

Figure S1. Restricted cubic spline plots of log hazard ratio of arteriovenous fistula (AVF) outcomes versus age with 3 knots at 10th, 50th, and 90th percentile. A restricted cubic spline is a cubic spline in which the splines are constrained to be linear in the two tails. Break points in the linearity are changes in slope for the log hazard ratio function. The dotted curves represent the 95% confidence intervals. (A) AVF placement in 3 years after dialysis initiation; (B) AVF maturation in 2 years after placement; (C) AVF primary patency loss in 2 years after maturation; (D) AVF abandonment in 2 years after maturation.

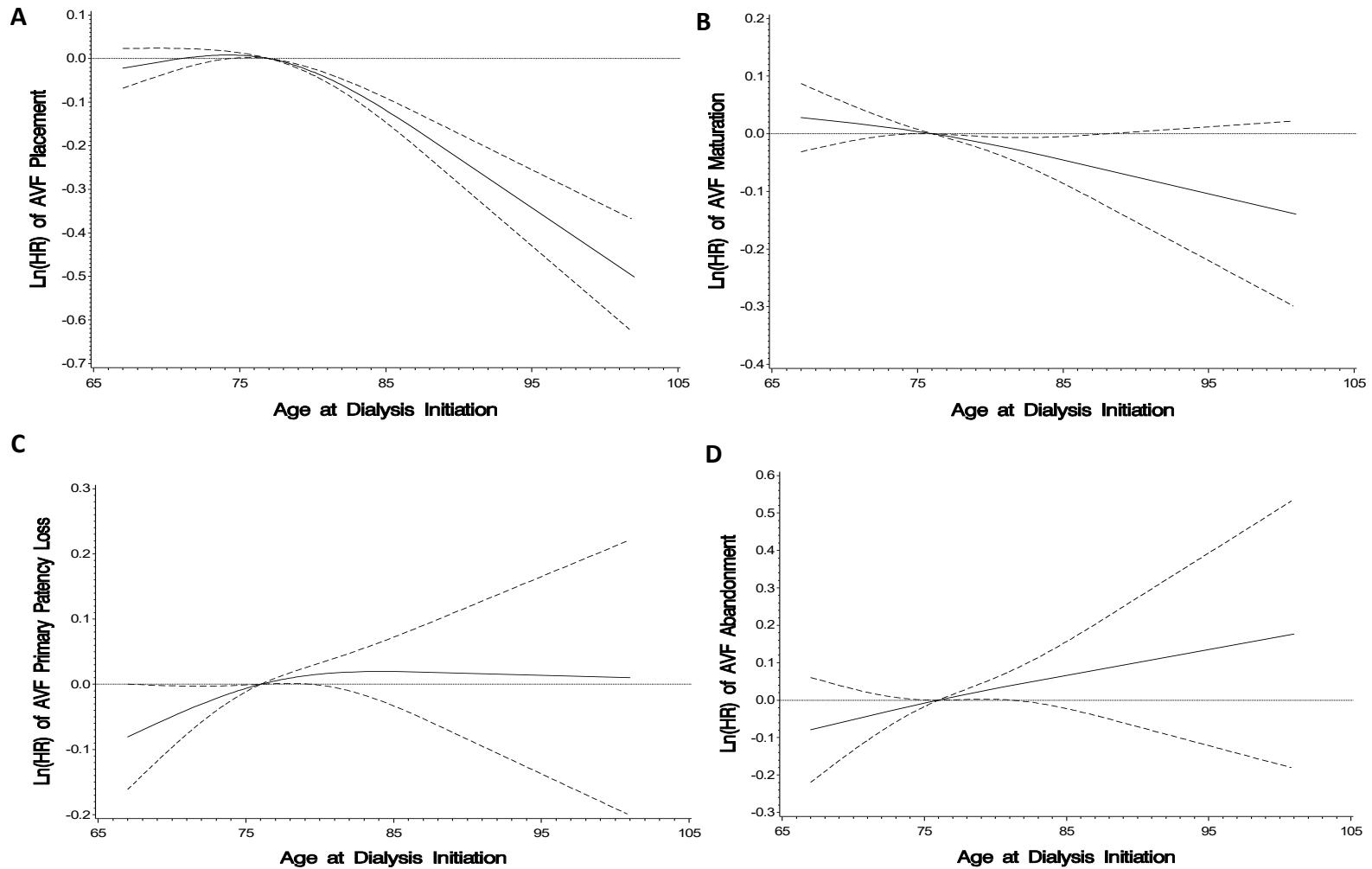


Table S1. Codes of surgical and endovascular procedures associated with hemodialysis arteriovenous fistula (AVF) management.

Type of intervention	Codes
Open surgical procedures	CPT-4 Codes
Revision, open, arteriovenous fistula; with thrombectomy, autogenous or nonautogenous dialysis graft	36833
Revision of fistula or graft	36832
Fistula elevation or superficialization	36832
Ligation of accessory veins	36832
Open surgical procedures for treatment of steal syndrome	36832
Open repair of pseudoaneurysm	36832
Banding fistula or graft	36832
Open thrombectomy, arteriovenous fistula without revision, autogenous or nonautogenous dialysis graft	36831
Endovascular interventions	CPT-4 Codes
Angiogram with venous angioplasty	36147, 35476, 75978
Angiogram with arterial angioplasty	36147, 35475, 75962
Angiogram with venous angioplasty and stent	36147, 37205, 37206 (rarely +37239)
Angiography, arteriovenous shunt (e.g., dialysis patient fistula / graft)	75791 (must be present with other interventions)
Percutaneous thrombectomy	36870 (also 36147, 36148)
Percutaneous thrombectomy with venous angioplasty	36870, 36147, 36148, 35476, 75978
Percutaneous thrombectomy with arterial angioplasty	36870, 36147, 36148, 35475, 75962
Percutaneous thrombectomy with venous angioplasty and stent	36870, 36147, 36148, 37205, 37206 (rarely +37239)
Inpatient procedures	ICD-9 Codes
Compression of vein	459.2
Mechanical complications of vascular device, implant and graft	996.1
Other complication of vascular device, implant and graft	996.7

Table S2. Odds ratios (ORs) and their associated 95% confidence intervals (CIs) of arteriovenous fistula (AVF) assisted maturation by age group in hemodialysis patients aged 67 and older.

	AVF Assisted Maturation	
	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
Age at dialysis initiation		
67-<77	1	1
≥77	1.23(1.15,1.31)	1.12(1.05,1.21)

Note: Adjusted by gender, race, diabetes, myocardial infarction, stroke, cardiovascular disease, functional status, facility type, comorbid score, BMI, eGFR, time of central venous catheter (CVC) dependency, and primary or secondary AVF.