degree relatives of patients with colorectal cancer — the risk rises from one in 17 for those with one relative affected to one in six for those with two first degree relatives affected. Genetic counselling is indicated for both these groups of families. A clinic providing counselling and screening for relatives of patients who developed the disease before the age of 45 years and members of families in which multiple cancers have occurred, has recently been described.[6] It is therefore essential that a comprehensive family history is taken from all patients with colorectal cancer. General practitioners are particularly well placed to identify high risk individuals who should be referred for further assessment.

Screening of asymptomatic patients who are not in a high risk group for the presence of adenomas and/or early carcinomas is more contentious. Colonoscopy is inappropriate. Other, less invasive screening methods include regular rectal examinations, sigmoidoscopy and faecal occult blood testing. Of these, only the latter is practical but it has problems of limited specificity, sensitivity and patient compliance. It is currently being evaluated in randomized controlled trials of which the Nottingham trial is the largest.[7] The introduction of faecal occult blood screening in the general population would have important implications for patients, practitioners and the resources of the National Health Service and the panel recommended that no decision should be made on its introduction until the results of the Nottingham study, which are expected in 1995, become available. In the absence of a satisfactory non-invasive screening method, the panel could not recommend case finding in general practice but again stressed the importance of taking a good family history.

Patients who are found to have colorectal cancer have only a 30% chance of surviving five years. One reason for this poor prognosis is that presentation is often delayed and the tumour has metastasized by the time the patient presents. Furthermore, delay in referral may influence outcome, particularly if emergency surgery is required when the patient presents. Evidence suggests that one component of the delay is failure of the general practitioner to recognize the symptoms of colorectal cancer and to carry out an adequate examination.[8,9] The panel stressed the importance of carrying out abdominal and rectal examinations on all patients presenting with symptoms suggestive of colorectal cancer. Faecal occult blood testing was considered to be of no value in the assessment of the symptomatic patient in general practice.

Improved methods of treatment are needed to improve the five year survival rate. Surgery remains the mainstay of treatment and improved techniques have reduced the need for a permanent colostomy. There is evidence that the observed variation in the outcomes of surgery, including operative mortality and post-operative morbidity are surgeon related.[10] The panel recommended that each district should have at least one specialist colorectal surgeon and that local referral and treatment protocols should be developed. The need for regular follow up of patients was stressed so that synchronous and recurrent tumours could be diagnosed and treated at an early stage. Trials of adjuvant radiotherapy and chemotherapy are currently in progress and the panel recommended that quality of life measures should be included in all trial protocols.

The conference heard evidence from patients, their carers and support groups. The overriding theme was the need for better communication between patients and all involved in their care. This includes providing patients with information about treatment and possible outcomes so that they can make informed choices between treatment regimens.

How can general practitioners contribute, not only to the care of the individual patient but also to reducing the incidence of colorectal cancer in the population? The individual patient needs prompt diagnosis, specialist referral, regular follow up and support at all stages of the illness. Reducing the incidence of the disease in the UK is a task to which general practitioners can contribute by the identification and referral of high-risk individuals in their practice populations.

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**Note**

One copy of the consensus statement is available free of charge on request from: The King's Fund Forum, King's Fund Centre, 126 Albert Street, London NW1 7NF. Tel: 071-267 6111 ext 209. Extra copies may be purchased at 40p per copy.

# Market forces and USA health care: success or failure?

ANYONE who thinks we have problems with health care in the United Kingdom should look closely at the situation in the United States of America. Americans now spend $541 billion a year on health care, just over 11% of gross national product. In 1987 the average for 17 countries in the Organization for Economic Cooperation and Development (including the USA) was 8.4% of gross national product. The highest percentage after the USA was West Germany at 9.0%, followed by Sweden 8.9%, the Netherlands 8.5% and Canada 8.3%. National Health Service expenditure in the UK is quoted at 5.9% of gross national product.[1]

Business in the USA now carries the biggest share of the

nation's private medical bills, about $170 billion a year or over 30% of the total spending on health care. However, industrial relations have been soiled recently by the reluctance or inability of employers to pay the rising medical insurance costs for their workers. Chrysler, for example, spends $700 per car on health care costs, the next biggest overhead after labour.[2] As the biggest customer for private health insurance American business indirectly supports patients who have not got insurance cover or the cash to pay. Those hospitals which do not wish to turn the uninsured away use creative accountancy to transfer money from customers who can pay.[3]

The American government is facing ruinous increases in costs for the federal health programmes which do exist; Medicare for the old and Medicaid for the poor. These programmes cover 50 million people, one fifth of the population, and in proportion to wealth they now cost nearly as much as the universal NHS costs the UK — 5.4% versus 5.9% of gross national product. In one American state a limit has been placed on the number of outpatient visits these programmes pay for. In addition, there are 37 million Americans without health insurance of any kind.[4]

The practice of paying low fees to doctors in the Medicaid programme has probably saved money but has also reduced the access of patients to physicians. The American Medical Association did little to alter public belief in the connection between money and quality when it revealed that one in eight doctors reduced the level of care they provided to Medicaid patients as a result of a federal effort to reduce doctors' fees.[5]

Although the concept of a nationwide health insurance scheme has long been resisted in the USA there is growing doubt whether the logic of the marketplace can be applied to an area where the consumer often approaches the supplier in ignorance and at a time of anguish. Defenders of the system in the USA point out that American health treatment is excellent for those who can afford it. However, the profit motive encourages doctors and hospitals to devise new and more expensive ways of making people well. This has interfered with the doctor–patient relationship and has led to a rise in malpractice suits.[6] We may grumble at annual rates of medical indemnity of £900 plus but this is little compared with the average annual rate in the USA — obstetricians pay top rates of around $30 000 and psychiatrists the lowest of $3000.

Suggested future needs[7] are a strengthening of primary care with the creation of general physicians who would be a combination of family physician, paediatrician and internist. This sounds familiar to the British general practitioner with added refinements such as access to hospital beds.

Insurers, unhappy about the escalating costs, have encouraged schemes which combine prepaid insurance with limited budgets as in the health maintenance organizations.[8] There has been a rapid growth in these schemes and they now cover about 30% of the population. In this type of health care financial risk and responsibility are shared by physician, hospital and patient, in the expectation that this approach will reduce health care costs. Any savings can be passed on to the purchaser or used to reward the efficient provider or to finance additional services, for example screening, which will improve the health of the enrolled population. There is clear and convincing evidence that health maintenance organizations can achieve substantial savings, mainly through a reduction in expensive hospital care. In the rest of the health care system there has been a long standing bias in favour of hospital care.[9]

There are three basic types of health maintenance organization: staff models where physicians are employees; group models where a medical group contracts to provide care only to the enrolled population, payment for services arranged in the form of a compilation agreement; and finally independent practice association models where groups of physicians agree to treat enrolled patients along with fee for service patients. There are two models of financial structure for health maintenance organizations, namely the primary care compilation model and the full health services compilation model. In the former, the health maintenance organization defines the range of services which the compilation is intended to cover and for which the primary care physician takes responsibility. In the latter, the primary care physician's responsibility is broadened to include all health services including hospital and other institutional services — this model dramatically increases the individual doctor's financial exposure and risk. However, most health maintenance organizations provide some protection which limits the total financial exposure for each doctor. Patients' financial input is in the form of co-insurance and deductible payment mechanisms for certain services, including mental health services, prescription drugs and emergency room visits.[10]

Another development is the emergence of preferred provider organizations which develop, sponsor and promote contract agreements between health care providers and those paying for health care. The driving force in this arrangement is one of trading a discount on fees for an increased market share. Preferred provider organizations may be sponsored by independent organizations or insurance companies and patients are given incentives, for example the cost of co-insurance may be considerably lower than the premium for an indemnity type insurance. A major difference between the preferred provider organization and the health maintenance organization is that typically there is not a risk sharing agreement between the preferred provider organization and health care providers, as is true in the case of health maintenance organizations.[7]

Medicare peer review affects every physician in the USA.[11] The review system was developed by the federal government with the goal of improving the quality and lowering the cost of health care. The prospective payment system is the method by which Medicare reimburses hospitals providing acute care, using diagnosis related groups as units of payment. Diagnosis related groups were developed by health care researchers at Yale University following a review of two million medical records from across the country. Taking into account different organ systems and surgical procedures, 12 000 illnesses were categorized into approximately 480 diagnosis related groups. Each reimbursement takes into consideration the patient's principal diagnosis, up to four complications or secondary diagnoses, the principal procedure, operating room procedures and the patient's age and discharge status. Instead of being paid for each day and each service, hospitals are reimbursed per patient, based on the average cost and length of stay for a particular diagnosis related group. Originally the system did not affect payment to physicians but now it can. The peer review process defines criteria which must be fulfilled to justify hospital admission and requires data to be provided on the medical status of the patient at discharge, nosocomial infections, unscheduled return to surgery and readmissions within one month. If a quality assurance problem is identified and confirmed it is assigned a weight by the physicians of the peer review system based upon the degree of harm or potential harm to the patient. Each quarter the peer review system reports on the reviews completed in that quarter for each physician and hospital; the total score determines the type of corrective action to be implemented. Sanctions may result in exclusion from Medicare reimbursement and/or financial penalties.[3]

Physicians have responded to competitive pressures by form-

ing group practices. In 1940 the percentage of doctors in the USA working in groups was only 1.2% but by 1980 this figure was 25%. The advantage of group practice is the ability to capture directly the profits from ancillary services such as x-rays and laboratory tests.[12] Doctors who form group practices thus represent an economic threat to hospitals as do doctors involved with health maintenance organizations who reduce demands for inpatient services. Hospitals on the other hand are developing satellite clinics to ensure a steady flow of referrals. As a result doctors and hospitals may be on a collision course as doctors invade institutional services and hospitals invade ambulatory care.[5]

In the light of these problems it is ironic that the British government is moving rapidly towards competition and a modified American system of health care. The unbridled market concept has not kept down costs in the USA and limiting expenditure has been unpopular with doctors and patients. There have, however, been successes; in particular, the rapid growth of health maintenance organizations which control the patient care process; are analogous to our budget holding practices. Costs have been reduced by health maintenance organizations and savings have been fed back into the organization to improve quality. Whether similar savings can be made in the NHS, where there is a more comprehensive system of primary care, remains to be seen. If budget holders are to reduce expensive hospital care in the same way as their health maintenance organization counterparts they will need access to ancillary and diagnostic services. If these services become more readily available in group practices, what effect will this have on hospital profits? Will hospital trusts act like preferred providers and provide special incentives for budget holding practices? Likewise it will be interesting to see if the greater accountability resulting from budget holding will mean greater use of sanctions against general practitioners. On the case for market forces within the NHS the jury is still out.

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