

Survival among Veterans obtaining Dialysis in VA and non-VA settings

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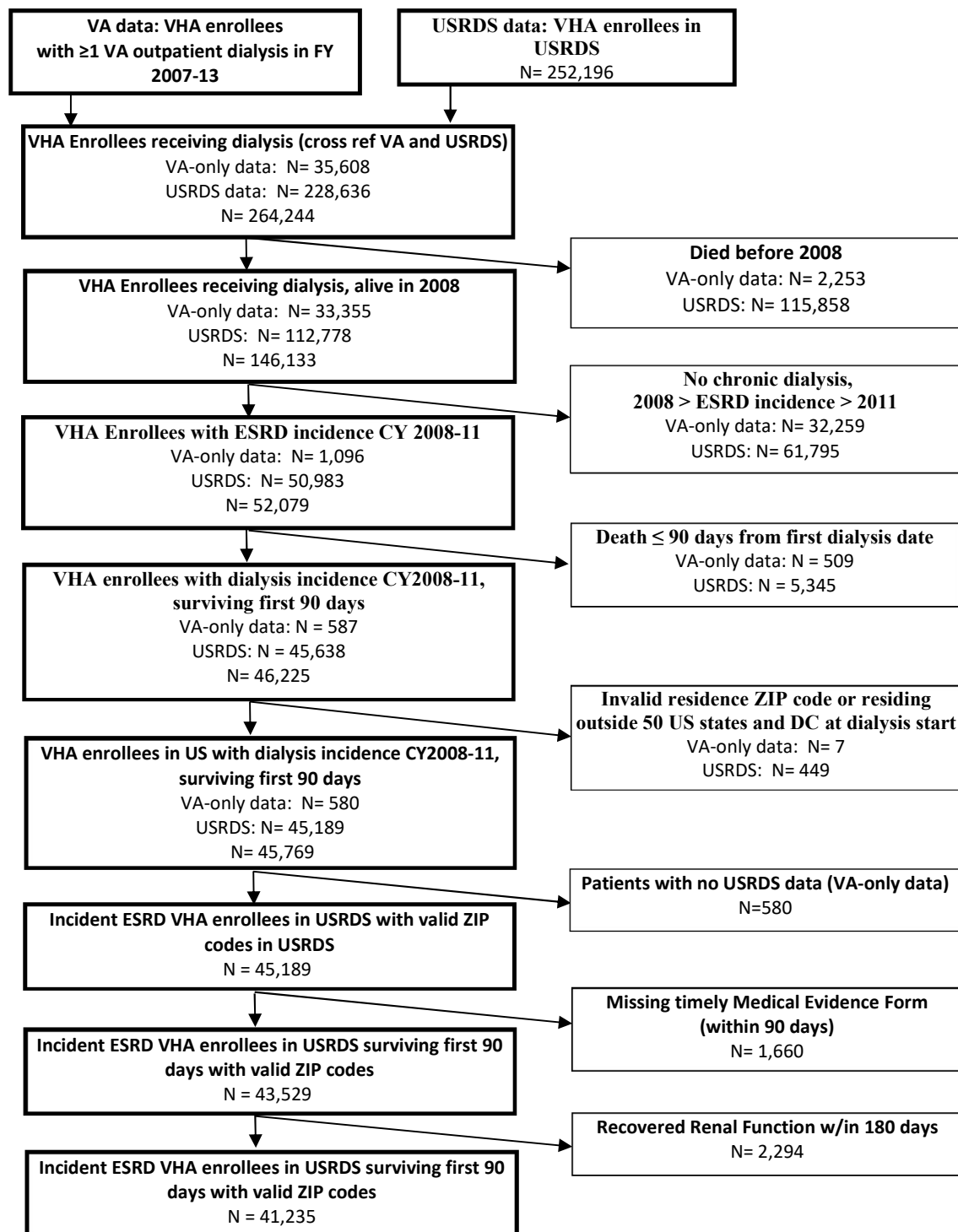
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Supplemental Materials: Table of Contents

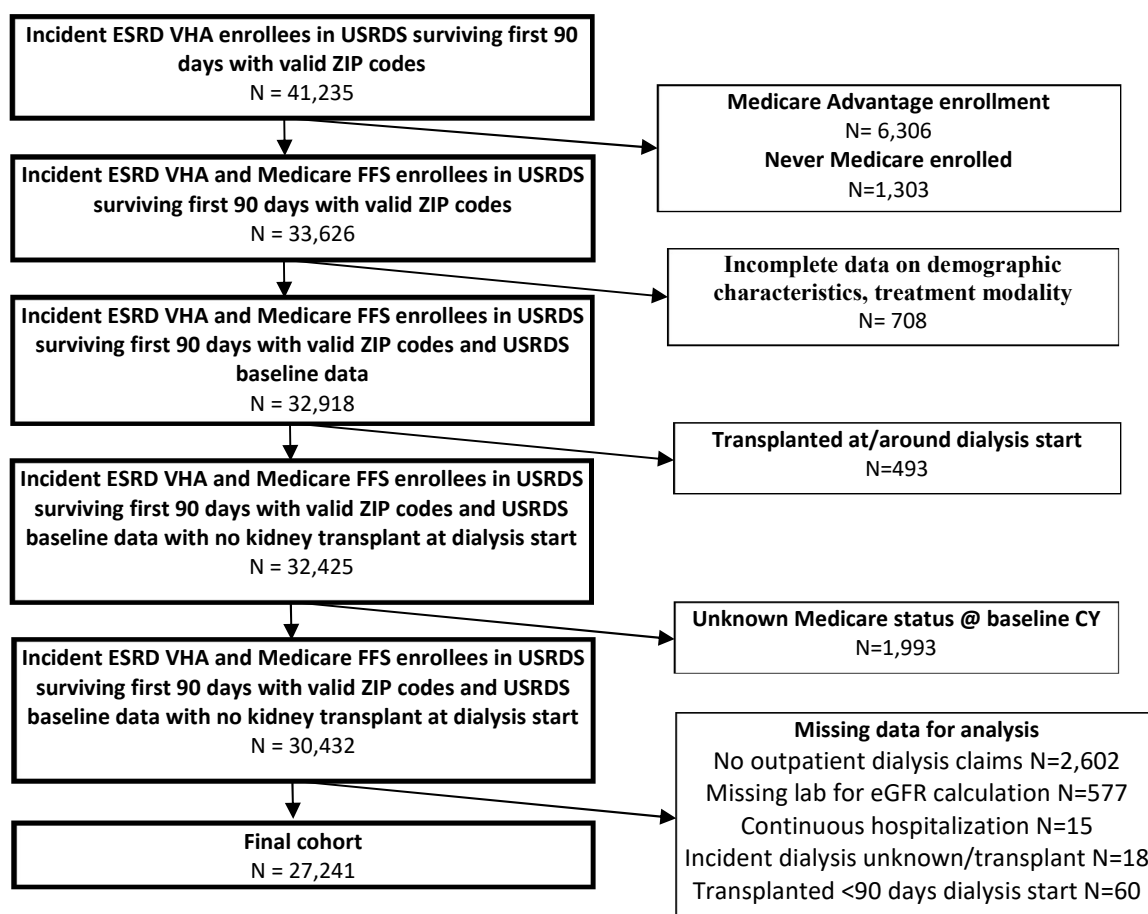
Suppl Figure 1. Sampling Frame.....	p. 2-3
Suppl Figure 2. Visualization of Veteran Dialysis Settings, by Quarter.....	p. 4
Suppl Figure 3. Visualization of Veteran Dual Dialysis Settings Sub-Cohort, by Quarter..	p. 5
Suppl Table 1. Full regression results, including sensitivity analyses.....	p. 6-8

Supplemental Figure 1. Sampling Frame



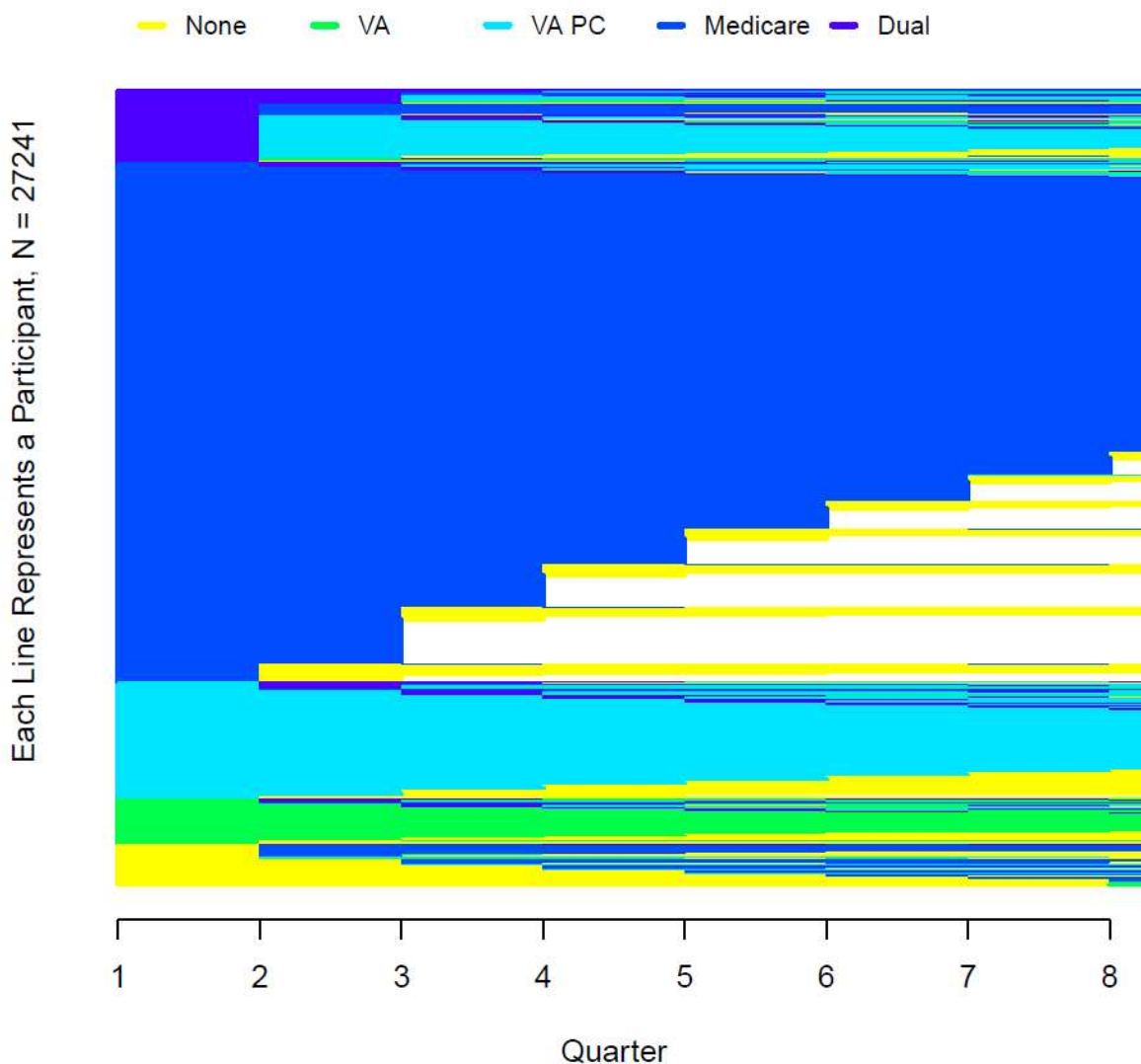
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Sampling Frame (continued)



Abbreviations: Veterans Health Administration (VHA), US Renal Data System (USRDS), end-stage renal disease (ESRD), calendar year (CY), Medicare Fee-for-Service (Medicare FFS), estimated glomerular filtration rate (eGFR)

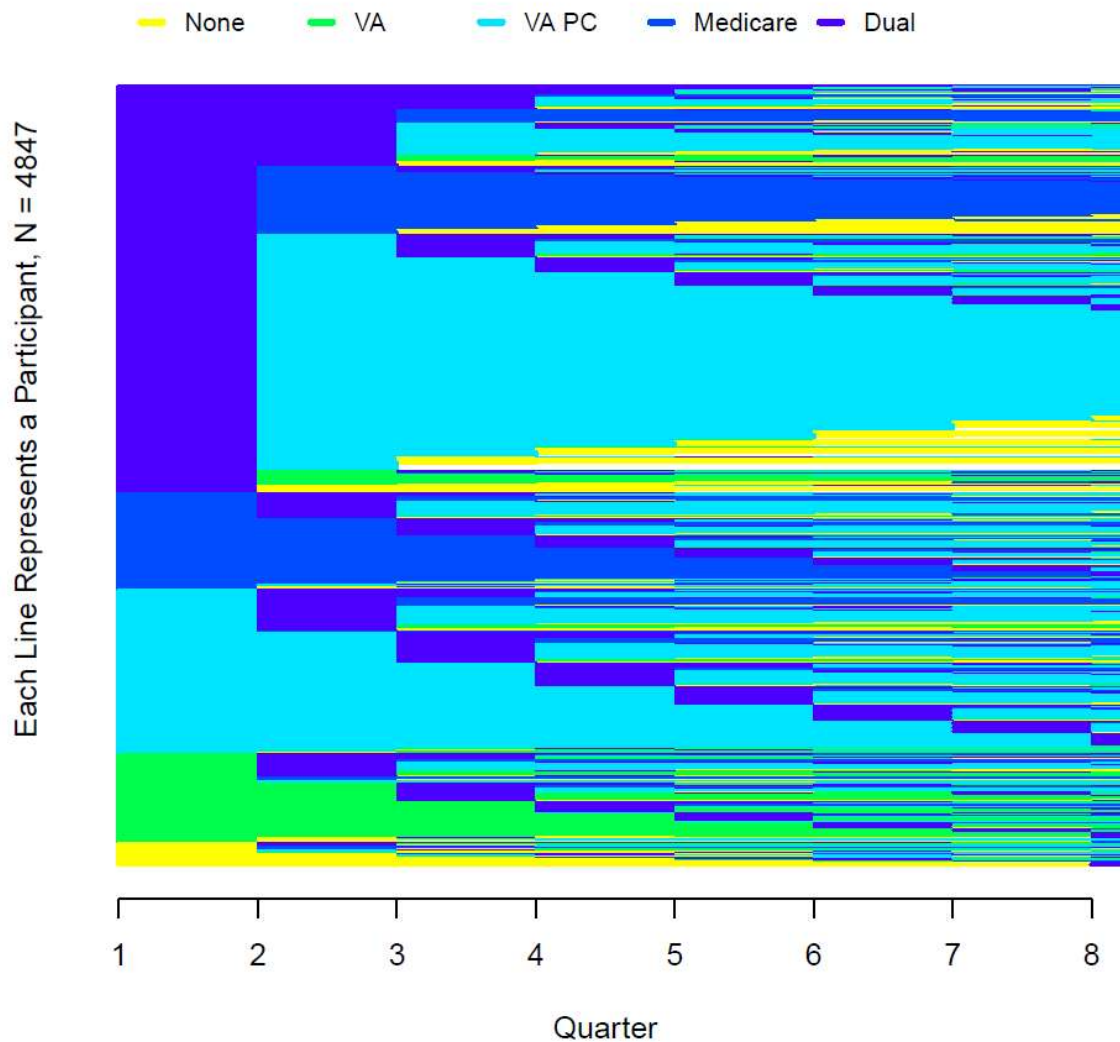
Supplemental Figure 2. Visualization of Veteran Dialysis Settings, by Quarter



Abbreviation: VA Purchased Care (VA-PC)

Note: This figure illustrates the longitudinal pattern of dialysis setting for each Veteran in the study cohort, where each line represents a Veteran. Grouped together based on dialysis setting at initiation of maintenance dialysis, the lines describe general patterns of utilization over time as well as the extent of censoring (due to kidney transplantation or death). “None” dialysis setting refers to the absence of a VA, VA-PC or Medicare outpatient dialysis encounter/claim in the quarter, which may occur when patients are hospitalized.

Supplemental Figure 3. Visualization of Veteran Dual Dialysis Settings Sub-Cohort, by Quarter



Abbreviation: VA Purchased Care (VA-PC)

Note: This figure illustrates the longitudinal pattern of dialysis setting for the subsample of Veterans in the study cohort categorized as receiving dialysis in Dual settings over the 2 years of follow-up observation period, where each line represents a Veteran. Grouped together based on dialysis setting at initiation of maintenance dialysis, the lines describe general patterns of utilization over time as well as the extent of censoring (due to kidney transplantation or death). “None” dialysis setting refers to the absence of a VA, VA-PC or Medicare outpatient dialysis encounter/claim in the quarter, which may occur when patients are hospitalized.

Distance \geq 30 miles	1.06	0.99	1.12	0.082		1.05	0.99	1.12	0.100		1.04	0.98	1.11	0.198
Has nephrology service	0.998	0.94	1.06	0.95		0.99	0.93	1.06	0.82		0.98	0.92	1.04	0.53
Has dialysis unit	0.96	0.91	1.01	0.128		0.95	0.90	1.01	0.082		0.94	0.89	0.995	0.031
Nearest VA dialysis: Distance \geq 30 mi	0.96	0.89	1.03	0.23		0.96	0.89	1.03	0.26		0.99	0.92	1.06	0.72
HD occupancy: 40-79% (ref)				0.22					0.48					0.46
80-99%	0.97	0.92	1.02	0.23		0.98	0.93	1.03	0.41		0.97	0.92	1.02	0.22
100%	0.95	0.90	1.01	0.083		0.97	0.92	1.02	0.23		0.98	0.92	1.03	0.36
<i>Insurance:</i>														
Medicaid	1.12	1.06	1.19	<0.001		1.12	1.05	1.19	<0.001		1.13	1.07	1.20	<0.001
Medicare	1.79	1.53	2.09	<0.001		1.85	1.58	2.16	<0.001		1.88	1.61	2.19	<0.001
Employer-base	0.96	0.90	1.02	0.20		0.91	0.85	0.97	0.003		0.88	0.82	0.93	<0.001
Other	0.91	0.86	0.95	<0.001		0.91	0.86	0.95	<0.001		0.92	0.88	0.96	<0.001
VA copayment required	0.94	0.89	0.98	0.004		0.94	0.90	0.99	0.014		0.95	0.91	0.99	0.022
VA reliance: 1-50% (ref)				0.063					<0.001					<0.001
>50-100%	0.97	0.90	1.04	0.35		0.92	0.85	0.99	0.025		0.90	0.84	0.96	0.002
No VA or Medicare use	0.83	0.71	0.97	0.022		0.70	0.60	0.82	<0.001		0.70	0.60	0.82	<0.001
eGFR: <10 (ref)				<0.001					<0.001					<0.001
\geq 10-15	1.10	1.05	1.15	<0.001		1.08	1.03	1.13	0.001		1.09	1.04	1.14	<0.001
\geq 15	1.27	1.21	1.35	<0.001		1.25	1.18	1.32	<0.001		1.23	1.16	1.30	<0.001
Body mass index: \leq 18.5 (ref)				<0.001					<0.001					<0.001
18.6-24	0.79	0.71	0.89	<0.001		0.78	0.70	0.88	<0.001		0.77	0.68	0.86	<0.001
25-29	0.68	0.60	0.76	<0.001		0.67	0.60	0.76	<0.001		0.66	0.58	0.74	<0.001
\geq 30	0.61	0.54	0.68	<0.001		0.60	0.54	0.68	<0.001		0.58	0.52	0.66	<0.001
Primary cause of ESRD: Diabetes (ref)				<0.001					<0.001					<0.001
Hypertension	0.98	0.92	1.03	0.38		0.98	0.92	1.03	0.37		0.98	0.93	1.04	0.49
Glomerulonephritis	0.83	0.74	0.93	<0.001		0.82	0.74	0.92	0.001		0.81	0.72	0.91	<0.001
Other/Uncertain	1.17	1.10	1.25	<0.001		1.13	1.06	1.21	<0.001		1.09	1.03	1.16	0.006
<i>Prior healthcare utilization:</i>														
Pre-ESRD nephrology	0.84	0.78	0.90	<0.001		0.88	0.82	0.95	0.001		0.91	0.84	0.98	0.008
Kidney transplant	0.88	0.74	1.05	0.151		0.91	0.77	1.08	0.28		0.94	0.79	1.11	0.47
Dialysis initiated during hospitalization	1.10	1.05	1.15	<0.001		1.10	1.05	1.15	<0.001		1.11	1.05	1.16	<0.001
Hospitalization	1.05	0.998	1.11	0.059		1.05	1.00	1.11	0.042		1.06	1.01	1.12	0.027
Institutionalization	1.17	1.11	1.24	<0.001		1.16	1.10	1.22	<0.001		1.13	1.07	1.19	<0.001
Hospice	1.51	1.26	1.82	<0.001		1.46	1.22	1.76	<0.001		1.41	1.17	1.70	<0.001
Incident Dialysis: Home-HD or PD	1.10	0.94	1.30	0.25		1.09	0.93	1.28	0.29		1.06	0.90	1.25	0.46
Vascular access type: AVF/G (ref)				<0.001					<0.001					<0.001
Catheter	1.52	1.43	1.61	<0.001		1.47	1.39	1.56	<0.001		1.44	1.36	1.53	<0.001
Other/Unknown	1.16	0.98	1.38	0.093		1.13	0.95	1.34	0.171		1.10	0.93	1.31	0.26

<i>Comorbid conditions:</i>														
Diabetes	1.06	1.01	1.12	0.033		1.05	0.998	1.11	0.0618		1.06	1.00	1.11	0.046
Hypertension	0.86	0.82	0.90	<0.001		0.87	0.82	0.91	<0.001		0.85	0.81	0.90	<0.001
Congestive heart failure	1.26	1.20	1.32	<0.001		1.27	1.21	1.34	<0.001		1.29	1.23	1.36	<0.001
Chronic pulmonary	1.18	1.13	1.23	<0.001		1.18	1.13	1.24	<0.001		1.20	1.14	1.25	<0.001
Peripheral vascular disease	1.05	1.01	1.10	0.026		1.05	0.999	1.09	0.057		1.03	0.99	1.08	0.150
Mental health diagnosis	1.09	1.04	1.14	<0.001		1.09	1.04	1.14	<0.001		1.09	1.04	1.14	<0.001
Hepatitis	0.98	0.86	1.10	0.69		0.99	0.88	1.12	0.90		1.00	0.89	1.13	0.95
Anemia	0.97	0.93	1.01	0.126		0.98	0.94	1.02	0.38		1.00	0.96	1.05	0.90
Arrhythmias	1.19	1.14	1.24	<0.001		1.18	1.13	1.24	<0.001		1.18	1.13	1.23	<0.001
Cerebrovascular disease	1.04	0.98	1.09	0.21		1.03	0.98	1.09	0.26		1.03	0.98	1.09	0.30
Coagulopathy	1.15	1.09	1.22	<0.001		1.15	1.08	1.21	<0.001		1.14	1.08	1.21	<0.001
Dementia	1.08	0.97	1.22	0.173		1.08	0.96	1.21	0.220		1.09	0.97	1.22	0.152
Electrolytes	1.05	1.01	1.10	0.028		1.06	1.01	1.11	0.019		1.06	1.01	1.11	0.012
Hemiplegia	0.86	0.72	1.02	0.078		0.87	0.73	1.03	0.100		0.88	0.74	1.05	0.153
Human immunodeficiency virus	1.26	0.95	1.66	0.108		1.22	0.92	1.62	0.161		1.14	0.86	1.51	0.37
Ischemic heart disease	1.04	0.99	1.09	0.150		1.03	0.98	1.08	0.21		1.05	0.995	1.10	0.079
Liver or mild liver disease	1.37	1.23	1.51	<0.001		1.31	1.19	1.46	<0.001		1.32	1.19	1.46	<0.001
Metastatic cancer	2.05	1.83	2.30	<0.001		2.00	1.78	2.24	<0.001		2.00	1.78	2.24	<0.001
Other cancer/any tumor	1.19	1.13	1.25	<0.001		1.19	1.13	1.26	<0.001		1.17	1.12	1.24	<0.001
Myocardial infarction	1.07	1.02	1.12	0.011		1.07	1.02	1.13	0.005		1.08	1.03	1.14	0.002
Other neurological disorders	1.14	1.08	1.22	<0.001		1.13	1.06	1.20	<0.001		1.13	1.06	1.20	<0.001
Paralysis	1.12	0.99	1.26	0.069		1.12	0.99	1.26	0.075		1.10	0.98	1.24	0.119
Pulmonary-circulatory disorder	1.05	0.98	1.11	0.166		1.05	0.99	1.12	0.123		1.05	0.99	1.12	0.101
Rheumatoid disease	1.17	1.04	1.33	0.012		1.16	1.03	1.32	0.018		1.17	1.03	1.32	0.016
Hypothyroidism	1.10	1.04	1.16	0.001		1.11	1.05	1.17	<0.001		1.12	1.06	1.18	<0.001
Ulcer disease	1.11	1.01	1.22	0.025		1.12	1.02	1.23	0.015		1.12	1.03	1.23	0.013
Valvular disease	1.17	1.11	1.23	<0.001		1.17	1.11	1.23	<0.001		1.18	1.12	1.24	<0.001
Weight loss	1.11	1.05	1.18	<0.001		1.09	1.02	1.16	0.009		1.06	0.995	1.13	0.074
Inability to ambulate/transfer	1.40	1.30	1.50	<0.001		1.38	1.29	1.48	<0.001		1.35	1.26	1.44	<0.001
Amputation	1.19	1.07	1.33	0.001		1.18	1.06	1.31	0.003		1.22	1.10	1.36	<0.001

Abbreviations: Reference group (ref), VA purchased care (VA-PC), end-stage renal disease (ESRD), estimated glomerular filtration rate (eGFR), hemodialysis (HD), peritoneal dialysis (PD), arterial venous fistula/graft (AVF/G)

Note: In the time invariant model, the Dual setting category (within and across quarters) has n=4,847 Veterans; the time-varying Dual setting (within quarter) consists of n=4,687 Veterans that have at least one quarter with Dual setting.