

SUPPLEMENTARY DATA

**Supplementary Table 1. Baseline characteristics 2796 type 1 diabetes patients, according to area of residence and type of renal replacement therapy.**

	Dialysis		Transplantation	
	Leiden n=251	Non-Leiden n=1549	Leiden n=238	Non-Leiden n=758
Age at dialysis, y	58 ± 13	59 ± 13	43 ± 10	44 ± 10
Age at transplantation, y			44 ± 10	46 ± 11
Men, %	53	53	59	63
Donor age, y	-	-	36 ± 14	41 ± 16
Dialysis modality, nr (%)				
Haemodialysis	68	72	22	35
Peritoneal dialysis	32	28	21	34
Missing	0	0.1	0	10
Pre-emptive Tx, %			57	21
Dialysis vintage, mo <sup>a</sup>	9 ± 6	8 ± 6	23 ± 24	20 ± 22
Cold ischaemic time, h	-	-	15 ± 8	16 ± 11
DDKT, nr (%)	-	-	14	50
LDKT, nr (%)	-	-	6	20
SPKT, nr (%)	-	-	80	30

<sup>a</sup> Excluding pre-emptive transplant patients

Numbers are presented as mean ± SD or percentage.

DDKT, deceased donor kidney transplant; LDKT, living donor kidney transplant; SPKT, simultaneous pancreas kidney transplantation; Tx, transplantation.

SUPPLEMENTARY DATA

**Supplementary Table 2. Hazard ratios of 10-year mortality of patients transplanted until the year 2000, compared with patients transplanted afterwards.**

	Crude	Model 1	Model 2	Model 3
<b>DDKT</b>				
1986 to 1999 (ref)	1	1	1	1
2000 to 2015	0.74 (0.54; 1.03)	0.62 (0.44; 0.87)	0.57 (0.40; 0.81)	0.54 (0.37; 0.78)
<b>LDKT</b>				
1986 to 1999 (ref)	1	1	1	1
2000 to 2015	0.95 (0.47; 1.90)	0.58 (0.27; 1.24)	0.57 (0.27; 1.21)	0.56 (0.26; 1.19)
<b>SPKT</b>				
1986 to 1999 (ref)	1	1	1	1
2000 to 2015	0.60 (0.39; 0.94)	0.51 (0.32; 0.81)	0.48 (0.30; 0.76)	0.48 (0.30; 0.76)

Model 1: Adjusted for recipient age and sex.

Model 2: Model 1, plus adjustment for donor age.

Model 3: Model 2, plus adjustment for dialysis vintage and dialysis modality.

SUPPLEMENTARY DATA

**Supplementary Table 3. Hazard ratios (95%CI) of 10- and 20-year all-cause mortality and death-censored graft failure for kidney transplanted patients living in the Leiden area compared to the non-Leiden area.**

	Crude	Model 1	Model 2	Model 3
10-year all-cause mortality				
Non-Leiden area (ref)	1	1	1	1
Leiden area	0.47 (0.34; 0.64)	0.50 (0.37; 0.69)	0.54 (0.39; 0.73)	0.56 (0.40; 0.78)
10-year death-censored graft failure				
Non-Leiden area (ref)	1	1	1	1
Leiden area	0.74 (0.49; 1.11)	0.73 (0.48; 1.09)	0.87 (0.57; 1.33)	0.88 (0.55; 1.39)
20-year all-cause mortality				
Non-Leiden area (ref)	1	1	1	1
Leiden area	0.56 (0.44; 0.72)	0.60 (0.47; 0.78)	0.63 (0.48; 0.81)	0.69 (0.52; 0.90)
20-year death-censored graft failure				
Non-Leiden area (ref)	1	1	1	1
Leiden area	0.69 (0.48; 1.00)	0.68 (0.47; 0.99)	0.80 (0.55; 1.16)	0.79 (0.52; 1.19)

Model 1: Adjusted for recipient age and sex.

Model 2: Model 1, plus adjustment for donor age.

Model 3: Model 2, plus adjustment for dialysis vintage, dialysis modality, and transplantation era.

SUPPLEMENTARY DATA

**Supplementary Table 4. Hazard ratios (95%CI) of 5-year and 10-year mortality for type 1 diabetes after kidney transplantation compared with dialysis, matched for dialysis vintage.**

	Crude	Model 1	Model 2
5-year mortality			
Dialysis (on waiting list)	1	1	1
Dialysis (not on waiting list)	1.70 (1.50; 1.93)	1.59 (1.38; 1.83)	1.54 (1.34; 1.78)
Transplantation*	0.23 (0.18; 0.30)	0.24 (0.18; 0.31)	0.25 (0.19; 0.32)
10-year mortality			
Dialysis (on waiting list)	1	1	1
Dialysis (not on waiting list)	1.62 (1.44; 1.81)	1.50 (1.32; 1.70)	1.46 (1.29; 1.66)
Transplantation*	0.21 (0.17; 0.26)	0.22 (0.18; 0.28)	0.23 (0.18; 0.28)

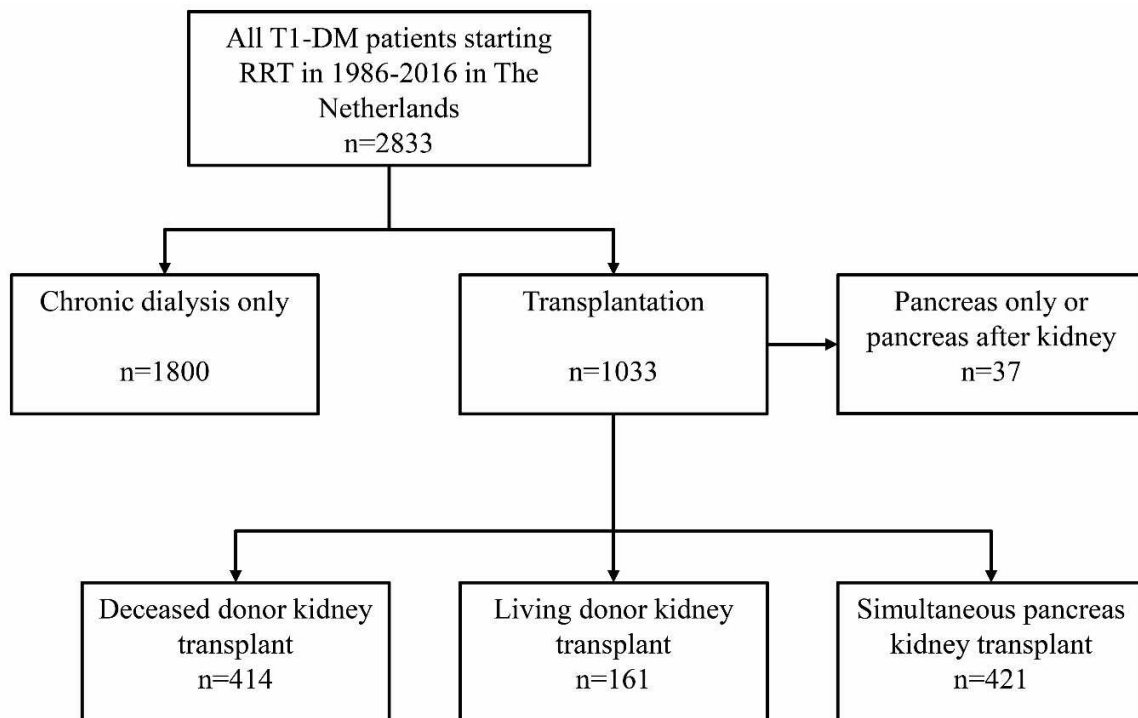
\*Transplantation included both living kidney donor transplant, or deceased donor transplant with or without simultaneous pancreas transplantation.

Model 1: Adjusted for age and sex.

Model 2: Model 1, plus adjustment for calendar time.

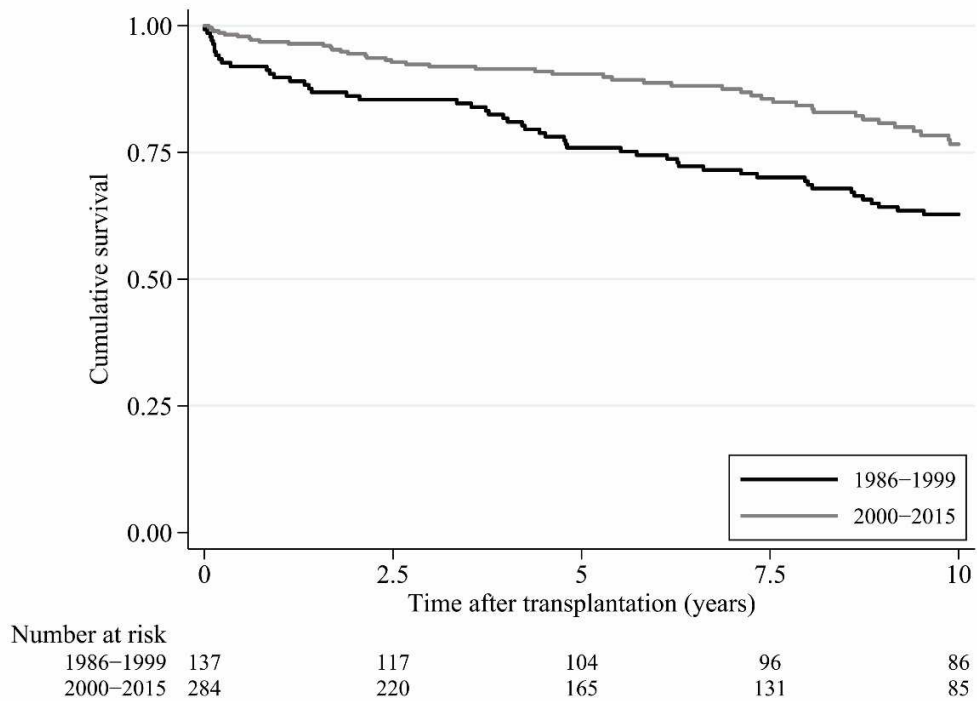
SUPPLEMENTARY DATA

**Supplementary Figure 1. Flow diagram of 2833 type 1 diabetes mellitus (T1-DM) patients with end-stage renal disease, and different types of renal replacement therapy (RRT).**



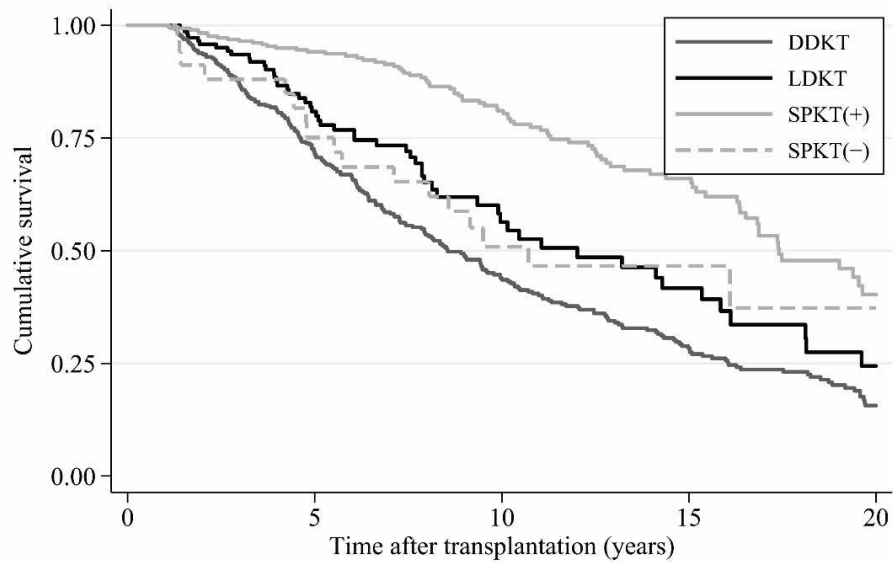
SUPPLEMENTARY DATA

**Supplementary Figure 2. Survival of simultaneous pancreas kidney transplantation (SPKT) patients transplanted in the period 1986-1999 and 2000-2015.**



SUPPLEMENTARY DATA

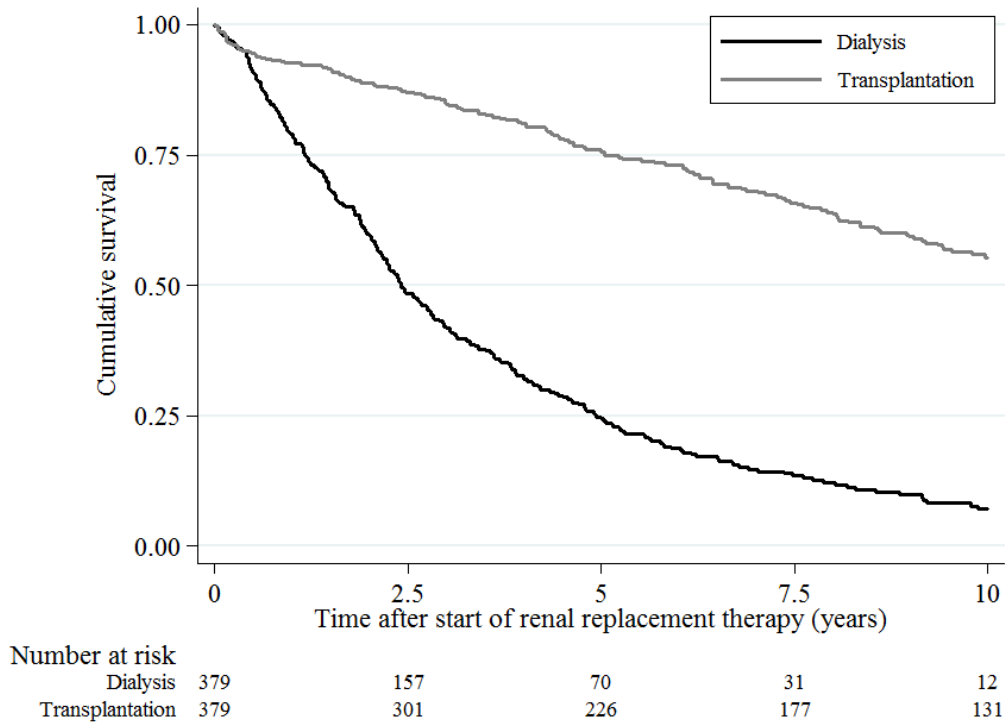
**Supplementary Figure 3. Type 1 diabetes mellitus patient survival conditional on survival of the first year after transplantation, according to transplantation type: living donor kidney transplant (LDKT), deceased donor kidney transplant (DDKT), and simultaneous pancreas kidney transplantation (SPKT). SPKT patients were divided into patients with a functioning pancreatic graft after one year, SPKT(+), and those with pancreatic graft failure in the first year, SPKT(-). Median survival was 8.6 (7.4; 9.7) years for DDKT, 12.0 (8.0; 16.0) years for LDKT, 17.4 (15.4; 19.5) years for SPKT(+), and 10.7 (3.5; 17.9) years for SPKT(-). DDKT, deceased donor kidney transplant; LDKT, living donor kidney transplant; SPKT, simultaneous pancreas kidney transplantation.**



Number at risk						
DDKT	361	230	117	64	23	
LDKT	150	81	30	17	7	
SPKT(+)	305	217	137	67	20	
SPKT(-)	34	23	12	5	4	

SUPPLEMENTARY DATA

**Supplementary Figure 4. Patient survival after start dialysis or kidney transplantation. Each transplanted patient was matched on dialysis vintage with a chronic dialysis patient on the waiting list for transplantation. Median survival was 2.4 (2.1; 2.7) years for dialysis patients, and 11.3 (9.6; 12.9) years for transplanted patients.**





SUPPLEMENTARY DATA

**Appendix: List of Dutch Kidney Transplant Centres and representatives.**

Amsterdam (AMC): prof. dr. Frederike J. Bemelman and (VUmc) dr. Azam Nurmohamed;

Groningen (UMCG): prof. dr. Stefan P. Berger;

Leiden (LUMC): dr. Aiko P. de Vries;

Maastricht: dr. Maarten H.L. Christiaans;

Nijmegen: dr. Luuk B. Hilbrands;

Rotterdam: dr. Dennis A. Hesselink;

Utrecht (UMCU): dr. Arjan D. van Zuilen.