

**Supplemental Table 1. Determinants of SVI  $\leq 35\text{ml/m}^2$  in HFpEF at the time of TTE evaluation.**

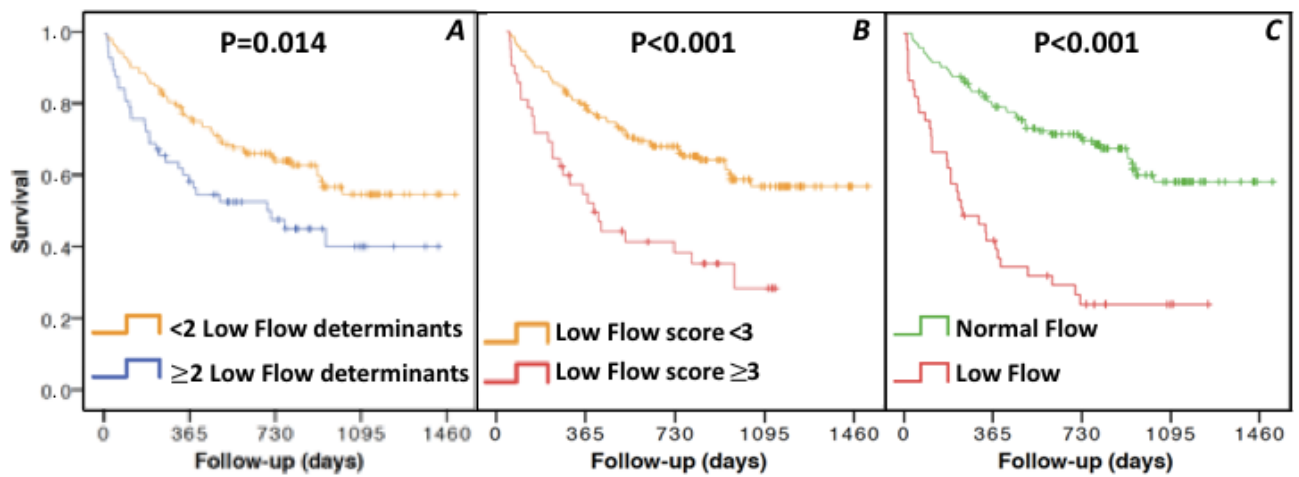
	Univariate OR	P	Multivariate OR	P
Age (years)	1.02 (0.99-1.04)	0.262		
Males (n)	0.67 (0.37-1.2)	0.176		
BMI (kg/m <sup>2</sup> )	1.01 (0.96-1.06)	0.698		
Hystory of HF (n)	0.91 (0.46-1.78)	0.776		
Hystory of AF (n)	2.45 (1.36-4.41)	<b>0.003</b>		0.577
Previous diagnosis of CA (n)	2.5 (0.58-10.78)	0.219		
Hypertension (n)	0.93 (0.47-1.84)	0.841		
Diabetes (n)	0.49 (0.25-0.97)	<b>0.04</b>		0.28
CKD (n)	0.73 (0.39-1.4)	0.347		
CAD (n)	0.89 (0.48-1.66)	0.715		
COPD (n)	1.07 (0.55-2.11)	0.841		
NYHA class (n)		0.922		
SBP (mmHg)	1 (0.99-1.01)	0.793		
DBP (mmHg)	1.01 (0.99-1.03)	0.258		
GFR at admission (ml/min/1.73m <sup>2</sup> )	1 (0.99-1.01)	0.96		
High NatPs (n)	1.8 (0.54-5.97)	0.336		
Admission-to-echo time (days)	1.01 (0.96-1.07)	0.704		
HR during TTE (bpm)	1.04 (1.01-1.06)	<b>0.001</b>		0.466
AF during TTE (n)	4.54 (2.38-8.68)	<b>&lt;0.001</b>	3.83 (1.86-7.9)	<b>&lt;0.001</b>
LVMl (g/m <sup>2</sup> )	0.99 (0.98-1)	0.068		
LV-EF (%)	0.06 (0-8.91)	0.263		
Small LV cavity	2.87 (1.58-5.2)	<b>0.001</b>	2.4 (1.22-4.73)	<b>0.011</b>
LV geometry		0.212		
- Normal	Referent			
- Concentric remodeling	1.53 (0.72-3.28)	0.27		
- Eccentric hypertrophy	0.62 (0.25-1.49)	0.282		
- Concentric hypertrophy	1.4 (0.65-3.02)	0.392		
High LV Pressure	1.61 (0.81-3.21)	0.175		
LAVI (ml/m <sup>2</sup> )	1.01 (0.99-1.03)	0.414		
Moderate MR (n)	1.26 (0.68-2.34)	0.471		
Moderate AR (n)	1.01 (0.37-2.78)	0.983		
Moderate TR (n)	1.17 (0.6-2.26)	0.647		
Right ventricular dysfunction	5.92 (2.91-12.04)	<b>&lt;0.001</b>	4.3 (1.98-9.3)	<b>&lt;0.001</b>

ACEI, angiotensin-converting enzyme inhibitor; AF, atrial fibrillation; AR, aortic regurgitation; ARB, angiotensin receptor blocker; BMI, body mass index; CA, cardiac amyloidosis; CAD, coronary artery disease; CI, cardiac index; CKD, chronic kidney disease; COPD, chronic obstructive pulmonary disease; DBP, diastolic blood pressure; EF, ejection fraction; GFR, glomerular filtration rate; HF, heart failure; HFpEF, heart failure with preserved ejection fraction; HR, heart rate; LAVI, left atrial volume index; LF, low flow; LV, left ventricular; LVMl, left ventricular mass index; MR, mitral regurgitation; MRA, mineralocorticoid receptor antagonist; NF, normal flow; NatPs, natriuretic peptides; NYHA, New York Heart Association; RWT, relative wall thickness; SBP, systolic blood pressure; sPAP, systolic pulmonary artery pressure; SVI, stroke volume index; TAPSE, tricuspid annular plane systolic excursion; TR, tricuspid regurgitation; TTE, transthoracic echocardiography.

**Supplemental Table 2. Univariate Cox regression analysis with relative risk of all-cause mortality.**

	<b>HR Univariate</b>	<b>P</b>
<b>Age (per 5 years)</b>	1.24 (1.1-1.41)	0.001
<b>Male</b>	1.12 (0.73-1.72)	0.608
<b>BMI</b>	0.96 (0.92-1)	0.044
<b>AF during TTE</b>	1.21 (0.77-1.9)	0.421
<b>HR during TTE</b>	1 (0.99-1.02)	0.963
<b>SBP (per 10 mmHg)</b>	0.9 (0.83-0.97)	0.006
<b>NYHA class</b>		0.487
<b>II</b>	Referent	
<b>III</b>	1.47 (0.54-4.03)	0.450
<b>IV</b>	0.9 (0.22-3.58)	0.876
<b>GFR at admission (per 10ml)</b>	0.8 (0.72-0.89)	<0.001
<b>High NatPs</b>	1.27 (0.55-2.94)	0.573
<b>History of HF</b>	1.49 (0.94-2.37)	0.093
<b>History of AF</b>	1.21 (0.79-1.87)	0.38
<b>Hypertension</b>	1.42 (0.83-2.46)	0.204
<b>Diabetes</b>	0.94 (0.58-1.52)	0.792
<b>CKD</b>	1.36 (0.86-2.15)	0.183
<b>CAD</b>	1.05 (0.67-1.66)	0.83
<b>COPD</b>	2.13 (1.35-3.36)	0.001
<b>Beta-blockers at discharge</b>	1.05 (0.66-1.68)	0.829
<b>ACEI/ARB at discharge</b>	0.44 (0.27-0.7)	0.001
<b>MRA at discharge</b>	1.24 (0.8-1.92)	0.341
<b>Small LV cavity</b>	0.94 (0.61-1.46)	0.787
<b>LV geometry</b>		0.318
- Normal	Referent	
- Concentric remodeling	1.56 (0.87-2.8)	0.138
- Eccentric hypertrophy	1.17 (0.61-2.24)	0.639
- Concentric hypertrophy	1.61 (0.91-2.88)	0.105
<b>LV-EF</b>	2.8 (0.06-121.62)	0.593
<b>High LV Pressure</b>	1.39 (0.83-2.32)	0.209
<b>Moderate MR</b>	1.16 (0.73-1.84)	0.522
<b>Moderate AR</b>	1.13 (0.55-2.35)	0.74
<b>Moderate TR</b>	2.09 (1.33-3.28)	0.001
<b>LF (SVI &lt;30 ml/m<sup>2</sup>)</b>	3.58 (2.29-5.58)	<0.001
<b>Low TAPSE/sPAP (&lt;0.36mm/mmHg)</b>	3.02 (1.93-4.72)	<0.001
<b>≥ 2 LF determinants</b>	1.74 (1.11-2.71)	0.015
<b>LF score ≥ 3</b>	2.45 (1.54-3.89)	<0.001

Abbreviations as in supplemental table 1.



Number at risk

135	96	64	24	1	151	109	71	27	1	148	110	73	28	1
58	32	19	7	0	42	19	12	4	0	45	18	9	2	0

**Supplemental Figure 1.** Kaplan-Meier survival curves according to number of Low Flow determinants (A), Low Flow score (B), and direct echocardiographic assessment of Low Flow (C).