learn much from one with obesity.”¹⁹ Significantly, also, Relman’s state of Massachusetts has recently ended the inflationary spiral in costs by passing a law making universal health insurance compulsory (p 9).²⁰

In Britain a proliferation of sources of money would not only weaken financial control but also be administratively expensive and increase bureaucracy, and a growing private sector would damage fairness.²¹ These changes might further diminish the overwhelming public popularity that the NHS has had until recently. It is also doubtful whether the NHS can stand a further “disorganisation”²²—yet another massive change in its structure—including closer collaboration between hospitals and general practice, which is not to say that efficiencies should not be a priority for all aspects. Certainly there may be incompetence in the NHS just as there is in other walks of life, including defence procurement, the Passport Office, and the Treasury. (It has been claimed that it was a serious lapse within the health departments and the Treasury in producing an unrealistically low estimate for the first year that got the NHS off to such a bad start.) Such incompetence must be identified and put right.

But competence cannot come without the tools for the job. Just as it would be impossible to run the *BMJ* without first class business management and accurate financial statements, it is surely impossible to run a multibillion pound service without high quality managers and meaningful statistics. Smith’s conversations found that the former were often inadequate, and even obstructive (a view confirmed by Mr Grant Williams; p 53),¹ and 40 years after 1948 doctors are still waiting for accurate measures of output. Only given accurate data—and the Körner reforms and clinical budgeting are aiming to help this—can doctors fulfil their professional responsibility of playing a full part in audit, recognising and explaining why their outputs may differ from others, and taking suitable corrective action. Only then can a useful public debate be held to achieve a consensus on what the NHS should provide and what it should not provide, perhaps on the shrewd suggestions of Sir Bryan Thwaites.²²

To conclude, then, there is no argument for major administrative manipulations of the NHS or for different methods of funding as a solution to current problems. It is incumbent on those proposing such changes to show before-

hand not only that they will work, be more efficient, and preserve equity but also that they will be superior to further money for the acute services. For most commentators have concluded that the current decline has been induced by cash limits and that adding no more than 5% of the hospital budget (£500m a year) would have avoided all the talk of crisis,^{6,12} yet just last week the government refused again to make any more money available (p 9). (Interestingly, such a move would bring Britain’s spending on health care into line with that of its civilised neighbours.) Such an increase would, of course, do nothing for the capital troubles of the acute services (or problems elsewhere, such as deprivation and poor housing, which have a direct bearing on ill health). Yet it would command public support—two thirds of the population would be willing to pay a further £1 a week tax guaranteed extra for the NHS—and it would help to preserve one of the world’s bravest attempts at universal welfare, one with the still untarnished objective: “to ensure that everybody in the country—irrespective of means, age, sex, or occupation—shall have equal opportunity to benefit from the best and most up to date medical and allied services available.”

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Life sustaining technologies and the elderly

Americans badly need geriatricians

Life-sustaining Technologies and the Elderly, a report to the 100th United States Congress by the Office of Technology Assessment, was first requested in 1984 “to provide an array of options for public policy that will support wiser clinical decisions about the use of these technologies.”¹ Of current unwisdom there is ample evidence, fearlessly documented in the report. Elaborate and uncomfortable treatments of dubious advantage or none to the frail elderly are deployed on a scale unimaginable in Britain and for reasons that those familiar with United States medicine will understand.

The technologies are available, respected, and oversold. The same brave combination of technical virtuosity and indifference to cost that once took a handful of United States citizens to the moon serves in health care today to keep tens of thousands of them lingering, dependent and miserable here on earth, with equally questionable benefit. Powerful medico-legal considerations nudge doctors towards doing more rather than less. The peculiar funding mechanisms of American

medicine also play their part. The overall costs now give rise to great concern, as do questions of access, institutional liability, individual choice, and human dignity.

The Office of Technology Assessment’s admirable report faces up to all this in a detailed survey that concentrates on five subjects: resuscitation, mechanical ventilation, dialysis for chronic renal failure, nutritional support, and life sustaining antibiotic treatment. The report recognises the extreme heterogeneity of the elderly, especially the elderly sick, and acknowledges the difficulties of predicting benefit from the various interventions. Current data on use and cost of the technologies are unreliable but none the less alarming, not least because “reimbursement is a major determinant of specific treatment options.” Nutritional support is identified as the most controversial intervention, being easy to start, difficult to stop, continually expensive—that is, remunerative—and still the subject of fierce ethical debate. Renal dialysis poses special problems because of an anomaly

of funding: in notable contrast to all the other measures, it is paid for from federal sources for all United States citizens. It costs more than \$2 billion a year, and its unique availability, in the absence of reliable information about outcomes of dialysis in the elderly, may create as many problems as it solves. The report recognises anxieties about the indiscriminate use of cardiopulmonary resuscitation and life sustaining antibiotic treatment in the elderly: while saving life is a legitimate goal, prolonging death is not. There is no optimism about rigid guidelines in either case. Sensitivity to the views of patients and relatives, discussions with them and with staff, and a humane awareness of quality of survival are, however, not easy to encourage in a vast, heterogeneous, and litigation conscious medical culture.

The report presents information clearly and does not shrink from irreducibly awkward problems. It should succeed in its aim of clarifying for legislators the issues without oversimplifying them. Should the Department of Health and Social Security now contemplate a similar exercise? For several reasons, probably not. The NHS, rough beast that it is, at least succeeds in combining cost containment with a concept of equity. Individual clinical decisions about life sustaining technology and the elderly are generally uninfluenced by the fear of litigation and are made far from the sound of any individual or corporate cash register. Awareness of costs is general rather than particular but probably sufficient to bring to mind Haldane's aphorism "We are poor, therefore we must think" whenever an expensive venture for an elderly (or indeed any) patient is contemplated. The NHS also commands skill in the care of the elderly that is

impressive by the modest international standards of the discipline.

Therein lies the real importance of the Office of Technology Assessment's report. Its final chapter is the most powerful argument that has yet been advanced for developing the specialty of geriatric medicine in the United States. No one can legislate for clinical wisdom, but the discerning and therefore effective and economically realistic use of life saving technologies in the elderly will become far more likely if American physicians can be persuaded to take an interest in the care of the elderly for its own sake. If this report does nothing more than increase the pressure to achieve the Rand Corporation's target of 8000 full time equivalent geriatricians providing patient care together with 900 clinical academic staff much will have been accomplished.² And if the riddle of devising some generally acceptable form of reimbursement for humane and broadly low technology care of the elderly in the United States can also be solved these 8900 doctors may even be able to make a living. Meanwhile, in the words of a fictional hospital administrator in a satire on terminal care in America, "Your last two weeks on earth may not be your most comfortable, but sure as hell they'll be your most expensive."³

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Cancer after transplantation

The risks are small

Is cancer really more common after organ transplantation? Skin cancer and lymphomas are the cancers most commonly described in patients who have received transplanted organs.^{1,7} In south Queensland skin cancer is 20 times more common in transplant recipients than in the general population²; the relative risks for skin cancer are also increased in France, Sweden, and Britain,⁸ and a third study suggested that the increase was significant.⁵ Evidence for a significant increase in cancer of other organs is, however, conflicting, and depends on data from few patients.^{4,9} Whether there is an increase in overall tumour incidence is also not clear.^{8,10} Rates of cancer have, however, been assessed differently, making interpretation difficult. A large controlled study is required to determine if the incidence of cancer is increased after transplantation and which tumours are important.

We also need studies of risk factors. A study of skin cancer in patients who had received kidney transplants showed that Anglo-Saxon or Celtic origin, fair skin, blue eyes, age, and sensitivity to light were predisposing factors—as they are in the general population.¹¹ Tumours occurred on surfaces exposed to the sun but developed irrespective of the amount of exposure after transplantation. No significant relation was found between the development of skin cancer and the patient's primary renal disease, graft function, or dosage of immunosuppressive drugs.

The importance of viral infections as a risk factor for cancer in transplant recipients is not clear. Squamous cell carcinoma of the skin, which is believed to be caused by a virus, occurs more often than basal cell carcinoma in transplant recipients,^{2,4} whereas the opposite is true in

the normal population. Moreover, the genome of human papillomavirus was detected in one third of squamous carcinomas from transplant recipients.⁴ Skin warts, which are common in transplant recipients, were not, however, observed to become malignant, and the incidence of specific infections with herpes virus or human papillomavirus was similar in transplant recipients whether or not they developed skin cancer.¹¹ Nevertheless, the incidence of cervical cancer may be increased in women with organ allografts: abnormal cervical histology was noted in 67% of such women and human papillomavirus types 16 and 18, which are believed to have malignant potential, were isolated from 49% after colposcopy.¹²

Immunosuppressive treatment may be a further risk factor. Patients who had had heart transplants and were given high doses of immunosuppressive drugs were more likely to develop malignancies, particularly lymphoma, than patients given lower doses.^{6,7} An increased incidence of lymphoma was seen also in patients given cyclosporin A in the original high dosage or in combination with other immunosuppressive agents.¹³ With current doses the incidence of all tumours in recipients of heart, liver, bone marrow, or kidney transplants is similar whether cyclosporin A or conventional treatment with azathioprine and prednisolone is given.¹⁴ Other factors, including the possible immunosuppressive effects of previous uraemia and blood transfusions, require further investigation.

Because transplantation is a new procedure the problem of malignancy may largely lie ahead. Cancer occurs more often in older patients and in those with long surviving grafts^{1,2,4}; in patients followed for 15 years skin cancer was observed in 44% and other cancers in 14%.⁴ Skin cancer, for which the