

**NHS BLOOD AND TRANSPLANT
ORGAN DONATION AND TRANSPLANTATION DIRECTORATE**

KIDNEY ADVISORY GROUP

KIDNEY FAST TRACK SCHEME

INTRODUCTION

- 1 The Kidney Fast-Track Scheme was introduced in November 2012 for DBD donors and March 2013 for DCD donors. The Fast-Track Scheme is a pathway to expedite the organ offering and acceptance process where there is a high risk of organ discard.
- 2 Currently there are only 12 transplant centres included in the scheme. Fast Track Scheme offering is initiated by triggers outlined in POL186/21 and include; the organ being deemed untransplantable, significant 'cold' ischaemia time accrued without centre acceptance (3 hours for DCD, 6 hours for DBD and 12 hours for DBD kidney as part of a multi-organ kidney offer) and multiple centre declines based on organ or donor quality reasons.
- 3 This paper presents results from a recent project analysing post-transplant outcome data of kidneys transplanted via the fast-track scheme in comparison with those transplanted through the national kidney offering scheme.
- 4 KAG is asked to consider changes to the Fast Track Scheme membership.

DATA AND METHODS

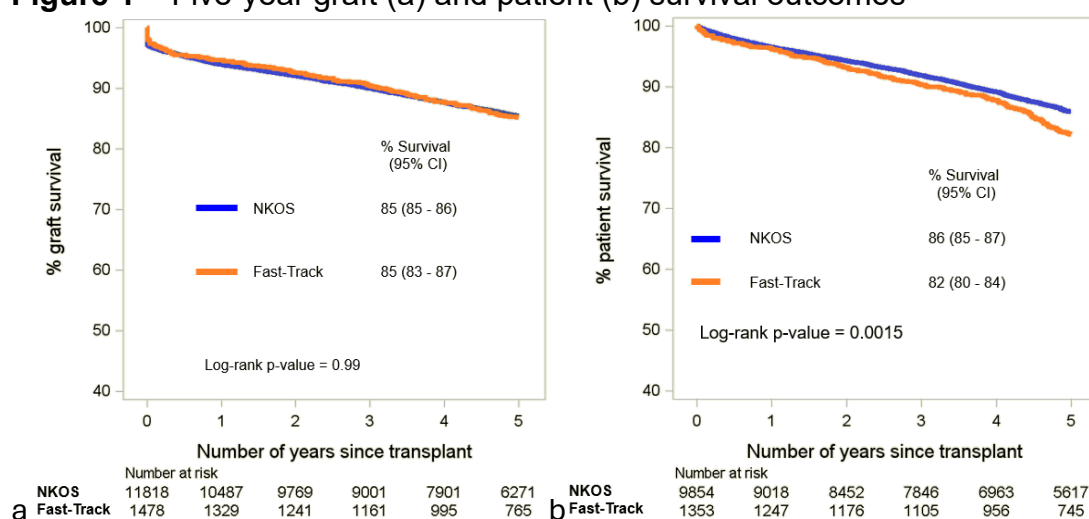
- 5 Data on offers and transplants were extracted from the UK transplant registry. Deceased donor transplants performed in adults between 1 March 2013 and 31 March 2020 were included. Five-year post-transplant survival data was analysed and included follow-up data up to 31 October 2024.
- 6 Unadjusted post-transplant survival outcomes were analysed using Kaplan-Meier curves and log-rank tests. Multivariable Cox regression was used to identify factors associated with post-transplant survival. Risk factors were identified as significant where the p-value was less than 0.1.

RESULTS

- 7 During the observation period, 1492 kidneys (11% of total kidney alone transplant activity) were transplanted through the Fast Track Scheme.
- 8 Figures 1a and 1b show the unadjusted 5-year graft and patient survival outcomes, respectively, for transplants via the fast-track scheme and national kidney offering scheme. There was no evidence of a difference in 5-year graft

survival outcomes ($p=0.99$). Five-year patient survival was found to be lower in kidneys transplanted via the fast-track scheme (82% vs 86%, $p=0.0015$).

Figure 1 – Five-year graft (a) and patient (b) survival outcomes



- 9 Risk-adjusted 5-year graft and patient survival outcomes are shown in Tables 1a and 1b respectively. After risk adjustment, there was found to be no difference in graft survival between the groups (hazard ratio fast track 0.99, 95%CI (0.85, 1.1)). Similarly, after risk adjustment there was no evidence of a difference between the groups on patient survival (hazard ratio fast track 0.93, 95%CI (0.8, 1.1)).

Table 1a – Cox regression for 5-year graft survival

	N	Hazard Ratio	95% Confidence Interval	p-value
National Kidney Offering Scheme	11990	1		
Fast-Track Scheme	1514	0.99	(0.85, 1.1)	0.96

After adjustment for: Donor hypertension, donor type, offer eGFR, donor age, donor height, donor weight, donor sex, donor cause of death, recipient age, dialysis at transplant, recipient ethnicity, recipient sex, recipient weight, waiting time to transplant, primary renal disease, previous graft, highly sensitised, cold ischaemia time, HLA mismatch level, single/dual kidney

Table 1b – Cox regression for 5-year patient survival

	N	Hazard Ratio	95% Confidence Interval	p-value
National Kidney Offering Scheme	9960	1		
Fast-Track Scheme	1382	0.93	(0.80, 1.1)	0.38

After adjustment for: Donor hypertension, donor age, donor hospital stay, recipient age, dialysis at transplant, waiting time to transplant, primary renal disease, cold ischaemia time, HLA mismatch level, single/dual kidney

INTERPRETATION

- 10 The analysis of 5-year graft survival from kidneys transplanted through the Fast Track Scheme has shown no significant difference when compared to kidneys transplanted via the national kidney offering scheme. Although unadjusted patient survival is lower in patients receiving Fast Track Scheme kidneys, there was no significant difference when patient survival was adjusted for recipient risk; corresponding to a greater risk profile in patients receiving kidneys through the Fast Track Scheme. The data for patients not receiving a transplant through the kidney offering scheme or patients receiving kidneys through the Fast Track Scheme, when compared to remaining on dialysis, has not been analysed.

CONCLUSION

- 11 Kidneys allocated through the Fast Track Scheme provide an excellent source of organs with equal risk adjusted 5-year patient and graft survival but are only available to patients registered at half the UK transplant centres, thus creating an inequity of access to transplantation.
- 12 Centres who wish to join the Fast Track Scheme should make KAG chair aware of their decision.

PROPOSAL

- 13 KAG members are asked to consider the above data and conclusions with a view to potentially changing the membership of the Fast Track Scheme as below:

Option 1: No change to the current mechanism for membership of the Kidney Fast Track Scheme, with centres opting to be within the scheme. If KAG approves this option, non Fast Track Scheme centres are asked to provide written justification to KAG for this decision on an annual basis, in light of the outcome data above.

Option 2: All centres within the UK should be automatically enrolled into the Kidney Fast Track Scheme, as is practice in both Liver and Pancreas Fast Track Schemes.