

Supplementary Material 1. Details regarding data collection

We collected data on patients' age and sex. Previous methods for dialysis were identified as preemptive (when dialysis history was identified for less than 3 months), hemodialysis, peritoneal dialysis, or both. Previous dialysis vintage was identified as an ordinal variable on an annual basis, and the category with the longest duration was ≥ 5 years, as the data were left-truncated in 2002.

A history of diabetes and hypertension was identified based on related medical claims or diagnostic codes. A history of desensitization included the use of rituximab or plasmapheresis before kidney transplantation (KT). The place of residence was collected and stratified as rural or urban, with the urban areas comprising the capital city and seven government-designated metropolitan cities in Korea. The total costs for insured medical services from -90 days to 5 years were collected and stratified into periods. Additionally, costs were categorized as insurance-covered and recipient-paid. Information on non-insured medical fees, including a few specific operation materials or private hospital rooms, was unidentifiable in the claims database. For reference, the median non-insured cost during admission for KT was 6,550 USD at Seoul National University Hospital.

Supplementary Table 1. Number of kidney transplantation (KT) recipients in each insurance enrollment status or economic grade identified in the claims database

Information	-1 year (baseline)	Year of KT	+1 year	+2 years	+3 years	+4 years	+5 years
Economic grades (total at baseline=14,930)							
76-100th (wealthy)	4,852 (32.5)	4,851 (32.4)	3,817 (32.6)	2,989 (32.0)	2,358 (31.0)	1,850 (30.7)	1,360 (30.1)
51-75th	3,373 (22.6)	3,357 (22.4)	2,564 (21.9)	2,095 (22.4)	1,655 (21.7)	1,313 (21.8)	1,006 (22.2)
26-50th	2,403 (16.1)	2,370 (15.8)	1,861 (15.9)	1,350 (14.4)	1,170 (15.4)	961 (15.9)	715 (15.8)
0-25th (poor)	4,302 (28.8)	4,407 (29.4)	3,468 (29.6)	2,912 (31.2)	2,431 (31.9)	1,906 (31.6)	1,441 (31.9)
Health insurance enrollment status (total at baseline=15,167)							
Employed							
Workplace-independent	4,086 (26.9)	3,940 (25.9)	2,747 (23.2)	2,593 (27.3)	2,235 (28.9)	1,854 (30.3)	1,461 (31.9)
Non-employed and non-aided							
Workplace-independent	4,210 (27.8)	4,430 (29.1)	3,633 (30.7)	2,850 (30.0)	2,268 (29.4)	1,741 (28.5)	1,283 (28.0)
Community-representative	2,848 (18.8)	2,851 (18.8)	2,267 (19.1)	1,756 (18.5)	1,401 (18.1)	1,091 (17.8)	818 (17.8)
Community-member	1,937 (12.8)	1,835 (12.1)	1,398 (11.8)	973 (10.2)	801 (10.4)	651 (10.6)	470 (10.2)
Non-employed and aided							
Aided-representative	1,760 (11.6)	1,818 (12.0)	1,547 (13.1)	1,139 (12.0)	854 (11.1)	660 (10.8)	472 (10.3)
Aided-member	326 (2.1)	324 (2.1)	258 (2.2)	204 (2.1)	163 (2.1)	122 (2.0)	82 (1.8)

Values are presented as number (%).

Supplementary Table 2. Changes in the socioeconomic status of kidney transplantation (KT) recipients from prior to KT until 5 years after KT in subgroups categorized by economic grades

Outcome variable	Beta		Adjusted beta	
	Mean (SE)	P for trend	Mean (SE) ^{a)}	P for trend
Economic grade ≥50th percentile				
Baseline to 5 yr after KT				
Economic grade ^{b)}	-0.46 (0.01)	<0.001	-0.46 (0.01)	<0.001
Employed	0.17 (0.01)	<0.001	0.17 (0.01)	<0.001
Aided group	0.71 (0.05)	<0.001	0.70 (0.05)	<0.001
Baseline to 2 yr after KT				
Economic grade ^{b)}	-0.62 (0.02)	<0.001	-0.62 (0.02)	<0.001
Employed	0.02 (0.03)	0.54	0.02 (0.03)	0.540
Aided group	6.02 (0.50)	<0.001	5.93 (0.53)	<0.001
From 2 yr to 5 yr after KT				
Economic grade ^{b)}	-0.24 (0.03)	<0.001	-0.23 (0.03)	<0.001
Employed	0.30 (0.04)	<0.001	0.30 (0.04)	<0.001
Aided group	-0.84 (0.16)	<0.001	-0.84 (0.16)	<0.001
Economic grade <50th percentile				
Baseline to 5 yr after KT				
Economic grade ^{b)}	0.38 (0.01)	<0.001	0.37 (0.01)	<0.001
Employed	0.22 (0.02)	<0.001	0.22 (0.01)	<0.001
Aided group	-0.29 (0.02)	<0.001	-0.28 (0.02)	<0.001
Baseline to 2 yr after KT				
Economic grade ^{b)}	0.54 (0.02)	<0.001	0.54 (0.02)	0.001
Employed	-0.18 (0.03)	<0.001	-0.18 (0.03)	0.001
Aided group	0.03 (0.04)	0.41	0.04 (0.04)	0.290
From 2 yr to 5 yr after KT				
Economic grade ^{b)}	0.25 (0.03)	<0.001	0.24 (0.03)	<0.001
Employed	0.59 (0.05)	<0.001	0.59 (0.05)	<0.001
Aided group	-1.48 (0.10)	<0.001	-1.45 (0.10)	<0.001

P for trend values were calculated by regressing the time variable to the outcome variable in a generalized linear mixed model.

SE, standard error.

^{a)}The multivariable analysis was adjusted for age, sex, diabetes, hypertension, previous dialysis types, dialysis vintage, and whether the KT case was desensitized.

^{b)}One grade per 5 percentiles, and the total number of grades was 21 (aided insurance group as grade 0).

Supplementary Table 3. Characteristics of the 7,529 kidney transplantation (KT) recipients who were not censored or did not experience graft failure within 3 years after KT and also had complete follow-up information for the economic status

Variable	Value
Age (yr), median (interquartile range)	46 (36–53)
Sex	
Male	4,394 (58.4)
Female	3,135 (41.6)
Prior dialysis types	
Preemptive	2,979 (39.6)
Hemodialysis	2,763 (36.7)
Peritoneal dialysis	1,483 (19.7)
Both	304 (4.0)
Dialysis duration	
Preemptive (none or <3 mo)	2,979 (39.6)
≥3 mo & <1 yr	1,281 (17.0)
≥1 yr & <3 yr	1,421 (18.9)
≥3 yr & <5 yr	924 (12.3)
≥5 yr	924 (12.3)
Pretransplant diabetes	2,076 (27.6)
Pretransplant hypertension	6,482 (86.1)
Desensitization	1,016 (13.5)
Plasmapheresis	209 (2.8)
Rituximab	205 (2.7)
Both	602 (8.0)
Income grade (one grade per 5 percentiles, 0 to 20), median (interquartile range)	12 (4–17)
Income quartile	
<25th	2,140 (28.4)
26–50th	1,183 (15.7)
51–75th	1,709 (22.7)
76–100th	2,497 (33.2)
Insurance aid	1,063 (14.1)
Employed	3,914 (52.0)
Place of residence	
Rural	2,118 (28.1)
Urban	5,411 (71.9)

Values are presented as median (interquartile range) or number (%).