

Recipient outcome after declining a deceased-donor kidney offer

Miss Dhriti Dosani¹, Dr Rupert Bright¹, Dr Anamika Adwaney¹, Dr Emma Morganti¹, Dr Richard Corbett¹, Dr Damien Ashby¹

¹*Imperial College London, London, United Kingdom*

Background

The decision to accept a deceased-donor kidney depends on organ quality, and also recipient factors, such as an estimate of mortality on dialysis, and the likelihood of receiving a more favourable offer. Whilst outcome after transplantation has been well studied, with several donor-related risk factors widely accepted, little is known about the outcome after declining a kidney, such as the influence of recipient factors on the chance of subsequent transplantation.

Methods

Over a 12 month period at a single UK centre, all potential recipients were identified for whom a deceased-donor kidney offer was declined, with subsequent transplant outcomes recorded.

Results

Kidneys were declined for 145 patients, aged 24 - 78 (mean 54.1 years), due to donor / organ quality (57.2%), recipient illness / unavailability (26.2%), and positive crossmatch (4.8%) with the remaining offers withdrawn (11.8%), largely due to delayed cardiac death.

Over a mean follow-up of 12 months, 88 patients (60.7%) received at least one further offer. Second offers were made on average of 103 days after the initial organ decline, and tended to be from slightly younger donors (55.2 vs 58.9 years, $p=0.054$) with the same HLA match (3.2/6 antigens matched).

By the end of observation, 65 patients (44.8%) had been transplanted, 40 (27.6%) remained on the wait-list, 34 (23.4%) were temporarily or permanently suspended from the wait-list, and 6 (4.1%) had died. Highly sensitised patients (calculated HLA reaction frequency over 75%) were less likely to be transplanted (21.4 vs 52.7%, $p=0.007$) after declining a kidney offer compared to those less sensitised. Older patients (over 65) were more likely to be suspended from the transplant list (45.1 vs 23.8%, $p=0.042$) with a similar tendency also seen in those waiting over 3.5 years for their first offer (37.0 vs 23.8%, $p=0.094$).

Conclusion

After declining a deceased-donor kidney offer, around 45% of patients may expect to be transplanted during the following year, whilst around 25% may be suspended from the wait-list. Risk factors for suspension or non-transplantation include older age, longer wait-time and greater HLA sensitisation. These data should be considered by patients and clinicians making kidney offer decisions.