

**Table S1. Baseline characteristic of deceased donor kidney transplant recipients with and without delayed graft function between 1997-2014.**

	No DGF (n=5778)	DGF (n=1497)	p value
<b>Demographics</b>			
Age (years, mean [SD])	47.4 (14.0)	49.6 (13.4)	<0.001
Male (n, %)	3520 (60.9)	996 (66.5)	<0.001
Race (n, %)			<0.001
Caucasian	4550 (78.7)	1126 (75.2)	
Indigenous	360 (6.2)	139 (9.3)	
Others	868 (15.1)	232 (15.5)	
Diabetes pretransplant (n, %)	1297 (22.5)	304 (20.3)	0.073
Coronary artery disease (n, %)	713 (12.3)	330 (22.1)	<0.001
Peripheral vascular disease (n, %)	388 (6.7)	180 (12.0)	<0.001
Body mass index (kg/m <sup>2</sup> , mean [SD])	25.8 (5.3)	27.0 (5.5)	<0.001
Waiting time (years, mean [SD])	3.3 (2.6)	4.2 (2.8)	<0.001
Smoking status (n, %)			0.595
Nonsmoker	3157 (54.8)	806 (54.2)	

Former smoker	1873 (32.5)	502 (33.8)	
Current smoker	731 (12.7)	179 (12.0)	
Cause of ESKD (n, %)			0.009
Glomerulonephritis	2377 (41.1)	682 (45.6)	
Diabetes	1055 (18.3)	209 (14.0)	
Cystic	833 (14.4)	217 (14.5)	
Analgesic nephropathy	53 (0.9)	11 (0.7)	
Vascular	318 (5.5)	81 (5.4)	
Reflux nephropathy	388 (6.7)	104 (6.9)	
Others	754 (13.1)	193 (12.9)	
<b>Donor characteristics</b>			
Age (years, mean [SD])	41.0 (17.6)	47.6 (16.3)	<0.001
DCD status (n, %)	356 (6.2)	358 (23.9)	<0.001
<b>Immunology/Transplant</b>			
HLA-ABDR mismatches (mean [SD])	3.4 (1.7)	3.6 (1.7)	<0.001
Peak PRA >50% (n, %)	465 (8.2)	161 (10.9)	0.001
Ischaemic time (hours, mean [SD])	13.2±4.7	14.1±5.1	<0.001

Induction (n, %)	3491 (60.4)	1063 (71.0)	<0.001
IL-2RAb (n, %)	3357 (58.1)	967 (64.6)	<0.001
T cell depleting antibody (n, %)	200 (3.5)	160 (10.7)	<0.001
Rituximab (n, %)	7 (0.1)	3 (0.2)	0.461
Transplant era (n, %)			<0.001
1997-2002	1723 (29.8)	363 (24.2)	
2003-2008	1697 (29.4)	438 (29.3)	
2009-2014	2358 (40.8)	696 (46.5)	
Initial immunosuppression			
Calcineurin-inhibitor (n, %)			<0.001
None	133 (2.3)	54 (3.6)	
Cyclosporin	2696 (46.7)	625 (41.8)	
Tacrolimus	2949 (51.0)	818 (54.6)	
Antimetabolite (n, %)			0.017
None	327 (5.7)	57 (3.8)	
Azathioprine	281 (4.9)	75 (5.0)	
Mycophenolic acid <sup>#</sup>	5170 (89.4)	1365 (91.2)	

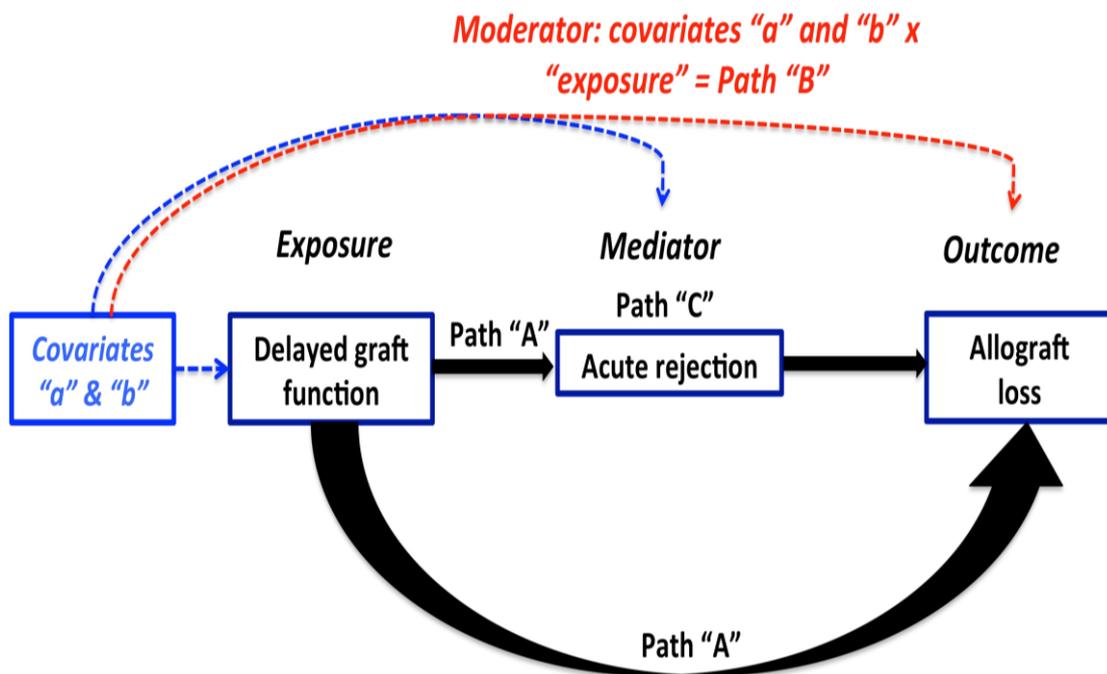
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Prednisolone (n, %)	5616 (97.2)	1452 (97.0)	0.675
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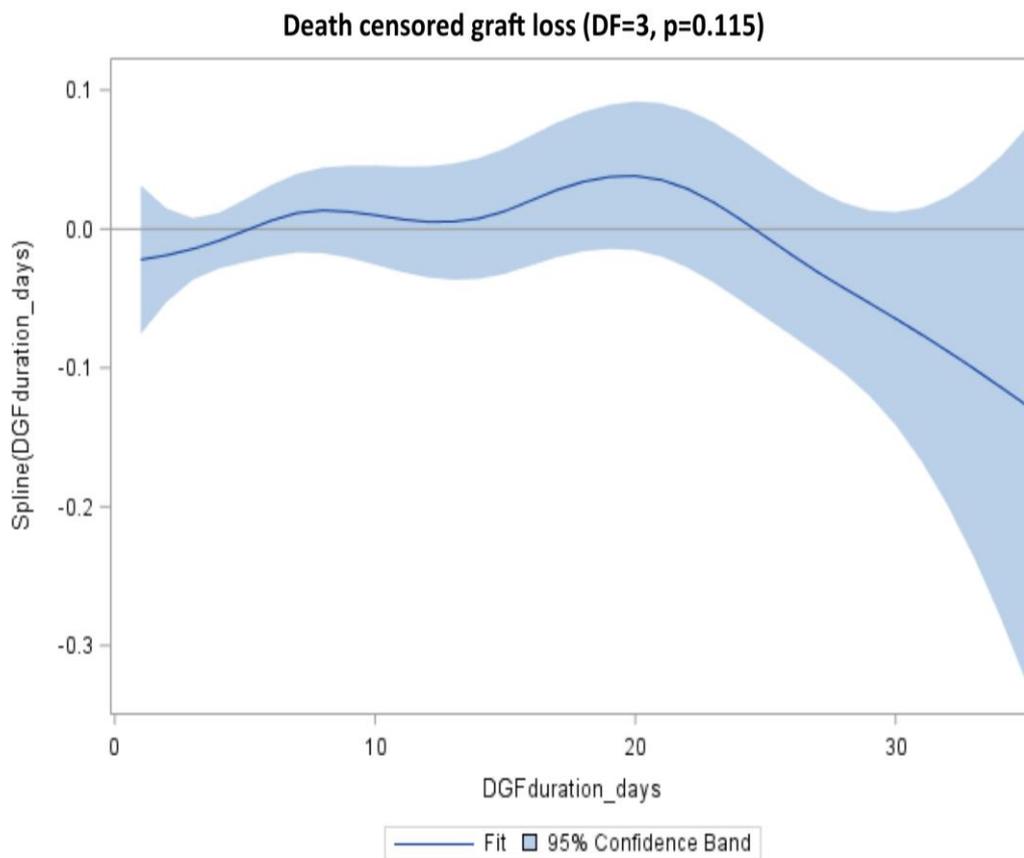
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*Data expressed as number (proportion) or as mean (SD). Comparison of data across groups was undertaken using chi-square test (for categorical data) or 1-way ANOVA (for continuous data expressed as mean). DGF – delayed graft function, d – days, ESKD – end-stage kidney disease, HLA – human leukocyte antigen, PRA – panel reactive antibody, DCD – donation after cardiac death, IL-2RAb – interleukin-2-receptor antibody. #includes mycophenolate mofetil or enteric coated mycophenolic acid.*

**Figure S1.** Pictorial representation of the potential mediating role of acute rejection on the effect between duration of delayed graft function and allograft outcome. The relationship between the exposure factor (delayed graft function) and other covariates (covariates 'a' and 'b') with allograft outcomes (acute rejection and allograft loss, ie, the main effects = path "A") may be influenced by moderators (ie, covariates that may affect the direction and/or strength of the relationship between the exposure variable and dependent outcome = path "B"). Mediators (acute rejection) are variables that often lie in the causal pathway and account for the direction and magnitude of the effect between the exposure factor and the outcome of interest (path "C").



**Figure S2.** Restricted cubic spline to assess the linearity of the association between duration of delayed graft function and death censored graft loss. P value of 0.11 denotes a linear association.



**Figure S3.** Unadjusted Kaplan Meier failure curves for acute rejection at 6 months stratified by quartiles of delayed graft function (DGF) duration of 1-4 days, 5-7 days, 8-13 days and  $\geq 14$  days. Log-rank p value  $< 0.001$ .

