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Editorials

Kidneys for transplant: more of them, better allocated

Radical changes are underway in the way kidneys are allocated for transplant in the UK

At the end of 2004, 5299 patients in the United Kingdom were waiting for kidneys from deceased donors, and during that year 1427 transplants from dead donors and 463 from living donors were performed.[1] The gap between supply and demand for kidney transplants continues to increase, but several important initiatives are under way to attempt to increase the total number of kidneys available and also to change the way donated organs are allocated.

Several centres are now retrieving organs from non-heart beating donors as well as conventional brain dead donors. These organs come from patients who have a cardiac arrest and cannot be resuscitated, whose kidneys are flushed with a cold preserving solution so that the kidneys can then be removed before irreversible damage occurs. With careful selection of donors and appropriate infrastructure these kidneys have been shown to perform as well as kidneys from brain dead donors.[2]

The drive to increase the number of kidney transplants from living donors has also been successful: the total number of living donor kidney transplants in the UK has increased by 33%, from 347 in 2000 to 463 in 2004.[3] However, many potential living donor transplants cannot proceed because of incompatible donor and recipient blood groups or preformed anti-HLA antibodies with donor specificity in the recipient. A change in the law may help ease this problem.

Later this year the new Human Tissue Act (www.opsi.gov.uk/acts/en2004/2004en30.htm) and the Human Tissue (Scotland) Act will allow the donor kidneys from two such immunologically incompatible potential living donor and recipient pairs to be interchanged to create two compatible pairs. The acts will also allow non-directed donations from so called altruistic donors—that is, a kidney donated by a healthy person without them being told who the recipient will be. UK Transplant, which coordinates the matching of donated organs and recipients, is exploring how best to facilitate these new types of donation, but experiences from other countries are encouraging.[4]

The shortage of organs has highlighted inequities in access to deceased donor kidneys, and after prolonged controversy the national kidney allocation scheme administered by UK Transplant has changed from this April. The main changes, hammered out by representatives of patients and professional groups, are radical but represent a fairer deal for patients in that they take more account of waiting time and less of tissue type matching. The scheme continues to take into account many factors relating to the donated kidney and potential recipients using complex computerised simulations designed to balance equity of access and utility of transplanted kidneys.

The background to the changes includes evidence of variation in access to kidneys and recent improvements in immunosuppression.[5] UK Transplant data reveal considerable variation in the proportion of dialysis patients put on waiting lists for transplantation in different parts of the country.[6] Time from starting dialysis to going on the waiting list also varies between centres.[7] Finally, the old UK Transplant allocation system, with its emphasis on tissue type matching, resulted in huge variations in waiting times for those patients listed, such that patients not yet on dialysis were often given a transplant in preference to those who had been on dialysis for 10 years or more.[8] In all these situations patients from ethnic minorities were particularly disadvantaged,[9] partly because of their increased prevalence of rare blood groups and tissue types.

Recent data also show that, probably because of more potent immunosuppressant drugs, tissue type matching has a much smaller effect on the long term outcome of kidney transplantation.[5] While still important for large groups of patients, the effect for an individual is much less important than it used to be.[10] At the same time renal transplantation has been recognised to improve survival as well as quality of life compared with remaining on dialysis: patients on waiting lists are 2-3 times more likely to die than those allocated kidneys.[11]

In the past, when the allocation system was debated some parties argued that patients favoured the status quo to optimise the use of available donor organs. Yet this seemed contrary to the impression held by many clinicians looking after patients with established renal failure. Indeed a recent study showed clearly that patients on dialysis and undergoing transplants consider waiting time to be very important.[12]

The debate surrounding organ allocation is a good example of how patients may be involved in decisions about rationing in health care. Although the organ allocation organisation in America (OPTN/UNOS) has patient representation, it is cautious about the role patients should have in deciding allocation policy,[13] and the need to consider patients' opinion is not included in the summary mission statement of the European transplant kidney allocation organisation (EKTAS), published this year.[14] The discussions following the death of the footballer George Best (who underwent a liver transplant) show that organ allocation is of interest not only to specialists but also to doctors generally and the general public. Resolving the conflicting demands of equity and making best use of a scarce resource is indeed complex but must include obtaining the wishes of patients.

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