

# MANAGED CARE – A MODEL FOR THE UK?



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# I INTRODUCTION

This paper examines the potential for managed care techniques to develop in the UK National Health Service. It begins with a review of managed care approaches but no attempt is made here to review the wealth of material on managed care in the USA. The reasons for attempting tighter management of care and the main tools used are examined. Existing elements of the managed care approach in the NHS are then examined and the need and scope for further use of managed care tools in the NHS are explored. Finally, the potential contribution of the private sector to care management is discussed.

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## 2 WHAT IS MANAGED CARE?

All health care is managed. Self-care is managed by the patient and formal care by health professionals, in consultation with the patient. For this reason alone, the term *Managed Care* has caused a lot of confusion and authors of every paper on the topic feel bound to start with some definitions. This paper is no exception! After reviewing the reasons for the introduction of managed care in the USA and the methods used, the paper examines the scope for elements of managed care to be introduced to the NHS.

The definition of *Managed Care* becomes much clearer if we add something to reflect the key difference between managed care and other models for providing health care. We might add the terms '*externally*' or '*third-party*' or '*payer*' to the conventional term *Managed Care*. **Third Party Managed Care** in particular highlights the key characteristic of managed care. Under this approach, neither the individual physician (or other care provider) nor the patient is free to make their own independent decisions on treatment.

Under managed care, a variety of measures are used to constrain the professional decisions of care providers within a narrower range and limit the patient's choice of professional or type of care. Typically, these measures are introduced by the third parties who fund health care, through the various public and private insurance mechanisms, to contain costs. The simplest of these include paying doctors not for services rendered to insured patients but for each patient covered for services, the capitation payment system, and restricting patients to preferred providers who will abide by the managed care guidelines.

Ideally, managed care will be achieved without reducing the quality of care as perceived by patients who pay taxes or insurance premiums for their care but the threat of lower quality, and not just lower medical incomes, is of concern to doctors. Third party intervention in the decisions of doctors for their patients has often generated heated opposition from doctors and other health care professionals, who wish to retain the discretion to make their own decisions on the management of patient care. (For example, there are physician groups opposed to managed care advertising for like-minded souls on the Internet.<sup>1</sup>)

Although managed care is characterised by opponents as much more restrictive than insurance-based care, few patients with private health insurance face a totally unrestricted choice of doctor and hospital in the US. Only the self-paying private patient has the kind of choice that consumers take for granted in other markets.

Before examining the tools of managed care, it is helpful to look at its origins, since the factors which gave rise to it in the USA are somewhat different from the UK experience.

## 3 WHY TRY TO MANAGE CARE?

The traditional model of health care in the USA was based on a system of private insurance, in which patients received their care from professional providers and hospitals who charged fees for the services provided. Together with the wider operation of the health care market, this has led to several pressures on total spending. (See Box 1). (There is a very large literature on managed care in the USA, which has been reviewed in a number of places and is not reviewed again in any detail here as the main focus of this paper is the application of the techniques in the UK.)<sup>2,3</sup>

Insurance funding of health care gives the providers a clear incentive to carry out more and more tests and procedures on patients, since every intervention, whatever its contribution to patient health, generates a fee. Growth in the supply of doctors led to growth in the supply of health services and rising expenditure for insurers. Americans have much higher rates of diagnostic testing and surgery for many conditions than the UK, for example. This may be because, with higher average incomes, they can afford more health care but economists have argued that much of the higher rate of intervention is due to the incentives at work in the insurance-based health system.<sup>4</sup>

Technology has also produced cost pressures as new drugs and new diagnostic and therapeutic equipment become available and, at times, clinically fashionable. Because neither doctors nor patients pay the costs of new products directly, there is more interest in perceived quality than in price. Products offering the prospect of improved outcomes will be used, even if they are more expensive than the alternatives and offer only limited health gain. This is not a direct result of the technological change itself but of the economic factors which affect its rate of introduction and the price at which it can be sold, in an environment where ethical as well as economic pressures are at work to increase the uptake of potentially better treatments, with less concern with their cost.

Lastly, competition between profit and non-profit hospitals has led to much higher levels of hospital capacity in the US than may be required, given current clinical views on the appropriate length of stay in hospital and the scope for day case treatment and early discharge. This means that insurance companies have

### BOX 1 Factors leading to rapid cost inflation in insurance-based health care

- Substantial use of health insurance isolates both doctors and patients from the cost consequences of the treatment regime so new, more costly techniques and drugs may be introduced rapidly.
- Doctors and other care professionals decide, as the patient's agents, how much care is needed and then supply it for a fee, most of which may be met by the insurance payer. This gives the professionals an incentive to supply more, rather than less, care and can create supplier-induced demand. For example, many surgical interventions are carried out more frequently in the US than in the UK.<sup>5</sup> Treatments also tend to rise as the number of doctors in practice rises.
- Patients have no incentive to choose lower cost providers, restrict their demands for services or resist the pressure of professionals to provide more services because they are not paying. Termed 'moral hazard', this is a problem that also affects e.g. building or car repairs under insurance policies. However, if individual patients become higher users of services, they may find their future insurance premiums rising in subsequent years.
- Suppliers of new drugs and services have no incentive to offer highly competitive prices for a new drug or piece of equipment. If it is better than the alternatives, doctors may choose it and patients may accept it as neither group has to meet the full price of the new treatment. This leaves the financing of rising costs as a problem for the insurers.
- Competing hospitals in a market environment may compete through quality enhancement, rather than price, if patients do not pay the price of their care. This leads to excess capacity in major facilities and equipment and, with a trend to shorter hospital stays, too many beds in the system. The fixed costs of these facilities fall on the insurers.

to meet the fixed costs of running more hospitals than are needed for efficient care delivery.

Because of rising levels of activity and rising costs per case, individuals in health insurance plans have faced rapidly rising premiums in the USA. But they may feel powerless to resist them. Choosing to be uninsured is risky so many of those who have previously chosen to



be insured, the more risk averse, may feel they have little choice but to pay rising premiums. However, in America large numbers of workers receive their health care through insurance purchased by their employers. Employers over the last twenty years have been increasingly concerned that insurance-based health care was costing more and more each year. Similarly, state and federal government programmes, for low income and elderly people, have also faced rising costs, due to changes in treatment and the need to pay competitive salaries to doctors. Because of the increasing number of patients treated, and the increased complexity of treatment provided by the public and private sector services treating public patients, total expenditure is hard to control. (Even the UK, with clear cash limits on the NHS, has not found it easy to keep the cost of health care to the planned level.)

Not surprisingly, US employers and government have looked for ways to reduce the rate of growth of health care expenditure. There is also no substantial evidence to show that the higher level of health spending in the USA is leading to better outcomes overall. Of course, outcomes from the US health system as a whole are difficult to test rigorously because of the wide range of factors which affect health. But without evidence of clear gain, those paying the continuously rising costs of health care in the USA have looked for ways of managing the future costs of care and treatment.

Some methods to contain spending can be, and were, present in fee-for-service medicine, as a response to the potentially unlimited discretion of providers to spend the insurers' money. These include the use of deductibles and co-payments.

Deductibles are common in insurance contracts. The first so-many dollars of a claim have to be met by the insured person and not the insurance company. This saves the insurer the administrative costs of small claims and is common in e.g. car, house and travel insurance.

Co-payments are less common outside health care insurance, because the amount to be paid under most insurance contracts is determined by the loss or damage done. The cost of repair may depend on the discretion of providers of repairs and reparation but the total cost of repair is always limited by the price of a new item. The complexity of repair is also likely to leave only limited scope, if any, for adding more services as part of the repair package. For example, when your TV set is stolen or your roof damaged, an agreed and fixed amount of reparation will be decided. In medicine, the problem of agreeing this in advance is that a range of interventions might have some effect

on health and, if not effective, might be followed by others. There is no equivalent of the replacement cost to put a limit on expenditure and a single patient could receive many ineffective therapies at a high cost for one disease.

Co-payments in health insurance are a way of making the patient more sensitive to the total level of care to be provided by making them pay for e.g. 20 per cent of the cost of their care. This restrains patients from making demands for the best care and associated facilities, (e.g. private room, extra tests, more physiotherapy). However, co-payments may only work up to a point since patients may simply not be able to pay, when the final bill arrives. Health care bills are still a common cause of bankruptcy in the USA, among insured people. Furthermore, if the care providers can push up the total quantity of services provided, they can extract a bigger total payment from the insurers which may cover their fixed costs and make them less dependent on co-payments from patients.

Health care insurers, particularly government agencies covering the poor and the old, have also introduced fixed price reimbursement, using the system of Diagnostic Related Groups (DRGs). Every patient episode is allocated to a DRG category which carries a fixed price tag. Providers may face no restriction on the number of patients treated but they must treat them within the DRG fee or risk losing money. Thresholds for referral may change over time so the insurers may face rising expenditure as more people get treated but at least the cost per patient is under greater control. From time to time, e.g. following development of new surgical techniques, it is also possible for the insurers to reduce the DRG fee for procedures so that hospitals which do not take up the new approach, e.g. day surgery, laparoscopic surgery, local anaesthesia, may again lose money.

Whatever the role of the measures to change incentives in fee-for-service medicine, the dissatisfaction with the system as a whole, by those paying for it rather than those using it, has produced a wide range of models of managed care. Many of these models are seen as representing an aggressive new threat to the American health care system. The agencies now managing care have been likened to gun-slingers and bounty hunters by Reinhardt in a colourful illustration of their power.<sup>6</sup> So how are the bounty hunters taking over care management?

# 4 HOW IS CARE MANAGED?

A number of managed care components are summarised in Box 2 and discussed further in this section of the paper.

Managed care operates both at the macro level, the level of the system as a whole, and the micro level, the level of individual patients and their treatment.

## 4.1 MACRO MANAGEMENT OF THE COST OF CARE

At the macro level, managed care organisations have attempted to change the incentives that affect providers' decisions. Key macro components include:

- integration of the insurance and purchasing agencies;

- prospective funding of health care for blocks of patients by capitation payments, rather than retrospectively paying fees for treatment provided.

Integration of the insurance and purchasing agencies under managed care means that those responsible for collecting premiums from employers, government or individual members also control decisions on the total level of spending. By comparison, under traditional insurance, insurance companies collect premiums while doctors and other professionals decide how much money is spent.

A key element in containing total expenditure is the shift from payment for every service provided for patients to payment based on coverage of services for a defined group of patients, e.g. patients with asthma or

### BOX 2 Managed care techniques

**Capitation Payment** – this can be one of the simplest and most powerful interventions by insurers and public health care funds. Instead of paying according to the services actually provided, patients or entire populations have their care paid for by a block payment, per head of the population in each key category. There is then a financial incentive to minimise treatment and maximise the surplus of funds over care costs. (British primary care, other than prescriptions, is based on capitation funding.)

**Preferred Providers** – insurance companies and other agencies paying for health care for members contract with only a limited number of hospital and other care providers, sometimes on the basis of past costs or by tendering arrangements that encourage competition for blocks of patients.

**Protocols and Guidelines** – care for each type of patient is specified in advance, e.g. through a professional consensus on outcomes at each stage of a disease, and patients follow the regimes as their disease develops. In some models, care may be provided both in and out of hospital by a team dedicated to the particular disease and cutting across conventional provider lines, e.g. using dedicated nurses rather than general doctors to provide some elements of care. Patients may move from one, at times lower cost, treatment regime to another, possibly higher cost, medication or treatment only if the severity of their problem increases. At times, protocols may include early use of high cost treatments but only if they offer the prospect of better outcomes or lower costs over the longer term as a result of better management of the disease.

**Profiling and Utilisation Review** – Data collection on the resources used by individual doctors, e.g. drug prescribing, length of patient stays in hospital, is used to identify high users among the physicians and other professionals and at times among patients. These may then be targeted for further action including contact from the managed care organisation and, potentially, physicians may face such sanctions as loss of the right to treat the organisation's patients. However, the approach has the drawback that it is often heavily focused on inputs and does not have such accurate data on patient outcomes.

**Disease Management** – Patients with chronic disease often receive care from a wide range of providers in hospital and the community. This approach aims to integrate their efforts so that all work to the same protocol and have the same care objectives. Under disease management, there is consistent use of drugs and other interventions and there may also be integrated providers who take over a range of services for patients and put them into a single agency, e.g. a cancer care company providing all required therapeutic and palliative treatments.

**Pharmaceutical Benefit Management (PBM)** – This approach focuses on the drugs used by patients and attempts to ensure optimal therapy and compliance, in order to improve outcomes and reduce future costs, e.g. repeated hospitalisation due to failure to take effective drugs properly. It provides an element of continuity of care for patients in an environment, the USA, where this has not always existed, because general practice and registration with a single practitioner are less well developed in America. Some elements of what a PBM company will do for patients mirror the monitoring of patients in the UK through general practice consultations and chronic disease clinics, e.g. in asthma and hypertension.

patients undergoing long-term dialysis. Under this regime, usually known as 'capitation', a sum of money is paid per person covered by services from the provider.

Each patient's care is not directly managed but the total cost for the group as a whole is capped by the total capitation payment. From within the fixed capitation payment for the group covered, providers try to meet the needs of patients adequately, e.g. providing family or general practice care for a local population. Adequate care may not be very well defined and some have argued that strict definitions would probably make capitation contracts unworkable, because all parties lack the data to monitor and enforce strict contracts.<sup>7</sup> While there may be some adjustments for the relative risk of the population and their past use of services, the payment made is linked to the number of patients and not the actual services provided to them. Consequently, there is no incentive to provide more and more services but rather an incentive to do as little as possible while still achieving the required standard of care or maintenance of patient health.

Health Maintenance Organisations (HMOs) are a common type of more integrated payer and purchaser in the USA.<sup>8</sup> In return for premiums paid by individuals or groups, the HMO undertakes to deliver care for its members, either directly through its own facilities and doctors or by purchasing care from other providers on behalf of members. This brings together the carrying of the risk of health insurance with the purchase or delivery of services for patients. HMOs provide lower cost care<sup>9</sup> and this is probably achieved by eliminating provider incentives to provide more care than is required. HMO patients are not only admitted to hospital less often but have fewer costly interventions when they are in hospital.

## 4.2 MICRO MANAGEMENT OF THE CARE PROVIDED

Moving from the macro level to the micro level, there are many techniques now used by managed care organisations to increase their control of the cost of care, beyond the cruder macro controls. (Box 2). Each of these techniques impinges on the choice of those treating the patient now or, through feed-back mechanisms, in the future.

The crudest tool is the **preferred provider** arrangement. This limits patients in a managed care programme to particular hospitals and professionals for their care. By encouraging providers to bid for the contract, the managed care organisation can get lower costs for treatment, particularly if the level of capacity

in the system is bigger than can be funded under managed care. In order to keep their hospitals even partly full, hospital managers must bid for contracts with large national and local managed care agencies. Losing all of the patients from a big health maintenance organisation or insurance company is a financial catastrophe and retaining them, even with less funding, is the lesser evil. Like hotels bidding for tour parties, hospitals may be forced into ever tighter competition if they are to survive. However, the market philosophy of health care in the USA is such that consumers may resent too many limits on their choice of hospital, compared to the UK, where many people are used to relatively few large hospitals and an NHS that tends to dictate when and where patients will be treated. As a result, US managed care organisations can only go so far in limiting choice to preferred providers before they risk losing members, either directly or through employee pressure on employers who pay for health insurance.

One step beyond the preferred provider is the use of a **protocol** or **guideline** for care. This could be seen as a **preferred provision** model – that is, specifying not where care will be provided but what care will be provided at each stage in the disease process. While this restricts patient and professional choice still further, it has some advantages for providers. Faced with a fixed payment per patient covered, the providers need to know what care they can afford to provide for each type of patient. By introducing protocols, the managed care organisation specifies this for providers and both purchasers and providers are able to assess more accurately the potential cost of different groups of patients undergoing each care regime. Indeed, if purchasers do not specify a protocol, providers being paid a fixed fee per patient are still likely to want to specify a protocol for their own use, to ensure that all patients are treated within the contract budget. By introducing a clear care protocol, the contract between the managed care organisation and the providers can be specified much more clearly.

At the same time, the protocol reduces the freedom of action of doctors. Protocols may be seen as a serious encroachment on professional discretion, particularly by doctors who intervene enthusiastically and aggressively even when the prognosis is poor. Protocols may also explicitly shift work away from doctors, ensuring that any tasks that can be carried out by less highly trained staff are carried out by them at a lower cost to the managed care plan. This again may encroach on the professional 'turf' of the doctors.

A protocol has the merit that it makes choices about care much more explicit. The explicit nature of the protocol gives professionals a chance to influence the

package of care on offer by contributing to the debate about care for each patient group. If the standards of a purchaser's protocol are seen as too low, the professionals may be able to exert pressure through the media and through professional bodies to see it improved. Thus, while a crude capitation fee system leaves providers managing the risks of unpredictable patient illnesses and treatments, with little concrete evidence of what the purchaser wants to buy, protocols reduce the area of uncertainty by specifying what should be done in each type of case.

Protocols may also lead to improvements in care for some patients, particularly those receiving too low a level of care because of providers' lack of up-to-date knowledge or receiving too high, and too invasive, a level of care because of provider desires to increase income. But at the same time, protocols remove much of the professional discretion of the providers and require medicine to be provided 'by the book'. This need not threaten patients' interests if there is good research to justify the protocols. Research that convinces those paying for care that a new therapy is worthwhile may, of course, take longer to accumulate than evidence that convinces doctors and patients that a treatment may be worth trying. Particularly for patients with a very poor prognosis, the risk of experimenting with new drugs may be very small but the total cost to purchasers may be very high. Since protocols in US managed care are written by purchasers, to contain costs as well as maintain standards of care, patients may also get less care in some stages of the protocol than some providers would like to provide if they had a free hand.

While they have the advantage of getting into the detail of what every patient should receive, the drawbacks of more detailed protocols should not be overlooked. Macro methods, such as capitation payments for broad groups of patients, rely on a reconciliation between population illness and care provision being made somewhere, somehow, in the health care system but without any clear identification of who loses from such a process. No individual is explicitly given an agreed, lower standard of care or denied treatment because of an explicitly raised threshold for referral. Once a micro model of care is specified for patients of any given type, patients will all expect it to be provided, even if there are more patients than anticipated by purchasers and providers. Once the protocol fixes the effective cost per patient, one degree of cost control has been lost, compared to crude capitation.

More generally, the same difficulty is at the heart of the balancing of costs and entitlement that managed care must achieve. If doctors are to be denied the chance to give some treatments to some patients then, when the

patients are identifiable, patients and their doctors may demand an entitlement to more care than the protocol provides. Given the high degree of trust in any doctor/patient relationship, a suggestion by doctors that patients are not receiving the ideal care regime under the purchaser's protocol may generate considerable friction between patients and those purchasing care on their behalf. This situation may be avoided if doctors are members of the organisation which both carries the risk of insuring patients and provides their care. The doctors then have an incentive to avoid challenging the protocol. However, in this situation, patients may feel less trustful of their doctors, since they are no longer just the agents of patients.

A further concern with protocols is the way in which they get changed when new treatments become available. A new therapy which offers better outcomes for patients may come on the market at a high price, required to meet the research costs that underpin it and also generate profits. The result of the new therapy may be to increase the costs of the regime of care that doctors now wish to provide. Under conventional third party insurance systems, patients are likely to receive the new therapy quite soon, perhaps too soon in the case of some surgical techniques which are often less rigorously assessed than drugs before they are introduced on the market. There are few direct barriers to rapid uptake though the conservative nature of the medical profession may slow the rate of introduction of a new therapy under any financial arrangements. When a protocol exists within a managed care programme, purchasers may resist adding the new therapy to the protocol because of its higher costs. If doctors are also employed by the managed care programme, there may be no patient advocates in the system to press for introduction of the new, better but also more costly treatment.

Compared to the normal tension between customers and producers – e.g. some people pay extra for safer cars, others do not – the effective customers for managed care are the purchasers who carry the risk of insured populations, not the people who use the health services in the managed care plan. Such purchasers may prefer lower cost over better quality, once an acceptable (to the insurers more than the doctors) standard has been set in a protocol. This could limit the entry of new drugs and techniques into the protocol. If the protocol was acceptable without the invention of the new drug or surgical technique, it might continue to be seen as acceptable without the inclusion of newly invented alternatives. Employers and governments are likely to prefer to limit costs in this way rather than increase the package of care provided. As a result, while fee-for-service insurance may lead to

rapid uptake of new and expensive treatments, even when they are ineffective, managed care may slow down the introduction of new treatments, even when they are beneficial. In consequence, some patients may lose out on the benefits of new treatments. It follows that managed care protocols may need to be developed with some input from a group of advocates, perhaps independent panels of the public, patients or professionals with no vested interest in the outcome of any protocol revision, who would act as the patients' advocates. To a degree, pressure groups and patient representative bodies do this now but they too are not independent and may press for new therapies to be included in the protocol either before they are of proven value or where the additional benefits are disproportionately small compared to the costs.

Whether or not a protocol is in use for managing the resources used to treat a disease, **profiling** is a further tool widely used in managed care to identify variation in service use and costs between providers. By identifying high cost providers, from the records of services provided, managed care organisations can begin to target areas of potentially avoidable cost. If, within a particular medical specialism, one doctor is prescribing a great deal more treatment than the average, the managed care organisation has a case for querying clinical decisions on resource use. As long as the great majority of professionals prescribe less care, there is an implied professional consensus that less care is still satisfactory care, even if this is not crystallised into a protocol for patient management. The high cost professionals then have little defence except to argue for their right to practice medicine as they choose. The response from the managed care organisation is that such professionals do not have the right to do this in a substantially different way from other professionals and at the managed care company's expense!

The simple phrase 'He who pays the piper, calls the tune' highlights how managed care companies see their relationship with clinicians. The fact that this simple exertion of purchaser power sent such shock-waves through the US medical profession is a sign of how far it had historically been possible for the pipers to call the tune first and bill the insurance companies later.

The last tools noted in Box 2 are **Disease Management** and **Pharmaceutical Benefit Management**. These are related approaches to managed care which go into yet more detail on the micro provision of care. In addition to a protocol on what care should be provided, disease management programmes provide mechanisms for ensuring that the optimum path is indeed followed by every patient. Instead of relying on profiling of past data to influence future decisions, disease management

and pharmaceutical benefit management involve actively managing providers and patients so that care can be kept close to the protocol as it is provided.

Under **disease management**, providers are closely connected to ensure an integrated package of care across primary, hospital and community providers. This can be through shared records or, in some schemes, integration of different providers into a single agency. The agency offers the full range of services needed by patients with a particular disease, e.g. asthma or cancer, from community to hospital. This gives the greatest scope for consistency of patient management as there are then no separate agencies pursuing independent policies for their own financial or professional reasons. It may also increase the scope for prevention of either disease onset or subsequent deterioration. While in many health systems, day to day management of chronic disease lies predominantly with the patients themselves, (e.g. complying with treatment regimes which provide stable care, attending key monitoring sessions with doctors) disease management puts greater emphasis on making regular management the responsibility of a provider of care as well as patients. Regular liaison, communication, monitoring of health state and compliance as well as simple encouragement may all play a role in optimising the use of treatment and preventing deterioration. This emphasis on prevention is not only to the benefit of patients, who stay less sick for longer, but also to the benefit of those funding the care, who can reduce the costs of complex care when patients' health deteriorates.

In **pharmaceutical benefit management**, patients who show a record of poor compliance with their medication or do not attend hospital for a review of their treatment may be visited at home and given further counselling on the ways in which their lack of compliance is affecting their health. The aim is to ensure that every patient gets the most out of the medicine in health gain and deterioration avoided. Potentially they might also be given incentives or the threat of sanctions to encourage compliance. While sanctions raise moral issues about leaving individuals with no effective access to health care, it is potentially unfair on other members of a health plan if a minority incur substantially higher costs, and force up subscriptions or premiums, by failing to comply with their treatment. The monitoring process may also involve checks on providers, ensuring that repeat prescriptions are actually issued. Monitoring of patients can include quite simple measures such as regular reminders to patients to take their medication and confirmation that repeat prescriptions of drugs are obtained on schedule. Some technologies also make it possible to detect patients who are falsely claiming to

follow a regime. For example, some inhalers for the treatment of asthma can now monitor use so that patients cannot simply 'dump' their medication before a monitoring visit. Monitoring of this kind also strengthens the position of the pharmaceutical benefit management programme by giving it better data on the links between the degree of compliance and the outcome of treatment.

Arguably, the emphasis on preventing deterioration and future costs is the key contribution of pharmaceutical benefit management. In many health care systems, each provider has no incentive to manage the patient's disease as a whole but only the elements of it which they treat. Doctors are often seen as more concerned with intervention to treat a specific problem, whether an acute problem or one facet of a chronic disease, than with preventive action or whole-patient management. Indeed, nurses often argue that this concern with the whole person is part of the nursing, rather than the medical, model and makes nurses more suitable providers of this kind of managed care. Detailed management of care in this way may also counter one of the pressures of capitation funding and other short-term limits on spending, which may lead care providers to concentrate on the short-term. e.g. managing the patient within this year's cost limits, rather than avoiding longer term deterioration.

Overall, managed care seeks to control spending on each type of patient, with crude macro measures constraining total costs and detailed specification and monitoring of care. It has a wide range of tools at its disposal, which constrain or monitor the actions of care providers, in aggregate or for individual patient treatments. Perhaps because of the diversity of managed care approaches in the USA, and the limited extent of real controlled trials of different models, the evidence on the quality of care is not conclusive either way. One of the most recent analyses looked at 37 studies and concluded that the 15 studies with quality of care evidence were equally balanced, between significantly better and significantly worse quality of care under Health Maintenance Organisations.<sup>10</sup> Potentially this is a reflection of the complexity of medical care and the contribution of different elements to the final outcome. For example, HMOs are likely to expect shorter lengths of stay and fewer hospital episodes as a way of containing costs. But hospitals are only sheds within which a wide range of activities take place. Many of these, e.g. the administration of drugs, can take place outside hospital and the exact point when a patient can safely go home is very badly defined. As a result, a variety of reductions in the length of stay or use of services may not be

linked to a reduction in the quality of the outcomes.

The remaining sections of this paper examine the scope for more managed care in the NHS. But before we can claim that managed care techniques could help the NHS, we need to ask whether it already has the tools of managed care and whether, in its very different financial framework, it needs more.

## 5 MANAGED CARE IN THE UK – DO WE HAVE IT AND DO WE NEED IT?

Although seen mainly as an approach to the management of health care costs in the US, and in insurance-based European systems, there are a number of managed care elements already present in the UK, under other names (Box 3).

At the simplest level, the whole NHS is a kind of managed care organisation in the sense that total expenditure on hospital and community care is managed through the **cash limit**. Doctors are limited in many ways by the financial constraints imposed by this method of funding. Funding for the NHS is fixed in cash by Parliament and there is no feedback directly from higher treatment levels to higher funding, as there is in insurance systems which can pass rising costs onto members in higher premiums. Funding is passed to health authorities using a capitation-based formula and they are expected to keep within their budgets. As a result of the 1997 White Paper,<sup>11</sup> a similar formula will be used by health authorities to pass funds onto Primary Care Groups of GPs and community nurses who are intended to commission health care in future. The effect of the cash limit is to restrict expenditure on patients to what is effectively a formula-based capitation payment per head of population in each health district. However, the way in which the NHS is managed may be relatively arbitrary. Decisions by purchasers and providers of care can leave different groups of patients untreated in different places. Thus, care may be unmanaged at a micro level or not managed consistently, even though management of total cost is relatively tight.

The NHS also has a managed care approach to the **payment of doctors**. It pays capitation payments to GPs and pays salaries to hospital doctors and the general lack of fees for NHS work means that doctors have few incentives to over-treat. Fees can be used to motivate doctors, e.g. there are fees for achieving high levels of vaccination and immunisation or cervical cancer screening in general practice, but most care is provided in situations where the providing physician has no personal financial stake in the transaction. However, the move to provider Trusts has created independent hospitals and community care providers who do have an incentive at least to make sure that contracts are fulfilled, even if this might require the threshold for treatment to be lowered.

**The purchaser-provider split**, introduced by the 1990 NHS reforms, has also increased the scope for control of total expenditure by separating the two functions. Previously, overspending hospitals were owned and operated by health authorities which tended to ask for more money when overspending occurred. Now, the more independent provider trusts are expected to enter into binding contracts with purchasers. The contract system can also create incentives to treat patients rapidly when capacity is available at the start of the financial year, in the spring and early summer, running the risk that a year's contracted workload might be dealt with in less than a year. The provider may then be able to embarrass the purchaser by declaring that no further cases will be treated unless more funds are forthcoming in the current financial year. Thus, the separation of purchasers and providers since 1990 has had some effects on incentives. Equally, the 1990 reforms increased the focus on purchasing decisions, compared to the past when health authorities had a major providing role, potentially increasing cost control.

At a more micro level still, the NHS has a further managed care element in **general practice**. Every member of the population should be registered with a GP and patients cannot consult a hospital doctor for a non-emergency problem without a referral by their GP. Thus, the general practice system provides an agent who is responsible for bringing in other types of care as required. GPs gain nothing financially from referring patients to hospital and have no pressures to provide extra services for extra fees.

Whatever the incentives, GPs are independent contractors to the health service and they have defended their independence fiercely. As a result, they are relatively uncontrolled and their practice shows wide variation in referral and prescribing, even across quite similar areas.<sup>12</sup> In consequence, the price of the gate-keeping role carried out by GPs in the NHS is wide variation in the number of patients who pass through each GP's gate on the path to hospital.

**GP fund-holding**, introduced as part of the 1990 reform of the NHS, provided direct incentives to reduce prescribing and referral. GPs choosing to hold a budget can redeploy savings from reduced

### BOX 3 Managed care in the UK

**The Cash Limit** – To a degree, the whole NHS is a managed care system that operates within a cash limit. Individual doctors enjoy a substantial degree of freedom to treat the patient in front of them but spending by the system as a whole is capped. Higher than planned use of resources by some doctors will ultimately force some restraints on others, e.g. forcing longer waiting lists or closed wards, in order to reconcile spending with the cash limit. As a result, the management of individual patients may vary between different consultants in the same hospital and between different hospitals.

**Paying the Doctor** – NHS doctors are paid few fees and so have no incentive to over-treat NHS patients. GPs receive fees for specific services or for hitting service targets but a major element of payment is based on the number of people on their list, not the services provided to them. Hospital doctors are paid a salary and have no personal financial stake in higher levels of treatment, even though their employing Trusts may have.

**The Purchaser – Provider Split** – The 1990 reform of the NHS separated purchasing and providing of care, creating purchasing agencies who had a clear role in the management of expenditure. Care is provided under contract and those with the funds to pay for care, the health authorities, aim to purchase packages of care that are consistent with their budgets. However, while this could offer a considerable degree of care management, in practice it has failed to do so. The health authorities have not always controlled spending per case but have had even greater difficulty controlling the volume of referrals by general practitioners, particularly for emergency treatment.

**General Practice** – Compared to insurance-based health care, the NHS has a very well developed system of general practice with compulsory registration of patients with GPs. GPs are then the broad managers of care for patients and have responsibility for bringing in the other care professionals as necessary.

**GP Fund-Holding** – Fund-holding GPs, with a budget for their practice staff, drugs and non-urgent hospital services, are the clearest example of managed care at the agency level. Most fund-holders hold the budget for non-emergency care but some hold it for all secondary and community care for their patients. By giving the money to buy care to the

doctors, fund-holding has created a kind of HMO in the UK. Doctors have a clear incentive to manage care downwards and substitute their own services for those of others. Savings against budget can be used for new types of care or improvements in the practice premises. However, the proposal in the 1997 White Paper to abolish fund-holding from 1999 and replace it with commissioning of health care by Primary Care Groups of approximately 50 GPs each (whether previously fund-holders or not) is likely to dilute the incentives that operated under fund-holding.

**Prescription Monitoring** – The Prescription Pricing Authority prices every prescription written by a GP in order to make payments to pharmacies. This provides it with data on every practice and every GP which can then be used for profiling and subsequent contact with the GP. The data show wide variation in prescribing by GPs and some may be visited by health authority staff to discuss the scope for reducing costs or drug use.

**Indicative Drug Budgets** – Since 1990, every general practice has an indicative drug budget outlining how much it should spend on its prescribing. While sanctions on overspending remain weak, indicative budgets, coupled with encouragement to write prescriptions generically, has led to growth in the prescribing of generics from 40% to 55% between 1991 and 1995.

**Protocols and Guidelines** – Protocols and guidelines for the management of patients have begun to develop in the UK, e.g. for chronic diseases such as asthma and ischaemic heart disease, and there are detailed guidelines for purchasing by health authorities of services for kidney failure and cancer.

**Formularies** – hospitals and general practices increasingly provide their medical staff with lists of drugs which are usually prescribed for key conditions. Some of these go further and routinely recommend generic drugs, where they cost less than the branded equivalent. Others allow a less restricted choice for the doctor but leave generic substitution as an option for the hospital pharmacist. Community pharmacists prescribe branded drugs where they are specified in the prescription.

**PRODIGY** – The Department of Health is currently conducting trials of a prescribing support system which acts as a desk-top prescribing guide for GPs. Evaluation and discussion on the formulary effectively embedded in it are continuing.

prescribing and hospital treatment and use these to provide enhanced services in their practice or expand practice premises. Here we have a clear microcosm of the managed care model, with the GP getting capitation funding for patients and then having to purchase hospital, community and pharmaceutical care for them.

But a note of caution should be sounded. Many fund-holders interviewed by the author joined the scheme to protect their patients' access to existing services. The Audit Commission also found that GP fund-holders wanted to protect their existing referral patterns and have not shifted contracts radically from hospital to hospital.<sup>13</sup> Fund-holder budgets have also been based not on a strict capitation formula but largely on the

basis of past use of services and drugs. Thus, relatively inefficient care may have been protected by a high budget in fund-holding. Although the inefficient have an incentive to become more efficient and redeploy the savings, they may choose not to do so if they are happy with their level of drug and service provision for patients.

The 1997 White Paper will abolish fund-holding from April 1999. Instead, all GPs, whether previously fund-holders or not, will be formed into Primary Care Groups of around 50 GPs each, together with the community nurses who work with them. Each group will have a budget from which to buy care though they may opt for a more limited, advisory role. The impact of incentives to control costs within such large groups



and with different rules for the virement of savings may be very different from the more direct impact of fund-holding incentives on GPs.

For pharmaceuticals prescribed by GPs, **prescription monitoring** is feasible, up to a point, because of the degree of central data collection in the UK. To pay pharmacists, the NHS introduced a central payments body, the Prescription Pricing Authority. This body processes every prescription in England (with similar bodies in the other countries of the UK) and, as a by-product, is able to generate profiles of prescribing by individual practices, a system known as PACT. These can then be used to identify particularly high cost prescribers, who can then be targeted for further interventions, e.g. advisory visits from the health authority's medical adviser. One drawback of this system of profiling is that it contains no information on individual patients. As a result, it is difficult to prove that one level of prescribing is better or worse for patients than another and, in consequence, sanctions against high-prescribing GPs have remained relatively limited.

Given the difficulty of getting conformity in prescribing among GPs, other measures have been tried, including giving every non-fund-holding GP an **indicative drug budget**. This is used to compare with their actual prescribing and to provide a basis for discussion of future changes in prescribing behaviour. But without either carrots or sticks to reinforce preferred behaviour, it is not clear what impact the indicative budgets and PACT system are achieving. In particular, the public support for GPs makes it very difficult to challenge high prescribing as technically bad care rather than expensive but good care. Health authority action against GPs who prescribe substantially above the average could be portrayed as naked cost cutting and resisted by professional medical bodies.

The weakness of both profiling and global budgets is that they do not relate directly to the care of an individual patient. One solution is to tackle the problem of variation in prescribing not through a threatening, retrospective review but at source. This can be done by constraining prescribing, using a formulary or a tighter protocol.

At a more micro level still are specific disease **protocols and guidelines**. These appear relatively underdeveloped in the NHS, largely due to the success of the crude measures, particularly the cash limit, in controlling total spending, which potentially limits government pressure to tighten management of care. But this is also a result of the autonomy of general practitioners who can often work in professional isolation from hospital medicine. Where protocols exist, and they are growing in number all the time, they

are typically voluntary and monitoring of them is limited, developed by providers rather than purchasers, and relatively weak. Since professionals across the NHS as a whole might resist tight protocols, it may be more common to find local groups, who broadly agree on particular treatment regimes, developing their own local protocol but not advertising it widely.

In some extreme cases, a protocol may be a rationing tool, excluding a new drug or treatment from the local range of NHS treatments, e.g. where purchasers feel that there is insufficient evidence for its use.

Even where protocols do exist with explicit purchaser endorsement, it is difficult for purchasers to confirm that they are followed due to the lack of a single patient record in the NHS. Simply finding out if patients followed the same protocol across GP, community and hospital care providers can therefore be very difficult. The level of information provided to purchasers is so limited, typically diagnosis and procedures carried out, that it may only be possible for health authority purchasers to monitor protocols crudely, e.g. examining the frequency of particular operations compared to the number of referrals with a given diagnosis.

A **formulary** is often only a list of locally held drugs, for use in hospital, or to be prescribed by a group of general practitioners. However, formularies increasingly steer doctors through a choice of drugs and recommend only a short list of drugs for use at each stage of the disease they are treating. Given the wide range of prescribing behaviour, they are most often introduced locally, at the level of a single general practice or a single hospital, where it is easier to secure a consensus view.

Protocols go further in specifying care for each type of patient, but the difficulty of ensuring compliance with the protocol by the doctor will still limit effectiveness. One way of tightening compliance is to build the protocol into a decision support tool. If a computer system can link up the steps in diagnosis with expert advice on the stage of disease and the appropriate response, it may steer doctors towards more consistent prescribing. Even if complete freedom of prescribing is retained, the system can make prescribing recommended drugs easy and make any departure from the protocol relatively time-consuming, e.g. by requiring lots of additional steps in the entry of information for those wishing to step outside the guidelines.

The NHS is currently piloting a decision support system for prescribing, known as **PRODIGY**. This system effectively steers doctors through diagnosis and prescription to a limited range of products. It can also

be used to reinforce other pressures on prescribing, by using generic names to encourage generic prescribing. In an environment where many different drugs exist for some conditions, this simplifies choice by the doctor. But if the criteria for inclusion in a system such as PRODIGY include both costs and outcomes, some negotiation on price will have to take place from time to time on what gets included. This raises two problems. Firstly, all copies of the system must be updated whenever a change is made in the preferred drug due to a price change. This is obviously easy where the system is accessed and updated through a national network in the future. (Indeed, it is potentially easier and safer to update a sophisticated computer system than to update GPs with many different levels of knowledge and prejudices.) Secondly, negotiations on the price of drugs in the protocol cut across a separate system of price and profit regulation, the Prescription Price Regulation Scheme, which controls overall profits and prices charged by the drug industry. For example, if a drug is excluded from one area of PRODIGY, companies may try to obtain higher prices on other drugs where little alternative exists and where their brand is bound to get into the system. Under the PPRS, such increases may be approved and so the overall cost of health care does not change in the way anticipated by those negotiating on individual drugs in the decision support system. Lastly, while critics of PRODIGY see it as a system which may slow down patient access to effective drugs, it could also have the opposite effects. Currently, drugs penetrate the NHS gradually as more doctors become aware of their benefits. If drugs were entered on a national prescribing system, then they might move rapidly from innovations to routinely used drugs. Thirdly, a national system of prescribing could lead to a larger number of patients taking a smaller number of drugs in future. If a drug does show serious side-effects after a number of years, this could increase the government's involvement in claims for compensation on the grounds that it recommended the drug.

Overall, it is clear that many of the characteristics of managed care organisations can already be found in the NHS. There is little use of fees and considerable use of capitation funding, for health authorities and for GP services.

The tight cash limit has not solved the problem of variation in behaviour. Data from PACT and on aspects of hospital services show considerable variation in the resources committed by individual doctors. However, in the absence of detailed case monitoring, it is difficult to know what effect this may be having on patients. Given the strength of direct control over the cash limit, it is possible that policy makers see only limited

advantages in pressing for the elimination of this variation. If it led to a greater consistency of behaviour around the current modal treatment, for example, it would not necessarily reduce the cost of the NHS and could increase it. More detailed control of the use of resources may even increase costs, at least for some patient groups. This is particularly likely if the development of explicit standards and protocols for care begins to highlight deficiencies in current services. Even if the deficiencies cannot be shown to reduce health, it may be difficult for health policy makers to avoid agreeing to higher, rather than lower, standards of care. For example, when a new drug or technique becomes available on the world market, many doctors may not notice its arrival. If an explicit protocol exists for a treatment, a few enthusiasts may be able to push for its inclusion in the protocol, leading to rapid spread. Without a tight protocol, Ministers can claim that no patient is being formally denied a new treatment when in fact lots of local decisions are being taken to slow its rate of introduction, so that hospitals and health authority purchasers can continue to meet their contracts without overspending. Given the scope for increased demands for care from protocols, the Treasury may prefer to let sleeping dogs lie!

## 6 DO WE NEED MORE MANAGED CARE IN THE UK?

Given the range of managed care tools available to limit health care costs, it may seem that the UK does not need to manage care any further. In particular, the NHS has good cost control, over the service as a whole. The lack of such cost control was a key factor in the introduction of more managed care in the USA. By comparison, the private health insurance sector is increasingly developing care pathways and managed care protocols, because it lacks an overall cash limit and is much more vulnerable to the pressures that pushed up costs in conventional health insurance systems in the USA. But even if we do not need much more managed care to control costs in the NHS, this does not mean that we will not get it for other reasons, some of which may be the opposite of the cost pressure in the USA and more associated with pressure to maintain or raise the quality of care.

Most of the mechanisms listed in Box 3 concentrate on the aggregate total of spending and activity and do not specify in too much detail what care is provided to individual patients. In spite of the success of macro measures in controlling the cost of the NHS, micro mechanisms seem destined to increase. We may not need such measures to help contain costs but professionals may require them, both to eliminate poor standards of care, with either too little or too much being done for patients, and to free the professionals themselves from responsibility for rationing decisions. As patients become increasingly vocal and come to expect that public services should not only be timely and efficient but also provide them with what they believe they need, pressure on the cash limit is likely to increase. Doctors may prefer a managed care framework which protects them as individuals from the charge that they are doing too little for the patient. Uninformed patients are a key part of the process of implicit rationing. As patient knowledge and access to information increases, rationing of care is likely to become much more explicit.

Tighter case management and monitoring of care may offer:

- improvements for patients – by raising low standards, preventing over-treatment and increasing integrated care and prevention. Prevention of deterioration is a key issue for chronic disease sufferers and it is not

always clear where responsibility lies for this, given the involvement of both general practitioners and hospital doctors in much chronic disease management.

- reductions in cost – by eliminating unnecessary care or shifting care regimes to a managed progression from less to more interventional regimes, managed care may offer some savings. Similarly, by constraining prescribing and referral, patients may be staged through their disease and proceed more slowly, if at all, to the more expensive hospital-based treatment stage.
- increased scope for explicit rationing, as high cost treatments which do not deliver better outcomes are increasingly identified and removed from the package of care.

It is usually assumed that better management and more preventive care will lower costs. However, this need not be the case. Preventive care may itself be expensive and, even where it is not, the effects of better case management may still be higher overall costs for the health service. For example, prolonging the life of a patient with a chronic disease may increase the total lifetime cost of their care, even if the cost per year of life gained falls in the process. This means that additional benefits in health gain are achieved but only by increasing total lifetime costs. Similarly, an extended life for chronic disease patients will mean that they suffer other diseases associated with old age, a further price to be paid for health gains.

Whatever the precise costs and benefits of moves to further manage the care provided in the NHS, it may be that the movement is already unstoppable. Medicine has embarked on an era where the evidence base for clinical decisions is increasingly being used to justify treatment decisions. In this environment, it may be difficult for governments to stop the introduction of costly but effective new treatments, where good evidence for their benefits exists. The basis for constraining expenditure will be explicit protocols on the stage at which each treatment is introduced. Whatever the evidence on effectiveness, the price will no doubt play a part in determining the stage of use, with both government and manufacturers of new treatments balancing volume, price and expenditure. Routine monitoring of care will become easier and easier with improvements in information technology.

supported by unified patient records, and increasingly every treatment will be part of a managed care regime of some kind. While it is appealing to let doctors continue to muddle through the welter of advice, recommendations and information, it will appear more logical to monitor and manage care to get everyone on a similar care pathway.

There is also a natural and logical progression from development of a protocol to its direct links with care delivery, and on to monitoring and enforcement. Micro variation, at the individual patient level, within crude macro control is difficult to defend once data on the scale of variation becomes available, e.g. through developments in information technology or the work of the Audit Commission. Doctors will still have a major role in deciding disease stage, in complex diagnosis and monitoring and in adjusting for the individual patient's variation from the norm. But an evidence-based package of care is increasingly likely to be provided to chronic disease patients at each stage of their disease progression. This will be available to doctors through decision support systems which reinforce the pathway by limiting clinical choices at each stage of treatment.

## 7 MANAGED CARE OR DISEASE MANAGEMENT?

For treatments that involve a range of different providers, the progression from the absence of a protocol to the introduction of protocols and, ultimately, their enforcement provides a way of resolving one of the weaknesses of the NHS: the lack of an integrated approach to disease management. The UK still has relatively separate care providers in primary, hospital and continuing/community care and few protocols for care which orchestrate their separate contributions tightly. Most protocols are also local protocols, covering limited groups of providers. Within these, it is still possible for individual care providers to be unaware of the policies of others involved in care, due to the large number of professionals potentially involved and their clinical discretion. This situation is not helped by the lack of a single patient record that fully documents the treatments instigated by each professional. Increasingly, the variation in treatment that results from this diversity of providers will be under challenge, as fuller information becomes available on each patient. If we believe we know what constitutes a better way of treating patients, it seems logical to ensure that it is provided, through a managed process that embraces all the providers.

It therefore seems highly likely that elements of managed care, particularly guidelines and protocols, will continue to develop in the UK, driven by quality-conscious professionals but tempered by cost-conscious managers keen to make sure that more expensive treatments are introduced only at the stage where the evidence shows that they can contribute to outcomes. The professionals will come on board in part to raise standards but also because of the fear that if they do not join in the protocol-setting process, they may become the 'done-to' rather than the 'doers'. Protocol design may become in part an exercise in getting in your retaliation first, in the name of perceived higher standards of patient care. This will depend on the quality of evidence, which may be disputed until large controlled trials or meta analyses emerge. But once the evidence exists, a protocol may be seen as a vehicle for speeding up its rate of introduction by forcing an explicit decision. For example, triple therapy for AIDS and HIV is relatively expensive, around £6,000 per year or more. If a protocol exists for the treatment of patients at each stage of HIV progression, then the

place of triple therapy can be clearly located and its cost impact assessed. A government which agrees to the protocol can then be pressurised into meeting the costs. Where there is no protocol, a range of rationing decisions by health authorities and clinicians may prevent some patients receiving an effective therapy. There is considerable scope for inequity and discrimination in this implicit rationing.

Medico-legal concerns to ensure that treatment is not only appropriate but seen to be appropriate will also reinforce the growth of managed care at the micro level. It will be increasingly important in damages claims to show that treatment was indeed provided by the book, to avoid claims of sub-standard care. In addition, where care can be clearly shown to depart from protocols, a rapid settlement with low legal costs may be possible.

However, greater reliance on care management protocols will cut across the freedom of doctors and the NHS may need a strategy to get more protocols and guidelines introduced. This may involve securing a consensus around a relatively high cost treatment package which raises many patients' costs per case from the bottom end of the current service range but also secures significant professional agreement by not threatening what is seen as high quality care. Once the package is set, the NHS may then be able to resist additions to it more easily, e.g. preventing the entry of new brands in an existing class of drugs while leaving room for new therapeutic advances and new classes of drug. This might slow down the penetration, or lower the entry price, of new brands and may affect introduction of new classes of drug if a further approval process, beyond those already involved in the licensing process, was introduced to control the drugs in the managed care package.

## 8 DOES THE NHS NEED CARE MANAGEMENT OR CARE MANAGERS?

If the techniques of managed care are likely to penetrate the NHS, will we see the introduction of new types of managed care agencies or care managers? That is, will the NHS develop its own micro management of care or will we require other agents to do this. Under the Conservative government, any potential new agents managing care offered the attraction of some competition with the NHS. The new Labour government is less keen on competition within the health service and may be sensitive to any sign that it is following the Conservatives down a path which critics claim must lead to privatisation of the whole health service. At the same time, Labour has not reversed policy on the Private Finance Initiative and seems likely to accept a variety of partnerships which can claim to offer benefits to the health service.

There are several factors which, in the author's view, will limit the number of new care management agencies entering the market in the UK, and also their roles. Firstly, the NHS has its own system of profiling and prescription monitoring that gives it all the information it needs. There is little role here for agencies simply providing information to those funding the care. Similar information is developing slowly in the hospital sector and profiling will become more and more common as purchasing health authorities or primary care groups look below the level of the hospital in their search for efficiency. Any new agency would therefore have to go lower down in its detail, to monitoring of individual patients and their compliance with treatment. This is more costly because of the costs of keeping tabs on the individual patient.

Secondly, the NHS already has regional networks of centres with well established inter-referral links. These have been strengthened by the guidance on services such as cancer, a disease area where disease management companies have entered the market in the USA.

Thirdly, where care provision involves substantial investment in new facilities, the low cost NHS may be unable to meet the expectations of business for profits and acceptable risk. For all the public relations hype around the Private Finance Initiative, there is still little sign that even technically unsophisticated services can be developed to give business the return it requires and

satisfy the banks that the risk is acceptable. As a result, we are unlikely to see significant private sector players offering e.g. cancer treatment in nationally networked centres which they would build and run. The Labour government is also less likely to press for private hospital providers within the NHS, in spite of the fact that it has a more market-oriented stance than its Labour predecessors. Restrictions have already been put on the very limited use of private hospitals for NHS contracts.

However, once we move away from bricks and mortar, there may be more scope for developing new-style care managers, particularly for chronic diseases and within primary care groups that already involve GPs and nurses in closer touch with patients than health authority purchasers. The current lack of clear integration of care – organising and managing the different providers and liaising with them and with the patient – offers some opportunities for new players to enter the market. Care of patients with a chronic disease and perhaps a disability is split between GPs, hospitals, community nursing and therapy services and social services. Care management is the role of the GP as the 'conductor of the therapeutic orchestra' but the results are not consistent across practices.<sup>14</sup> The breadth of the role of the GP, and the many other tasks being reallocated to primary care, may weaken further the average practice's ability to carry out the long term care management role for significant groups of chronic disease sufferers.

Primary care also suffers from considerable variation in standards, due to the willingness of government to sustain the monopoly position of current incumbent GPs as local independent contractors. The recent 1996 UK White Paper on primary care, 'Choice and Opportunity', offered scope for a wider range of models in the future and these could easily include transfer of some responsibilities from general practice to a care manager. However, the limitations to keep the leadership of any scheme within the NHS means that the most radical models will not be likely to succeed. Rather, we can expect to see Trusts and some GPs extending their practice, to the detriment of, initially, the weaker general practices. Trusts could readily integrate their services vertically, taking responsibility from primary care for the whole care of chronic

disease patients. In turn, GPs are likely to try to defend their traditional turf by arguing that their continuity of care offers the best service for patients. The more prominent role for GPs in commissioning health services, as set out in the 1997 White Paper, will make it easier for GPs to do this by integrating primary and community care.

Increasingly, chronic disease patients used to the telephone as a predominant means of communication are likely to want a single point of contact at least, as well as a care contract in which the managed care provider, rather than the patient or carer, manages the collaboration between the different providers. For example, the parent of a child with asthma with a query about their medication may speak to a GP receptionist, a practice nurse running an asthma clinic, the child's GP, other practice GPs, the retail pharmacist, the consultant who prescribed the medication, a junior doctor in the consultant's firm, a hospital pharmacist, a hospital clinic asthma nurse or an asthma sufferers' group. That constitutes ten different sources of information. Each may have a different point of view, putting their own spin on the general guidance, or may simply pass the inquiry onto another member of the chain. A one-stop telephone inquiry line for a neighbourhood asthma management service looks attractive as an alternative, with good access to both patient records and local protocols. (The 1997 White Paper introduced the idea of a national help line but this does not appear to relate to specific patients and their own on-going care but to more general advice and support. The help line does not seem likely to have access nationally to records, which in any case are not currently in complete electronic form.)

GPs have shown considerable interest in shedding their 24 hour commitment to patients and many of the most demanding out-of-hours callers are likely to be chronic disease patients. Nurses are also increasingly employed to take over aspects of chronic disease management but their involvement does not create on its own a seamless, integrated service for patients. Potentially, some patients and their families would get better support from a single agency which took on responsibility for the patient, 24 hours a day, with a single phone line and a network of centres and community care workers. This could offer patients the benefits of a specialist in their problem (e.g. an on-call stroke therapist trained to meet a range of needs of stroke patients) with rapid access to their records, rather than facing a confusing array of phone numbers and disciplines in hospital, general practice, community and social services. British general practitioners tend to emphasise the benefits of continuity of care by an individual practitioner but

there is some research suggesting that what patients want is someone who understands their problem and listens to their concerns, even if that person is not someone they have seen before.<sup>15</sup> Good access to a shared electronic record (with a patient-held copy) also provides much of the benefit of continuity and the British Medical Association has recently ended its opposition to electronic transfer of patient records. In the late 20th century, insistence on the personal touch may look like an excuse for not writing all the relevant details in the patient's notes!

The major difficulty with the more managed model of chronic disease in the UK is that it cuts across the traditional role of the generalist GP who sees a registered group of individuals and families and provides holistic care. Community nurses are also often generalists though there may be specialists with particular experience who concentrate on problems such as leg ulcers or stroke patients. Doubtless many GPs would complain if they saw the threat of encroachment on their rights to see all their patients, due to the overlapping role of a disease management scheme. But we should not over-rate their concerns too much, too soon. There are several signs that primary care and general practice are moving away from the traditional model and alternatives might be welcomed, e.g. working mainly as a gatekeeper but leaving continuing care of chronic disease patients to others.

Several examples show how GPs have moved away from the 'all things to all men and women' model. When GPs were given payments under their contract for the management of chronic disease patients with diabetes, asthma and hypertension through practice-based clinics, many GPs passed the routine monitoring and management of these patients onto practice nurses. As noted earlier, GPs are also increasingly moving away from the 24 hour commitment to patients, with a variety of moves to change the service at night through deputising but also through changes to their contracts. Many might welcome a closer relationship between their chronic disease patients and a care management agency with the resources and skills to provide on-call as well as planned services. GPs with an interest in a particular disease might also set up and lead local or regional managed care groups, for example, given their greater experience than hospital consultants in running a business. Patients might in turn prefer a conversation or a visit from an individual or agency they know, or one who knows them from an integrated and on-line record system. The alternative might be a visit from a random deputising doctor or a rapid onward referral to hospital, and yet another junior doctor with limited knowledge of their case, as a way of shifting responsibility for patients without managing their problems.

Lastly, general practice carried out in the traditional, small practice model includes (in the eyes of the author, at least) a substantial element of repetition. There is a limited intellectual challenge in much of the work of routine diagnosis. Many GP fund-holders embraced fund-holding as a new and interesting challenge and many more might be equally glad to change their job content in other ways. One obvious route would be to involve accredited and trained GPs in the care management programmes so that they provided some elements of care, e.g. for all the asthmatics in a large practice or across several practices. Indeed, as hospital medicine becomes more sub-specialised, there may be a role for the GPs as general specialists, with each practice partner taking a particular interest in a disease area and taking referrals from the other partners and practitioners in a large group practice model.

As a result of these changes or potential changes in general practice, we may see a greater range of models develop in the future. Potentially these could include some integrated and managed care packages.



## 9 WHAT IS THE ROLE FOR THE PRIVATE SECTOR?

If care management through integrated programmes does develop in the UK, who should provide it? What if any role is there for the private health sector and the pharmaceutical industry in an NHS with tight macro controls and growing micro-management of patient care?

Potentially, there will always be some suspicion of the private sector in care management because of the perceived conflict of interest. The NHS is one of the few public services in Britain that remained outside the private market after the Thatcher years and the idea of profit being made from health services does not appear to sit comfortably with the British public. In addition, a private sector firm will be more readily suspected of pushing its own products or controlling care to restrain expenditure, in part because the public does not see most of the implicit rationing that is forced on the NHS by the cash limit. Clearly it will be hard for the private sector to ignore income and profit when planning future care packages. However, to a degree this is not a difficulty for those who would fund managed care, precisely because it is so obvious. Health authorities, the NHS Executive and the Treasury will all know what to look for and the potential for exploitation will be reduced. Fear of exploitation appeared to have driven the famous NHS Executive Letter EL (94) 94 which ruled out exclusive deals with suppliers. But the potential distortion of the profit motive can be side-stepped by using e.g. separate professional advisory groups to develop care protocols or links between price and volume as a managed care programme spreads to more areas so that the NHS gets some of the gains from a bigger market share.

If some managed care models with the private sector do go ahead, they could, of course, be limited to firms which do not have a competitive or technical advantage in a particular field. Some of the major pharmaceutical companies have deliberately begun to develop managed care initiatives in such fields. But there is a rather perverse logic in vetoing the involvement of experts in elements of care or therapeutics from collaborating in the very areas where they have greatest knowledge. It would seem counter-productive to have a company operating a managed care programme for a disease where it had no track record, though reputation and management skills may be of some value.

Perhaps one role for the private sector could be to assist successful Trusts in developing services beyond their existing borders. Private firms working with major NHS Trusts might together provide a service within a hospital well away from their base. The reputation of the Trust would be linked with the capacity to deliver of the private sector partner and the NHS could gain through greater consistency of care. The NHS could also avoid speculative use of public funds in any tendering process or in start-up costs.

All of these issues are potentially under review, within the wider review of the NHS by Labour, and further guidance, expected to be more supportive of external involvement in package deals, may emerge from the Department of Health and the NHS Executive, to replace EL (94) 94 in due course. But anything which widened the role for private sector providers, beyond that in the 1996 Conservative White Paper 'Choice and Opportunity' could be controversial. Labour Ministers of Health would probably not want to have even a hint of a privatised NHS clinging to them in 1998, the year when we will be celebrating 50 years of Labour's greatest surviving policy achievement. What would Nye Bevan say!

We also know from the development of the Private Finance Initiative (PFI) very much at a snail's pace that there is more to the introduction of innovative financial arrangements than a press release or an Executive Letter. Even if the involvement of the private sector in managed care initiatives was allowed in the UK, that does not mean that it would be always desirable or that it will happen. If we have learnt anything from PFI, it is that a low cost health service may always have problems generating the kind of profits that the private sector expects. But if the advantages of managed care for the private sector were purely about maintaining market share for a drug, they would indeed be viewed with suspicion. The early models, and some are apparently already under development, will need to show real benefits in patient management but this may be difficult at NHS prices because the private health sector, broadly defined, largely lacks routine experience of providing care to NHS patients in large volumes at low costs per case. Given the cash limit on NHS spending, any development of new care providers will still be a 'zero-

sum' game and so new entrants will face not only pressure from NHS purchasers to provide a good deal but also pressure from the losers in the system, whether they are GPs, Trusts or perhaps patients.

Perhaps those best placed to develop as care managers are those already involved in the NHS, and therefore possessing many of the skills but without the suspicion that attaches to the private sector. Indeed, examples already exist. Maternity has seen a range of models of care develop, to accommodate patient choice and professional expectations. The care management package may include GPs, if they opt in, or may largely exclude them after the first pregnancy test. New styles of care, including team midwifery with 24 hour on-call availability, look even more like integrated care management and are being evaluated.

The obvious extension of managed care, and one which probably exists in a wide range of local pilots and collaborations across the NHS, is for one of the key NHS players to take a greater role by offering GPs something they want, such as a more interesting job or freedom from the burden of some chronic patients. A hospital or community trust might offer a care management package which focuses on continuity of care and achievement of specific outcomes for a specific group of patients. This would also reduce the growing burden on primary care. As health authorities increasingly develop programme budgets, which show how their spending on individual disease groups takes place, they might find corresponding care management programmes attractive, particularly if they offer substantial elements of risk transfer (see Box 4). However, Trusts may be reluctant to take on whole programmes of care if these are likely to lead to reduced hospitalisation, a key *raison d'être* of acute Trusts. This may slow down the pace of development of the 'hospitals without walls' model because it is the walls which have traditionally decided who does what in the NHS, (and who gets paid for doing it) and not the patients' needs or the optimal care plan.

Under these models, we would see a substantial change in the work of community and primary care staff, with a reduction in generic professionals and increased use of care programme specialists. Trusts might have staff working across their own clinical units and the community, with much closer links with the main care managers than conventional community nurses. Nurses might be the key care managers themselves. Again current examples of the model can be found in the NHS, to some extent. Britain has developed the role of health visitors, for example, as specialists with children in the community when many countries do not have a recognisable health visitor equivalent. The principle that things may be done better by a specialist is

#### **BOX 4 Managed care models**

##### **Kidney replacement**

- Health authorities might buy into kidney replacement programmes that do not charge per treatment or per transplant but per patient managed year;
- Patients are managed within protocols (as they already are) but with the care managers charging a flat fee for each age group or co-morbidity;
- Patients would be managed through their disease, transplant, rejection etc. without additional costs to the health authority;
- Patients would receive their primary care alongside their kidney replacement, from GPs or other providers accredited to the plan;
- Care managers might increasingly provide medication directly, cutting out the retail pharmacy from the distribution chain.

##### **Asthma**

- A neighbourhood-wide asthma care programme takes over care for all local asthmatics;
- GPs, nurse practitioners and hospital specialists, as well as community-based medical, nursing and health promotion professionals collaborate in the care programme;
- Asthmatics are given one number to call for assistance and advice, including home support during asthma attacks. The care programme manages the next stages for them, including any hospitalisation;
- Drug regimes are managed and monitored through detailed compliance checks, health education and advice;
- Drugs are delivered by a compliance monitor who checks on health state, knowledge of drug use, compliance and drug stocks/utilisation;
- The programme develops outreach to schools and self-help groups for patients and families.

relatively uncontroversial though the issue of the general or unrelated care of the specialist patient remains problematic.

The private sector strategy in the face of such developments should be for individual firms to align themselves with potential NHS care managers. The private sector could be particularly helpful in providing some pump-priming funding and, by being seen to be working closely with NHS Trusts, could avoid some of the conflict of interest concerns. Any attempt to separate chronic care management from the NHS through private provision would probably fail in the short to medium term. Examples of an effective hand-

over of responsibility can be found but they are typically in areas such as stoma and leg ulcer care, turf which GPs are happy to cede to specialist nurses employed by industry.

It is particularly striking that in several areas of chronic disease management, namely hypertension, asthma and diabetes, the NHS has created incentives for GPs to take on more case management through in-house clinics. This has not necessarily led to improved care or integrated care. Professionally isolated or weak GPs may organise ineffective monitoring in order to collect their fees. But these are precisely the disease areas where managed care is frequently mentioned, because they are the common chronic diseases. Only collaborative approaches involving local GPs are likely to succeed in introducing new NHS Trust or private sector services into this clinical (and financial) heartland of general practice.

Any attempt to encroach too far onto the professionals' turf would face not only friction with GPs but also pressure from what have been the strongest players in the NHS internal market, the medical Royal Colleges and associated groups responsible for junior doctor training. The creation of care management programmes serving local areas without NHS Trust input could lead to the isolation of junior doctors from some types of patient. Even though administrative arrangements could be made to overcome this problem, the reality is that the controllers of training would probably win any battle over this part of the turf. They have certainly won many others against health authorities since 1990. But if Trusts were actively involved in the care management programme, there need be no such friction and junior staff could readily rotate through the programme. There may also be new types of jobs for doctors, e.g. for those interested in a specialist community role and also a particular mix of wages, hours and conditions that avoid the disruption of emergency case management in hospitals.

Given some favourable support from NHS policy-makers, it might be possible to draw up a specification for a managed care agency that cuts across existing providers. In considering the ways in which this might work, there are a number of aspects of disease management that would make the model particularly attractive to stakeholders. Clearly, the focus of any such scheme would be chronic illness. Short-term and self-limiting health problems would not merit the development of a new player and acute illness is arguably best handled by one comprehensive emergency care system. So where might managed care begin? For health authority and future primary care group purchasers, the obvious area is chronic disease, where it is being treated at a high cost or low quality in

a geographical area. There is no particular reason why this should be one disease or another but some may require greater technical knowledge or more effective monitoring to achieve a lower rate of patient deterioration and savings in future costs of care. Alternatively, a managed care scheme might concentrate on particular types of patient, e.g. those with tendencies to poor self-management. Information technology and good record-keeping together mean that almost any area of chronic disease could be managed in this way. As long as the knowledge on how to manage the patient is available in the managed care organisation, it is available to all care providers with access to the protocol.

However, it may prove much more difficult to introduce managed care into three of the most common areas of chronic disease, asthma, diabetes and hypertension, precisely because of attempts to introduced managed care for these diseases in the past through general practice. A focus on these diseases would immediately threaten the income of general practitioners and would be likely to provoke much stronger resistance from GPs than other areas such as epilepsy or leg ulcers.

## 10 WINNERS OR LOSERS?

So if managed care is to develop in the UK, through protocols and guidelines and perhaps more active and visible managed care programmes, who will win and who will lose? The clearest winners are among patients who currently receive a poor standard of care from uninterested or out-of-date clinicians whose care amounts to benign neglect. Raising the standard of care for these patients could improve quality at a price, particularly if the use of new, effective but costly drugs is a key part of the agreed management package. The net effect on others, including patients, doctors, the tax-payer and the pharmaceutical industry, is less clear:

- some patients could lose if denied access to very high quality care by a protocol which balanced cost and outcome more towards lower costs than do their current clinicians. It is very difficult to predict how big this group of patients might be;
- doctors will lose elements of control over their work, though this is almost certain to happen under any plausible scenario for the future of health care. Many may gain from the change in role and the ability to specialise, albeit within the confines of the protocol;
- GPs, or some of them, may lose because chronic disease management has increasingly been seen, in the recent past, as their domain. If it is to be taken over, whether by competing practices, Trusts or new agencies, it will encroach on their practice and, potentially, their incomes. For example, common chronic disease areas such as diabetes, asthma and hypertension all generate income for GPs through practice clinics. If this income is removed, there are likely to be claims for an increase in some other element of GP remuneration;
- tax-payers may lose, at least in the short term, not only if they have to reimburse the losers in general practice but also because it may be difficult to find all the evidence necessary to justify low cost care regimes, either because the evidence does not exist or does not point conveniently to low cost regimes as more cost-effective. However, tax-payers may gain if hospitalisations can be significantly reduced (though the long-run effect of greater survival and ageing will counter this to a degree) and if, in the longer term, new cost pressures can be more effectively resisted;
- the pharmaceutical industry cannot easily gain collectively<sup>16</sup> unless there is an increase in health spending. They may collectively lose because, as long as there is appreciable diversity in prescribing, there is some scope for new products to penetrate rapidly and for other, inferior products to maintain some market share. However, tighter scrutiny of prescribing in the NHS is almost inevitable and so the issue for individual firms will be whether they lose or gain more under tighter managed care than without it;
- in contrast, the private health sector may have more to gain, as managed care services will offer new areas for development and growth and may produce savings downstream in reduced claims for hospital care. For this reason, private insurers are already offering hot-line advice and support for patients in an attempt to manage care without a dash to hospital that will cost them more. The private insurance sector may also be better placed than others to begin to project risks and savings from its own membership. But even here it runs a risk shared by all new entrants that the reimbursement offered by government for a chronic NHS patient may not be sufficient to fund the protocol-driven care if more patients than expected progress to the more costly stages of the disease.

The lack of clarity on gains to the pharmaceutical industry probably explains their current diverse attitudes to managed care. Some firms, including those who have invested in US care management companies, are strongly in favour. Others see managed care as a case of the industry acting like turkeys voting for Christmas, with losses seen as inevitable from tighter management of care packages. A third group argue that care management regimes lack any defensible intellectual property and so provide little scope for blue-chip companies to maintain a competitive and profitable advantage. Finally, others are proceeding cautiously, developing alliances and, in some cases, deliberately focusing on diseases away from their core business, where they may have something to gain and little to lose.

In the short term, the contribution of the private sector is most likely to be in providing ideas, pump-priming funds and the kind of catalytic energy and initiative that the NHS, ground down by concerns with cash and

contracts, often lacks. In the medium term, we are likely to see much greater changes in the philosophy and stance of the NHS, as the generation that remembers the alternatives gradually dies out and a generation brought up under the NHS increasingly challenges signs of poor standards. This generation is more likely to behave not as pliant patients but demanding, tax-paying consumers. In this environment, greater involvement in the NHS by the private sector may be less controversial. But given the strength and track record of those providing care throughout the NHS, the most likely role for the private sector, even in this future, more supportive environment, is as technical partners to a care-managing NHS Trust or a larger fund-holding practice, who will lead the managed care approach from within the NHS.

## II MAKING IT HAPPEN

If developments in integrated and managed care, of the kind discussed earlier, are to be introduced to the NHS, at least two things will need to happen. The first is establishment of the principle that such developments are an acceptable model for the NHS, with substantial private sector involvement and collaboration with the NHS. The White Papers of late 1996 largely established this principle and the resulting legislation was pushed through before the dissolution of Parliament in 1997. But it remains to be seen how far the current government will be prepared to go in developing these models, particularly if any political and professional opposition begins to develop.

The second difficulty is highly practical and highly complex. The UK currently has models of health care funding in which cash is limited, through contracts or service agreements with hospitals and capitation payments to GPs, yet demand is growing and, according to some, potentially infinite. While in practice the demand for health care will always be finite, (many people will always want little care and not every sick person will be offered or will accept every intervention regardless of outcome) demand probably exceeds supply in many areas of the health service. Rationing through explicit health authority decisions is restricted to a few conditions and even here it has been challenged and so the majority of rationing, to reconcile the budget with demand, is done by individual professionals. They do this according to their own views of priorities and patients' needs, leading to wide variation in provision for any given patient. Exactly who gets what is further confused by the absence of a single, user-friendly patient record. Purchaser minimum data sets could provide some of the necessary data on activity but less so on cost. This would also need to be linked to prescribing data, which is not held centrally on individual patients. Ironically, while the NHS has shied away from patient-held records, the community pharmacies have developed their own systems which probably have relatively good data, at least on those patients who always fill their prescriptions at the same shops.

Although this 'muddling through' approach has become a little more systematic with the contracting process introduced by the 1990 NHS reforms, it

remains a long way from the kind of contract that a private sector firm, agreeing to bear certain health care risks, might find acceptable. Integrated care programmes will need considerably more sophistication in contracts to take account of the health status and costs of applying the care protocol to each stage of the managed care pathway if they are to agree to take on groups of patients, differing in disease status and risk, for a fixed capitation fee, as noted by Langley et al. (op. cit). Of course, open-ended funding of the managed care programme would remove this difficulty but it would then leave the health authority bearing the risk of a group of disease sufferers without the safeguard of implicit rationing by NHS staff.

The complexity of contracts is compounded by the length of the contract. Health authorities are not likely to find short term contracts acceptable for managed and integrated care, since the whole aim of their introduction is to reduce fragmentation. Patients are similarly unlikely to find changes of care managers or major medication acceptable. But the longer the contract term, the greater the demand from private care managers for re-negotiation points, to take account of the changing status of patients as their disease develops and the emerging data on the epidemiology of the group of patients concerned. Potentially, experimental programmes running for several years will be required before the experiment can go fully live, since until that time, none of the parties to the contract will have the data necessary to write a proper contract. But this should not discourage us. The development of new treatment methods itself requires experiments and careful monitoring over many years. We should not expect instant fixes to the problems of how best to care for patients, once we have the means to do so. Rather, we should get on with the experiments and see where they lead.

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the 1990s, the number of people in the UK who are aged 65 and over has increased from 10.5 million to 13.5 million (13.5% of the population).

There is a growing awareness of the need to address the needs of older people, and the Government has set out a strategy for the 21st century in the White Paper on *Ageing Better: The Government's Strategy for Older People* (Department of Health 1999).

The White Paper sets out a number of key objectives for the Government, including the need to ensure that older people are able to live independently, and to participate in the life of their communities.

One of the key areas of concern is the need to ensure that older people have access to the services and support that they need to live independently. This includes access to housing, transport, and social services.

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