

Supplemental Table 1. Excluded and included deceased donor characteristics and demographic information.

	Total	Incomplete Biopsy	Not Biopsied	Biopsied
N (%)	547	22 (4)	255 (47)	270 (49)
Mean ± Std or Col %				
Donor Characteristics				
Age (years)	40 ± 18	54 ± 13	32 ± 20	48 ± 13
Female	61	59	59	62
Black/African-American	18	23	15	22
Final creatinine [†] (mg/dL)	1.62 ± 1.16	1.61 ± 0.99	1.14 ± 0.84	1.85 ± 1.23
BMI ≥30 kg/m ²	29	32	21	37
Hypertension	39	62	22	53
Diabetes	9	0	4	14
Expanded criteria donor	29	55	15	40
KDRI	1.44 ± 0.42	1.72 ± 56.2	1.31 ± 0.39	1.54 ± 0.39
Import	75	77	73	77
Recipient Characteristics				
Age at transplant (years)	53 ± 14	53 ± 10	50 ± 14	56 ± 14
Female	63	73	62	63
Black/African-American	26	59	26	23
BMI ≥30kg/m ²	25	27	20	30
Hypertension	87	83	86	88
Diabetes	44	62	43	44
1-year eGFR (CKD-EPI) (ml/min/1.73m ²)	48 ± 23	47 ± 18	53 ± 26	45 ± 21
Transplant Characteristics				
HLA mismatches (#)	4.45 ± 1.27	4.73 ± 1.03	4.35 ± 1.43	4.51 ± 1.12
Cold Ischemia Time (hours)	31.0 ± 10.6	33.1 ± 6.36	29.2 ± 11.3	32.4 ± 10.0
Previous kidney transplant	18	18	22	15
Multi-Organ Transplant	2	0	9	2
Preemptive Transplant	41	36	41	41
ESKD Time (years)	2.15 ± 3.06	1.94 ± 2.03	2.26 ± 3.10	2.06 ± 3.10
Transplant Outcomes				
Median follow-up (months)(IQR)	76.6 ± 57.0	67.0 ± 37.9	87.8 ± 64.2	70.8 ± 46.9
Graft Status				
Functioning (%)	33	23	35	32
Dead (%)	35	36	33	36
Fail (%)	32	41	32	32
Delayed Graft Function	41	36	33	48
Most recent creatinine (mg/dL)	1.73	1.61	1.65	1.82

ATI, acute tubular injury; BMI, body mass index; CKDEPI eGFR, Chronic Kidney Disease-Epidemiology Collaboration estimated glomerular filtration rate; eGFR, estimated glomerular filtration rate; ESKD, End-Stage Kidney Disease; HLA, human leukocyte antigen; IQR, interquartile range; KDRI, kidney donor index

Supplemental Table 2. Procurement and Reperfusion biopsy histology by donor, recipient, organ, and transplant demographics.

Parameter	Total	Donor Procurement Biopsy Histology		Reperfusion Biopsy Histology	
		Suboptimal	Optimal	Suboptimal	Optimal
N (%)	270	98 (36)	172 (64)	122 (45)	148 (55)
Mean $\pm$ Std or Col %					
Donor Characteristics					
Age (years)	48 $\pm$ 13	52 $\pm$ 10	45 $\pm$ 13	52 $\pm$ 9	44 $\pm$ 14
Male (%)	62	59	63	53	68
Black/African-American	22	18	23	23	20
Final creatinine (mg/dL)	1.85 $\pm$ 1.23	1.50 $\pm$ 0.97	2.06 $\pm$ 1.31	1.62 $\pm$ 0.92	2.04 $\pm$ 1.40
BMI $\geq$ 30 kg/m ² (%)	37	38	36	38	36
Hypertension (%)	53	63	48	73	37
Diabetes (%)	14	22	10	21	9
Expanded criteria donor (%)	40	53	33	57	26
KDRI	1.54 $\pm$ 0.39	1.65 $\pm$ 0.35	1.47 $\pm$ 0.40	1.69 $\pm$ 0.03	1.41 $\pm$ 0.03
Import (%)	77	82	75	82	74
Recipient Characteristics					
Age at transplant (years)	56 $\pm$ 14	56 $\pm$ 14	56 $\pm$ 14	57 $\pm$ 13	55 $\pm$ 14
Male (%)	63	59	65	70	57
Black/African-American	23	20	24	28	32
BMI $\geq$ 30 (kg/m ²) (%)	30	32	30	28	32
Hypertension (%)	88	88	89	89	88
Diabetes (%)	44	48	41	41	45
EPTS, % (mean)	44	47	43	47	42
1-year eGFR (CKD-EPI) (ml/min/1.73m ²)	45 $\pm$ 21	39 $\pm$ 20	49 $\pm$ 21	38 $\pm$ 18	51 $\pm$ 22
Transplant Characteristics					
HLA mismatches (#)	4.51 $\pm$ 1.12	4.51 $\pm$ 0.89	4.52 $\pm$ 1.24	4.66 $\pm$ 1.03	4.39 $\pm$ 1.18
Cold ischemic time (hours)	32.4 $\pm$ 10.0	33.5 $\pm$ 9.4	31.8 $\pm$ 10.3	33.2 $\pm$ 9.3	31.7 $\pm$ 10.6
Previous kidney transplant (%)	15	16	14	15	15
Multi-organ transplant (%)	2	1	2	2	2
ESKD Time (years)	2.06 $\pm$ 3.10	2.21 $\pm$ 2.59	1.97 $\pm$ 2.59	2.40 $\pm$ 3.75	1.78 $\pm$ 2.42
Biopsy Findings					
Wedge (%)	-	44	20	-	-
Number of Glomeruli (#)	-	50	48	18	20
>10% Glomeruli sclerosed (%)	-	47	-	89	-
Vascular disease moderate/severe (%)	-	26	-	30	-
Interstitial fibrosis and tubular atrophy >10% (%)	-	37	-	25	-

ATI, acute tubular injury; BMI, body mass index; CKDEPI GFR, Chronic Kidney Disease-Epidemiology Collaboration glomerular filtration rate; eGFR, estimated glomerular filtration rate; EPTS, Estimated Post Transplant Survival; ESKD, End Stage Kidney Disease; HLA, human leukocyte antigen; IQR, interquartile range; KDRI, kidney donor index