

Supplementary Table 1: MPI tests for the SPECT era and PET era

	SPECT era	PET era
Type of Stress Test	n=6777	n=7817
Pharmacologic stress SPECT	3333 (49.2%)	350 (4.5%)
Exercise SPECT	1693 (25.0%)	192 (2.5%)
Combined pharmacologic/exercise SPECT	1660 (24.5%)	138 (1.8%)
PET	NA	7078 (90.6%)
Rest/Stress Only	91 (1.3%)	59 (0.8%)

Supplementary Table 2: Demographic and clinical characteristics of the patients for the SPECT Tests and PET Tests

Patient Characteristic	SPECT Tests	PET Tests	pvalue
	n=6686	n=7130	
Age, mean (std) years	63.8 (12.8)	64.5 (12.7)	0.001
Male, No. (%)	3541 (53.0%)	3929 (55.1%)	0.012
Caucasian, No. (%)	5886 (88.0%)	6562 (92.0%)	<0.0001
BMI, mean (std)	31.2 (7.2)	31.9 (7.5)	<0.0001
Hypertension, No. (%)	4152 (62.1%)	4553 (63.9%)	0.033
Hyperlipidemia, No. (%)	3724 (55.7%)	4053 (56.8%)	0.175
Diabetes, No. (%)	1951 (29.2%)	2123 (29.8%)	0.443
Family History of CVD, No. (%)	3722 (55.7%)	4207 (59.0%)	0.0001
Smoking History, No. (%)	2468 (36.9%)	2638 (37.0%)	0.300
Prior MI, No. (%)	1555 (23.3%)	1588 (22.3%)	0.167
Heart Failure, No. (%)	1333 (19.9%)	1650 (23.1%)	<0.0001
Prior CAD, No. (%)	2451 (36.7%)	2890 (40.5%)	<0.0001
Prior CVA, No. (%)	695 (10.4%)	726 (10.2%)	0.681
Prior PVD, No. (%)	389 (5.8%)	410 (5.8%)	0.865
Inpatient, No. (%)	1719 (25.7%)	1885 (26.4%)	0.331
Prior Revascularization, No. (%)	2085 (31.2%)	2018 (28.3%)	0.0002
Prior Stress Test, No. (%)	1210 (18.1%)	1243 (17.4%)	0.307
Prior Medications, No. (%)			
ACE-I or ARB	1327 (19.9%)	2331 (32.7%)	<0.0001
Aspirin	1297 (19.4%)	1470 (20.6%)	0.07

Beta Blockers	1214 (18.2%)	2058 (28.9%)	<0.0001
Calcium Channel Blockers	5282 (7.8%)	919 (12.9%)	<0.0001
Anti-Platelet (non-Aspirin)	409 (6.1%)	521 (7.3%)	0.001
Statin	1482 (22.2%)	2586 (36.3%)	<0.0001
Warfarin	388 (5.8%)	712 (10.0%)	<0.0001

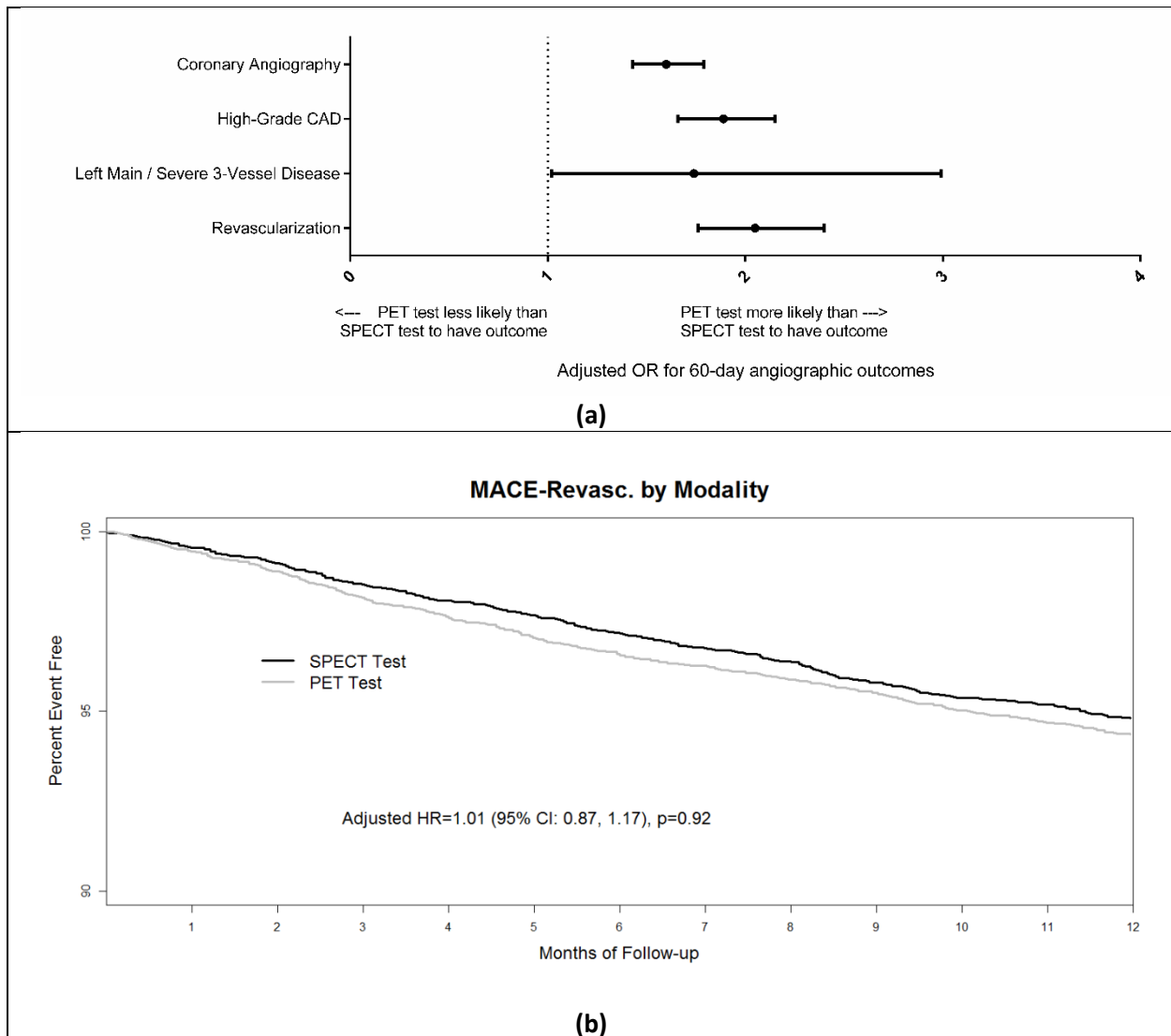
Supplementary Table 3: Outcomes for actual PET stress tests (n=7130) and SPECT tests (n=6686)

Outcomes	PET vs SPECT N (%)	Adjusted OR/HR	
		(95% CI)	pvalue
60-day Coronary Angiography	990 (13.9%) vs. 624 (9.3%)	1.60 (1.43, 1.79)	<0.0001
60-day High Grade CAD	785 (11.0%) vs. 441 (6.6%)	1.89 (1.66, 2.15)	<0.0001
Left Main/Severe 3-Vessel Disease	39 (0.55%) vs 22 (0.33%)	1.74 (1.02, 2.99)	0.0439
60-day Revascularization	564 (7.9%) vs. 288 (4.3%)	2.05 (1.76, 2.40)	<0.0001
MACE - Revascularization	403 (5.7%) vs. 347 (5.2%)	1.01 (0.87, 1.17)	0.92

Supplementary Table 4: Demographic and clinical characteristics for PET era and SPECT era by one-year MACE-Revascularization outcome.

Patient Characteristic	SPECT era one-year MACE Revasc		PET era one-year MACE Revasc	
	No (n=6418)	Yes (n=359)	No (n=7367)	Yes (n=450)
Age, mean (std) years	63.4 (12.8)	70.3 (12.5)	63.89 (12.6)	70.1 (12.6)
Male, No. (%)	3382 (52.7%)	220 (61.3%)	4072 (55.3%)	275 (61.1%)
Caucasian*, No. (%)	5671 (94.6%)	294 (96.1%)	6767 (94.7%)	413 (93.9%)
BMI, mean (std)	31.3 (7.2)	29.8 (7.2)	31.8 (7.4)	29.6 (7.0)
Hypertension, No. (%)	3978 (62.0%)	230 (64.1%)	4626 (62.8%)	304 (67.6%)
Hyperlipidemia, No. (%)	3569 (55.6%)	197 (54.9%)	4100 (55.7%)	243 (54.0%)
Diabetes, No. (%)	1831 (28.5%)	155 (43.2%)	2118 (28.8%)	209 (46.4%)
Family History of CVD, No. (%)	3567 (55.6%)	194 (54.0%)	4282 (58.1%)	258 (57.3%)
Smoking History, No. (%)	4070 (63.4%)	205 (57.1%)	4647 (63.1%)	254 (56.4%)
Prior MI, No. (%)	1424 (22.2%)	168 (46.8%)	1481 (20.1%)	181 (40.2%)
Heart Failure, No. (%)	1196 (18.6%)	184 (51.3%)	1513 (20.5%)	223 (49.6%)
Prior CAD, No. (%)	2272 (35.4%)	232 (64.6%)	2752 (37.4%)	294 (65.3%)
Prior CVA, No. (%)	628 (9.8%)	75 (20.9%)	692 (9.4%)	71 (15.8%)
Prior PVD, No. (%)	335 (5.2%)	61 (17.0%)	372 (5.1%)	71 (15.8%)
Inpatient, No. (%)	1584 (24.7%)	185 (51.5%)	1743 (23.7%)	239 (53.1%)
Prior Revascularization, No. (%)	1923 (30.0%)	202 (56.3%)	1904 (25.8%)	211 (46.9%)
Prior Stress Test, No. (%)	1136 (17.7%)	91 (25.4%)	1234 (16.8%)	105 (23.3%)
Discharge Medications, No. (%)				
ACE-I or ARB	1703 (26.5%)	135 (37.6%)	2773 (35.5%)	175 (38.9%)
Aspirin	2061 (32.1%)	194 (54.0%)	2400 (32.6%)	250 (55.6%)
Beta Blockers	1796 (28.0%)	177 (49.3%)	2870 (39.0%)	256 (56.9%)
Calcium Channel Blockers	653 (10.2%)	44 (12.3%)	1113 (15.1%)	96 (21.3%)
Anti-Platelet (non-Aspirin)	531 (8.3%)	79 (22.0%)	753 (10.2%)	113 (25.1%)
Statin	1944 (30.3%)	178 (49.6%)	3425 (46.5%)	270 (60.0%)
Warfarin	475 (7.4%)	42 (11.7%)	904 (12.3%)	86 (19.1%)
60-day Outcomes				
Coronary Angiography	580 (9.0%)	78 (21.7%)	913 (12.4%)	120 (26.7%)
High-Grade Obstructive CAD†	393 (6.1% / 67.8%)	74 (20.6% / 94.9%)	709 (9.6% / 77.7%)	108 (24.0% / 90.0%)
Left Main Disease or Severe 3-Vessel Disease†	135 (2.1% / 23.3%)	40 (11.1% / 51.3%)	219 (3.0% / 24.0%)	42 (9.3% / 35.0%)
Revascularization†	253 (3.9% / 43.6%)	57 (15.9% / 73.1%)	513 (7.0% / 56.2%)	73 (16.2% / 60.8%)

*Note: percentage based on total reporting with unknowns removed (n=5992, n=306, n=7144, n=440, respectively). † two reported percentage based on totals / those undergoing angiography.



Supplementary Figure 1: Adjusted odds ratio for the 60-day angiographic outcomes (a) and the one-year MACE-Revascularization outcomes (b) the PET test compared to SPECT test

After adjustment in a logistic regression model for baseline differences (age, gender, race, body mass index, history of hypertension, family history of CVD, history of heart failure, prior revascularization, and medications -ACE or ARB, beta blocker, calcium channel blocker, anti-platelet, statin, and warfarin), patients that had a PET test (n=7130) compared to a SPECT test (n=6686) were more likely to have 60-day coronary angiography. High-grade obstructive coronary artery disease (CAD) and left main or severe 3-vessel disease was identified more frequently in PET tests, associated with higher rates of or revascularization (a). The rates of one-year MACE-Revascularization (including all-cause death, myocardial infarction, and after 60-day revascularization), after adjustment in Cox's proportional hazard model, were similar between the PET and SPECT tests (b).