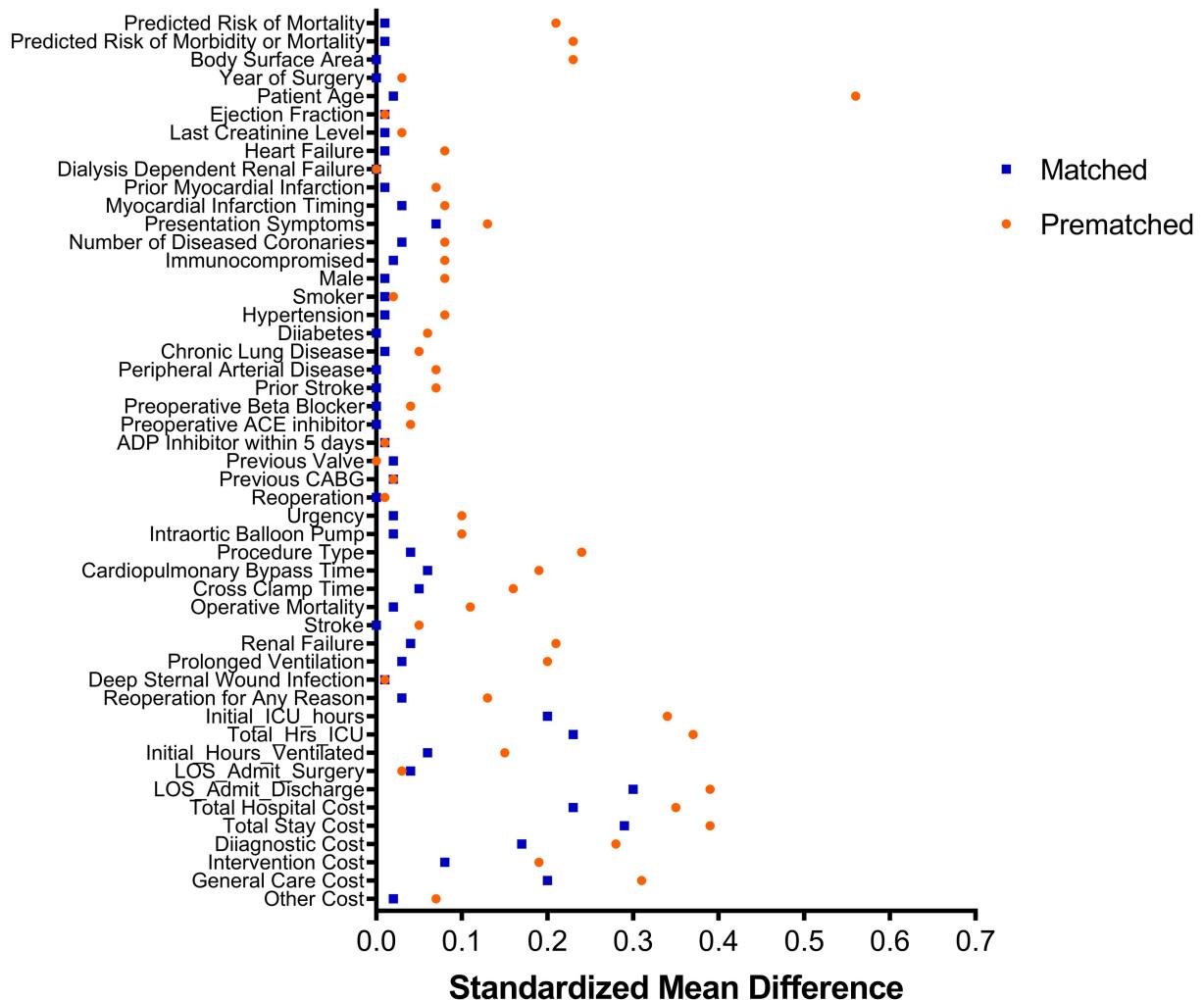
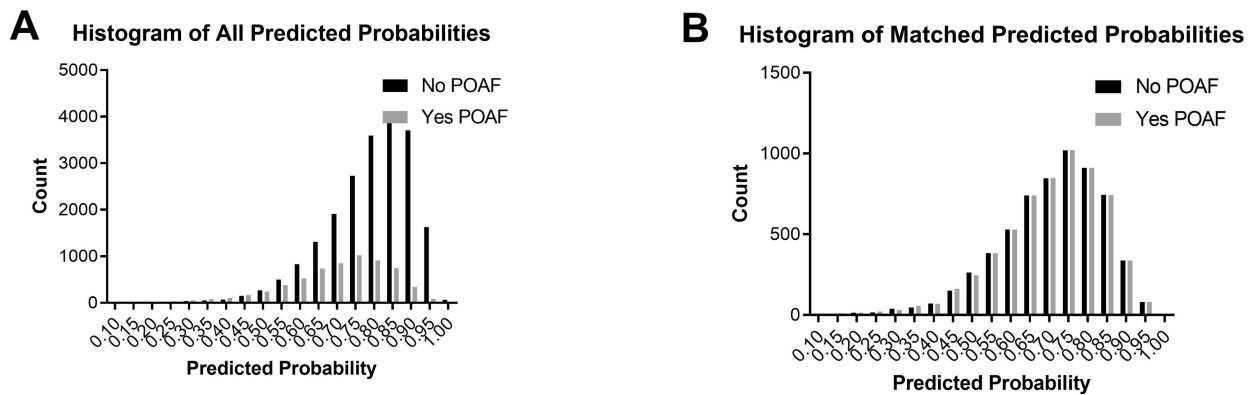


## Standardized Mean Difference Before and After Propensity Score Matching



**Supplementary Figure 1.** Love plot for primary cohort of matched cohort demonstrating standardized mean differences before and after matching.



**Supplementary Figure 2.** Histogram of propensity scores before and after matching.

**Supplementary Table 1. Variables included in propensity score regression**

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**Administrative**

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Hospital

Year of surgery

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**Baseline risk factors and demographics**

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STS predicted risk of morbidity or mortality

Body surface area

Patient age

Ejection fraction

Sex

Immunocompromised

Smoker

Hypertension

Diabetes

Heart failure

Peripheral arterial disease

Last creatinine

Dialysis

Chronic lung disease

Prior myocardial infarction

Preoperative beta-blocker

CHAD-VASC score

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### **Operative characteristics**

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Previous valve surgery

Previous CABG

Reoperative sternotomy

Non-elective status

IABP

Procedure type

Cross-clamp time

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### **Postoperative complications**

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Operative mortality

Major morbidity

Stroke

Renal failure

Prolonged ventilation

Deep sternal wound infection

Reoperation for any reason

Pneumonia

Cardiac arrest

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**Supplementary Table 2. Baseline and operative characteristics by POAF status of the pre-match cohort**

	<b>No POAF</b>	<b>POAF</b>	
	<b>(n = 20,992)</b>	<b>(n = 6315)</b>	<b>P-value</b>
Age	64.0 (57.0-71.0)	70 (63-75)	< 0.001
BMI	29.1 (25.7-33.1)	29.1 (25.6-33.2)	0.357
Female	27.7 (5808)	25.0 (1578)	< 0.001
Hypertension	86.4 (18,134)	89.1 (5626)	< 0.001
Diabetes	47.1 (9867)	44.3 (2791)	< 0.001

Dialysis dependent renal failure	2.62 (550)	2.69 (170)	0.754
Prior stroke	7.42 (1552)	8.68 (546)	0.003
Smoker	41.4 (8693)	40.6 (2561)	0.225
Peripheral arterial disease	12.4 (2608)	14.9 (935)	< 0.001
Chronic lung disease (moderate/severe)	9.92 (1990)	12.2 (731)	< 0.001
Prior myocardial infarction	48.4 (10,165)	45.1 (2849)	< 0.001
Heart failure	28.2 (5914)	31.7 (1999)	< 0.001
Ejection fraction (%)	55 (48.0-60.0)	55 (48-60)	0.416
Preoperative beta-blocker	88.2 (18,505)	86.7 (5473)	0.002
Prior valve surgery	1.02 (213)	1.00 (63)	0.905
Prior CABG	1.89 (397)	2.13 (135)	0.214
Prior PCI	25.4 (5330)	25.6 (1618)	0.712
Prior cardiac surgery	3.01 (631)	3.18 (201)	0.473
Urgent or emergent status	57.8 (12,141)	52.9 (3340)	< 0.001
Intra-aortic balloon pump (IABP)	6.44 (1352)	7.68 (485)	< 0.001
Predicted risk of mortality	1.02 (0.575-1.97)	1.46 (0.82-2.80)	< 0.001
<b>Operative characteristics</b>	<b>No POAF (n = 20,992)</b>	<b>POAF (n = 6315)</b>	<b>P-value</b>
Procedure			< 0.0001
CABG	82.4 (17,296)	73.6 (4649)	
AVR	11.4 (2402)	14.5 (915)	
CABG/AVR	6.16 (1294)	11.9 (751)	
Number of diseased vessels			< 0.001
Zero	8.90 (1850)	10.5 (658)	
One	6.08 (1264)	7.11 (445)	
Two	18.9 (3922)	18.4 (1149)	
Three	66.2 (13,761)	64.0 (4006)	
Cross clamp time (min)	70.0 (54.0-90.0)	75.0 (56.0-96.0)	< 0.001
Cardiopulmonary bypass time (min)	94.0 (75.0-118)	101 (79.0-128.0)	< 0.001

NYHA: New York Heart Association; POAF: postoperative atrial fibrillation; ECMO: extracorporeal membrane oxygenation

**Supplementary Table 3. Unadjusted outcomes by POAF status of the pre-match cohort**

Characteristics	No POAF (n = 20992)	POAF (n = 6315)	P-value
STS operative mortality	301 (1.4%)	192 (3.0%)	< 0.001
STS major morbidity	1274 (6.1%)	865 (13.7%)	< 0.001
Permanent stroke	203 (1.0%)	98 (1.6%)	< 0.001
Cardiac arrest	214 (1.0%)	186 (3.0%)	< 0.001
Pneumonia	241 (1.2%)	234 (3.7%)	< 0.001
Prolonged ventilation	687 (3.3%)	503 (8.0%)	< 0.001
Renal failure requiring dialysis	160 (0.8%)	215 (3.4%)	< 0.001
Deep sternal wound infection	56 (0.3%)	21 (0.3%)	0.388
Reoperation, any cause	373 (1.8%)	255 (4.0%)	< 0.001
Transfusion, any	4518 (21.5%)	2171 (34.4%)	< 0.001
Postoperative LOS (days)	5 (4-7)	7 (5-10)	< 0.001
ICU LOS (hours)	46.0 (25.0-72.5)	67.0 (30.0-117.0)	< 0.001
Discharge to facility	3474 (16.6%)	1844 (29.2%)	< 0.001
Readmission	1592 (8.2%)	693 (11.7%)	< 0.001
Total hospital cost	41,408 ± 21,669	54,188 ± 46,732	< 0.001

ICU: intensive care unit; LOS: length of stay; POAF: postoperative atrial fibrillation; PRBC: packed red blood cells; STS: Society of Thoracic Surgeons.