

Supplemental Table 1. Missing data at time of B-type natriuretic peptide measurement

	Hospitalized HF Group	Abnormal Echo Group	Abnormal Hemodynamics Group
BNP	0 (0)	0 (0)	0 (0)
Age	0 (0)	0 (0)	0 (0)
Male	0 (0)	0 (0)	0 (0)
Race	366 (4.0)	34 (0.5)	3 (0.8)
BMI	4,476 (48.9)	2,327 (33.0)	116 (32.0)
Prevalence of CAD	0 (0)	0 (0)	0 (0)
Prevalence of hypertension	67 (0.7)	49 (0.7)	9 (2.5)
Prevalence of diabetes mellitus	0 (0)	0 (0)	0 (0)
Prevalence of CKD	0 (0)	0 (0)	0 (0)
Prevalence of atrial fibrillation	0 (0)	0 (0)	0 (0)
Heart rate	5,086 (55.6)	2,258 (32.1)	232 (63.9)
Systolic BP	163 (1.8)	800 (11.4)	33 (9.1)
Diastolic BP	183 (2.0)	812 (11.5)	34 (9.4)
Creatinine	95 (1.0)	309 (4.4)	1 (0.3)
Glucose	136 (1.5)	322 (4.6)	2 (0.6)
Septal Wall	5,182 (56.6)	434 (6.2)	193 (53.2)
Posterior Wall	4,540 (49.6)	110 (1.6)	167 (46.0)
LV internal diameter in diastole, mm	4,493 (49.1)	87 (1.2)	162 (44.6)
LV mass, g	5,245 (57.3)	467 (6.6)	200 (55.1)
Prevalence of LVH	6,000 (65.6)	767 (10.9)	247 (68.0)
LVEF	4,655 (50.9)	320 (4.5)	159 (43.8)
Prevalence of Preserved LVEF	4,655 (50.9)	320 (4.5)	159 (43.8)
LVEDP	8,689 (94.9)	6,891 (97.9)	75 (20.7)
PCWP	8,836 (96.5)	6,965 (98.9)	223 (61.4)
Right atrial pressure	8,859 (96.8)	6,966 (98.9)	235 (64.7)
Cardiac Index (Fick)	8,869 (96.9)	6,984 (99.2)	248 (68.3)

Values are counts (percent). BNP, B-type natriuretic peptide; HF, heart failure; Echo, echocardiogram; CAD, coronary artery disease; CKD, chronic kidney disease; BP, blood pressure; LV, left ventricular; LVH, left ventricular hypertrophy; LVEF, left ventricular ejection fraction; LVEDP, left ventricular end-diastolic pressure; PCWP, pulmonary capillary wedge pressure

Supplemental Table 2. Characteristics of patients hospitalized with heart failure who had low BNP (< 50 pg/ml) stratified according to preserved vs. reduced left ventricular ejection fraction.

	Preserved LVEF N = 129 (5.6%)	Reduced LVEF N = 35 (1.6%)
BNP, pg/ml	27 (17, 36)	30 (18, 39)
Age, years	57 (48, 66)	47 (42, 57)
Male, %	49	51
Non-white race, %	25	18
BMI, kg/m ²	37 (32, 47)	34 (32, 42)
Coronary artery disease, %	51	66
Hypertension, %	83	80
Diabetes mellitus, %	28	14
Chronic kidney disease, %	22	17
Heart rate, bpm	95 (84, 110)	88 (82, 98)
Systolic blood pressure, mmHg	126 (116, 140)	118 (108, 132)

Data presented at median (25th, 75th percentile) or percentage. Preserved LVEF ≥50%;
Reduced LVEF <50%; LVEF, left ventricular ejection fraction; bpm, beats per minute

Supplemental Table 3. Summary statistics from whole exome sequencing

Subject	Total Reads	Aligned (Genome)	% Aligned	Aligned (Target)	Capture Efficiency	Read Pair Duplicates	% Duplication
1	131779822	131633817	99.89%	105529813	80.17%	10024	0.02%
2	143712516	143602853	99.92%	115796305	80.64%	5262	0.01%
3	136695478	136581313	99.92%	109325067	80.04%	9318	0.01%
4	128781234	128699322	99.94%	104341086	81.07%	3960	0.01%
5	134889312	134777177	99.92%	110113176	81.70%	3888	0.01%
6	125477798	125396407	99.94%	101503697	80.95%	4140	0.01%
7	177641526	177506973	99.92%	141862823	79.92%	7078	0.01%
8	147865030	147754582	99.93%	118191032	79.99%	5051	0.01%
9	123344394	123246776	99.92%	99037933	80.36%	4189	0.01%