

Supplemental table 1. Baseline characteristics of discharged heart failure with reduced ejection fraction and chronic kidney patients with and without one-year total mortality (n=717)

Variables	Mortality (n=153)	Alive (n=564)	P value	HR (95% CI)
<b>Demographics</b>				
Age	70.3 ± 12.1	66.7 ± 14.7	0.008	1.016 (1.004-1.028)
Men	98 (64.1%)	384 (68.1%)	0.422	0.873 (0.628-1.215)
Smoking	68 (44.4%)	269 (47.7%)	0.502	0.897 (0.652-1.233)
Alcoholism	1 (0.7%)	14 (2.5%)	0.210	0.284 (0.040-2.031)
BMI	24.0 ± 4.9	25.5 ± 5.0	0.001	0.939 (0.904-0.975)
<b>Comorbidities</b>				
AF	48 (31.4%)	150 (26.6%)	0.302	1.197 (0.851-1.684)
HTN	49 (32.0%)	216 (38.3%)	0.156	0.782 (0.557-1.098)
DM	91 (59.5%)	279 (49.5%)	0.038	1.408 (1.019-1.944)
Dyslipidemia	39 (25.5%)	136 (24.1%)	0.688	1.077 (0.749-1.550)
Old stroke	22 (14.4%)	59 (10.5%)	0.201	1.343 (0.855-2.109)
Old MI	42 (27.5%)	153 (27.1%)	0.902	1.022 (0.717-1.458)
Advanced CKD	63 (41.2%)	186 (33.0%)	0.043	1.395 (1.011-1.924)
PAOD	22 (14.4%)	47 (8.3%)	0.016	1.741 (1.108-2.735)
COPD	24 (15.7%)	53 (9.4%)	0.031	1.618

				(1.046-2.501)
OSA	3 (2.0%)	16 (2.8%)	0.526	0.691 (0.220-2.167)
Thyroid disorder	15 (9.8%)	23 (4.1%)	0.007	2.090 (1.226-3.561)
Cancer	3 (2.0%)	18 (3.2%)	0.480	0.662 (0.211-2.076)
Hepatitis	10 (6.5%)	37 (6.6%)	0.955	0.982 (0.517-1.864)
Depression	4 (2.6%)	11 (2.0%)	0.631	1.275 (0.472-3.442)
Previous valvular surgery	15 (9.8%)	24 (4.3%)	0.009	2.043 (1.199-3.482)
HF type			0.359	1.160 (0.845-1.595)
New-onset HF	71 (46.4%)	239 (42.4%)		
Decompensated HF	82 (53.6%)	325 (57.6%)		
HF etiology			0.774	1.048 (0.763-1.439)
ICM	73 (47.7%)	260 (46.1%)		
NICM	80 (52.3%)	304 (53.9%)		
<b>Echo data*</b>				
LA size (mm)	46.5 ± 8.9	46.1 ± 8.7	0.571	1.005 (0.987-1.024)
LVEF (%)	28.2 ± 8.3	29.4 ± 9.0	0.134	0.986 (0.968-1.004)
<b>Laboratory data*</b>				
BUN	49.3 ± 28.4	38.7 ± 24.9	<0.001	1.010 (1.006-1.015)
Cr	2.8 ± 2.2	2.5 ± 2.2	0.110	1.153 (0.989-1.121)
eGFR	32.8 ± 16.4	36.6 ± 16.3	0.008	0.987 (0.978-0.997)
Na	136.5 ± 5.1	137.3 ± 4.8	0.074	0.972

					(0.943-1.003)
K	4.2 ± 0.7	4.1 ± 0.7	0.173	1.165	(0.935-1.451)
Hgb	11.8 ± 2.4	12.3 ± 2.5	0.018	0.922	(0.862-0.986)
<b>Vital signs and HF status at discharge</b>					
HR	80.7 ± 15.2	79.3 ± 14.1	0.200	1.007	(0.996-1.018)
SBP	119.3 ± 20.2	122.4 ± 18.6	0.060	0.992	(0.983-1.000)
DBP	68.1 ± 12.8	72.0 ± 13.1	0.002	0.980	(0.967-0.993)
HF, NYHA Functional class at discharge			0.003	1.624	(1.177-2.240)
I + II	90 (58.8%)	402 (71.2%)			
III +IV	63 (41.2%)	162 (28.7%)			
<b>Medication</b>					
ACEI/ARB	67 (43.8%)	311 (55.1%)	0.010	0.658	(0.478-0.905)
Beta-blocker	41 (46.4%)	346 (61.3%)	0.001	0.750	(0.418-0.790)
Aldactone/eplerenone	88 (41.1%)	513 (48.4%)	0.093	0.750	(0.536-1.049)
Diuretics	105 (68.6%)	423 (75.0%)	0.099	0.750	(0.533-1.055)
CCB	20 (13.1%)	87 (15.4%)	0.433	0.829	(0.518-1.326)
Digoxin	49 (32.0%)	122 (21.6%)	0.012	1.546	(1.101-2.172)
Antiplatelet	91 (59.5%)	347 (61.5%)	0.733	0.945	(0.685-1.305)
Anticoagulation	31 (20.3%)	122 (21.6%)	0.664	0.916	(0.618-1.359)

Anti-arrhythmia	27 (17.6%)	87 (15.4%)	0.454	1.172 (0.773-1.776)
Number of GDM prescriptions!	1.2 ± 0.9	1.6 ± 0.9	<0.001	0.675 (0.564-0.809)
0	33 (21.6%)	70 (12.4%)		
1	66 (43.1%)	185 (32.8%)		
2	39 (25.5%)	229 (40.6%)		
3	15 (9.8%)	80 (14.2%)		
Number of GDM prescriptions ≥ 2	54 (35.3%)	309 (54.8%)	<0.001	0.478 (0.343-0.666)

Data are expressed as means ± SD or % (n).

ACEIs/ARBs= angiotensin-converting enzyme inhibitors/angiotensin-receptor blockers; AF= atrial fibrillation; BMI= body mass index; BUN= blood urine nitrogen; CAD= coronary artery disease; CCB= calcium channel blocker; CKD= chronic kidney disease; COPD= chronic obstructive pulmonary disease; Cr= creatinine; CV= cardiovascular; DBP= diastolic blood pressure; DM= diabetes mellitus; Echo= echocardiography; GDM= guideline-directed medication; HF= heart failure; Hgb= hemoglobin; HR= heart rate; HTN= hypertension; ICM= ischemic cardiomyopathy; K= potassium; LA= left atrium; LVEF= left ventricular ejection fraction; MI= myocardial infarction; Na= sodium; NICM= non-ischemic cardiomyopathy; OSA= obstructive sleep apnea; PAOD= peripheral artery occlusion disease; SBP= systolic blood pressure; SHF= systolic heart failure.

\* Data first collected during the index hospitalization

Supplemental table 2. Baseline characteristics of discharged heart failure with reduced ejection fraction and chronic kidney patients with and without one-year CV mortality (n=717)

Variables	Mortality (n=100)	Alive (n=617)	P value	HR (95% CI)
<b>Demographics</b>				
Age	69.5 ± 12.4	67.1 ± 14.5	0.106	1.012 (0.997-1.026)
Men	69 (69.0%)	413 (66.9%)	0.680	1.093 (0.716-1.670)
Smoking	47 (47.0%)	290 (47.0%)	0.983	0.996 (0.672-1.475)
Alcoholism	1 (1.0%)	14 (2.3%)	0.414	0.440 (0.061-3.155)
BMI	24.7 ± 5.4	25.2 ± 5.0	0.264	0.976 (0.935-1.019)
<b>Comorbidity</b>				
AF	29 (29.0%)	169 (27.4%)	0.767	1.068 (0.693-1.644)
HTN	25 (25.0%)	240 (38.9%)	0.011	0.554 (0.352-0.871)
DM	61 (61.0%)	309 (50.1%)	0.051	1.493 (0.999-2.231)
Dyslipidemia	25 (25%)	150 (24.3%)	0.841	1.048 (0.666-1.647)
Old stroke	11 (11.0%)	70 (11.3%)	0.964	0.986 (0.527-1.844)
Old MI	25 (25.0%)	170 (27.6%)	0.654	0.902 (0.573-1.418)
Advanced CKD	39 (39.0%)	210 (34.0%)	0.242	1.271 (0.850-1.899)
PAOD	15 (15.0%)	54 (8.8%)	0.033	1.818 (1.050-3.148)
COPD	12 (12.0%)	65 (10.5%)	0.585	1.183 (0.647-2.162)
OSA	3 (3.0%)	16 (2.6%)	0.906	0.933 (0.296-2.943)
Thyroid disorder	10 (10.0%)	28 (4.5%)	0.025	2.110 (1.098-4.056)
Cancer	1 (1.0%)	20 (3.2%)	0.278	0.336 (0.047-2.411)
Hepatitis	5 (5.0%)	42 (6.8%)	0.509	0.739 (0.301-1.816)
Depression	3 (3.0%)	12 (1.9%)	0.515	1.464 (0.464-4.619)
Previous valvular surgery	11 (11.0%)	28 (4.5%)	0.009	2.294 (1.226-4.292)
HF type			0.390	1.188 (0.802-1.760)
New-onset HF	47 (47.0%)	263 (42.6%)		
Decompensated HF	53 (53.0%)	354 (57.4%)		
HF etiology			0.624	1.103 (0.745-1.632)
ICM	49 (49.0%)	284 (46.0%)		
NICM	51 (51.0%)	333 (54.0%)		

**Echo data\***

LA size (mm)	47.0 ± 8.7	46.1 ± 8.8	0.325	1.011 (0.989-1.035)
LVEF (%)	27.6 ± 8.1	29.4 ± 9.0	0.057	0.978 (0.956-1.001)

**Laboratory data\***

BUN	47.5 ± 26.8	39.9 ± 25.8	0.004	1.009 (1.003-1.015)
Cr	2.6 ± 2.1	2.6 ± 2.2	0.645	1.020 (0.936-1.112)
eGFR	34.9 ± 16.3	35.9 ± 16.4	0.384	0.995 (0.983-1.007)
Na	136.3 ± 5.5	137.3 ± 4.8	0.050	0.964 (0.929-1.000)
K	4.2 ± 0.7	4.1 ± 0.7	0.425	1.118 (0.850-1.471)
Hgb	11.9 ± 2.4	12.3 ± 2.5	0.191	0.947 (0.872-1.028)

**Vital signs and HF****status at discharge**

HR	81.1 ± 14.2	79.3 ± 14.4	0.184	1.009 (0.996-1.023)
SBP	117.9 ± 21.0	122.4 ± 18.6	0.025	0.987 (0.977-0.998)
DBP	67.2 ± 13.1	71.8 ± 13.0	0.002	0.974 (0.959-0.990)
NYHA functional class at discharge			0.020	1.606 (1.078-2.392)
I + II	59 (59.0%)	433 (70.2%)		
III + IV	41 (41.0%)	184 (29.8%)		

**Medication**

ACEI/ARB	45 (45.0%)	333 (54.0%)	0.069	0.694 (0.468-1.029)
Beta-blocker	50 (50.0%)	367 (59.5%)	0.044	0.668 (0.451-0.988)
Aldactone/eplerenone	35 (35.0%)	242 (39.2%)	0.315	0.810 (0.537-1.222)
Diuretics	26 (26.0%)	163 (26.4%)	0.918	0.977 (0.625-1.527)
CCB	13 (13.0%)	94 (15.2%)	0.515	0.824 (0.460-1.476)
Digoxin	34 (34.0%)	137 (22.2%)	0.014	1.678 (1.109-2.538)
Antiplatelet	63 (63.0%)	375 (60.8%)	0.657	1.096 (0.731-1.645)
Anticoagulation	21 (21.0%)	132 (21.4%)	0.866	0.959 (0.593-1.552)
Anti-arrhythmia	18 (18.0%)	96 (15.6%)	0.484	1.200 (0.720-1.998)
Number of GDM prescriptions	1.3 ± 0.9	1.5 ± 0.9	0.007	0.737 (0.591-0.920)
0	21 (21.0%)	82 (13.3%)		
1	39 (39.0%)	212 (34.4%)		
2	29 (29.0%)	239 (38.7%)		

3	11 (11.0%)	84 (13.6%)		
Number of GDM prescriptions $\geq 2$	40 (40.0%)	323 (52.4%)	0.010	0.589 (0.395-0.879)

Data are expressed as means  $\pm$  SD or % (n).

ACEIs/ARBs= angiotensin-converting enzyme inhibitors/angiotensin-receptor blockers; AF= atrial fibrillation; BMI= body mass index; BUN= blood urine nitrogen; CAD= coronary artery disease; CCB= calcium channel blocker; CKD= chronic kidney disease; COPD= chronic obstructive pulmonary disease; Cr= creatinine; CV= cardiovascular; DBP= diastolic blood pressure; DM= diabetes mellitus; Echo= echocardiography; GDM= guideline-directed medication; HF= heart failure; Hgb= hemoglobin; HR= heart rate; HTN= hypertension; ICM= ischemic cardiomyopathy; K= potassium; LA= left atrium; LVEF= left ventricular ejection fraction; MI= myocardial infarction; Na= sodium; NICM= non-ischemic cardiomyopathy; OSA= obstructive sleep apnea; PAOD= peripheral artery occlusion disease; SBP= systolic blood pressure; SHF= systolic heart failure.

\* Data first collected during the index hospitalization.