

Table S1. Association between DGF and CIT with 1-year eGFR according to KDPI strata.

Parameter	Total n = 3059	KDPI 0-35% n = 561	KDPI 36-50% n = 361	KDPI 51-85% n = 1289	KDPI 86-100% n = 848	p
No DGF	49.3 (35.9-65.6) ^a	67.1 (53.1-84.2) ^c	56.9 (38.9-70.1)	47.4 (33.3-60.4)	39.1 (28.8-51.1)	<0.001
DGF	46.5 (33.9-60.9)	63.4 (45.0-81.0)	52.5 (38.8-66.0)	46.5 (35.2-59.1)	39.0 (25.5-50.6)	<0.001
CIT <23h	49.1 (35.6-63.9) ^b	65.7 (52.7-83.4)	53.5 (38.8-69.5)	48.6 (36.3-62.2) ^d	39.8 (28.3-52.0)	<0.001
CIT >23h	46.1 (33.4-61.0)	63.9 (46.9-80.9)	53.5 (38.8-67.4)	44.6 (33.0-57.4)	38.7 (25.3-50.1)	<0.001

(IQR), interquartile range, KDPI, Kidney Donor Profile Index; DGF, Delayed Graft Function; eGFR, estimated Glomerular Filtration Rate (ml/min/1.73 m²); CIT, Cold Ischemia Time.

^aNo DGF vs. DGF, p<0.001

^bCIT < 23 hours vs. > 23 hours, p<0.001

^cNo DGF vs. DGF, KDPI 0-35%, p=0.015

^dCIT < 23 hours vs. > 23 hours, KDPI 51-85%, p<0.001

Table S2. Risk factors associated with 1-year eGFR <50 ml/min/1.73m².

	HR	CI 95%		p ^a
		Lower	Upper	
KDPI				
0-35% (ref.)	1.0	-	-	-
36-50%	1.760	1.401	2.211	<0.001
51-85%	2.222	1.848	2.670	<0.001
86-100%	2.849	2.343	3.464	<0.001
CIT (>22h) ^b	1.166	1.056	1.288	0.002
Donor sex (male)	0.897	0.813	0.989	0.029
Maintenance immunosuppression				
<i>MPS+TAC+Pred (ref.)</i>	1.0	-	-	-
<i>AZA+TAC+Pred</i>	0.955	0.845	1.080	0.466
<i>mTORi+TAC+Pred</i>	1.048	0.891	1.233	0.568
<i>Other</i>	1.875	0.699	5.028	0.212

Variables included: donor sex (male), KDPI, CIT (hours), and maintenance immunosuppression.

eGFR, estimated Glomerular Filtration Rate; CI, Confidence Interval; HR: hazard ratio; KDPI, Kidney Donor Profile Index; ref., reference; CIT, Cold Ischemia Time; MPS, sodium mycophenolate; TAC, tacrolimus; Pred, prednisone; AZA, azathioprine; mTORi, mTOR inhibitor.

^ap-values were calculated by cox proportional-hazard model with steps backward Wald statistics.

^bThe cutoff of CIT (22h) was chosen based on a ROC analysis for the best value of CIT discriminating eGFR <50 ml/min/1.73m².

Table S3. Multivariate analysis for the prediction of 1-year eGFR <40 ml/min/1.73m².

	HR	CI 95%		p ^a
		Lower	Upper	
KDPI				
<i>0-35% (ref.)</i>	1.0	-	-	-
<i>36-50%</i>	2.027	1.502	2.734	<0.001
<i>51-85%</i>	2.581	2.019	3.299	<0.001
<i>86-100%</i>	4.004	3.098	5.175	<0.001
Duration of dialysis (months)	1.002	1.001	1.004	<0.001
Cold ischemia time (hours)	1.014	1.004	1.023	0.004
Maintenance immunosuppression				
<i>MPS+TAC+Pred (ref.)</i>	1.0	-	-	-
<i>AZA+TAC+Pred</i>	1.011	0.865	1.182	0.890
<i>mTORi+TAC+Pred</i>	1.209	0.992	1.475	0.061
<i>Other</i>	3.638	1.348	9.816	0.011
Donor sex (male)	0.955	0.846	1.079	0.462

Variables included: donor sex (male), KDPI, cold ischemia time (hours), maintenance immunosuppression, and duration of dialysis. eGFR, estimated Glomerular Filtration Rate; CI, Confidence Interval; HR: hazard ratio; KDPI, Kidney Donor Profile Index; MPS, sodium mycophenolate; TAC, tacrolimus; Pred, prednisone; AZA, azathioprine; mTORi, mTOR inhibitor.

^ap-values were calculated by cox proportional-hazard model with steps backward Wald statistics.

Table S4. Multivariate analysis for the prediction of 1-year eGFR <30 ml/min/1.73m².

	HR	CI 95%		p ^a
		Lower	Upper	
KDPI				
<i>0-35% (ref.)</i>	1.0	-	-	-
<i>36-50%</i>	1.800	1.180	2.745	0.006
<i>51-85%</i>	2.494	1.781	3.494	<0.001
<i>86-100%</i>	4.227	2.980	5.994	<0.001
Duration of dialysis (months)	1.002	1.001	1.004	0.004
Cold ischemia time (hours)	1.016	1.003	1.028	0.014
Maintenance immunosuppression				
<i>MPS+TAC+Pred (ref.)</i>	1.0	-	-	-
<i>AZA+TAC+Pred</i>	0.918	0.736	1.144	0.444
<i>mTORi+TAC+Pred</i>	1.323	1.019	1.718	0.036
<i>Other</i>	3.565	0.877	14.495	0.076
Donor sex (male)	1.004	0.850	1.185	0.962

Variables included: donor sex (male), KDPI, cold ischemia time (hours), maintenance immunosuppression, and duration of dialysis. eGFR, estimated Glomerular Filtration Rate; CI, Confidence Interval; HR: hazard ratio; KDPI, Kidney Donor Profile Index; MPS, sodium mycophenolate; TAC, tacrolimus; Pred, prednisone; AZA, azathioprine; mTORi, mTOR inhibitor.

^ap-values were calculated by cox proportional-hazard model with steps backward Wald statistics.

Table S5. Poisson mediation analysis for 1-year eGFR <50 ml/min/1.73m².

	Exp	CI 95%		p
		Lower	Upper	
KDPI				
0-35% (ref.)	1.0	-	-	-
36-50%	1.76	1.40	2.22	<0.001
51-85%	2.21	1.84	2.66	<0.001
86-100%	2.76	2.27	3.36	<0.001
Acute rejection	1.36	1.21	1.53	<0.001
CIT (hours)	1.01	1.00	1.02	0.014
Donor sex (male)	0.90	0.82	0.99	0.038
Maintenance immunosuppression				
<i>MPS + TAC + Pred (ref.)</i>	1.0	-	-	-
<i>AZA + TAC + Pred</i>	0.92	0.81	1.04	0.182
<i>mTORi + TAC + Pred</i>	1.05	0.88	1.24	0.594
<i>Other</i>	1.77	0.66	4.75	0.256
Delayed graft function	1.01	0.92	1.12	0.779
CMV infection	1.03	0.93	1.14	0.542
Mediation analysis	Exp	CI 95%		p
		Lower	Upper	
Acute rejection	0.0006	0.0005	0.0006	<0.001
CMV infection	0.0188	0.0178	0.0198	<0.001
Delayed graft function	1.4931	1.3889	1.6050	<0.001

Variables included: donor sex (male), KDPI, CIT (hours), acute rejection, CMV infection, DGF and maintenance immunosuppression. eGFR, estimated Glomerular Filtration Rate; CI, Confidence Interval; HR: hazard ratio; KDPI, Kidney Donor Profile Index; MPS, sodium mycophenolate; TAC, tacrolimus; Pred, prednisone; AZA, azathioprine; mTORi, mTOR inhibitor.

Table S6. Graft loss and death etiologies during the first year posttransplantation.

	Total n = 3059	KDPI 0-35% n = 561	KDPI 36-50% n = 361	KDPI 51-85% n = 1289	KDPI 86-100% n = 848	p
TRANSPLANT OUTCOMES						
Graft loss etiology, n (%)						0.135
<i>Vascular thrombosis</i>	49 (1.6)	5 (0.9)	10 (2.8)	21 (1.6)	13 (1.5)	
<i>Immune IF/TA</i>	27 (0.9)	4 (0.7)	2 (0.6)	12 (0.9)	9 (1.1)	
<i>Nonimmune IF/TA</i>	22 (0.7)	4 (0.7)	1 (0.3)	7 (0.5)	10 (1.2)	
<i>Primary nonfunction</i>	18 (0.6)	1 (0.2)	1 (0.3)	7 (0.5)	9 (1.1)	
<i>Thrombotic microangiopathy</i>	14 (0.5)	3 (0.5)	4 (1.1)	4 (0.3)	3 (0.4)	
<i>Recurrence of GN</i>	8 (0.3)	1 (0.2)	1 (0.3)	4 (0.3)	1 (0.1)	
<i>Technical / Urological</i>	5 (0.2)	0 (0)	3 (0.8)	0 (0)	2 (0.2)	
<i>Infection</i>	5 (0.2)	0 (0)	0 (0)	2 (0.2)	3 (0.4)	
<i>Others</i>	1 (0.1)	0 (0)	1 (0.3)	0 (0)	0 (0)	
Death etiology, n (%)						0.765
<i>Infection</i>	68 (2.2)	14 (2.5)	5 (1.4)	26 (2.0)	23 (2.7)	
<i>Cardiovascular</i>	19 (0.6)	1 (0.2)	2 (0.6)	9 (0.7)	7 (0.8)	
<i>Others</i>	11 (0.4)	3 (0.5)	1 (0.3)	2 (0.2)	5 (0.6)	

N, number; KDPI, Kidney Donor Profile Index; IF/TA, Interstitial Fibrosis/Tubular Atrophy; GN, Glomerulonephritis.