



Figure S1. Development of the study validation data set.

Table S1. International Classification of Diseases (ICD-9) and Healthcare Common Procedure Coding System (HCPCS) codes used to identify co-morbid in the U.S. older hemodialysis patients.

Co-Morbid Events Prior to ESRD	ICD-9 Codes	HCPCS Codes
Diabetes	250,357.2,362.0,366.41	
Hypertension	401	
Coronary Artery Disease		
Myocardial Infarction	410,412	
Atherosclerosis/stenosis	413,414	
Coronary Revascularization	360,361, 00.66,v4581,v4582	9298x,3351x,3352x,92990-92996,33531-33536
Congestive Heart Failure	398.91,402.01,402.11,402.91,404.01,404.03,404.11,404.13,404.91,404.93,425.4-425.9,428	
Peripheral Vascular Disease	440-444,447,451-453,557	
Cerebrovascular Disease	362.34, 430-438	
Stroke	430,431,436,433x1,434x1	
Chronic Obstructive Pulmonary Disease	491.0,491.1,491.8,491.9,491.20,491.21,491.22,492.0,492.8,494.0,494.1,496	
Cancer	140-200	

Table S2. Unadjusted and adjusted odds ratios and associated 95% confidence intervals for arteriovenous fistula (AVF) primary failure in the U.S. older hemodialysis patients.

	Unadjusted odds Ratio (95% CI)	Adjusted odds Ratio (95% CI)
PVD	1.15(1.08,1.23)	1.13(1.06,1.21)*
CAD	1.15(1.07,1.23)	1.13(1.06,1.22)**
White Race	0.90(0.83,0.97)	0.92(0.85,0.99)***

*Adjusted by age, sex, race, BMI, CVC dependency, CAD, and diabetes.

** Adjusted by age, sex, race, BMI, CVC dependency, PVD, and diabetes.

*** Adjusted by age, sex, BMI, CVC dependency, CAD, PVD, and diabetes.