

**Table S1** Factors included in the scores predicting AF recurrence after ablation

Risk scores	HATCH	BASE-AF2	CHADS2	CHA2DS2-VASc	APPLE	MB-LATER	CAAP-AF
Age	+		+	+	+		+
Sex				+		+	+
AF type		+			+	+	+
AF history		+					
Left atrial diameter		+			+	+	+
Early recurrence		+				+	
Hypertension	+		+	+			
CHD							+
Heart failure	+		+	+	+		
Diabetes Mellitus			+	+			
Chronic kidney disease					+		
Smoking		+					
Stroke/TIA	+		+	+			
Body mass index		+					
COPD	+						
Failed AAD							+
Vascular disease				+			
Bundle branch block						+	

AF, atrial fibrillation; CHD, coronary heart disease; TIA, transient ischemia attack; COPD, chronic obstructive pulmonary disease; AAD, anti-arrhythmic drugs.

**Table S2** Baseline Characteristics

	All	COPD	Non-COPD	P value
Number	304	189	115	
Age				0.94
Median	63.0	64.00	62.00	
IQR	56.0-71.0	57.00-70.50	54.00-72.00	
Sex				0.10
Female	97	67	30	
Male	207	122	85	
AF type				0.09
Paroxysmal AF	212	125	87	
Persistent AF	92	64	28	
BMI				0.18
Median	25.54	25.63	25.54	
IQR	23.44-27.77	23.49-28.29	23.25-27.12	
Previous stroke or TIA				1.00
Yes	34	21	13	
No	270	168	102	
HTN history				0.41
Yes	161	104	57	
No	143	85	58	
DM history				0.12
Yes	53	38	15	
No	251	151	100	
CHD history				0.61
Yes	43	25	18	
No	261	164	97	
HF history				0.14
Yes	13	11	2	
No	291	178	113	
BNP				0.71
median	207.95	207.95	207.95	
IQR	69.13-207.95	68.00-207.95	70.50-207.95	
LA diameter				0.31
median	39.15	39.15	39.00	
IQR	35.00-42.00	35.50-42.00	34.00-43.00	
LVEF				0.41
median	64.00	64.00	64.00	
IQR	60.00-68.00	60.00-68.00	60.00-69.00	

IQR, interquartile range; COPD, chronic obstructive pulmonary diseases; AF, atrial fibrillation; TIA, transient ischemic attack; BMI, body mass index; HTN, hypertension; DM, diabetes mellitus; CHD, coronary heart diseases; HF, heart failure; BNP, type B natriuretic peptide; LA, left atrium; LVEF, left ventricular ejection fraction.

**Table S3** Cox Regression Analysis of clinical factors associated with recurrent AF

	Univariate			Multivariate		
	HR	(95% CI)	P value	HR	(95% CI)	P value
Age	0.99	0.98-1.01	0.40	0.99	0.97-1.01	0.20
Male	0.88	0.60-1.29	0.51	0.95	0.61-1.48	0.80
Heart failure	2.79	1.49-5.22	0.001	2.21	1.12-4.37	0.02
Previous stroke or TIA	0.79	0.42-1.46	0.45	0.80	0.42-1.50	0.48
COPD	0.94	0.64-1.38	0.74	0.72	0.48-1.08	0.11
HTN	1.38	0.95-2.01	0.09	1.54	1.02-2.33	0.04
BMI	1.04	0.98-1.09	0.20	0.99	0.93-1.05	0.66
LA-Diameter	1.02	0.98-1.05	0.36	1.00	0.96-1.03	0.86
AF duration of 6 years	1.02	1.00-1.05	0.08	1.02	0.99-1.05	0.33
Paroxysmal AF	0.77	0.53-1.13	0.18	0.95	0.62-1.47	0.82
CHD	1.07	0.62-1.84	0.82	1.18	0.66-2.31	0.58
Failed AAD number	1.05	0.85-1.31	0.65	0.94	0.61-1.46	0.79
Current Smoking	1.73	1.13-2.68	0.01	1.63	0.96-2.78	0.07
Early AF recurrence	3.85	2.62-5.66	<0.001	3.90	2.60-5.85	<0.001

AF, atrial fibrillation; TIA, transient ischemic attack; COPD, chronic obstructive pulmonary diseases; HTN, hypertension; BMI, body mass index; AAD, anti-arrhythmic drug; LA, left atrium.