

Renal Transplant Allocation

Deceased donor kidneys are allocated clinically according to the following principles. The final decision to accept a particular kidney remains the prerogative of the transplant surgeon following consultation with the Nephrologist responsible for the care of the recipient. This allows surgeons and physicians to exercise their clinical judgement regarding the suitability of the organ being offered for a specific candidate.

1. The recipients are selected from the NHISSOT laboratory short list using the following decision tree:-
Paediatric patients, ABO patients, acceptable mismatched patients, significantly sensitised patients, full house matched patients, longest waiting.

The strict order of decision making may have to change due to factors such as a recipient has had one or more previous transplants, age, body weight and condition of the donor organs, the age, anatomy of the potential recipient, co-morbidities present in the potential recipient etc. Other issues that may be considered include logistic factors such as cold ischaemic time and the balance between co-morbidities of the potential recipient and the risk of delayed graft function or risk of technical failure due to anatomic/vascular anomalies in the recipient or in the kidney. Kidneys from donors >50 years or kidneys from expanded criteria donors (see below) are biopsied at retrieval and histological evaluation of factors such as degree of interstitial fibrosis, glomerulosclerosis, small vessel atherosclerosis are taken into account when allocating an organ.

Expanded Criteria Donor

UNOS has defined the concept of the “expanded criteria donor” (ECD) as a donor ≥ 60 years of age or 50-59 years with any two of the following characteristics: Cerebrovascular accident as the cause of death, pre-existing hypertension or final serum creatinine $> 130\mu\text{moles/l}$. Transplantation of ECD kidneys is associated with an estimated adjusted risk of graft failure $\geq 70\%$ (RR ≥ 1.7) compared to standard donor kidneys (D). Patient survival is 5% lower at 1 year following transplantation and 8-12% lower at 3-5 years for ECD kidney recipients. Adjusted graft survival for ECD kidneys is 8% lower at 1 year and 15-20% lower at 3-5 years after transplantation compared to standard donor kidneys. These differences are considered acceptable for certain categories of wait listed patients given the current shortage of deceased donor kidneys. In recognition of the fragility of ECD kidneys, allocations are made to candidates who have agreed to accept such kidneys, factoring into account donor/recipient age differences and every effort is made to minimise cold ischemia time.

Source: National Renal Transplant Programme, Beaumont Hospital