Supplemental Table S1. Main clinical characteristics, laboratory and ultrasound parameters according to HFrEF or non-HFrEF

Clinical parameters	HFrEF (n = 28)	non-HFrEF (n = 120)	p
Age (years)	88 ± 5	88 ± 5	0.927
Sex (males, %)	14 (50)	48 (40)	0.334
BMI (Kg/m^2)	25 ± 4	25 ± 5	0.879
Hypertension (%)	27 (96)	107 (90)	0.237
Atrial fibrillation (%)	11 (40)	54 (45)	0.583
Diabetes Mellitus (%)	5 (18)	26 (21)	0.656
Ischemic Heart Disease (%)	12 (43)	37 (31)	0.223
Chronic Heart Failure (%)	16 (57)	56 (47)	0.318
COPD (%)	7 (25)	40 (33)	0.394
Anemia (Hb < 12 g/dL) (%)	9 (32)	56 (46)	0.163
Non-end stage CKD (%)	18 (64)	60 (50)	0.173
Cognitive impairment (%)	10 (36)	51 (42)	0.511
Loop diuretic (%)	21 (75)	82 (68)	0.490
Beta-blocker (%)	17 (60)	69 (57)	0.855
RAASi (%)	15 (53)	62 (51)	0.949
Framingham HF + (%)*	24 (86)	88 (73)	0.169
Laboratory parameters			
NT-proBNP (pg/mL)	9983 (5314-15597)	5700 (2286-11083)	***0.039***
eGFR (ml/min)	40 ± 20	48 ± 22	***0.050***
LUS parameters			
B-lines (n)	16 (13-19)	12 (6-15)	***0.001***
IS of pleural effusion (n)	3 (2-4)	1 (0-3)	***0.004***
TTE parameters			
LVEF (%)	30 ± 7	55 ± 7	***0.001***
RWT	0.48 ± 0.16	0.50 ± 0.13	0.067
LVMi (g/m^2)	120 ± 40	104 ± 26	***0.014***
LAVi (ml/m^2)	50 ± 27	43 ± 16	0.057
E/E'	12 ± 5	14 ± 5	0.356
TRV (m/s)	2.6 ± 0.5	2.8 ± 0.5	0.326
TAPSE (mm)	17 ± 4	19 ± 5	***0.031***
IVC (mm)	21 ± 5	19 ± 4	0.189
PAPs (mmHg)	37 ± 11	40 ± 12	0.254
Non-collapsible IVC (%)	14 (50)	47 (40)	0.230

HFrEF = heart failure with reduced ejection fraction, BMI = body mass index, COPD = chronic obstructive pulmonary disease, Hb = haemoglobin, BADL = basic activity of daily living, CKD = chronic kidney disease, RAASi = renin-angiotensin-aldosterone-system inhibitors, NT-proBNP = amino-terminal pro-brain-natriuretic peptide, eGFR = estimated glomerular filtration rate, LUS = lung ultrasound, IS = intercostal spaces, LVEF = left ventricular ejection fraction, RWT = relative wall thickness, LVMi = left ventricular mass index, LAVi = left atrial volume index, TRV = tricuspid regurgitation velocity, TAPSE = tricuspid annular plane systolic excursion, IVC = inferior vena cava, PAPs = systolic pulmonary arterial pressure.
**Positivity is defined by two major or one major and two minor criteria. Major criteria: Paroxysmal nocturnal dyspnoea; Neck vein distention; Rales; Radiographic cardiomegaly (increasing heart size on chest radiography); Acute pulmonary oedema; S3 gallop; Increased central venous pressure (>16 cm H2O at right atrium); Hepatojugular reflux; Weight loss >4.5 kg in 5 days in response to treatment. Minor criteria: Bilateral ankle oedema; Nocturnal cough; Dyspnoea on ordinary exertion; Hepatomegaly; Pleural effusion; Decrease in vital capacity by one-third from maximum recorded; Tachycardia (heart rate>120 beats/min).*

Supplemental Table S1 reports the same characteristics of the study population according to HFrEF or non-HFrEF patients.

Supplemental Table S2. Odds-ratios for HFrEF diagnosis

	HFrEF + (%)	HFrEF – (%)	OR (95% CI)	OR[1] (95% CI)
Total	n = 28 (19)	n = 120 (81)	-	-
NT-proBNP < 9531 pg/mL	13 (46)	84 (70)	Ref.	Ref.
NT-proBNP ≥ 9531 pg/mL	15 (54)	36 (30)	**2.7 (1.2-6.2)**	-
B-lines < 13	16 (57)	83 (69)	Ref.	Ref.
B-lines ≥ 13	12 (43)	37 (31)	1.6 (0.7-4)	-
Intercostal spaces < 1	7 (25)	43 (36)	Ref.	Ref.
Intercostal spaces ≥ 1	21 (75)	77 (64)	1.7 (0.6-4.2)	-
Combination -	21 (75)	113 (94)	Ref.	Ref.
Combination +	7 (25)	7 (6)	**5.3 (1.7-17)**	**5.4 (1.6-16)**

OR[1] = adjusted for age, sex and eGFR
HFrEF = heart failure with reduced ejection fraction, NT-proBNP = amino-terminal pro-brain natriuretic peptide

Supplemental Table S2 shows the risk of HFrEF compared to non-HFrEF.