**Supplementary Material**

Table S1. Patient characteristics of cohorts created in the first quarter of each year of the study, peritoneal dialysis

Table S2. Patient characteristics of cohorts created in the first quarter of each year of the study, hemodialysis

Table S3. Model coefficient estimate for each outcome, ESA use and EPO dose

Table S4. Model coefficient estimate for each outcome, EPO admin and IV iron use

Table S5. Model coefficient estimate for each outcome, IV iron dose and IV iron administration

Table S6. Model coefficient estimate for each outcome, hemoglobin and transfusion

Figure S1. Creation of the analytic cohort. The first quarter of the study is shown for representative purposes.

Table S1. Patient characteristics of cohorts created in the first quarter of each year of the study, peritoneal dialysis

|  |  |
| --- | --- |
|  | Peritoneal Dialysis |
| Characteristics | 2007 Q1 | 2008 Q1 | 2009 Q1 | 2010 Q1 | 2011 Q1 |
| All  | 100.0 (14,958)  | 100.0 (15,166)  | 100.0 (15,043)  | 100.0 (15,303)  | 100.0 (16,523) |
| Age, years |   |   |   |   |   |
| 18-44  | 22.7 (3399)  | 22.6 (3423)  | 22.4 (3363)  | 22.0 (3373)  | 21.7 (3580) |
| 45-64  | 41.7 (6239)  | 42.2 (6401)  | 42.8 (6432)  | 42.9 (6558)  | 42.2 (6980) |
| 65-74  | 21.0 (3143)  | 20.8 (3150)  | 20.8 (3136)  | 20.7 (3170)  | 21.1 (3479) |
| ≥ 75  | 14.6 (2177)  | 14.5 (2192)  | 14.0 (2112)  | 14.4 (2202)  | 15.0 (2484) |
| Sex  |   |   |   |   |   |
| Men  | 51.8 (7753)  | 51.1 (7747)  | 51.4 (7738)  | 51.5 (7888)  | 51.8 (8556) |
| Women | 48.2 (7205)  | 48.9 (7419)  | 48.6 (7305)  | 48.5 (7415)  | 48.2 (7967) |
| Race  |   |   |   |   |   |
| White  | 66.0 (9875)  | 66.3 (10,060)  | 66.1 (9948)  | 65.9 (10,083)  | 65.9 (10,888) |
| Black  | 26.4 (3943)  | 26.2 (3981)  | 26.5 (3986)  | 26.5 (4058)  | 26.6 (4403) |
| Other  | 7.6 (1140)  | 7.4 (1125)  | 7.4 (1109)  | 7.6 (1162)  | 7.5 (1232) |
| Primary cause of ESRD  |   |   |   |   |   |
| Diabetes  | 32.8 (4904)  | 33.2 (5028)  | 32.5 (4891)  | 32.7 (4998)  | 32.5 (5362) |
| Hypertension  | 26.9 (4026)  | 27.0 (4097)  | 26.9 (4046)  | 27.0 (4125)  | 27.5 (4551) |
| Glomerulonephritis  | 18.3 (2734)  | 17.9 (2708)  | 18.4 (2773)  | 17.7 (2712)  | 17.2 (2841) |
| Other cause  | 22.0 (3294)  | 22.0 (3333)  | 22.2 (3333)  | 22.7 (3468)  | 22.8 (3769) |
| Dialysis duration, years  |   |   |   |   |   |
| < 1  | 16.7 (2503)  | 15.2 (2312)  | 15.4 (2323)  | 15.8 (2416)  | 17.1 (2822) |
| 1-< 3  | 36.3 (5436)  | 36.2 (5484)  | 34.2 (5140)  | 33.8 (5167)  | 34.1 (5637) |
| 3-< 5  | 22.0 (3286)  | 22.9 (3475)  | 24.0 (3607)  | 23.6 (3607)  | 22.2 (3669) |
| ≥ 5  | 25.0 (3733)  | 25.7 (3895)  | 26.4 (3973)  | 26.9 (4113)  | 26.6 (4395) |
| Comorbidity  |   |   |   |   |   |
| ASHD  | 20.0 (2998)  | 20.4 (3096)  | 20.7 (3107)  | 20.6 (3147)  | 21.2 (3495) |
| CHF  | 14.2 (2131)  | 14.2 (2146)  | 13.8 (2081)  | 13.8 (2115)  | 14.4 (2375) |
| CVA/TIA  | 6.4 (958)  | 6.4 (966)  | 6.9 (1033)  | 6.6 (1008)  | 7.1 (1177) |
| PVD  | 13.5 (2019)  | 13.4 (2035)  | 13.9 (2088)  | 13.9 (2130)  | 14.3 (2366) |
| Other cardiac disease  | 13.8 (2059)  | 13.4 (2028)  | 14.8 (2227)  | 14.3 (2185)  | 15.2 (2509) |
| COPD  | 7.6 (1144)  | 7.1 (1079)  | 7.8 (1172)  | 7.6 (1169)  | 8.3 (1364) |
| GI bleeding  | 3.3 (496)  | 3.5 (524)  | 3.5 (519)  | 3.6 (554)  | 3.5 (572) |
| Liver Disease  | 5.0 (746)  | 4.7 (715)  | 5.1 (774)  | 4.7 (724)  | 5.5 (906) |
| Dysrhythmia  | 12.8 (1921)  | 12.6 (1912)  | 13.2 (1986)  | 13.1 (2006)  | 14.5 (2389) |
| Cancer  | 4.8 (719)  | 5.0 (765)  | 5.4 (808)  | 5.6 (864)  | 5.8 (961) |
| Diabetes  | 42.2 (6316)  | 43.3 (6562)  | 43.6 (6556)  | 43.6 (6673)  | 45.5 (7514) |

*Note:* Values are % (*n*).

ASHD, atherosclerotic heart disease; CHF, congestive heart failure; COPD, chronic obstructive pulmonary disease; CVA/TIA, cerebrovascular accident/transient ischemic attack; ESRD, end stage renal disease; GI, gastrointestinal; PVD, peripheral vascular disease.

Table S2. Patient characteristics of cohorts created in the first quarter of each year of the study, hemodialysis

|  |  |
| --- | --- |
|  | Hemodialysis |
| Characteristics | 2007 Q1 | 2008 Q1 | 2009 Q1 | 2010 Q1 | 2011 Q1 |
| All  | 100.0 (221.866)  | 100.0 (226,907)  | 100.0 (233,004)  | 100.0 (237,649)  | 100.0 (246,530) |
| Age, years |   |   |   |   |   |
| 18-44  | 13.2 (29.384)  | 13.2 (29,982)  | 13.1 (30,502)  | 12.9 (30,760)  | 12.7 (31,374) |
| 45-64  | 38.5 (85.506)  | 39.1 (88,820)  | 39.6 (92,327)  | 40.2 (95,629)  | 40.7 (100,312) |
| 65-74  | 24.5 (54,379)  | 24.3 (55,174)  | 24.2 (56,457)  | 24.0 (56,986)  | 23.9 (59,033) |
| ≥ 75  | 23.7 (52,597)  | 23.3 (52,931)  | 23.1 (53,718)  | 22.8 (54,274)  | 22.6 (55,811) |
| Sex  |   |   |   |   |   |
| Men  | 54.5 (12,0908)  | 54.9 (124,534)  | 55.0 (128,246)  | 55.2 (131,072)  | 55.3 (136,429) |
| Women | 45.5 (10,0958)  | 45.1 (102,373)  | 45.0 (104,758)  | 44.8 (106,577)  | 44.7 (110,101) |
| Race  |   |   |   |   |   |
| White  | 54.1 (119,939)  | 54.1 (122,830)  | 54.2 (126,373)  | 54.3 (129,142)  | 53.9 (132,910) |
| Black  | 40.0 (88,782)  | 39.9 (90,523)  | 39.8 (92,671)  | 39.6 (94,032)  | 39.9 (98,301) |
| Other  | 5.9 (13,145)  | 6.0 (13,554)  | 6.0 (13,960)  | 6.1 (14,475)  | 6.2 (15,319) |
| Primary cause of ESRD  |   |   |   |   |   |
| Diabetes  | 44.0 (97,529)  | 44.1 (100,143)  | 44.3 (103,259)  | 44.5 (105,671)  | 44.6 (110,038) |
| Hypertension  | 29.3 (65,066)  | 29.2 (66,341)  | 29.2 (67,937)  | 29.2 (69,423)  | 29.4 (72,511) |
| Glomerulonephritis  | 10.6 (23,418)  | 10.3 (23,371)  | 10.0 (23,416)  | 9.8 (23,276)  | 9.5 (23,422) |
| Other cause  | 16.2 (35,853)  | 16.3 (37,052)  | 16.5 (38,392)  | 16.5 (39,279)  | 16.5 (40,559) |
| Dialysis duration, years  |   |   |   |   |   |
| < 1  | 16.1 (35,647)  | 15.2 (34,524)  | 14.7 (34,280)  | 14.4 (34,324)  | 13.9 (34,150) |
| 1-< 3  | 31.3 (69,518)  | 31.2 (70,725)  | 30.4 (70,846)  | 29.5 (70,121)  | 29.3 (72,268) |
| 3-< 5  | 21.7 (48,132)  | 21.9 (49,605)  | 22.0 (51,376)  | 22.4 (53,191)  | 22.2 (54,702) |
| ≥ 5  | 30.9 (68,569)  | 31.8 (72,053)  | 32.8 (76,502)  | 33.7 (80,013)  | 34.6 (85,410) |
| Comorbidity  |   |   |   |   |   |
| ASHD  | 29.4 (65,304)  | 29.9 (67,878)  | 30.8 (71,654)  | 30.6 (72,618)  | 31.1 (76,690) |
| CHF  | 27.2 (60,387)  | 27.1 (61,519)  | 27.8 (64,703)  | 27.9 (66,310)  | 28.8 (70,888) |
| CVA/TIA  | 11.4 (25,355)  | 11.8 (26,682)  | 12.2 (28,499)  | 12.3 (29,185)  | 12.5 (30,736) |
| PVD  | 26.3 (58,281)  | 26.3 (59,653)  | 27.3 (63,512)  | 27.2 (64,729)  | 27.9 (68,893) |
| Other cardiac disease  | 22.4 (49,663)  | 21.9 (49,596)  | 22.3 (51,926)  | 22.2 (52,686)  | 22.7 (55,951) |
| COPD  | 13.2 (2,262)  | 13.1 (29,721)  | 13.9 (32,321)  | 14.2 (33,654)  | 15.2 (37,498) |
| GI bleeding  | 5.2 (11,618)  | 5.1 (11,499)  | 5.1 (11,870)  | 5.0 (11,888)  | 5.1 (12,539) |
| Liver Disease  | 7.2 (15,877)  | 7.3 (16,587)  | 7.3 (16,961)  | 6.5 (15,527)  | 7.5 (18,541) |
| Dysrhythmia  | 20.5 (45,592)  | 20.9 (47,413)  | 21.3 (49,637)  | 21.6 (51,376)  | 22.8 (56,129) |
| Cancer  | 5.8 (12,968)  | 5.8 (13,156)  | 6.1 (14,274)  | 6.1 (14,596)  | 6.5 (15,918) |
| Diabetes  | 57.3 (127,024)  | 58.4 (13,2578)  | 59.5 (138,680)  | 59.8 (142,158)  | 61.7 (152,018) |

Note: Values are % (*n*).

ASHD, atherosclerotic heart disease; CHF, congestive heart failure; COPD, chronic obstructive pulmonary disease; CVA/TIA, cerebrovascular accident/transient ischemic attack; ESRD, end stage renal disease; GI, gastrointestinal; PVD, peripheral vascular disease.

Table S3. Model coefficient estimate for each outcome, ESA use and EPO dose

|  |  |  |
| --- | --- | --- |
|  | ESA Use | EPO Dose |
|  | PD | HD | PD | HD |
| Year, Quarter | Coefficient | *P* Value | Coefficient | *P* Value | Coefficient | *P* Value | Coefficient | *P* Value |
| 2007 |  |  |  |  |  |  |  |  |
| Q2 | -0.0960 | 0.0003 | -0.0392 | 0.0003 | -0.0274 | 0.0315 | -0.0450 | < 0.0001 |
| Q3 | -0.0743 | 0.0052 | -0.0662 | < 0.0001 | -0.0529 | < 0.0001 | -0.0575 | < 0.0001 |
| Q4 | -0.1275 | < 0.0001 | -0.0952 | < 0.0001 | -0.0688 | < 0.0001 | -0.0535 | < 0.0001 |
| 2008 |  |  |  |  |  |  |  |  |
| Q1 | -0.0727 | 0.0061 | 0.0550 | < 0.0001 | -0.2909 | < 0.0001 | -0.2453 | < 0.0001 |
| Q2 | 0.1797 | < 0.0001 | 0.0667 | < 0.0001 | -0.1721 | < 0.0001 | -0.2152 | < 0.0001 |
| Q3 | 0.2261 | < 0.0001 | 0.0372 | 0.0006 | -0.1374 | < 0.0001 | -0.2253 | < 0.0001 |
| Q4 | 0.2118 | < 0.0001 | -0.0286 | 0.0072 | -0.1501 | < 0.0001 | -0.2284 | < 0.0001 |
| 2009 |  |  |  |  |  |  |  |  |
| Q1 | 0.2147 | < 0.0001 | -0.1082 | < 0.0001 | -0.1561 | < 0.0001 | -0.2534 | < 0.0001 |
| Q2 | 0.2371 | < 0.0001 | -0.0756 | < 0.0001 | -0.1501 | < 0.0001 | -0.2026 | < 0.0001 |
| Q3 | 0.2200 | < 0.0001 | -0.0669 | < 0.0001 | -0.1438 | < 0.0001 | -0.1986 | < 0.0001 |
| Q4 | 0.2451 | < 0.0001 | -0.0832 | < 0.0001 | -0.1414 | < 0.0001 | -0.2116 | < 0.0001 |
| 2010 |  |  |  |  |  |  |  |  |
| Q1 | 0.3100 | < 0.0001 | 0.0833 | < 0.0001 | -0.1399 | < 0.0001 | -0.2158 | < 0.0001 |
| Q2 | 0.3036 | < 0.0001 | 0.0369 | 0.0006 | -0.1532 | < 0.0001 | -0.2304 | < 0.0001 |
| Q3 | 0.2475 | < 0.0001 | -0.0028 | 0.7936 | -0.1769 | < 0.0001 | -0.2476 | < 0.0001 |
| Q4 | 0.1692 | < 0.0001 | -0.0636 | < 0.0001 | -0.2074 | < 0.0001 | -0.3121 | < 0.0001 |
| 2011 |  |  |  |  |  |  |  |  |
| Q1 | 0.0952 | 0.0003 | -0.1424 | < 0.0001 | -0.2741 | < 0.0001 | -0.3572 | < 0.0001 |
| Q2 | 0.0892 | 0.0007 | -0.1580 | < 0.0001 | -0.2827 | < 0.0001 | -0.3746 | < 0.0001 |
| Q3 | 0.0005 | 0.9831 | -0.2810 | < 0.0001 | -0.3562 | < 0.0001 | -0.4746 | < 0.0001 |
| Q4 | -0.1773 | < 0.0001 | -0.4844 | < 0.0001 | -0.3972 | < 0.0001 | -0.5384 | < 0.0001 |

*Note:* Models were adjusted for age, sex, race, dialysis duration, and primary cause of ESRD. Quarter 1 of 2007 cohort is the referent level for model outcomes including ESA use and EPO dose.

EPO, epoietin-α; ESA, erythropoiesis stimulating agents; HD, hemodialysis; PD, peritoneal dialysis.

Table S4. Model coefficient estimate for each outcome, EPO administrations and IV iron use

|  |  |  |
| --- | --- | --- |
|  | EPO Administration | IV Iron Use |
|  | PD | HD | PD | HD |
| Year, Quarter | Coefficient | *P* Value | Coefficient | *P* Value | Coefficient | *P* Value | Coefficient | *P* Value |
| 2007 |  |  |  |  |  |  |  |  |
| Q2 |   |   |   |   | -0.0044 | 0.8784 | -0.0419 | < 0.0001 |
| Q3 |   |   |   |   | 0.0329 | 0.2521 | -0.0177 | 0.0070 |
| Q4 |   |   |   |   | 0.0845 | 0.0030 | 0.0146 | 0.0263 |
| 2008 |  |  |  |  |  |  |  |  |
| Q1 |   |   |   |   | 0.1352 | < 0.0001 | 0.1209 | < 0.0001 |
| Q2 | 0.1510 | < 0.0001 | 0.0211 | < 0.0001 | 0.1752 | < 0.0001 | 0.1289 | < 0.0001 |
| Q3 | 0.2033 | < 0.0001 | 0.0131 | < 0.0001 | 0.1691 | < 0.0001 | 0.0980 | < 0.0001 |
| Q4 | 0.1941 | < 0.0001 | 0.0141 | < 0.0001 | 0.1235 | < 0.0001 | 0.0463 | < 0.0001 |
| 2009 |  |  |  |  |  |  |  |  |
| Q1 | 0.1855 | < 0.0001 | -0.0210 | < 0.0001 | 0.1885 | < 0.0001 | 0.0824 | < 0.0001 |
| Q2 | 0.1905 | < 0.0001 | 0.0104 | < 0.0001 | 0.2313 | < 0.0001 | 0.1494 | < 0.0001 |
| Q3 | 0.1913 | < 0.0001 | 0.0007 | 0.6101 | 0.2659 | < 0.0001 | 0.1504 | < 0.0001 |
| Q4 | 0.1834 | < 0.0001 | -0.0135 | < 0.0001 | 0.2298 | < 0.0001 | 0.1094 | < 0.0001 |
| 2010 |  |  |  |  |  |  |  |  |
| Q1 | 0.1671 | < 0.0001 | -0.0280 | < 0.0001 | 0.3071 | < 0.0001 | 0.1668 | < 0.0001 |
| Q2 | 0.1727 | < 0.0001 | -0.0348 | < 0.0001 | 0.3560 | < 0.0001 | 0.1416 | < 0.0001 |
| Q3 | 0.1620 | < 0.0001 | -0.0510 | < 0.0001 | 0.3599 | < 0.0001 | 0.1180 | < 0.0001 |
| Q4 | 0.1315 | < 0.0001 | -0.0993 | < 0.0001 | 0.4466 | < 0.0001 | 0.2072 | < 0.0001 |
| 2011 |  |  |  |  |  |  |  |  |
| Q1 | 0.0650 | < 0.0001 | -0.1350 | < 0.0001 | 0.6302 | < 0.0001 | 0.4464 | < 0.0001 |
| Q2 | 0.0622 | < 0.0001 | -0.1364 | < 0.0001 | 0.8091 | < 0.0001 | 0.5748 | < 0.0001 |
| Q3 | -0.0349 | 0.0003 | -0.2156 | < 0.0001 | 0.9714 | < 0.0001 | 0.4320 | < 0.0001 |
| Q4 | -0.0778 | < 0.0001 | -0.1927 | < 0.0001 | 0.8534 | < 0.0001 | 0.2260 | < 0.0001 |

*Note:* Models were adjusted for age, sex, race, dialysis duration, and primary cause of ESRD. Quarter 1 of 2007 cohort is the referent level for model outcomes including IV iron use. Quarter 1 of 2008 cohort is the referent level for model outcomes including EPO administration.

 EPO, epoietin-α; IV, intravenous; HD, hemodialysis; PD, peritoneal dialysis.

Table S5. Model coefficient estimate for each outcome, IV iron dose and IV iron administration

|  |  |  |
| --- | --- | --- |
|  | IV Iron Dose | IV Iron Administration |
|  | PD | HD | PD | HD |
| Year, Quarter | Coefficient | *P* Value | Coefficient | *P* Value | Coefficient | *P* Value | Coefficient | *P* Value |
| 2007 |  |  |  |  |  |  |  |  |
| Q2 | -0.0325 | 0.0993 | -0.0161 | < 0.0001 |   |   |   |   |
| Q3 | -0.0661 | 0.0007 | -0.0152 | < 0.0001 |   |   |   |   |
| Q4 | -0.0590 | 0.0023 | 0.0197 | < 0.0001 |   |   |   |   |
| 2008 |  |  |  |  |  |  |  |  |
| Q1 | -0.0932 | < 0.0001 | 0.0024 | 0.3255 |   |   |   |   |
| Q2 | -0.0941 | < 0.0001 | 0.0122 | < 0.0001 | 0.0251 | 0.1190 | 0.0122 | < 0.0001 |
| Q3 | -0.1426 | < 0.0001 | 0.0021 | 0.4078 | 0.0091 | 0.5716 | 0.0062 | 0.0063 |
| Q4 | -0.1314 | < 0.0001 | 0.0051 | 0.0404 | 0.0116 | 0.4740 | 0.0033 | 0.1426 |
| 2009 |  |  |  |  |  |  |  |  |
| Q1 | -0.0759 | < 0.0001 | 0.0066 | 0.0078 | 0.0507 | 0.0016 | -0.0040 | 0.0772 |
| Q2 | -0.0587 | 0.0019 | 0.0482 | < 0.0001 | 0.0463 | 0.0037 | 0.0352 | < 0.0001 |
| Q3 | -0.0784 | < 0.0001 | 0.0295 | < 0.0001 | 0.0425 | 0.0074 | 0.0150 | < 0.0001 |
| Q4 | -0.1196 | < 0.0001 | 0.0319 | < 0.0001 | -0.0166 | 0.2949 | 0.0124 | < 0.0001 |
| 2010 |  |  |  |  |  |  |  |  |
| Q1 | -0.0138 | 0.4581 | 0.0526 | < 0.0001 | -0.0108 | 0.4913 | -0.0071 | 0.0016 |
| Q2 | 0.0136 | 0.4566 | 0.0499 | < 0.0001 | -0.0127 | 0.4099 | -0.0192 | < 0.0001 |
| Q3 | -0.0198 | 0.2787 | 0.0231 | < 0.0001 | -0.0479 | 0.0018 | -0.0443 | < 0.0001 |
| Q4 | 0.0217 | 0.2259 | 0.0528 | < 0.0001 | -0.0186 | 0.2179 | -0.0118 | < 0.0001 |
| 2011 |  |  |  |  |  |  |  |  |
| Q1 | -0.0152 | 0.3843 | -0.0219 | < 0.0001 | 0.0145 | 0.3232 | 0.0299 | < 0.0001 |
| Q2 | -0.0130 | 0.4454 | -0.0222 | < 0.0001 | 0.0107 | 0.4526 | 0.1133 | < 0.0001 |
| Q3 | -0.0494 | 0.0031 | -0.0913 | < 0.0001 | -0.0109 | 0.4370 | 0.0962 | < 0.0001 |
| Q4 | -0.0871 | < 0.0001 | -0.1674 | < 0.0001 | -0.0293 | 0.0370 | 0.0387 | < 0.0001 |

*Note:* Models were adjusted for age, sex, race, dialysis duration, and primary cause of ESRD. Quarter 1 of 2007 cohort is the referent level for model outcomes including IV iron dose. Quarter of 2008 cohort is the referent level for model outcomes including IV iron administration.

IV, intravenous; HD, hemodialysis; PD, peritoneal dialysis.

Table S6. Model coefficient estimate for each outcome, hemoglobin and transfusion

|  |  |  |
| --- | --- | --- |
|  | Hemoglobin | Transfusion |
|  | PD | HD | PD | HD |
| Year, Quarter | Coefficient | *P* Value | Coefficient | *P* Value | Coefficient | *P* Value | Coefficient | *P* Value |
| 2007 |  |  |  |  |  |  |  |  |
| Q2 | -0.1286 | < 0.0001 | -0.1049 | < 0.0001 | -0.0236 | 0.5915 | -0.0350 | 0.0014 |
| Q3 | -0.1686 | < 0.0001 | -0.1907 | < 0.0001 | -0.0717 | 0.1055 | -0.0112 | 0.3022 |
| Q4 | -0.1710 | < 0.0001 | -0.1900 | < 0.0001 | -0.0911 | 0.0400 | -0.0288 | 0.0080 |
| 2008 |  |  |  |  |  |  |  |  |
| Q1 | -0.3123 | < 0.0001 | -0.4257 | < 0.0001 | 0.0644 | 0.1330 | 0.0975 | < 0.0001 |
| Q2 | -0.3402 | < 0.0001 | -0.4612 | < 0.0001 | 0.0192 | 0.6575 | 0.0339 | 0.0016 |
| Q3 | -0.3368 | < 0.0001 | -0.4421 | < 0.0001 | -0.0343 | 0.4333 | 0.0159 | 0.1379 |
| Q4 | -0.3152 | < 0.0001 | -0.4930 | < 0.0001 | 0.0495 | 0.2479 | 0.0387 | 0.0003 |
| 2009 |  |  |  |  |  |  |  |  |
| Q1 | -0.3568 | < 0.0001 | -0.5498 | < 0.0001 | 0.0189 | 0.6644 | 0.0654 | < 0.0001 |
| Q2 | -0.4317 | < 0.0001 | -0.6303 | < 0.0001 | 0.0014 | 0.9738 | 0.0053 | 0.6235 |
| Q3 | -0.4672 | < 0.0001 | -0.6123 | < 0.0001 | 0.0153 | 0.7234 | 0.0010 | 0.9239 |
| Q4 | -0.4549 | < 0.0001 | -0.6108 | < 0.0001 | 0.0046 | 0.9149 | -0.0021 | 0.8445 |
| 2010 |  |  |  |  |  |  |  |  |
| Q1 | -0.4907 | < 0.0001 | -0.6423 | < 0.0001 | 0.0389 | 0.3659 | 0.0739 | < 0.0001 |
| Q2 | -0.5288 | < 0.0001 | -0.6917 | < 0.0001 | 0.0423 | 0.3220 | 0.0355 | 0.0008 |
| Q3 | -0.5966 | < 0.0001 | -0.7441 | < 0.0001 | 0.0835 | 0.0470 | 0.0313 | 0.0030 |
| Q4 | -0.6105 | < 0.0001 | -0.7880 | < 0.0001 | 0.1509 | 0.0002 | 0.0941 | < 0.0001 |
| 2011 |  |  |  |  |  |  |  |  |
| Q1 | -0.6872 | < 0.0001 | -0.9278 | < 0.0001 | 0.2431 | < 0.0001 | 0.2464 | < 0.0001 |
| Q2 | -0.7868 | < 0.0001 | -0.9709 | < 0.0001 | 0.2282 | < 0.0001 | 0.1813 | < 0.0001 |
| Q3 | -0.8905 | < 0.0001 | -1.0309 | < 0.0001 | 0.2198 | < 0.0001 | 0.2213 | < 0.0001 |
| Q4 | -1.1373 | < 0.0001 | -1.3188 | < 0.0001 | 0.2040 | < 0.0001 | 0.2343 | < 0.0001 |

*Note:* Models were adjusted for age, sex, race, dialysis duration, and primary cause of ESRD. Quarter 1 of 2007 cohort is the referent level for model outcomes including hemoglobin and red blood cell transfusion.

HD, hemodialysis; PD, peritoneal dialysis.

Figure S1. Creation of the analytic cohort.

