

**eTable 1.** The association between the day of organ procurement and the day of organ transplantation, 2000 - 2014

|                            |               | Day organ procured for transplant |               |               |               |               |               |              |                   |
|----------------------------|---------------|-----------------------------------|---------------|---------------|---------------|---------------|---------------|--------------|-------------------|
| N (Col %)                  |               | Sun                               | Mon           | Tues          | Wed           | Thurs         | Fri           | Sat          | p-value           |
| Day organ was transplanted | Sun           | 7663 (36.9)                       | ----          | ----          | ----          | 32 (0.2)      | 977 (4.7)     | 11719 (56.7) | <b>&lt;0.0001</b> |
|                            | Mon           | 12032 (58.0)                      | 7677 (36.8)   | ----          | ----          | 1 (0.0)       | 36 (0.2)      | 1111 (5.4)   |                   |
|                            | Tues          | 1041 (5.0)                        | 12196 (58.4)  | 8814 (38.3)   | ----          | 0             | 0             | 28 (0.1)     |                   |
|                            | Wed           | 28 (0.1)                          | 977 (4.7)     | 13091 (56.9)  | 8756 (38.4)   | 0             | 0             | 0            |                   |
|                            | Thurs         | 0                                 | 18 (0.1)      | 1097 (4.8)    | 13014 (57.1)  | 8553 (39.2)   | 0             | 0            |                   |
|                            | Fri           | 0                                 | 0             | 24 (0.1)      | 1004 (4.4)    | 12275 (56.3)  | 8177 (39.2)   | 0            |                   |
|                            | Sat           | 0                                 | 0             | 0             | 30 (0.1)      | 938 (4.3)     | 11687 (56.0)  | 7813 (37.8)  |                   |
| Total <sup>1</sup> (Row %) | 20,764 (13.8) | 20,868 (13.8)                     | 23,026 (15.3) | 22,804 (15.1) | 21,799 (14.5) | 20,877 (13.8) | 20,671 (13.7) |              |                   |

<sup>1</sup>Total may not add to 150,822 due to missing variable

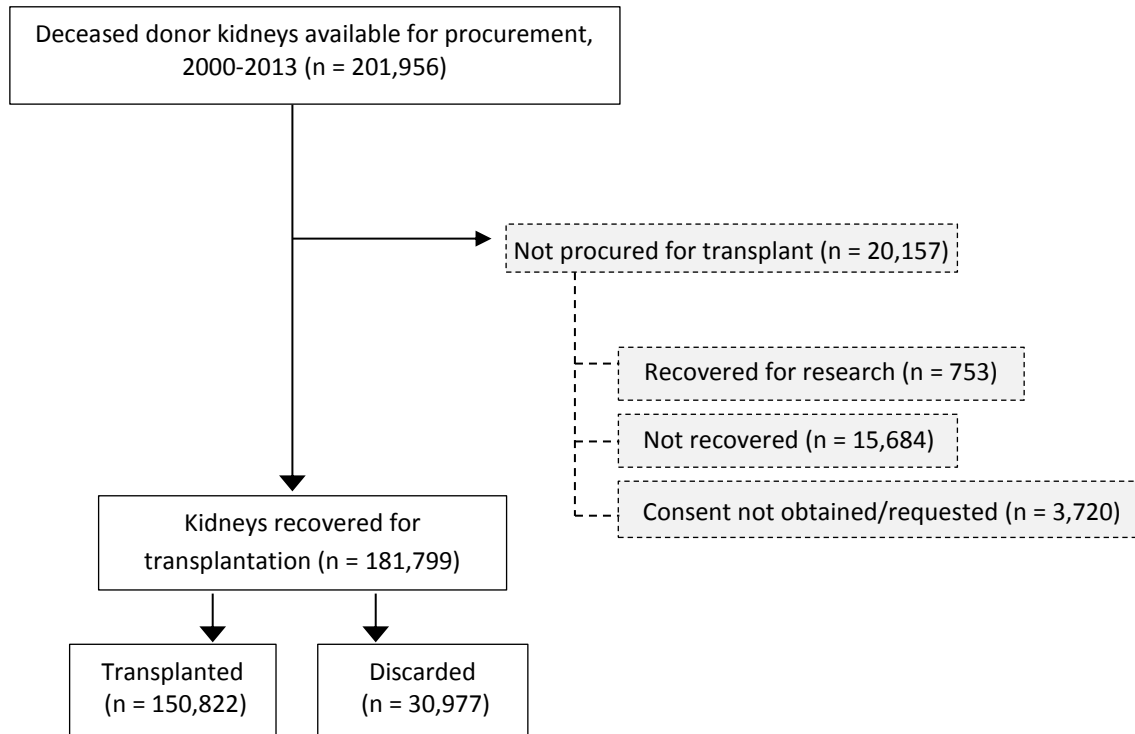
**eTable 2.** Mean cold ischemia time (CIT) of transplanted deceased donor kidneys in the U.S., stratified by the day of organ procurement and the day of transplantation, 2000 - 2013

| Day Procured | Day Transplanted | CIT (hours) |
|--------------|------------------|-------------|
| <b>Sun</b>   | Sun              | 11.7 ± 5.6  |
|              | Mon              | 19.9 ± 7.8  |
| <b>Mon</b>   | Mon              | 12.2 ± 5.5  |
|              | Tues             | 19.6 ± 7.8  |
| <b>Tues</b>  | Tues             | 12.2 ± 5.2  |
|              | Wed              | 19.7 ± 7.9  |
| <b>Wed</b>   | Wed              | 12.2 ± 5.4  |
|              | Thurs            | 19.6 ± 7.7  |
| <b>Thurs</b> | Thurs            | 12.1 ± 5.4  |
|              | Fri              | 19.6 ± 7.7  |
| <b>Fri</b>   | Fri              | 12.3 ± 5.6  |
|              | Sat              | 19.3 ± 7.6  |
| <b>Sat</b>   | Sat              | 11.7 ± 5.4  |
|              | Sun              | 19.7 ± 7.7  |

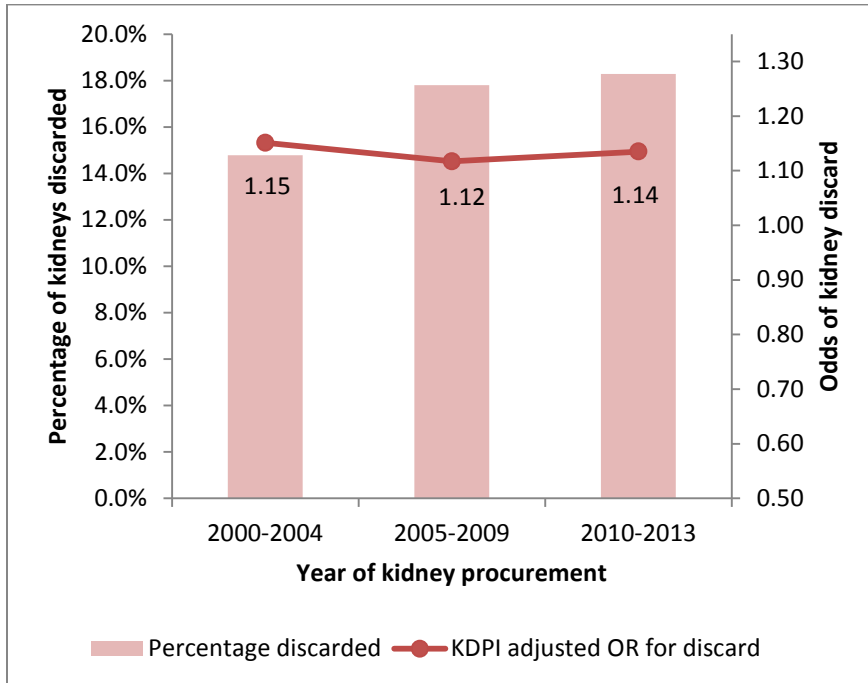
**eTable 3.** Odds of kidney discard after procurement by day of the week

| Parameters                   | Crude OR (95% CI)     | <i>p</i>          | Adjusted OR (95% CI)       | <i>p</i>          |
|------------------------------|-----------------------|-------------------|----------------------------|-------------------|
| <b>Day of procurement</b>    |                       |                   |                            |                   |
| <i>Monday</i>                | Ref                   |                   | Ref                        |                   |
| <i>Tuesday</i>               | 1.087 (1.037-1.140)   | <b>0.0005</b>     | 1.041 (0.986-1.099)        | <i>0.1431</i>     |
| <i>Wednesday</i>             | 1.134 (1.082-1.188)   | <b>&lt;0.0001</b> | 1.061 (1.006-1.120)        | <b>0.0297</b>     |
| <i>Thursday</i>              | 1.169 (1.115-1.226)   | <b>&lt;0.0001</b> | 1.072 (1.016-1.132)        | <b>0.0114</b>     |
| <i>Friday</i>                | 1.289 (1.230-1.351)   | <b>&lt;0.0001</b> | 1.210 (1.146-1.276)        | <b>&lt;0.0001</b> |
| <i>Saturday</i>              | 1.251 (1.194-1.312)   | <b>&lt;0.0001</b> | 1.220 (1.155-1.288)        | <b>&lt;0.0001</b> |
| <i>Sunday</i>                | 1.079 (1.028-1.133)   | <b>0.0020</b>     | 1.091 (1.032-1.153)        | <b>0.0022</b>     |
| <b>Donor characteristics</b> |                       |                   |                            |                   |
| Age (years)                  | 1.066 (1.065 – 1.067) | <b>&lt;0.0001</b> | <b>1.064</b> (1.063-1.065) | <b>&lt;0.0001</b> |
| Height (cm)                  | 0.997 (0.997 – 0.998) | <b>&lt;0.0001</b> | <b>0.971</b> (0.970-0.972) | <b>&lt;0.0001</b> |
| Weight (kg)                  | 1.007 (1.007 – 1.008) | <b>&lt;0.0001</b> | <b>0.999</b> (0.998-1.000) | <b>0.0071</b>     |
| Black                        | 1.262 (1.220 – 1.304) | <b>&lt;0.0001</b> | <b>1.201</b> (1.154-1.250) | <b>&lt;0.0001</b> |
| History of hypertension      | 4.800 (4.678 – 4.925) | <b>&lt;0.0001</b> | <b>1.853</b> (1.794-1.941) | <b>&lt;0.0001</b> |
| History of diabetes          | 4.326 (4.176 – 4.482) | <b>&lt;0.0001</b> | <b>2.030</b> (1.949-2.116) | <b>&lt;0.0001</b> |
| Cerebrovascular COD          | 2.913 (2.841– 2.987)  | <b>&lt;0.0001</b> | <b>1.119</b> (1.083-1.155) | <b>&lt;0.0001</b> |
| Serum Creatinine (mg/dl)     | 1.457 (1.436 – 1.478) | <b>&lt;0.0001</b> | <b>1.721</b> (1.692-1.751) | <b>&lt;0.0001</b> |
| HCV                          | 5.113 (4.863 – 5.376) | <b>&lt;0.0001</b> | <b>7.451</b> (7.033-7.894) | <b>&lt;0.0001</b> |
| DCD                          | 1.298 (1.249– 1.350)  | <b>&lt;0.0001</b> | <b>2.124</b> (2.030-2.222) | <b>&lt;0.0001</b> |

**eFigure 1.** Flow chart of study population selection. The gray boxes show the subjects excluded from the study.

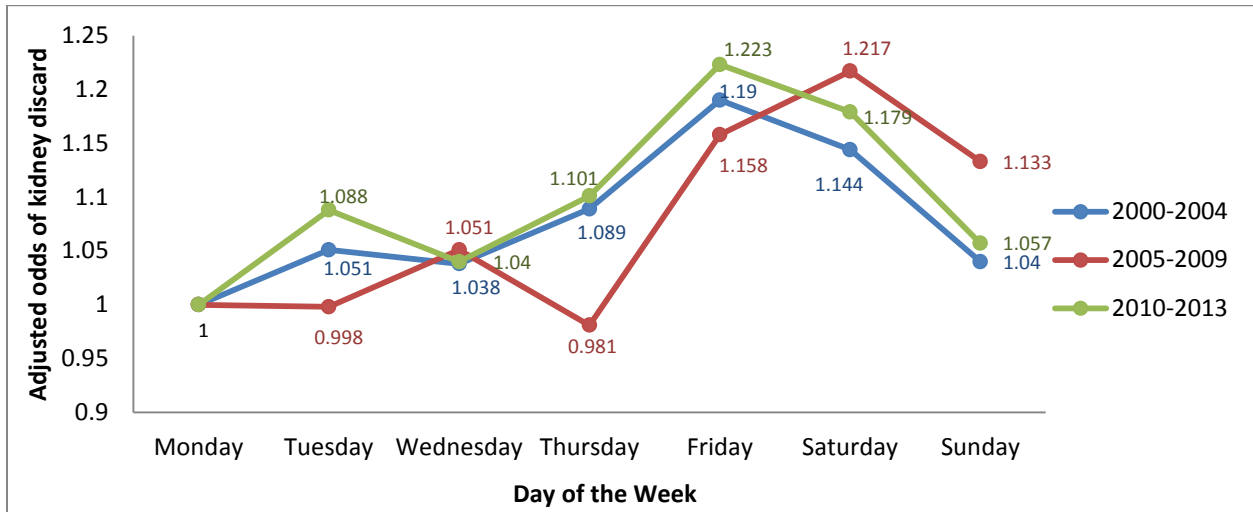


eFigure 2. The percentage and odds of discard among deceased donor kidneys procured for transplant in the U.S., stratified by procurement era, 2000-2013



| Parameters                              | KDPI adjusted OR (95% CI) | <i>p</i> |
|---|---------------------------|----------|
| <b><i>Era of kidney procurement</i></b> |                           |          |
| 2000-2004                               | 1.151 (1.087-1.219)       | <0.0001  |
| 2005-2009                               | 1.117 (1.065-1.172)       | <0.0001  |
| 2010-2013                               | 1.135 (1.049-1.051)       | <0.0001  |

eFigure 3. The KDPI adjusted odds of discard among deceased donor kidneys procured for transplant in the U.S. over the course of a calendar week, stratified by procurement era, 2000-2013



|           | 2000-2004 | 95% CI      | 2005-2009 | 95% CI      | 2010-2013 | 95% CI      |
|-----------|-----------|-------------|-----------|-------------|-----------|-------------|
| Monday    | Ref       | Ref         | Ref       | Ref         | Ref       | Ref         |
| Tuesday   | 0.998     | 0.902-1.104 | 1.051     | 0.965-1.144 | 1.088     | 0.993-1.192 |
| Wednesday | 1.051     | 0.951-1.161 | 1.038     | 0.954-1.129 | 1.04      | 0.950-1.139 |
| Thursday  | 0.981     | 0.887-1.086 | 1.089     | 1.000-1.185 | 1.101     | 1.005-1.205 |
| Friday    | 1.158     | 1.047-1.280 | 1.19      | 1.094-1.294 | 1.223     | 1.117-1.339 |
| Saturday  | 1.217     | 1.101-1.345 | 1.144     | 1.050-1.245 | 1.179     | 1.076-1.292 |
| Sunday    | 1.133     | 1.023-1.254 | 1.04      | 0.953-1.136 | 1.057     | 0.962-1.161 |
| KDPI      | 1.050     | 1.049-1.051 | 1.052     | 1.051-1.053 | 1.050     | 1.049-1.051 |