

BRITISH MEDICAL JOURNAL

LONDON, SATURDAY 21 MAY 1988

Time to end softly softly approach on harvesting organs for transplantation

Last year 1556 kidneys were transplanted in the British Isles, but in December 3485 patients were waiting for a new kidney.¹ This gap between demand and supply worsened each year between 1973 and 1985 but appears now to have reached a steady state. For some other organs the gap between demand and supply is even greater than for kidneys. What are the causes of these gaps and how can they be closed? One reason for the gap with kidney transplantation has been that more patients have been considered for transplantation—both older and younger patients, and patients with various medical problems, including diabetes. Those who run the programmes claim that the gap could have been prevented if only they could have harvested more of the available kidneys. Data to support this view are few and not easy to interpret. One widely quoted statistic is that about 4000 people are diagnosed as brain stem dead each year in Britain,² but the number of those that are potential donors is less certain. In a recent retrospective study of potential donors in Scotland a third of patients declared brain dead were considered medically unsuitable for organ donation; consent was sought in 90% of the remainder, and permission was granted in 65%. Thus between a fifth and a half of the kidneys from patients diagnosed as brain stem dead were probably used in Britain in 1987.

Why has it proved so difficult to locate and obtain the kidneys that could be used for transplantation but are not being used? The first and most important problem lies in the distribution of potential donors within the hospital system. Intensive care facilities have always been at a premium, and some patients who might be donors do not get into the units. Secondly, some doctors prefer to care for certain patients—for example, those with subarachnoid haemorrhages—in their own wards: they do not want them started on intermittent positive pressure ventilation. This is a legitimate difference of opinion over managing these cases, but a patient not on a respirator can never be a donor. The Scottish data suggest, however, that most patients with head injuries and other intracranial catastrophes in intensive care units are considered as donors. Most transplant units believe that intensive care units are fully supportive of organ donation. Undeniably, however, setting the wheels in motion for organ donations is a substantial added burden on the staff in intensive care units. The very success of heart and liver

transplantation has led to a sharp increase in multiorgan donation, which adds a new dimension, and asking relatives for permission to give organs is not easy, even for the most experienced.

Do relatives often refuse the request? In the Scottish pilot study of potential donors permission for organ donation was given in 60% of cases, and in the Nuffield transplant unit in Edinburgh in 1986-7 permission was obtained in about three quarters of cases. The exact reasons for refusal are often not asked, but a common statement is that relatives feel that the patient has already "been through enough." What this expression means to the individual must be uncertain, and we may never know the real reasons. We do know, however, that television coverage may have both positive and negative effects on transplantation.

There has been a tendency to imply that the donor card programme has been unsuccessful, but to expect everyone every day to make sure they are carrying the card is unrealistic. The donor card programme continues to be an important method for raising awareness of the need for organ donation, but it has not proved good enough at increasing the number of organs for transplantation.³

The use of live related kidney donors was born of necessity when facilities for long term dialysis were scarce, especially for some overseas patients. In Britain transplant surgeons have viewed live kidney donation with a mixture of reluctance and pragmatism. Some, including myself, have argued that this source of kidneys should be encouraged provided that the closely related donor has volunteered, screening and matching are optimum, and the results remain better than those with cadaver donors. Others have considered that transplantation from live donors is ethically unacceptable. Even though the results of kidney transplantation from cadavers have come closer to the results with live donations the shortage of kidneys from cadavers has sustained the need for this source. In Britain the proportion of kidney transplants from live donors is about 12%, whereas in the United States this was 32% in 1984.⁴

In the past four years several transplant centres have gone ahead and organised local registers of potential donors in an attempt to increase the number of organs harvested. Manchester, Glasgow, Cardiff, Birmingham, and recently Edinburgh have each organised their own computer based

register, to which intensive care units in those cities have access. It is too early to judge the success of these schemes, but the hope is that they will eventually form a national network for those who are prepared to opt in. Many might think that a system of opting out—that is, placing your name on a register if you do *not* wish to be a donor—is simpler, but the implied pressure on people to put their name on a list has never gained favour in governments, who have remained wary of this type of legislation.

A method that both locates potential donors and shifts the responsibility of asking permission for organ donation from doctors has been introduced in the United States. Some 38 of the states have enacted laws that require hospitals to inquire routinely about potential organ donation (“routine inquiry”) or actually to request that an organ donation be approved by the next of kin (“required request”); last autumn legislation on required request became a federal law.⁵ Every primary care hospital must now develop a protocol to identify potential organ and tissue donors.⁶ Guidelines have been published for hospital administrators,⁷ and hospitals throughout the United States are now developing their own protocols. Will this scheme succeed any more than others in increasing organ donation? Any judgment is premature, but this legislation cannot be ignored: implementation of the protocol for required request is now a condition for federal reimbursement for health care.

The belief in the United States that legislation is needed to increase organ donation is in sharp contrast with the report of the British working party on supply of donor organs for transplantation released at the beginning of this year. The report makes recommendations to encourage better

knowledge of the needs for organ donation, to audit better those patients with brain stem death, and to encourage the public—mainly by extending the donor card system. Required request was considered but rejected.

We thus have a “more of the same” report in Britain and remarkable, positive, new legislation in the United States. My view is that the softly softly approach of the past 25 years was correct but is now not enough. The public are fully supportive of organ donation, and the results of heart, liver, and kidney transplantation no longer need to be justified. Kidney transplants have been shown repeatedly to be more cost effective than dialysis,^{8,9} yet the emphasis remains on increasing dialysis facilities. To make any real impact on the gap between demand and supply we need a new approach to organ donation.

GEOFFREY D CHISHOLM

Professor of Surgery and
Director of Nuffield Transplant Unit,
Western General Hospital,
Edinburgh EH4 2XU

1 *United Kingdom Transplant Service Bulletin* 1988;No 51:2.

2 Jennett B, Hesse C. Brain death in Britain as reflected in renal donors. *Br Med J* 1981;283:359-62.

3 Overcast TD, Evans RW, Bowen LE, Hoe MM, Livak CL. Problems in the identification of potential organ donors. Misconceptions and fallacies associated with donor cards. *JAMA* 1984;251:1559-62.

4 Bay WH, Hebert LA. The living donor in kidney transplantation. *Ann of Intern Med* 1987;106:719-27.

5 US Public Law 99-509 Section 9318.

6 Organ donation and procurement: What responsibility does the hospital have? *Health Technology* 1987;1:182-90.

7 Warren J, Gill B. *Guidelines for hospital administration for implementing required request*. American Council on Transplantation, 1987.

8 Mancini PV. *The costs of treating end-stage renal failure*. London: Economic Advisers' Office, Department of Health and Social Security, 1984.

9 Wood IT, Mallick NP, Wing AJ. Prediction of resources needed to achieve the national target for treatment of renal failure. *Br Med J* 1987;294:1467-70.

Contact tracing for HIV infection

Contact tracing is vital in controlling sexually transmitted diseases. The aim is to break the chain of disease transmission by early identification and treatment of exposed people, thus reducing further spread and limiting the pool of asymptomatic but infectious individuals. A graphic illustration of a chain of heterosexual transmission of human immunodeficiency virus (HIV) was provided in a Swedish report (C Franzen *et al*, second international conference on AIDS, Paris 1986): four cases of heterosexually acquired infection (three in a woman and one in a man) and one of vertically acquired infection were traced back to an infected Swedish seaman. In another report 10 of 19 female contacts of an infected African engineer were infected (Clumeck N, *et al*, third international conference on AIDS, Washington 1987). When 90% of HIV infection is transmitted sexually why is contact tracing not used more widely? Should we encourage it?

The success of contact tracing in gonococcal, syphilitic, and chlamydial infections depends on characteristics shown by the diseases: there is a symptomatic phase of infection in many patients; the incubation period is short so that only recent contacts need to be traced; transmission between sexual partners occurs often; they can be effectively treated; and treatment confers a clear benefit. Few, if any, of these criteria hold true for infection with HIV. Early infection is often asymptomatic; the incubation period may last many years; the infectious period is uncertain; there is no effective treatment for asymptomatic disease; and diagnosis confers

few benefits and several disadvantages on the individual, while the benefits to society depend on the individual's subsequent sexual restraint.¹ These characteristics of HIV infection and the high prevalence in certain groups led to a prevention strategy that encouraged safe sex for all without necessarily identifying infected individuals. The arguments for contact tracing are stronger, however, in populations with a low prevalence of infection, where people may not perceive themselves to be at risk.

In the United States clear guidelines have emerged on contact tracing. The Centers for Disease Control has recommended contact tracing since 1985,² and in 1987 it said: “If [people infected with HIV] are unwilling to notify their partners . . . physicians or health department personnel should use confidential procedures to assure that the partners are notified.”³ This stance is supported by the US Surgeon General.⁴ The American Secretary of Education has gone further and suggested that positive test results should be reported to, among others, the sexual partners of those tested.⁵ Not surprisingly, contrary views exist, and Osborn has recently argued that tracing contacts has never worked well, depends on the cooperation of the index case, and may drive the disease underground.⁶

The logistics of contact tracing are daunting, given that one to one and a half million people are thought to be infected in the United States. This realisation has led to the suggestion that all those in high risk groups should come for testing