

LETTER TO THE EDITORS

Timely preparation for pre-emptive kidney transplantation: does the 'who' you see and 'where' you are influence the 'when' of listing?

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Dear Sirs,

Pre-emptive kidney transplantation is considered the optimal form of renal replacement therapy for suitable patients with end-stage renal disease [1]. Despite this, there exist geographical disparities in timely listing for renal transplantation both in the UK and worldwide [2–4]. The reasons for this have not yet been fully elucidated, and most of the studies in this area have considered only those already on maintenance dialysis therapy [5,6]. Our study aimed to ascertain factors responsible for not listing patients pre-emptively and determine whether there was intercentre and intracentre variability.

All patients active on the transplant waiting list in a single UK region (Northern Ireland, population of 1.7 million) on 21 October 2011 and all who had been transplanted in the preceding 3 years (from 21 October 2008) were considered. Clinical data were obtained from a regional electronic database (eMED, Mediqal H.I.). Statistical analysis was performed using Microsoft Excel. Fischer's test was used for comparing differences between various centres, and values of $P < 0.05$ were considered statistically significant.

There were 376 patients eligible for inclusion, 237 (63%) had commenced dialysis therapy before being listed for transplantation. There were no significant differences in the average age, gender and diabetes status between patients that were pre-emptively listed and those who received dialysis therapy prior to the listing. Of the 139 patients who were pre-emptively listed, 38 and 35 patients received a live donor transplant and deceased donor transplant, respectively, during the study period. Thus, while it is much more likely to have a pre-emptive transplant when there is a suitable live donor (86 live donors and 112 deceased donors in this time period), there is opportunity for some patients to receive a transplant from a deceased donor before dialysis is required.

The single commonest reason for not pre-emptively listing patients was delayed initiation of the assessment process

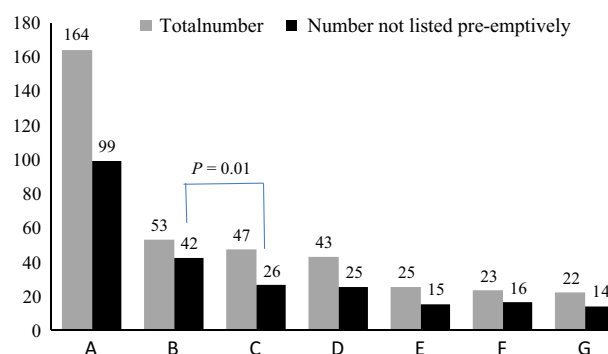


Figure 1 The number of patients who were not listed for pre-emptive transplantation (black bars) in the seven different centres in the same region. The grey bars indicate the total number of patients in the different centres.

($n = 114$, 48%). Fifteen per cent of patients had been known to nephrology for fewer than 90 days ($n = 36$), and a similar number had outstanding medical issues ($n = 31$). There were specific issues necessitating a delay in transplantation in 10% ($n = 24$), and nonmedical issues were subsequently resolved in a comparable number of patients ($n = 21$). The smallest category was those in whom live donation work-up started predialysis but was not completed in time to prevent a period of dialysis ($n = 11$).

We also found that there was a significant intercentre variation in relation to pre-emptive listing. In the regional unit, which has the embedded transplant centre, [225 haemodialysis (HD) patients and 29 peritoneal dialysis (PD) patients] 60% ($n = 99$) of patients were not listed pre-emptively. In the best performing unit (92 patients on HD and 18 on PD), almost half of all the patients were listed for transplantation prior to commencement of dialysis (55%, $n = 26$ not listed pre-emptively) but in a centre of comparable size (96 patients on HD and 15 on PD), 79% ($n = 42$) of patients were established on dialysis before being listed ($P = 0.01$) (Fig. 1). There was also substantial variability

between nephrologists within a single centre (from 83% of patients not pre-emptively listed to 33%), although statistical significance was not reached due to small numbers ($P = 0.20$).

Our study demonstrated that a large proportion of patients were not listed for transplantation before commencing dialysis therapy. The commonest reason for this in our region was a delay in initiation of preparation for transplantation. There was variability in the percentage of patients listed for pre-emptive transplantation both between centres but also between nephrologists within a single centre suggesting an inconsistent approach to transplantation amongst nephrologists. The other potential contributor to intercentre variability may be a difference in opportunity and resource for transplant assessment. We suggest that having a realistic prospect of pre-emptive transplantation (a successful live donor programme), the infrastructure to allow a timely recipient assessment and standardization of patient pathways (initiation and work-up) is likely to minimize variability and ensure more timely listing for transplantation for a greater proportion of patients.

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References

1. Abecassis M, Bartlett ST, Collins AJ, *et al.* Kidney transplantation as primary therapy for end-stage renal disease: a national kidney foundation/kidney disease outcomes quality initiative conference. *Clin J Am Soc Nephrol* 2008; **3**: 471.
2. Ravanan R, Udayaraj U, Ansell D, *et al.* Variation between centres in access to renal transplantation in UK: longitudinal cohort study. *BMJ* 2010; **341**: c3451.
3. Oniscu GC, Schalkwijk AAH, Johnson RJ, Brown H, Forsythe JLR. Equity of access to renal transplant waiting list and renal transplantation in Scotland: cohort study. *BMJ* 2003; **327**: 1261.
4. Schold JD, Meier-Kriesche HU. Comparable barriers to access to kidney transplantation across national lines. *Transplantation* 2009; **88**: 21.
5. Dudley CR, Johnson RJ, Thomas HL, Ravanan R, Ansell D. Factors that influence access to the national renal transplant waiting list. *Transplantation* 2009; **88**: 96.
6. Udayaraj U, Ben-Shlomo Y, Roderich P, *et al.* Social deprivation, ethnicity, and access to the deceased donor kidney transplant waiting list in England and Wales. *Transplantation* 2010; **90**: 279.