

SUPPLEMENTARY DATA

Supplementary Table 1: Hazard ratio (95% confidence intervals) of post-transplant death (all-cause or cardiovascular) or graft failure or delayed graft function comparing A1c categories using Cox regression and logistic regression analyses in 2,872 dialysis patients who underwent renal transplantation and observed for up to 6 years (7/2001-6/2007)

	unadjusted (n=2,872)		+ case-mix adjusted* (n=2,518)		+ MICS adjusted** (n=2,457)		+ transplant data adjusted *** (n=2,021)	
A, All-cause death#	<i>HR (95% CI)</i>	<i>P-value</i>	<i>HR (95% CI)</i>	<i>P-value</i>	<i>HR (95% CI)</i>	<i>P-value</i>	<i>HR (95% CI)</i>	<i>P-value</i>
A1c: <5%	1.13 (0.71-1.78)	0.61	1.12 (0.68-1.85)	0.65	1.15 (0.69-1.93)	0.60	1.14 (0.64-2.04)	0.65
A1c: 5-<6%	1.18 (0.88-1.58)	0.28	1.19 (0.87-1.63)	0.29	1.22 (0.88-1.70)	0.23	1.25 (0.88-1.79)	0.22
A1c: 6 - <7% (REFERENCE)	1.00	N/A	1.00	N/A	1.00	N/A	1.00	N/A
A1c: 7-<8%	1.01 (0.73-1.39)	0.95	1.04 (0.73-1.48)	0.85	1.07 (0.74-1.55)	0.72	0.89 (0.59-1.36)	0.60
A1c: 8-<9%	1.30 (0.90-1.88)	0.16	1.84 (1.22-2.78)	0.004	1.88 (1.23-2.87)	0.004	2.06 (1.31-3.24)	0.002
A1c: 9-<10%	0.93 (0.54-1.58)	0.78	1.00 (0.53-1.91)	0.99	1.19 (0.62-2.29)	0.60	1.41 (0.73-2.74)	0.31
A1c: ≥10%	1.65 (0.86-3.16)	0.14	2.75 (1.34-5.65)	0.006	3.43 (1.65-7.14)	0.001	3.43 (1.56-7.56)	0.002
B, All-cause death	<i>HR (95% CI)</i>	<i>P-value</i>	<i>HR (95% CI)</i>	<i>P-value</i>	<i>HR (95% CI)</i>	<i>P-value</i>	<i>HR (95% CI)</i>	<i>P-value</i>
A1c: <5%	1.11 (0.70-1.75)	0.66	1.08 (0.65-1.78)	0.77	1.12 (0.67-1.87)	0.68	1.09 (0.61-1.95)	0.77

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A1c: 5-<6%	1.18 (0.88-1.58)	0.27	1.20 (0.88-1.65)	0.26	1.24 (0.89-1.72)	0.20	1.29 (0.90-1.84)	0.17
A1c: 6 - < 7% (REFERENCE)	1.00	N/A	1.00	N/A	1.00	N/A	1.00	N/A
A1c: 7-<8%	1.00 (0.72-1.38)	0.99	1.03 (0.72-1.47)	0.88	1.07 (0.74-1.54)	0.74	0.90 (0.59-1.37)	0.62
A1c: 8-<9%	1.29 (0.89-1.87)	0.17	1.84 (1.24-2.83)	0.003	1.91 (1.25-2.92)	0.003	2.05 (1.30-3.22)	0.002
A1c: 9-<10%	0.92 (0.54-1.57)	0.76	0.98 (0.52-1.87)	0.96	1.13 (0.59-2.17)	0.71	1.42 (0.73-2.76)	0.30
A1c: >10%	1.16 (0.86-3.18)	0.13	2.81 (1.37-5.77)	0.005	3.59 (1.72-7.48)	0.001	3.58 (1.63-7.90)	0.002
C, Cardiovascular death#	<i>HR (95% CI)</i>	<i>P- value</i>	<i>HR (95% CI)</i>	<i>P- value</i>	<i>HR (95% CI)</i>	<i>P- value</i>	<i>HR (95% CI)</i>	<i>P- value</i>
A1c<: 5%	1.18 (0.48-2.89)	0.72	1.64 (0.64-4.17)	0.30	1.10 (0.39-3.07)	0.86	1.41 (0.47-4.21)	0.54
A1c: 5-<6%	0.86 (0.45-1.62)	0.64	0.88 (0.45-1.73)	0.72	0.70 (0.34-1.45)	0.34	0.72 (0.33-1.59)	0.42
A1c: 6 - < 7% (REFERENCE)	1.00	N/A	1.00	N/A	1.00	N/A	1.00	N/A
A1c: 7-<8%	0.64 (0.30-1.34)	0.24	0.65 (0.30-1.43)	0.29	0.65 (0.29-1.46)	0.30	0.38 (0.13-1.05)	0.06

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A1c: 8-<9%	1.25 (0.60-2.63)	0.55	1.53 (0.66-3.57)	0.32	1.42 (0.60-3.37)	0.43	1.78 (0.69-4.55)	0.23
A1c: 9-<10%	0.70 (0.21-2.32)	0.56	1.05 (0.31-3.62)	0.93	1.14 (0.33-4.00)	0.84	1.59 (0.44-5.76)	0.48
A1c: ≥10%	1.97 (0.59-6.57)	0.27	3.16 (0.89-11.27)	0.08	3.82 (1.01-14.43)	0.04	4.28 (0.85-21.64)	0.08
D, Graft failure##	<i>HR (95% CI)</i>	<i>P-value</i>	<i>HR (95% CI)</i>	<i>P-value</i>	<i>HR (95% CI)</i>	<i>P-value</i>	<i>HR (95% CI)</i>	<i>P-value</i>
A1c<: 5%	1.29 (0.73-2.29)	0.38	1.24 (0.66-2.35)	0.50	1.05 (0.54-2.05)	0.88	0.87 (0.37-2.10)	0.78
A1c: 5-<6%	0.96 (0.64-1.44)	0.85	0.98 (0.63-1.52)	0.93	1.05 (0.67-1.63)	0.84	0.92 (0.56-1.52)	0.74
A1c: 6 - < 7% (REFERENCE)	1.00	N/A	1.00	N/A	1.00	N/A	1.00	N/A
A1c: 7-<8%	1.06 (0.70-1.60)	0.79	1.12 (0.71-1.75)	0.64	1.07 (0.68-1.69)	0.78	0.67 (0.38-1.18)	0.16
A1c: 8-<9%	1.23 (0.75-2.00)	0.41	1.46 (0.86-2.50)	0.16	1.45 (0.84-2.49)	0.18	1.28 (0.68-2.42)	0.45
A1c: 9-<10%	1.42 (0.79-2.56)	0.24	1.53 (0.81-2.90)	0.19	1.56 (0.81-2.98)	0.18	1.33 (0.62-2.87)	0.47
A1c: ≥10%	1.13 (0.41-3.12)	0.82	0.94 (0.28-3.12)	0.92	0.98 (0.29-3.28)	0.98	1.13 (0.33-3.89)	0.85

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E, Combined all-cause death or graft failure	<i>HR (95% CI)</i>	<i>P-value</i>	<i>HR (95% CI)</i>	<i>P-value</i>	<i>HR (95% CI)</i>	<i>P-value</i>	<i>HR (95% CI)</i>	<i>P-value</i>
A1c<: 5%	1.12 (0.76-1.65)	0.58	1.16 (0.77-1.77)	0.48	1.12 (0.72-1.72)	0.62	1.08 (0.65-1.79)	0.78
A1c: 5-<6%	1.10 (0.85-1.41)	0.47	1.11 (0.85-1.46)	0.44	1.18 (0.89-1.56)	0.26	1.16 (0.85-1.57)	0.35
A1c: 6 - < 7% (REFERENCE)	1.00	N/A	1.00	N/A	1.00	N/A	1.00	N/A
A1c: 7-<8%	1.03 (0.79-1.35)	0.83	1.09 (0.81-1.46)	0.58	1.12 (0.83-1.51)	0.47	0.90 (0.63-1.27)	0.55
A1c: 8-<9%	1.25 (0.92-1.72)	0.16	1.65 (1.16-2.34)	0.005	1.69 (1.18-2.42)	0.004	1.81 (1.22-2.67)	0.003
A1c: 9-<10%	1.03 (0.67-1.58)	0.89	1.18 (0.73-1.93)	0.50	1.35 (0.82-2.20)	0.24	1.38 (0.80-2.37)	0.25
A1c: ≥10%	1.40 (0.77-2.53)	0.27	1.93 (1.02-3.66)	0.04	2.28 (1.19-4.38)	0.01	2.39 (1.19-4.80)	0.02
F, Delayed Graft Function	<i>OR (95% CI)</i>	<i>P-value</i>	<i>OR (95% CI)</i>	<i>P-value</i>	<i>OR (95% CI)</i>	<i>P-value</i>	<i>OR (95% CI)</i>	<i>P-value</i>
A1c<: 5%	0.79 (0.52-1.21)	0.28	0.69 (0.44-1.09)	0.11	0.73 (0.46-1.16)	0.19	0.64 (0.38-1.09)	0.10
A1c: 5-<6%	1.09 (0.86-1.37)	0.47	1.01 (0.78-1.30)	0.94	1.05 (0.81-1.37)	0.69	0.91 (0.68-1.21)	0.51

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A1c: 6 - < 7% (REFERENCE)	1.00	N/A	1.00	N/A	1.00	N/A	1.00	N/A
A1c: 7-<8%	0.97 (0.75-1.24)	0.78	1.02 (0.78-1.34)	0.86	1.02 (0.77-1.35)	0.89	0.96 (0.70-1.31)	0.79
A1c: 8-<9%	1.14 (0.85-1.53)	0.39	1.25 (0.90-1.74)	0.19	1.29 (0.91-1.81)	0.15	1.27 (0.86-1.86)	0.23
A1c: 9-<10%	0.73 (0.47-1.13)	0.16	0.77 (0.48-1.25)	0.29	0.71 (0.42-1.18)	0.19	0.67 (0.38-1.18)	0.17
A1c: ≥10%	0.80 (0.42-1.53)	0.50	0.77 (0.36-1.61)	0.48	0.85 (0.40-1.82)	0.68	0.86 (0.37-1.99)	0.72

*adjusted for age, gender, recipient race-ethnicity, dialysis vintage, primary insurance, marital status, standardized mortality ratio of the dialysis clinic during entry quarter, dialysis dose as indicated by Kt/V (single pool), presence or absence of a hemodialysis catheter, and residual renal function during the entry quarter and 8 co-morbidities

**adjusted for all of the covariates plus body mass index, nPNA, serum or blood concentrations of TIBC, ferritin, phosphorus, calcium, bicarbonate, peripheral white blood cell count, lymphocyte percentage, albumin and hemoglobin

*** adjusted for all of the above plus donor type, donor age, donor gender, panel reactive antibody titer (last value prior to transplant), number of HLA mismatches, cold ischemia time, DGF (except when DGF was a dependent variable in our logistic regression models)

“All cause” or “cardiovascular death” analyses are censored for graft failure

“Graft failure” analyses are censored for death

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Supplementary Table 2: Baseline characteristics of 2,872 included and 2,154 excluded diabetic dialysis patients who underwent renal transplantation between 7/2001 and 6/2006

	Included patients	Excluded patients	p value
N	2,872	2,154	N/A
Age (years) (mean±SD)	53±11	54±12	0.51
Deaths (n) [Crude Death Rate %]	331 [12]	205 [10]	0.02
Cardiovascular Deaths (n) [Crude CV Death Rate %]	71 [2]	62 [3]	0.38
Graft failure (n) [Crude Graft Failure Rate %]	191 [7]	341 [16]	<0.001
DGF (n) [Crude DFG %]	676 [24]	451 [22]	0.08
Gender (% women)	36	36	0.67
Race (% African-American)	24	29	<0.001
BMI (kg/m ²) (mean±SD)	28.1±5.4	28.3±6.9	0.13
Presence of ischemic heart disease (%)	15	15	0.63
Presence of congestive heart failure (%)	17	17	0.87
Presence of hypertension (%)	81	81	0.48
Presence of cerebrovascular events (%)	4	4	0.45
Presence of peripheral vascular disease (%)	8	7	0.28
Presence of chronic obstructive pulmonary disease (%)	1	2	0.39
Presence of cancer (%)	2	2	0.91
Tobacco use (%)	3	3	0.71
Dialysis Vintage (%):			
0-6 months	9	16	<0.001
6-24 months	31	34	0.02
2-5 years	42	35	<0.001
>5 years	18	15	0.004
nPCR (g/kg/day) (mean±SD)	1.05±0.26	1.04±0.27	0.20
Serum creatinine (mg/dL) (mean±SD)	9.3±2.9	9.7±3.4	<0.001
Blood hemoglobin (g/dL) (mean±SD)	12.3±1.2	12.1±1.4	<0.001
WBC (x10 ³ /l) (mean±SD)	7.1±2.1	7.2±2.2	0.36
Number of HLA mismatch (median (IQR))	4 (3-5)	4 (3-5)	0.06
PRA >80% (%)	4	4	0.93
PRA (%) (median (IQR))	0 (0-1)	0 (0-1)	0.93

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Donor age (years) (mean±SD)	40±15	41±15	0.29
Donor gender (% women)	48	46	0.19
Donor Type (% Living)	31	34	0.05
Cold Ischemia time (hours) (median (IQR))	14 (8-20)	14 (7-20)	0.41

Values in brackets indicate the crude death and cardiovascular death rate, crude graft failure rate and crude DGF rate in the indicated group during the 6 years of observation. Data are presented mean±SD or median and interquartile range (IQR) as appropriate.

IQR: interquartile range. DGF: Delayed Graft Function. PRA: panel reactive antibody (last value prior to transplant). WBC: White Blood Cell count. BMI: Body Mass Index. KRU: residual renal function. nPCR: normalized protein catabolic rate

Supplementary Figure 1: Flow chart of the patient selection

