. Specifically, Aaron and Schwartz address themselves to the question of just how Britain's NHS rations scarce hospital resources. In doing so, they hold up a mirror to the NHS that is of as much interest to British as to American readers—although in some important respects it turns out to be a distorting mirror.

The methodology chosen by Aaron and Schwartz is to compare the performance of the British and American health care systems, using the latter's level of treatment and activity as the benchmark. Thus the starting assumption, only slightly modified in the course of the detailed discussion of the specific procedures and diagnostic processes chosen for investigation, is that the United States provides the optimal level. The conclusion reached is that, while on the whole Britain compares well with the United States in dealing with life threatening conditions—particularly when these are, like cancer, "dread diseases" with a high degree of social visibility—the NHS does relatively badly when it comes to procedures designed to improve the quality of life or to investing in equipment designed to improve diagnostic reliability.

In the first category the study notes that bone marrow transplantation is carried out with the same frequency in Britain as in the United States, that all patients with haemophilia obtain high quality treatment, and that megavoltage radiotherapy appears to be readily available to virtually all patients who need it, but that the overall rate of treatment of chronic renal failure—that is, transplantation and dialysis—is less than half that in the United States. In the second category—procedures designed to improve the quality of life—the rate of coronary artery surgery in Britain is only 10% that of the United States, while the rate for hip replacement surgery is between three quarters to four fifths that of the United States. In the third category—investment in diagnostic reliability—Britain has only one sixth of the computed tomography capacity of the United States, and the average British citizen is about half as likely to have *x* ray examinations as the average American and when he is examined about half as much film is likely to be used. In total, the authors estimate, Britain's expenditure on NHS hospitals would have to go up by almost one fifth if the level of activity and treatment were to approach that of the United States (though it is important to emphasise that over half of this increase is accounted for by a single factor: the much lower level of provision of intensive care beds in this country).

These findings are both predictable and ambiguous. They are predictable in the sense that a service such as the NHS, organised around the philosophy of responding to professionally defined need rather than to consumer demand, is bound to attach higher priority to dealing with life threatening conditions than to those which diminish the quality of life. The study's conclusions might have been stronger still if, for example, it had examined elective surgery. But the findings are ambiguous in so far as they beg the crucial question of how to assess the appropriateness of any given level of activity. The point emerges clearly from the authors' discussion of the use of chemotherapy for cancer in the two countries. Britain spends about 70% less than the United States, per head, on chemotherapeutic agents. The reason for this, the study shows, is that, while British oncologists treat curable cancers just as readily as their American counterparts, they see no reason to treat incurable metastatic cancer by inflicting on patients a "treatment which brings them nothing but unpleasant side effects and is of no benefit," in the words of one British oncologist quoted in the book.

Indeed, perhaps the most useful contribution made by Aaron and Schwartz is to show that differences in the medical cultures of Britain and America are at least as important as differences in the availability of resources. The two are, to an extent, linked. A humane, clinical conservatism in Britain both sustains and is, in turn, reinforced by constraints in resources. A heroic, aggressive style of medicine in the United

States helps to explain—and, in turn, to compound—the high rate of spending. Each culture rests on wider differences in the two societies. Britain is an original sin society in which illness and debility are seen as part of the natural order of things and patients tend to be deferential. America is a perfectability of man society in which illness and debility are seen as challenges to action and patients tend to be demanding consumers. Each culture, furthermore, tends to carry its own dangers for the clinicians concerned. In Britain it is—as Aaron and Schwartz argue persuasively in the case of renal dialysis—that doctors will seek to rationalise resource constraints (and make tragic choices more tolerable for themselves) by classifying patients as unsuitable for treatment. In the United States it is that, as Aaron and Schwartz recognise but do not emphasise sufficiently, doctors will seek to rationalise their own desire to maximise their incomes by maximising treatment, and that activity will become an end in itself irrespective of the ultimate outcome for the patient.

The most convincing conclusion drawn by the study for its American audience is, therefore, that the British model is not for export to the United States. But it is important to be clear just why this conclusion is convincing. Its persuasiveness derives from the fact that the dynamics of American society, and its medical system, are incompatible with the organising principle of the NHS, which is—to return to an earlier point—that health care should be rationed according to medically defined needs, not distributed in response to consumer demands. It does not derive from the book's demonstration that the levels of activity are in some respects much lower in Britain than in the United States. This, in itself, tells us little about the overall effectiveness of the two health care systems and risks prompting misleading conclusions (particularly in the United States) about the achievements and weaknesses of the NHS.

Firstly, health care activity should not be confused with health care outcomes. Aaron and Schwartz can hardly be blamed for being unable to measure the effects of the different levels of activity in the two countries on health care outcomes, in terms of either quantity or quality of life. This is a notorious conceptual minefield, where it is difficult to disentangle the effects of medical intervention from the environmental socioeconomic factors. They might usefully, however, have emphasised this problem more in order to avoid possible misinterpretations of their evidence. Certainly, taking such crude, and hard to interpret, indicators as life expectancy and perinatal mortality, Britain does better than the United States.[2]

Secondly, it is a mistake to concentrate exclusively on a number of procedures—though justifiable as an attempt to explore the problems of rationing scarce resources—for this risks giving a distorted picture of the health care system as a whole. Rationing not only concerns decisions about what resources to devote to individual patients; it also entails decisions about how to ration resources between different groups of patients. The NHS forces explicit choices about the relative priority to be given to the acutely ill, the mentally ill, the old, and the young. Unfortunately, Aaron and Schwartz ignore this dimension, with the result that they present what is at best an incomplete balance sheet.

Finally, rationing is inevitable under any health care system.[3] Aaron and Schwartz rightly warn their American readers that the United States faces the "painful prescription" of rationing if it wishes to put a ceiling on total health care expenditure. But they fail to point out that the United States already rations health care somewhat brutally, although in passing they note that "several million Americans lack adequate insurance or personal means and therefore face obstacles to obtaining hospital care." The issue, in other words, is not whether to ration but how to ration; how best to devise a system which allocates what will always be inadequate resources—in the sense of falling short of permitting the medical providers to do everything technically feasible for all their patients—in the fairest and socially most acceptable way. And on this criterion the NHS, whatever its other failings, must surely be rated a success story.

But it would be wrong to end on a note of complacent self congratulation. This study does raise a major issue for the NHS. As Aaron and Schwartz point out, the dilemmas of rationing are likely to become ever sharper as new techniques and procedures become available. In turn, this may call into question the consensus on which Britain's system of rationing rests. At present this is a system for transmuting collective political decisions about how much money to spend on the NHS into individual clinical decisions about how much care to give to specific patients, thereby transforming tragic choices about who should live and die into technical assessments of the effectiveness of particular courses of action.[4] In return for accepting this responsibility the medical profession enjoys virtually total autonomy in making clinical decisions, certainly greater autonomy than American clinicians. But if the financial constraints within which British clinicians work start biting still more they may come to ask whether the price of freedom—in terms of accepting responsibility for making tragic choices—is not becoming excessive.

RUDOLF KLEIN

Professor of Social Policy,
University of Bath,
Bath BA2 7AY

[1] Aaron HJ, Schwartz WB. *The painful prescription*. Washington, DC: The Brookings Institutions, 1984.
[2] Maxwell RJ. *Health and wealth*. Lexington, Mass: Lexington Books, 1981.
[3] Fuchs VR. *Who shall live?*. New York: Basic Books, 1974.
[4] Calabresi G, Bobbitt P. *Tragic choices*. New York: Norton and Co, 1974.

Low osmolar contrast media

In the past decade there have been major, even revolutionary advances in the synthesis of new intravascular radiological contrast media and in their clinical evaluation. For the past 30 years all radiological contrast media have been sodium (or meglumine) salts of substituted triiodinated benzoic acids. These salts completely dissociate in solution, each molecule of salt providing one anion (the benzoic acid derivative) and one cation (the sodium). Both anion and cation have equal oncotic (osmolar) effects but only the anion is radio-opaque. The solutions used in clinical radiology are very concentrated (up to 76%), so that their osmolality is extremely high—up to eight times physiological. It is the very high osmolality of the very large volumes of radiological contrast media often required (up to 200 or 250 ml) that is responsible for most (but not all) of the serious adverse reactions.[1 2]

The first low osmolar radiological contrast medium was metrizamide (introduced in 1972), which has an osmolality of about one third that of conventional ionic contrast media at an equivalent concentration of iodine.[3] Metrizamide is an excellent intravascular medium, but this use has been strictly limited by its very high cost (about 25 times that of a conventional ionic medium) and by its presentation as a