**Supplementary Table S1. Baseline characteristics of the study population compared with patients excluded from the analysis because of inability to perform cardiopulmonary exercise testing.**

| | Study population (# 104) | Excluded population (# 20) | p |
|---|---|---|---|
| Age (years, mean±SD) | 58.4±12.0 | 68.5±8.2 | <0.001 |
| Male (%) | 84.6 | 65.0 | 0.046 |
| NYHA class (mean±SD) | 2.9±0.6 | 3.5±0.5 | <0.001 |
| LVEF (%, mean±SD) | 26.5±6.6 | 28.1±4.8 | 0.299 |
| TAPSE (mm, mean±SD) | 16.9±4.0 | 16.0±2.9 | 0.927 |
| PASP (mmHg, mean±SD) | 43.8±14.6 | 44.1±10.1 | 0.351 |
| IVCd (mm, mean±SD) | 20.0±4.8 | 21.5±2.3 | 0.181 |
| NT-proBNP (ng/L, mean±SD) | 2757.1±2337.5 | 2804.0±1602.4 | 0.873 |
| Hemoglobin (g/dl, mean±SD) | 12.9±1.7 | 10.4±1.4 | <0.001 |
| Sodium (mEq/L, mean±SD) | 138.1±3.6 | 134.7±4.1 | <0.001 |
| eGFR (mL/min/1.73 m², mean±SD) | 61.4±24.0 | 38.4±12.5 | <0.001 |
| Frailty | 2.2±1.6 | 3.6±1.4 | <0.001 |
| MitraClip (%) | 6.7 | 5.0 | 0.620 |
| ICD (%) | 84.6 | 70.0 | 0.089 |
| CRT (%) | 37.5 | 25.0 | 0.285 |
| Sacubitril/valsartan (%) | 76.9 | 45.0 | 0.004 |
| Furosemide (%) | 87.5 | 85.0 | 0.760 |
| Amiodarone (%) | 37.5 | 65.0 | 0.018 |
| Metolazone (%) | 4.8 | 10.0 | 0.357 |
| Ivabradine (%) | 5.8 | 10.0 | 0.481 |
| SGLT2 inhibitors (%) | 52.9 | 50.0 | 0.813 |
| MRAs (%) | 76.5 | 40.0 | 0.002 |
| Digoxin (%) | 10.6 | 15.0 | 0.400 |
| Beta-blockers (%) | 90.4 | 75.0 | 0.53 |

NYHA=New York Heart Association, LVEF=left ventricular ejection fraction, TAPSE=Tricuspid Annular Plane Systolic Excursion, PASP=Pulmonary Arterial Systolic Pressure, IVCd=Inferior Vena Cava diameter, NT-proBNP=N-terminal fragment of pro brain natriuretic peptide, eGFR=estimated Glomerular Filtration Rate, ICD=Implantable Cardioverter Defibrillator, CRT=Cardiac Resynchronization Therapy, SGLT2=Sodium-Glucose Transport Protein 2, MRAs=Mineralocorticoid receptor antagonist.

**Supplementary Table S2. Bootstrap validation of the multivariable Cox regression model.**

| Variable | B (original) | SE (original) | p-value (original) | B (bootstrap) | 95% CI (bootstrap) | p-value (bootstrap) |
|---|---|---|---|---|---|---|
| Age | −0.086 | 0.025 | <0.001 | −0.086 | −0.151 to −0.034 | 0.003 |
| Sex (Male) | −0.410 | 0.482 | 0.395 | −0.410 | −1.652 to 1.162 | 0.445 |
| NT-proBNP (ln) | 0.025 | 0.008 | 0.001 | 0.025 | 0.013 to 0.049 | 0.003 |
| Physical Frailty | 0.612 | 0.199 | 0.002 | 0.612 | 0.246 to 1.134 | 0.002 |
| MECKI | 0.046 | 0.019 | 0.014 | 0.046 | 0.009 to 0.096 | 0.015 |

Bootstrap results are based on 1000 resampled datasets.

B=regression coefficient, SE=standard error, CI=confidence interval, NT-proBNP=N-terminal fragment of pro brain natriuretic peptide, MECKI=Metabolic Exercise Cardiac Kidney Index.

**Supplementary Table S3. Multivariable Cox regression analysis for mortality (sensitivity analysis).**

| Variable | HR | 95% CI | p-value |
|---|---|---|---|
| Age | 0.902 | 0.848–0.951 | 0.001 |
| Sex (Male) | 0.421 | 0.135–1.326 | 0.137 |
| NT-proBNP (ln) | 1.038 | 1.011–1.056 | 0.002 |
| Physical Frailty | 2.077 | 1.261–3.416 | 0.004 |
| MECKI | 1.072 | 1.024–1.126 | 0.003 |

Analyses were restricted to mortality, censoring patients at the time of urgent transplantation or LVAD implantation. HR=hazard ratio; CI=confidence interval, NT-proBNP=N-terminal fragment of pro brain natriuretic peptide, MECKI=Metabolic Exercise Cardiac Kidney Index.