

KIDNEY ADVISORY GROUP

June 2018

A PROPOSAL TO INVESTIGATE CHANGING THE CURRENT NHSBT CODES FOR CAUSES OF GRAFT FAILURE**1. BACKGROUND**

In 2015 we set out to analyse UKRR/NHSBT data on causes of allograft loss. There have been no previous studies of graft loss using UK data, and it was hoped that this study would yield novel findings.

We collected data from over 22,000 recipients transplanted between 2000 and 2013. We analysed causes of graft failure in the 5,389 whose grafts were lost. The most frequent causes were death with a functioning graft (40%) and alloimmune pathology (25%). The manuscript has been accepted by NDT (Burton et al, 2018, in press).

We first used current NHSBT categories for causes of graft failure: hyperacute rejection; rejection whilst taking immunosuppressive drug(s); rejection after stopping all immunosuppressive drugs; recurrent primary renal disease; vascular or ureteric operative problems (excluding vascular thrombosis); vascular (arterial or venous) thrombosis; infection of graft; removal of functioning graft; non-viable kidney; other; and missing.

We found these categories to be insufficiently informative, and in some cases not clinically credible, so to enable more meaningful reporting we revised the categories as shown (table 1).

It is clear that the current code list has not kept pace with developments in understanding of allograft immunology and pathology, and in some cases are insufficiently informative. While we have cleaned and validated the data in this study as far as possible, we feel there is a real need to revise the code list. This may require the development of a new coding system, like the one developed by the European Renal Association–European Dialysis and Transplant Association (ERA-EDTA) for primary renal disease (1).

2. RECOMMENDATIONS

We recommend that KAG consider setting up a short term working party to discuss whether there is benefit in changing the codes, what the new codes should be and how we would transform the old codes to the new structure in order to not lose the data that we have already collected.

Rachel Hilton
Consultant Nephrologist

Fergus Caskey
Medical Director
UK Renal Registry

Lisa Mumford
Statistics and Clinical Studies
NHSBT

Table 1:

Original cause of graft failure categories	New cause of graft failure categories
Hyperacute rejection Rejection while taking immunosuppressive drug(s) Rejection after stopping all immunosuppressive drug(s) Other	Alloimmune pathology
Recurrent primary renal disease Other	Recurrent primary disease
Vascular or ureteric operative problems Vascular (arterial or venous) thrombosis Other	Surgical cause Thrombosis Vascular or ureteric operative problems (not thrombosis)
Infection of graft Other	Infection of graft
Removal of functioning graft Other	Removal of a functioning graft
Non-viable kidney Other	Non-viable kidney
Recipient died, graft still functioning at time of death Other	Death with a functioning graft Other >1 cause stated Acute kidney injury with non-recovery Acute tubular necrosis Biopsy related Calcineurin inhibitor toxicity De novo glomerulonephritis Donor pathology Drug related Hypertensive/ischaemic Infarcted kidney Interstitial fibrosis/tubular atrophy Interstitial nephritis Malignancy (graft) Malignancy (non-graft) Miscellaneous Mycotic aneurysm Patient death Post-transplant lymphoproliferative disease Pregnancy Primary non-function Thrombotic microangiopathy Transplant glomerulopathy
Missing	Missing