

KIDNEY ALLOCATION SCHEME SUCCESS IN IMPROVING HLA MATCHING

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Introduction: A revised Kidney Allocation Scheme was introduced in the UK in July 1998 and modified in July 2002 to improve access to well matched kidneys for DR homozygous patients and children. This study reviewed the effectiveness of the scheme in improving HLA matchgrades.

Methods: Comparisons were made between transplants under the revised scheme (July 1998 - June 2003) and transplants under the last 18 months of the previous scheme (January 1997 - June 1998). HLA matchgrades achieved in the latest three years of the revised scheme were investigated according to different patient groups.

Results: There have been significant improvements in HLA matchgrade for adult and paediatric transplant recipients in comparison with the previous scheme ($p < 0.0001$) and over the five years of the revised scheme (adults $p < 0.0001$, paediatric patients $p < 0.03$). For adults, the proportion of 000 HLA-A, B, DR mismatched transplants was 7% under the previous scheme and increased from 13% to 19% over the five years of the revised scheme, while the proportion in paediatric recipients was 5% previously and has increased from 11% to 16% in the revised scheme, with a substantial fall in non-favourably matched grafts from 64% previously to 32% last year.

There were significant differences in HLA matchgrade between different patient groups in the latest three years. The proportion of 000 mismatched grafts differed significantly according to 'matchability' (26% of 'easy to match' recipients compared to 8% of 'hard to match' recipients, $p < 0.0001$), blood group (20% of group O patients compared with 10% of blood group B patients, $p < 0.0001$) and ethnicity (18% of White patients compared with 4% of Asian and 5% of Black patients, $p < 0.0001$). HLA-DR homozygous recipients received a similar proportion (18%) to HLA-DR heterozygous recipients (16%), but a much smaller proportion of favourably matched grafts (29% compared with 53%).

Conclusion: Overall, 66% of patients received 000 or favourably matched kidneys in the latest three years of the current allocation scheme, compared with 38% under the previous scheme, but there were significant differences in HLA matchgrades achieved in different patient groups. The national Kidney Allocation Scheme is currently under review and the accessibility of different patient groups to well-matched kidneys will be taken into account.