

and inflammation seen in a rejecting xenograft, we are expressing genes in porcine endothelial cells that inhibit a key transcriptional factor (NF- $\kappa$ B) that is needed to up-regulate the genes that cause thrombosis and inflammation.<sup>1,9,10</sup> Third, genetic engineering is being seen as a possible way of creating tolerance to porcine antigens that would incite a T cell response in a human host.<sup>11</sup> A multifactorial approach to treatment might involve genetic engineering with a few selected genes plus use of selected therapeutic and immunosuppressive drugs. Such an approach should balance toxicity to the patient with the ability to prevent rejection.

Given our increased understanding of mechanisms, the treatments being developed, and the preliminary data that are accumulating in pig to primate transplants, there is cause for optimism. But practical problems and ethical controversies remain. Possible transmission of disease from a donor animal to the recipient is emphasised in a report recently published by the Nuffield Council of Bioethics in London<sup>12</sup> and was also raised at the recent conference of the Institute of Medicine in Washington, DC, from which a report will be published. Even if we can overcome all the vascular, immunological, and other factors that contribute to rejection, we shall have to assess whether recipient factors that are critical for the function of the donor organ will perform across the species barrier.

Research into xenotransplantation presents exciting prospects for treating organ failure. It also offers insights into issues common to medicine as a whole. From tackling the

problem of thrombosis and inflammation in rejecting grafts, for example, we are likely to be able to introduce genes into a patient's endothelial cells via the blood to treat a segment of diseased vessel or other tissues. The results of xenotransplantation research should provide broad benefits in treating human disease.

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## Global commissioning by general practitioners

### *Affects attitudes and culture more than service delivery*

The purchaser-provider split was introduced to allow "money to follow patients"<sup>1</sup> and to move control away from hospital providers towards those making the purchasing decisions. General practitioner referrals were seen as being at the core of those decisions, and general practitioner fundholding aimed to bring the decision making directly into the consulting room. The range of services purchased by fundholders has grown steadily and will cover virtually all elective services from April 1996.<sup>2</sup> Conceptually, it makes sense to test the idea of general practitioner purchasing to the limit by applying it to the purchasing of all services, and various models are being explored. Some involve the direct purchasing of secondary care services. Others aspire to more strategic commissioning for larger populations and longer time scales. But all involve general practitioners on the "purchaser" side of the purchaser-provider split. How are these experiments shaping up to evaluation and what can they tell us about the future shape of healthcare in Britain?

Existing models of general practitioner purchasing range from the four current "pioneer" total purchasing projects (in Berkshire, Bromsgrove, Runcorn, and Worth Valley and the 50 or so sites planned for the "second wave" of total purchasing<sup>3</sup>; through the gamut of different locality projects (exemplified by Newcastle and North Tyneside's locality commissioning, North Derbyshire's practice sensitive purchasing, Doncaster's Project 2000, and the Bromley general practitioner clinical commissioning board model) and general practitioner led projects (including Nottingham's non-fundholders' group and the Birmingham multi-fund covering a population of over 250 000 people); to models that encompass other agencies, such as depart-

ments of social services (as in County Durham and Wiltshire).

The most intensive evaluation of total purchasing is currently being carried out on the four "pioneer" sites—in Berkshire by the Health Services Management Centre, University of Birmingham; at Bromsgrove by St Mary's Medical School, London; at Runcorn by the University of Liverpool; and in the Worth Valley by the Nuffield Institute of Health, University of Leeds—with a broader national evaluation (by a consortium of seven research institutions, coordinated by King's Fund Institute) for the second wave of total purchasing projects. Elsewhere, levels of evaluation range from none to extra assessments funded by the local health authority. From these evaluations, several clear messages are beginning to emerge.

The first message is that change is happening but that we need the right eyes to see it. Most pilot projects have been created with the aim of changing services and showing number driven outcomes to satisfy economists and politicians. The reality is that sustainable changes in service cannot occur until the professional culture is ripe. In all the experiments with general practitioner commissioning, a consistent finding is that general practitioners' attitudes are changing. Fundholders or not, general practitioners are moving from short term "gung ho" purchasing towards more thoughtful, longer term relationships with their providers and health authorities.

The second message to emerge from the evaluations concerns the ambiguous relationship between health authorities and their commissioning general practitioners: most health authorities have not worked out whether they are working in partnership with their general practitioners, or as their bosses and overseers. Some authorities seem to take a

parental role, giving pocket money to be spent on approved treats. Strategies still "belong" to the authorities, and input from the general practitioners is often tokenistic, serving the needs of the corporate contract more than those of the local community. Where healthy partnerships are emerging, health authorities and general practitioners have been able to learn together, each developing an understanding of the other's cultures and difficulties.

The obverse of this ambiguous relationship is that commissioning is more than the mere measurement of technical procedures. We should not capitalise on healthcare professionals' intuitive skills only to constrain them in a straitjacket of administrative and financial accountability. However, we must maintain the values of a publicly funded NHS, a "broad brush" accountability with which most clinicians involved in commissioning have no difficulty.

The third message concerns the "provider bias" still apparent within the NHS. Large acute hospitals still seem able to outmanoeuvre their purchasers, both by planning services that meet their own needs and by diverting funds into their services. Many a primary or "priority" service development has been shelved (often after funding has been promised) when a large hospital runs out of money or when a high profile service is threatened. This is not consistent with a purchaser led system.

As arbitrators in disputes between purchases and providers, regional offices are widely seen as favouring providers and blocking developments involving major changes to trust configurations. Perhaps they should consider that their relationship with health authorities should mirror that of the authorities with their local general practitioners; the synthesis of overreaching strategy must take precedence over any command and control mentality.

The final message emerging from the evaluations is that short-termism is rife in NHS funding, largely because of the

intense pressure to show results. Funds may not be committed more than a year in advance, and changes that need more time to show their worth are often discouraged. In the battle with providers, the only lever available to purchasers (particularly small purchasers such as fundholders) is to "exit" by moving services elsewhere (B Kirkman Liff, personal communication). They have little "voice" to influence services for the future. Longer term contracts and funding would provide security and allow more room for constructive comment without dismantling the purchaser-provider split.

Longer term thinking would also be good for the NHS as a whole. General practitioner led commissioning can influence the health of a population only in the long term; expecting otherwise is setting the policy up to fail. Thus the biggest blocks to success are short term thinking, with an emphasis on hospital services, and "top down" control. The opportunities and the threats are clear, as are the appropriate responses. If we follow them, we will have helped to make the NHS a more locally sensitive, flexible, "primary care led" service.

However, the model of total purchasing is still frail and needs nurturing. If it fails, the forces of retrenchment and centralised bureaucracy will return to the fore. The auguries of the current experiment are good; the culture is already changing, and actual services may change in the next year or two. Obstacles remain, but if we are prepared to be patient and visionary, the experiment may change the very nature of healthcare, and for the better.

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## Disclosure and use of personal health information

### *Widespread access is likely to erode patient confidentiality*

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Lord Walton's Disclosure and Use of Personal Health Information Bill received its second reading in the House of Lords this week. The bill illustrates the difficulty of legislating in the subject of medical confidentiality. The basic principle of medical confidentiality is simply stated: "patients have a right to expect that you will not pass on any personal information which you learn in the course of your professional duties, unless they agree."<sup>1</sup> Difficulties arise when there is an attempt to list the exceptions to this simple principle. The focus then tends to shift from protecting the patient's right to confidentiality and providing the patient with strong tools for preserving confidentiality to licensing disclosure and providing health professionals, medical researchers, and the police with permission to gain access to personal health information in a wide variety of circumstances.

A right which is easily overridden, or overridden in many circumstances, becomes something less than a right. The sweeping access granted by Lord Walton's bill to those concerned with law enforcement, for example, is disturbing. The bill permits the disclosure of personal health information without patient consent whenever necessary "to avoid prejudice to the maintenance of the law by any public body, including the prevention, detection, investigation, prosecution and punishment of a serious offence." This

provision seems to grant the police, and perhaps other public officials, access to the medical records of nearly anyone, whether or not a suspect in a criminal case. Similar provisions in a "medical confidentiality" bill recently introduced in the United States led to strong protests from the American Civil Liberties Union.

Apart from references to those concerned with "the maintenance of law," Lord Walton's bill pertains mainly to individuals and bodies providing health care services. Here the bill applies a broadly construed need to know criterion that favours widespread dissemination of personal information within the health care system, rather than outlining procedures whereby the patient can maintain control over such disclosures. In brief, the bill grants permission to pass information around quite freely among health professionals, so long as such disclosures are somehow related to the provision of care. (By contrast, the report *Security in Clinical Information Systems*, recently commissioned by the British Medical Association, outlines procedures that enhance patient control.<sup>2</sup>)

In the age of the computer the application of a liberally construed need to know criterion is likely to entail widespread dissemination of personal data. While such dissemination may assist in care—for example, in the case of an accident far