

**Supplemental Table 1. Resource Utilization**

	SPECT (n=300)	CTA Intention to Treat (n=283)	CTA Test Received (n=279)	P value (Intention to Treat)	P value (Test Received)
<b>Outpatient Evaluation</b>					
Chest pain Outpatient Visit	5 (1.7)	8 (2.8)	8 (2.9)	0.41	0.41
Outpatient SPECT	1 (0.3)	6 (2.1)	6 (2.2)	0.06	0.06
Outpatient CTA	2 (0.7)	0 (0.0)	0 (0.0)	0.50	0.50
Outpatient ICA	2 (0.7)	2 (0.7)	2 (0.7)	1.00	1.00
Coronary Revascularization	0 (0.0)	0 (0.0)	0 (0.0)	1.00	1.00
<b>ED Evaluation of Chest Pain</b>	37 (12.3)	28 (9.9)	28 (10.0)	0.43	0.43
<b>Inpatient Evaluation</b>					
Chest Pain Readmission	27 (9.0)	24 (8.5)	24 (8.6)	0.88	0.88
SPECT	11 (3.7)	15 (5.3)	15 (5.4)	0.42	0.42
CTA	1 (0.3)	0 (0.0)	0 (0.0)	1.00	1.00
ICA	10 (3.3)	5 (1.8)	5 (1.8)	0.30	0.30
Coronary Revascularization	3 (1.0)	2 (0.7)	2 (0.7)	1.00	1.00
<b>Total # Follow-up Cardiac Tests (including ICA)</b>				0.08	0.09
0	276 (92.0)	254 (89.8)	250 (89.6)		
1	21 (7.0)	29 (10.2)	29 (10.4)		
2	3 (1.0)	0 (0.0)	0 (0.0)		

CTA=cardiac computed tomography angiography; ED= emergency department; ICA= invasive coronary angiography; SPECT= gated tomographic myocardial perfusion imaging

**Supplemental Table 2. Accuracy of SPECT, CTA and CACS for Predicting Events**

	<b>SPECT+ (95% CI)</b>	<b>CTA* (95% CI)</b>	<b>CACS# (95% CI)</b>	<b>p-value SPECT vs CTA</b>	<b>p-value SPECT vs CACS</b>	<b>p-value CTA vs CACS</b>
Sensitivity	78% (7/9) (40%-96%)	85% (11/13) (54%-97%)	100% (13/13) (72%-100%)	1.0	0.16	0.48
Specificity	99% (294/298) (96%-100%)	92% (243/265) (88%-95%)	57% (152/267) (51%-63%)	<0.0001	<0.0001	<0.0001
PPA	64% (7/11) (32%-88%)	33% (11/33) (19%-52%)	10% (13/128) (6%-17%)	0.09	<0.0001	0.002
NPA	99% (294/296) (97%-100%)	99% (243/245) (97%-100%)	100% (152/152) (97%-100%)	1.0	0.55	0.53
Overall Accuracy	98% (301/307) (96%-99%)	91% (254/278) (87%-94%)	59% (165/280) (53%-65%)	<0.0001	<0.0001	<0.0001

CACS= coronary artery calcium score; CTA= cardiac computed tomography angiography; NPA= negative predictive accuracy; PPA= positive predictive accuracy; SPECT= gated tomographic myocardial perfusion imaging.  
+SPECT normal vs abnormal test result; \*CTA normal vs. abnormal test result (>50% stenosis); #CACS normal vs. abnormal test result