|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Table 1**  **Variable** | **Missing** | **HFrEF**  **LVEF <40%**  **N=124** | **HFmrEF#**  **LVEF 40-49%**  **N=68** | **HFpEF#**  **LVEF >50%**  **N=150** | **P-value** |
| **Demographics** | | | | | |
| **Age – years** | 0 | 74 (64-81) | 76 (68-82) | 77 (69-84) | 0.03 |
| **Men – no. (%)** | 0 | 100 (81) | 48 (71) | 81 (54) | <0.001 |
| **NYHA I** | 0 | 16 (13) | 7 (10) | 27 (18) | 0.14 |
| **NYHA II** | 69 (55) | 46 (68) | 92 (61) |
| **NYHA III** | 39 (31) | 15 (22) | 31 (21) |
| **IHD – no. (%)** | 0 | 86 (69) | 31 (46) | 50 (33) | <0.001 |
| **DM – no. (%)** | 0 | 41 (33) | 18 (27) | 40 (27) | 0.45 |
| **Hypertension – no. (%)** | 0 | 54 (43) | 37 (54) | 97 (65) | 0.002 |
| **Smoker – no. (%)** | 0 | 17 (14) | 7 (10) | 19 (13) | 0.79 |
| **Atrial fibrillation – no. (%)** | 0 | 44 (36) | 38 (56) | 82 (55) | 0.002 |
| **COPD – no. (%)** | 0 | 24 (19) | 13 (19) | 29 (19) | 0.99 |
| **SBP – mmHg** | 0 | 132 (19) | 141 (28) | 144 (26) | <0.001 |
| **DBP – mmHg** | 0 | 72 (11) | 74 (11) | 76 (12) | 0.052 |
| **Heart rate – bpm** | 0 | 73 (13) | 72 (16) | 72 (14) | 0.83 |
| **BMI – kg/m2** | 0 | 29 (5) | 30 (6) | 30 (7) | 0.42 |
| **BSA – m2** | 0 | 2.0 (0.2) | 1.9 (0.2) | 1.9 (0.3) | 0.45 |
| **Clinical congestion** | | | | | |
| **No signs of congestion – no. (%)** | 0 | 80 (64) | 39 (57) | 84 (56) | 0.34 |
| **Oedema – None – no. (%)** | 0 | 87 (70) | 44 (65) | 94 (63) | 0.49 |
| **Oedema –Ankles – no. (%)** | 15 (12) | 13 (19) | 22 (15) |
| **Oedema ->ankles – no. (%)** | 22 (18) | 11 (16) | 34 (23) |
| **Lung crackles – None – no. (%)** | 112 (90) | 59 (87) | 131 (87) | 0.68 |
| **Lung crackles – Basal – no. (%)** | 12 (10) | 9 (13) | 19 (13) |
| **JVP – not raised – no. (%)** | 99 (80) | 52 (77) | 121 (81) | 0.73 |
| **JVP – 1 to 4 cm – no. (%)** | 20 (16) | 14 (21) | 21 (14) |
| **JVP – to earlobe – no. (%)** | 5 (4) | 2 (3) | 8 (5) |
| **Blood tests** | | | | | |
| **Creatinine – µmol/l** | 0 | 110 (90-139) | 100 (84-130) | 100 (79-127) | 0.05 |
| **Urea – mmol/l** | 0 | 9.0 (6.8-12.3) | 9.4 (6.9-11.9) | 8.1 (6.4-11.0) | 0.18 |
| **Haemoglobin – g/dl** | 0 | 13.2 (1.7) | 13.3 (1.5) | 13.0 (1.8) | 0.42 |
| **Albumin – g/l** | 0 | 36 (3) | 37 (3) | 36 (3) | 0.38 |
| **Bilirubin – µmol/l** | 0 | 12 (9-15) | 11 (9-15) | 10 (8-13) | 0.006 |
| **NT-proBNP – ng/l** | 2 | 1494 (684-3502) | 1330 (382-2881) | 1100 (354-1994) | 0.003 |
| **NT-proBNP – ng/l (SR only)** | 2 | 1124 (436-2257) | 352 (192-542) | 349 (126-1172) | <0.001 |
| **Treatment** | | | | | |
| **Beta-blocker – no. (%)** | 0 | 113 (91) | 58 (85) | 116 (77) | 0.008 |
| **ACE-I or ARB – no. (%)** | 0 | 111 (90) | 59 (87) | 120 (80) | 0.08 |
| **MRA – no. (%)** | 0 | 83 (67) | 38 (56) | 45 (30) | <0.001 |
| **Loop diuretic – no. (%)** | 0 | 104 (84) | 47 (69) | 107 (71) | 0.022 |
| **LD increased – no. (%)** | 0 | 10 (8) | 9 (13) | 16 (11) | 0.51 |
| **LD decreased/stopped – no. (%)** | 0 | 5 (4) | 3 (4) | 9 (6) | 0.74 |
| **MRA added – no. (%)** | 0 | 9 (7) | 4 (6) | 18 (12) | 0.23 |
| **Thiazide added – no. (%)** | 0 | 2 (2) | 1 (2) | 2 (1) | 0.98 |
| **CRT – no. (%)** | 0 | 20 (16) | 7 (10) | 1 (<1) | <0.001 |
| **Echocardiography** | | | | | |
| **LVEDV – ml** | 0 | 214 (166-261) | 135 (110-173) | 110 (90-136) | <0.001 |
| **LVEDD – cm** | 0 | 6.2 (5.8-6.9) | 5.3 (4.8-5.9) | 4.9 (4.5-5.4) | <0.001 |
| **LVEF - %** | 0 | 32 (25-35) | 45 (43-47) | 57 (53-61) | NA |
| **History of LVEF <40% – no. (%)** | 0 | NA | 39 (58) | 45 (30) | NA |
| **LAD – cm** | 0 | 4.6 (4.0-5.1) | 4.2 (3.8-4.9) | 4.3 (3.8-4.8) | 0.03 |
| **LAVI - ml/m2** | 0 | 44 (36-57) | 45 (33-63) | 42 (32-55) | 0.19 |
| **Septal E/E’** | 29 | 18 (13-24) | 13 (10-18) | 13 (10-16) | <0.001 |
| **Lateral E/E’** | 13 | 13 (9-17) | 10 (7-13) | 10 (7-13) | <0.001 |
| **TAPSE – mm** | 9 | 1.7 (1.4-2.1) | 1.9 (1.5-2.4) | 2.1 (1.7-2.4) | <0.001 |
| **TR gradient – mmHg** | 49 | 29 (21-38) | 30 (22-38) | 29 (24-37) | 0.92 |
| **Mitral regurgitation; None/Trivial – no. (%)** | 0 | 50 (40) | 36 (53) | 76 (51) | 0.37 |
| **Mitral regurgitation; Mild– no. (%)** | 66 (53) | 29 (43) | 68 (45) |
| **Mitral regurgitation; >Moderate – no. (%)** | 8 (7) | 3 (4) | 6 (4) |
| **Tricuspid regurgitation; None/Trivial – no. (%)** | 0 | 65 (52) | 36 (53) | 80 (53) | 0.40 |
| **Tricuspid regurgitation; Mild– no. (%)** | 57 (46) | 30 (44) | 61 (41) |
| **Tricuspid regurgitation; >Moderate – no. (%)** | 2 (2) | 2 (3) | 9 (6) |
| **Congestion by ultrasound** | | | | | |
| **IVC – cm** | 7 | 2.0 (1.7-2.4) | 2.0 (1.6-2.4) | 2.0 (1.7-2.3) | 0.98 |
| **IVC collapse>50% – no. (%)** | 7 | 93 (76) | 50 (77) | 119 (80) | 0.68 |
| **Visible intrahepatic veins – no. (%)** | 4 | 93 (76) | 49 (74) | 130 (87) | 0.035 |
| **Max intrahepatic vein diameter - cm** | 4 | 0.7 (0.5-1.0) | 0.8 (0.5-0.9) | 0.7 (0.4-0.9) | 0.59 |
| **JVD Ratio** | 23 | 5.1 (2.9-6.7) | 5.5 (3.1-7.3) | 5.4 (3.3-7.4) | 0.37 |
| **B-lines** | 0 | 6 (2-21) | 6 (2-20) | 7 (2-15) | 0.55 |
| **B-lines = 0** | 0 | 17 (14) | 16 (16) | 28 (19) | 0.54 |

**Table 1:** Characteristics of patients with HF by clinical phenotype, heart failure with reduced (HFrEF), mid-range (HFmEF), or preserved (HFpEF) left ventricular ejection fraction (LVEF). List of abbreviation used: IHD - ischemic heart disease; DM – diabetes mellitus; COPD - chronic obstructive pulmonary disease; SBP - systolic blood pressure; DBP - diastolic blood pressure; BMI - body mass index; BSA – body surface area; NTproBNP - N-terminal B-type natriuretic peptide;; JVP - jugular venous pressure; ACE- angiotensin-converting-enzyme inhibitor; ARB - Angiotensin II receptor blocker; MRA - mineralocorticoid receptor antagonist; LD – loop diuretic; CRT - cardiac resynchronization therapy; LVEDD - left ventricle end-diastolic diameter; LVEDV - left ventricle end diastolic volume; LAD – left atrial diameter; LAVI - left atrial volume index; TAPSE - Tricuspid Annular Plane Systolic Excursion; TR gradient- Trans-Tricuspid systolic gradient, IVC – inferior vena cava; JVD – jugular vein diameter. # includes HF with recovered LVEF for the purposes of this exercise

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Correlation coefficient | | | | | | | |
|  | **NT-proBNP** | **NT-proBNP**  **(if in SR)** | **NT-proBNP**  **(if in AF)** | **JVD ratio** | **Intrahepatic vein size** | **IVC** | **B-lines** |
| *NT-proBNP – ng/l* | - | **-** | **-** | **-0.487\*\*\*** | **0.472\*\*\*** | **0.483\*\*\*** | **0.424\*\*\*** |
| *NT-proBNP (if in SR)* | - | **-** | **-** | **-0.365\*\*\*** | **0.388\*\*\*** | **0.427\*\*\*** | **0.352\*\*\*** |
| *NT-proBNP (if in AF)* | - | **-** | **-** | **-0.440\*\*\*** | **0.348\*\*\*** | **0.318\*\*\*** | **0.460\*\*\*** |
| *JVD ratio* | - | - | - | - | **-0.449\*\*\*** | **-0.443\*\*\*** | **-0.391\*\*\*** |
| *Intrahepatic vein size - cm* | - | - | - | - | - | **0.829\*\*\*** | **0.326\*\*\*** |
| *IVC – cm* | - | - | - | - | - | - | **0.368\*\*\*** |
| *Age- years* | **0.489\*\*\*** | **0.461\*\*\*** | **0.394\*\*\*** | **-0.322\*\*\*** | 0.180\*\* | **0.219\*\*\*** | **0.294\*\*\*** |
| *BMI- kg/m2* | -0.159\*\* | -0.167\* | **-0.287\*\*\*** | -0.024 (ns) | -0.012 (ns) | 0.019 (ns) | **-0.235\*\*\*** |
| *SBP – mmHg* | 0.066 (ns) | 0.123 (ns) | -0.022 (ns) | -0.092 (ns) | -0.065 (ns) | -0.003 (ns) | 0.125\* |
| *Creatinine µmol/l* | 0.186\*\* | 0.187\* | **0.291\*\*\*** | -0.054 (ns) | 0.067 (ns) | 0.057 (ns) | 0.016 (ns) |
| *Haemoglobin – g/dl* | **-0.248\*\*\*** | **-0.322\*\*\*** | **-0.341\*\*\*** | 0.169\*\* | -0.170\*\* | -0.170\*\* | -0.149\*\* |
| *LVEF - %* | **-0.211\*\*\*** | **-0.343\*\*\*** | **-0.343\*\*\*** | 0.086 (ns) | -0.089 (ns) | -0.032 (ns) | -0.067 (ns) |
| *LA volume – ml* | **0.469\*\*\*** | **0.374\*\*\*** | **0.332\*\*\*** | **-0.293\*\*\*** | **0.462\*\*\*** | **0.493\*\*\*** | **0.247\*\*\*** |
| *TR gradient - mmHg* | **0.453\*\*\*** | **0.431\*\*\*** | **0.367\*\*\*** | **-0.381\*\*\*** | **0.446\*\*\*** | **0.460\*\*\*** | **0.448\*\*\*** |

**Table 2.** Correlations amongst biochemical and ultrasound measures of congestion. Correlation with other clinical, biochemical and echocardiographic variables of interest is also shown. A log transformation for NTproBNP before conducting the analysis was done to satisfy the model assumptions. Legend: \*\*\* p<0.001 (also shown in bold), \*\* p<0.01, \* P<0.05, ns = p>0.05

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **Association with the Composite of First HFH or Death**  **Multivariable analysis** | | | | | | | | | | | |
| Models including B-Lines | | | Models including JVD Ratio | | | Models including IVC | | | Model including clinical congestion | | |
| **HR (95% CI)** | **χ2** | **p-value** | **HR (95% CI)** | **χ2** | **p-value** | **HR (95% CI)** | **χ2** | **p-value** | **HR (95% CI)** | **χ2** | **p-value** |
| **Age – year** | a)1.01 (0.98-1.05)  b)1.01 (0.98-1.05)  c) 1.01 (0.98-1.05) | 0.3  0.3  0.3 | 0.57  0.58  0.58 | a) 1.01 (0.97-1.05)  b) 1.01 (0.97-1.05) | 0.2  0.2 | 0.67  0.61 | a) 1.01 (0.98-1.05)  b) 1.01 (0.97-1.04) | 0.4  0.1 | 0.51  0.79 | 1.01 (0.97-1.04) | 0.1 | 0.76 |
| **NYHA class**  **(III vs. I/II)** | a) 1.70 (0.94-3.06)  b) 1.67 (0.93-3.00)  c) 1.69 (0.94-3.05) | 3.1  2.9  3.1 | 0.08  0.09  0.08 | a) 1.33 (0.72-2.48)  b) 1.40 (0.76-2.58) | 0.8  1.1 | 0.36  0.29 | a) 1.69 (0.94-3.04)  b) 1.61 (0.89-2.91) | 3.1  2.5 | 0.08  0.11 | 1.64 (0.92-2.93) | 2.8 | 0.10 |
| **Urea – mmol/l** | a) 1.03 (0.99-1.07)  b) 1.04 (0.99-1.08)  c) 1.03 (0.99-1.08) | 2.3  2.6  2.3 | 0.12  0.11  0.13 | **a) 1.04 (1.00-1.08)**  **b) 1.04 (1.00-1.09)** | **3.9**  **4.2** | **0.048**  **0.040** | a) 1.03 (0.99-1.07)  b) 1.04 (1.00-1.08) | 2.2  3.0 | 0.14  0.08 | 1.03 (0.99-1.07) | 1.8 | 0.18 |
| **Haemoglobin -g/dl** | a) 0.96 (0.82-1.13)  b) 0.97 (0.83-1.14)  c) 0.96 (0.82-1.13) | 0.2  0.2  0.2 | 0.66  0.69  0.65 | a) 0.96 (0.81-1.12)  b) 0.96 (0.81-1.13) | 0.3  0.3 | 0.58  0.62 | a) 0.99 (0.84-1.16)  b) 0.98 (0.84-1.15) | 0.0  0.1 | 0.90  0.80 | 0.97 (0.83-1.14) | 0.1 | 0.72 |
| **Log [NT-proBNP]** | **a) 5.18 (2.64-10.20)**  **b) 5.27 (2.54-10.95)**  **c) 5.25 (2.69-10.24)** | **22.7**  **19.8**  **23.7** | **<0.001**  **<0.001**  **<0.001** | **a) 4.11 (1.99-8.45)**  **b) 4.32 (2.12-8.80)** | **14.7**  **16.3** | **<0.001**  **<0.001** | **a) 4.08 (2.04-8.15)**  **b) 3.76 (1.85-7.64)** | **15.9**  **13.4** | **<0.001**  **<0.001** | **5.09 (2.61-9.90)** | **22.9** | **<0.001** |
| **Signs of congestion**  **(vs no signs)** | - | - | - | - | - | - | - | - | - | 1.70 (0.93-3.11) | 3.0 | 0.084 |
| **B-lines:**  **Continuous variable**  **Terciles (compared to T1)**  ***Tercile 2***  ***Tercile 3***  **Above median (>7 vs <7)** | a) 1.004 (0.99-1.01)  *b) Reference*  1.65 (0.71-3.85)  1.54 (0.68-3.48)  c) 1.23 (0.65-2.35) | 0.4  -  1.3  1.1  0.4 | 0.51  -  0.25  0.29  0.53 | - | - | - | - | - | - | - | - | - |
| **JVD Ratio:**  **Continuous variable**  **Terciles (compared to T1)**  ***Tercile 2***  ***Tercile 3*** | - | - | - | **a) 0.84 (0.72-0.98)**  *b) Reference*  1.43 (0.51-3.99)  **2.64 (1.03-6.79)** | **5.3**  -  0.5  **4.0** | **0.022**  -  0.49  **0.044** | - | - | - | - | - | - |
| **IVC – cm:**  **Continuous variable**  **Terciles (compared to T1)**  ***Tercile 2***  ***Tercile 3*** | - | - | - | - | - | - | **a) 1.78 (1.17-2.72)**  *b) Reference*  1.26 (0.47-3.41)  **2.93 (1.15-7.48)** | **7.2**  0.2  **5.0** | **0.007**  0.64  **0.025** | - | - | - |

**Table 3a:** Model A – Clinical Variables - five candidate variables of interest (age, NYHA class III vs I/II, urea, haemoglobin and log [NTproBNP]) were chosen prospectively in addition to clinical and ultrasound measurements of congestion. A small number of variables were selected to avoid over-fitting. Four separate analyses are shown to test the independent association of different clinical and ultrasound measurements of congestion with outcome, including B-lines (left column), JVD ratio (mid column, left), IVC diameter (mid column, right) and presence of clinical signs of congestion (right column). Variables independently associated with outcome are shown in bold.

Three different models were constructed for B-lines, used as a continuous variable (a, top line), in terciles (b, mid line) or above or equal to (vs below) median (c, bottom line). B-lines were recorded for at least 5 beats for each chest site, but the number of B-lines might vary with time of acquisition. Adding heart rate to a model with B-lines as a continuous variable did not change results (only log [NT-proBNP] remained associated with outcome; HR (95% CI): 5.32 (2.71-10.45), p<0.001).

Two different models were constructed for JVD ratio and IVC diameter, used as a continuous variable (a, top line), or in terciles (b, bottom line).

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **Association with The Composite of First HFH or Death**  **Multivariable analysis** | | | | | | | | |
| Model including B-Lines | | | Model including JVD Ratio | | | Model including IVC | | |
| **HR (95% CI)** | **χ2** | **p-value** | **HR (95% CI)** | **χ2** | **p-value** | **HR (95% CI)** | **χ2** | **p-value** |
| **Age - year** | a) 1.02 (0.98-1.05)  b) 1.02 (0.98-1.05)  c) 1.02 (0.98-1.05) | 1.0  0.9  0.8 | 0.33  0.33  0.35 | 1.02 (0.98-1.05) | 0.6 | 0.44 | 1.02 (0.98-1.05) | 1.0 | 0.33 |
| **Log [NT-proBNP]** | **a) 5.58 (2.66-11.72)**  **b) 5.80 (2.69-12.48)**  **c) 5.69 (2.72-11.90)** | **20.6**  **20.1**  **21.3** | **<0.001**  **<0.001**  **<0.001** | **4.16 (1.89-9.15)** | **12.6** | **<0.001** | **4.80 (2.82-10.11)** | **17.0** | **<0.001** |
| **E/E’ lateral** | a) 1.02 (0.98-1.05)  b) 1.01 (0.98-1.05)  c) 1.02 (0.98-1.05) | 0.7  0.7  0.8 | 0.39  0.42  0.38 | 1.02 (0.98-1.05) | 0.7 | 0.40 | 1.02 (0.99-1.06) | 1.6 | 0.21 |
| **LAVI – ml/m2** | a)1.01 (1.00-1.02)  b) 1.01(0.99-1.01)  c) 1.02 (0.98-1.05) | 1.3  1.1  0.8 | 0.26  0.29  0.38 | 1.01 (0.99-1.02) | 1.0 | 0.32 | 1.01 (0.99-1.02) | 0.5 | 0.50 |
| **TR gradient - mmHg** | a) 1.00 (0.97-1.02)  b) 1.00 (0.98-1.02)  c) 1.00 (0.98-1.02) | 0  0  0 | 0.83  0.99  0.90 | 1.00 (0.97-1.02) | 0 | 0.99 | 1.00 (0.97-1.02) | 0 | 0.71 |
| **B-lines:**  **Continuous variable**  **Terciles (compared to T1)**  ***Tercile 2***  ***Tercile 3***  **Above median (>7 vs <7)** | a) 1.01 (0.99-1.02)  *b) Reference*  1.53 (0.61-3.84)  1.52 (0.65-3.55)  c) 1.38 (0.69-2.77) | 0.9  -  0.8  0.9  0.8 | 0.36  -  0.36  0.34  0.37 | - | - | - | - | - | - |
| **JVD Ratio** | - | - | - | **0.85 (0.73-0.99)** | **4.3** | **0.037** | - | - | - |
| **IVC – cm** | - | - | - | - | - | - | **1.95 (1.19-3.19)** | **7.1** | **0.007** |

**Table 3b:** Model B – Echocardiographic Variables - In addition to age and Log [NT-proBNP], the three echocardiographic variables that were most strongly associated with prognosis in univariable analysis were included in addition to ultrasound measurements of congestion. A small number of variables were selected to avoid over-fitting.

Three separate analyses are shown to test the independent association of different ultrasound measurements of congestion with outcome, including B-lines (left column), JVD ratio (mid column), and IVC diameter (right column). Variables independently associated with outcome are shown in bold.

Three different models were constructed for B-lines, used as a continuous variable (a, top line), in terciles (b, mid line) or above or equal to (vs below) median (c, bottom line).

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Discrimination | | | | Reclassification# | | | |
| Model No. | Model | C-statistics (95%CI) | Difference | | cNRI (95%CI) | p-value | IDI (95%CI) | p-value |
| 1 | Base model\* | 0.74 (0.68-0.80) | Compared to 1  (p-value) | Compared to 2a  (p-value) | - | - | - | - |
| 2a | 1 + log(NT-proBNP) | 0.77 (0.71-0.83) | 0.26 | - | 0.76 (0.41-1.11) | <0.001 | 0.16 (0.10-0.21) | <0.0001 |
| 2b | 1+ B-lines | 0.75 (0.69-0.81) | 0.75 | - | 0.35 (0.00-0.70) | 0.047 | 0.04 (0.01-0.07) | 0.027 |
| 2c | 1 + IVC | 0.77 (0.71-0.83) | 0.09 | - | 0.56 (0.21-0.91) | 0.002 | 0.06 (0.02-0.10) | 0.006 |
| 2d | 1 + JVD ratio | 0.76 (0.70-0.82) | 0.37 | - | 0.73 (0.38-1.08) | <0.001 | 0.10 (0.04-0.15) | 0.0003 |
| 2e | 1+ clinical signs of congestion (vs no signs) | 0.76 (0.69-0.82) | 0.39 | - | 0.50 (0.15-0.85) | 0.005 | 0.02 (-0.01,0.04) | 0.13 |
| 3 | 2a + B-lines | 0.77 (0.71-0.83) | 0.31 | 0.85 | 0.03 (-0.32, 0.38) | 0.88 | 0.00 (-0.00, 0.01) | 0.92 |
| 4 | 2a+ IVC | 0.78 (0.73-0.84) | 0.09 | 0.11 | 0.08 (-0.27, 0.43) | 0.65 | 0.01 (-0.01, 0.02) | 0.45 |
| 5 | 2a + JVD ratio | 0.79 (0.73-0.85) | 0.10 | 0.09 | 0.17 (-0.18, 0.52) | 0.34 | 0.03 (0.00-0.06) | 0.029 |
| 6 | 2a+ B-lines and IVC | 0.78 (0.72-0.84) | 0.09 | 0.12 | 0.07 (-0.28, 0.42) | 0.68 | 0.01 (-0.01, 0.02) | 0.46 |
| 7 | 2a + B-lines and JVD ratio | 0.79 (0.75-0.88) | 0.10 | 0.08 | 0.23 (-0.12, 0.58) | 0.19 | 0.03 (0.01-0.06) | 0.023 |

**Table 4**: The model’s discrimination and reclassification. \*base model: age, sex, NYHA (III vs II/I), creatinine, haemoglobin and left ventricular ejection fraction (LVEF). # note that the reclassification is based on the event at 1 year (n=125 patients with 59 events) as the method is based on logistic regression.





