|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **Missing** | **1st Decile of HsCRP\***  **(n=348)** | **HsCRP**  **<2 mg/L**  **N=1117** | **HsCRP**  **2-4.9 mg/L**  **N=1030** | **HsCRP**  **5.0-9.9 mg/L**  **N=800** | **HsCRP**  **>10mg/L**  **N=809** | **10th decile of hsCRP\***  **(n=376)** | **P** |
| **Demographics** | | | | | | | | |
| **Age – years** | 0 | 73 (64-79) | 74 (66-80) | 74 (66-80) | 73 (66-80) | 75 (68-81) | 77 (69-82) | 0.008 |
| **Sex (male) – no. (%)** | 0 | 228 (66) | 722 (65) | 647 (63) | 470 (59) | 494 (61) | 248 (66) | 0.06 |
| **Body mass index -kg/m2** | 20 | 27 (5) | 28 (5) | 30 (6) | 30 (7) | 29 (7) | 28 (7) | <0.001 |
| **Systolic blood pressure – mmHg** | 14 | 136  (118-153) | 139  (122-156) | 139  (122-158) | 138  (120-157) | 132  (114-153) | 129  (111-153) | <0.001 |
| **Heart rate – bpm** | 29 | 67 (59-79) | 68 (60-80) | 71 (60-82) | 74 (64-87) | 78 (67-91) | 80 (69-92) | <0.001 |
| **Sinus rhythm – no. (%)** | 48 | 267 (77) | 839 (76) | 715 (70) | 540 (69) | 537 (67) | 257 (69) | <0.001 |
| **Peripheral oedema>ankles – no. (%)** | 335 | 51 (16) | 197 (19) | 242 (26) | 238 (33) | 291 (40) | 147 (43) | <0.001 |
| **Lung crackles – no. (%)** | 555 | 18 (6) | 80 (8) | 122 (14) | 133 (20) | 167 (24) | 88 (27) | <0.001 |
| **Raised JVP – no. (%)** | 556 | 23 (8) | 84 (9) | 122 (14) | 124 (18) | 165 (24) | 82 (26) | <0.001 |
| **Diabetes – no. (%)** | 0 | 87 (25) | 288 (26) | 257 (25) | 193 (24) | 213 (26) | 103 (27) | 0.74 |
| **h/o Hypertension – no. (%)** | 0 | 169 (49) | 564 (51) | 561 (55) | 427 (53) | 409 (51) | 187 (50) | 0.19 |
| **IHD – no. (%)** | 0 | 202 (59) | 601 (54) | 533 (52) | 397 (50) | 384 (48) | 186 (50) | 0.039 |
| **Previous or current Smokers – no. (%)** | 0 | 36 (10) | 150 (13) | 162 (16) | 142 (18) | 157 (19) | 74 (20) | 0.003 |
| **COPD – no. (%)** | 0 | 13 (4) | 69 (6) | 79 (8) | 90 (11) | 108 (13) | 56 (15) | <0.001 |
| **HFrEF – no. (%)** | 0 | 127 (37) | 401 (36) | 364 (35) | 322 (40) | 321 (40) | 153 (41) | 0.10 |
| **HFmrEF– no. (%)** | 67 (19) | 231 (21) | 212 (21) | 166 (21) | 177 (22) | 94 (25) |
| **HFpEF– no. (%)** | 154 (44) | 485 (43) | 454 (44) | 312 (39) | 311 (38) | 129 (34) |
| **NYHA Class I – no. (%)** | 12 | 115 (33) | 318 (29) | 236 (23) | 111 (14) | 87 (11) | 37 (10) | <0.001 |
| **NYHA Class II – no. (%)** | 169 (49) | 551 (50) | 496 (48) | 392 (49) | 346 (43) | 155 (41) |
| **NYHA Class III – no. (%)** | 63 (18) | 240 (21) | 284 (28) | 274 (34) | 339 (42) | 158 (42) |
| **NYHA Class IV – no. (%)** | 0 (0) | 5 (<1) | 11 (1) | 20 (3) | 34 (4) | 25 (7) |
| **Blood results** | | | | | | | | |
| **NT-proBNP – ng/L** | 220 | 727  (272-1573) | 803  (322-1781) | 904  (364-2086) | 1073  (411-2704) | 1612  (659-4067) | 2156  (779-5663) | <0.001 |
| **NT-proBNP in SR – ng/l** | 158 | 495  (228-1247) | 566  (261-1328) | 628  (267-1517) | 737  (286-2118) | 1197  (473-3160) | 1418  (605-4117) | <0.001 |
| **NT-proBNP in AF – ng/l** | 57 | 1428  (989-2544) | 1496  (1027-2609) | 1682  (996-2895) | 1861  (996-3419) | 2613  (1175-5444) | 3919  (1980-6670) | <0.001 |
| **HsCRP – mg/L** | 0 | 0.4 (0.3-0.5) | 1.0 (0.6-1.4) | 3.2 (2.5-4.0) | 6.8 (5.8-8.1) | 19.0 (13.0-35.0) | 37.0 (27.0-59.0) | NA |
| **HsCRP - range** | 0 | 0.1-0.6 | 0.1-1.9 | 2.0-4.9 | 5.0-9.9 | 10.0-299 | 21-299 | NA |
| **Haemoglobin – g/L** | 202 | 13.6 (1.6) | 13.5 (1.6) | 13.5 (1.7) | 13.3 (1.7) | 12.5 (1.9) | 12.2 (1.8) | <0.001 |
| **White cell count - 109.L-1** | 195 | 6.6 (5.5-7.8) | 6.6 (5.6-8.0) | 7.1 (6.0-8.4) | 7.5 (6.2-8.7) | 8.0 (6.6-9.7) | 8.3 (6.7-10.3) | <0.001 |
| **Neutrophils- 109.L-1** | 551 | 4.0 (3.3-4.8) | 4.1 (3.3-5.0) | 4.4 (3.6-5.5) | 4.8 (3.8-5.8) | 5.4 (4.3-6.7) | 5.7 (4.6-7.3) | <0.001 |
| **Lymphocytes - 109.L-1** | 551 | 1.7 (1.4-2.1) | 1.7 (1.3-2.2) | 1.7 (1.3-2.2) | 1.7 (1.2-2.1) | 1.5 (1.1-2.0) | 1.4 (1.0-1.8) | <0.001 |
| **Plasma viscosity - mPaSec** | 984 | 1.6 (0.1) | 1.6 (0.1) | 1.7 (0.1) | 1.7 (0.2) | 1.8 (0.2) | 1.9 (0.2) | <0.001 |
| **Creatinine-µmol/L** | 85 | 93 (80-113) | 94 (80-116) | 99 (82-119) | 101 (81-129) | 107 (86-141) | 115 (88-150) | <0.001 |
| **Urea - mmol/L** | 89 | 6.3 (5.2-8.2) | 6.4 (5.1-8.4) | 6.6 (5.1-8.9) | 6.9 (5.2-9.6) | 7.7 (5.6-11.1) | 8.0 (5.8-11.9) | <0.001 |
| **Albumin – g/L** | 104 | 40 (3) | 39 (3) | 38 (3) | 37 (3) | 34 (4) | 33 (4) | <0.001 |
| **Cholesterol -mmol/L** | 208 | 4.4 (1.2) | 4.5 (1.2) | 4.6 (1.2) | 4.7 (1.4) | 4.4 (1.2) | 4.6 (1.3) | <0.001 |
| **Bilirubin – µmol/L** | 105 | 15 (12-18) | 14 (12-18) | 14 (12-18) | 14 (11-18) | 13 (11-18) | 13 (10-18) | <0.001 |
| **ALP - iu/L** | 95 | 64 (52-76) | 66 (54-80) | 71 (58-88) | 78 (63-96) | 86 (69-111) | 88 (71-114) | <0.001 |
| **ALT - iu/L** | 97 | 21 (17-27) | 21 (17-27) | 21 (17-27) | 19 (15-26) | 19 (15-26) | 18 (14-26) | <0.001 |
| **#Medications** | | | | | | | | |
| **Loop diuretic – no (%)** | 0 | 169 (49) | 594 (53) | 655 (64) | 536 (67) | 604 (75) | 285 (76) | <0.001 |
| **Mineralocorticoid antagonists– no (%)** | 0 | 82 (24) | 241 (22) | 194 (19) | 164 (21) | 177 (22) | 80 (21) | 0.33 |
| **ACE-I or ARB– no (%)** | 0 | 258 (74) | 796 (71) | 767 (75) | 539 (67) | 543 (67) | 231 (61) | 0.001 |
| **Beta-blockers– no (%)** | 0 | 222 (64) | 710 (64) | 635 (62) | 432 (54) | 434 (54) | 198 (53) | <0.001 |
| **Statins – no.%** | 0 | 231 (66) | 720 (64) | 576 (56) | 388 (49) | 355 (44) | 166 (44) | <0.001 |
| **Echocardiography** | | | | | | | | |
| **##LVEF (when measured) - %** | 1733 | 46 (32-56) | 45 (34-56) | 42 (33-56) | 40 (30-55) | 40 (30-55) | 39 (30-50) | <0.001 |
| **LAD - cm** | 436 | 4.1 (0.8) | 4.1 (0.8) | 4.2 (0.8) | 4.3 (0.8) | 4.2 (0.8) | 4.2 (0.8) | 0.003 |

**Table 1 –** Characteristics of patients with HF (n = 3,756) stratified by plasma concentration of HsCRP. \*Patients in the lowest decile are a subset of those in the lowest quartile (counted in both). \*Patients in the highest decile are a subset of those in the highest quartile (counted in both). # Medications recorded at baseline prior to changes subsequent to initial referral ## LVEF was measured in 2,023 patients (54%) and was visually estimated in the remainder as <40%, 40-49% or ≥50%. Abbreviations used: JVP – jugular venous pressure; IHD – ischaemic heart disease; HFrEF - heart failure with reduced ejection fraction; HFmrEF - heart failure with midrange ejection fraction; HFpEF - heart failure with preserved ejection fraction; SR – sinus rhythm; AF – atrial fibrillation; ALT - alanine aminotransferase; ALP - alkaline phosphatase; LVEF – left ventricular ejection fraction; LAD – left atrial diameter.

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| --- | --- | --- | --- | --- | --- | --- |
|  | **Univariable analysis** | | | **Multivariable analysis** | | |
| **Variable** | **HR (95% CI)** | **χ2** | **p-value** | **HR (95% CI)** | **χ2** | **p-value** |
| **Age - years** | **1.05 (1.05-1.06)** | **364** | **<0.001** | 1.05 (1.04-1.05) | 185 | <0.001 |
| **Sex (male) - no. (%)** | **1.15 (1.05-1.27)** | **8** | **0.005** | 1.31 (1.16-1.47) | 20 | <0.001 |
| **Body mass index -kg/m2** | **0.97 (0.96-0.97)** | **62** | **<0.001** | 0.99 (0.98-1.00) | 7 | 0.009 |
| **Systolic blood pressure – mmHg** | **0.99 (0.99-1.00)** | **46** | **<0.001** | 0.99 (0.99-1.00) | 8 | 0.005 |
| **Heart rate – bpm** | **1.01 (1.00-1.01)** | **32** | **<0.001** |  |  |  |
| **AF – (Yes vs no)** | **1.34 (1.21-1.48)** | **31** | **<0.001** |  |  |  |
| Peripheral oedema (>ankles vs <) | 1.78 (1.61-1.98) | 116 | <0.001 |  |  |  |
| Lung crackles – (Yes vs no) | 1.93 (1.70-2.19) | 106 | <0.001 |  |  |  |
| Raised JVP – (Yes vs no) | 1.96 (1.73-2.23) | 107 | <0.001 |  |  |  |
| **Diabetes - (Yes vs no)** | **1.17 (1.05-1.31)** | **8** | **0.005** |  |  |  |
| Hypertension - (Yes vs no) | 0.99 (0.90-1.09) | 0 | 0.89 |  |  |  |
| **IHD - (Yes vs no)** | **1.13 (1.02-1.24)** | **6** | **0.014** |  |  |  |
| Previous or current Smokers – no. (%) | 1.08 (0.96-1.23) | 2 | 0.20 |  |  |  |
| **HFrEF (vs other phenotypes)** | **1.25 (1.14-1.37)** | **22** | **<0.001** |  |  |  |
| HFrEF (vs HFpEF) | 1.31 (1.18-1.45) | 26 | <0.001 |  |  |  |
| HFrEF (vs HFmrEF) | 1.16 (10.3-1.31) | 6 | 0.018 |  |  |  |
| HFmrEF (vs HFpEF) | 1.13 (0.89-1.28) | 3 | 0.073 |  |  |  |
| **NYHA Class IV/III vs I/II** | **2.05 (1.86-2.25)** | **215** | **<0.001** | 1.54 (1.37-1.72) | 55 | <0.001 |
| **LogNTproBNP** | **2.89 (2.64-3.17)** | **507** | **<0.001** | 1.71 (1.51-1.95) | 68 | <0.001 |
| **LogHsCRP** | **1.85 (1.70-2.02)** | **207** | **<0.001** | 1.33 (1.19-1.48) | 27 | <0.001 |
| **Haemoglobin – g/L** | **0.82 (0.80-0.84)** | **199** | **<0.001** |  |  |  |
| White cell count - 109.L-1 | 1.03 (1.02-1.04) | 36 | <0.001 |  |  |  |
| Neutrophils- 109.L-1 | 1.03 (1.02-1.04) | 90 | <0.001 |  |  |  |
| Lymphocytes - 109.L-1 | 0.89 (0.83-0.95) | 11 | 0.001 |  |  |  |
| Plasma viscosity - mPaSec | 3.87 (2.77-5.41) | 63 | <0.001 |  |  |  |
| Creatinine-µmol/L | 1.003 (1.002-1.003) | 188 | <0.001 |  |  |  |
| **Urea - mmol/L** | **1.06 (1.05-1.06)** | **354** | **<0.001** | 1.02 (1.01-1.03) | 24 | <0.001 |
| **Albumin – g/L** | **0.89 (0.88-0.90)** | **342** | **<0.001** | 0.97 (0.95-0.99) | 14 | <0.001 |
| Cholesterol -mmol/L | 0.92 (0.89-0.96) | 15 | <0.001 |  |  |  |
| Bilirubin – µmol/L | 1.01 (1.00-1.01) | 22 | <0.001 |  |  |  |
| **ALP - iu/L** | **1.01 (1.00-1.01)** | **223** | **<0.001** | 1.003 (1.002-1.004) | 27 | <0.001 |
| **ALT - iu/L** | **0.99 (0.98-0.99)** | **18** | **<0.001** |  |  |  |
| LAD - cm | 1.27 (1.19-1.35) | 57 | <0.001 |  |  |  |

**Table 2 –** Univariable and multivariable Cox proportional hazard models for all-cause mortality in patients with heart failure. Variables entered in the multivariable model are highlighted in bold. Abbreviations used: JVP – jugular venous pressure; IHD – ischaemic heart disease; HFrEF - heart failure with reduced ejection fraction; HFmrEF - heart failure with midrange ejection fraction; HFpEF - heart failure with preserved ejection fraction; AF – atrial fibrillation; ALT- alanine aminotransferase; ALP - alkaline phosphatase; LVEF – left ventricular ejection fraction; LAD – left atrial diameter.

|  |  |  |  |
| --- | --- | --- | --- |
| Model comparison | C-index | ∆C-index  (by adding log(hsCRP)) | Compared to model 1/model M2  (t-statistic, p-value) |
| ***Model 1*** | | | |
| All HF Patients (n =3,413) | 0.70 | 0.02 | **t=4.17, p<0.0001** |
| HFrEF (n =1,157) | 0.69 | 0.02 | *t=2.80, p=0.005* |
| HFmrEF (n =764) | 0.72 | 0.01 | *t=1.35, p=0.18* |
| HFpEF (n =1,492) | 0.70 | 0.03 | *t=3.08, p=0.002* |
| ***Model 2*** | | | |
| All HF Patients (n =3,413) | 0.72 | 0.02 | **t=3.86, p<0.0001** |
| HFrEF (n =1,157) | 0.73 | 0.01 | t=1.95, p=0.05 |
| HFmrEF (n =764) | 0.73 | 0.01 | *t=1.49, p=0.14* |
| HFpEF (n =1,492) | 0.74 | 0.02 | *t=3.08, p=0.002* |

**Table 3:** Model discrimination**.\***Model 1: Age, Sex, BMI, SBP, DM, IHD, NYHA IV/III vs I/II, AF and creatinine. \*\*Model 2: model M1 + log(NT-proBNP). Results are shown in bold for all patients and in Italic for each HF phenotype. Abbreviations used: HFrEF - heart failure with reduced ejection fraction; HFmrEF - heart failure with midrange ejection fraction; HFpEF - heart failure with preserved ejection fraction.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *All HF patients (n=3,413)#* | | | | |
| Model comparison | cNRI (95%CI) | p-value | IDI (95%CI) | p-value |
| Model 1 + log(hsCRP) | 0.36 (0.27-0.45) | <0.0001 | 0.021 (0.015-0.027) | <0.0001 |
| Model 2 + log(hsCRP) | 0.30 (0.21-0.39) | <0.0001 | 0.013 (0.007-0.0189) | <0.0001 |
| *HFrEF population (n=1,157)* | | | | |
| Model 1 + log(hsCRP) | 0.36 (0.20-0.52) | <0.0001 | 0.019 (0.009-0.029) | 0.0003 |
| Model 2 + log(hsCRP) | 0.22 (0.06-0.38) | 0.003 | 0.008 (0.0002-0.016) | 0.031 |
| *HFmrEF population (764)* | | | | |
| Model 1 + log(hsCRP) | 0.38 (0.20-0.56) | <0.0001 | 0.016 (0.004-0.028) | 0.008 |
| Model 2 + log(hsCRP) | 0.30 (0.12-0.48) | 0.0013 | 0.010 (0.0002-0.020) | 0.041 |
| *HFpEF Population (n=1,492)* | | | | |
| Model 1 + log(hsCRP) | 0.34 (0.20-0.48) | <0.0001 | 0.023 (0.013-0.033) | <0.0001 |
| Model 2 + log(hsCRP) | 0.30 (0.16-0.44) | <0.0001 | 0.015 (0.005-0.025) | 0.0013 |

**Table 4:** Improvement in prediction of all-cause mortality at 2 years by using log(hsCRP). Model 1: Age, Sex, BMI, SBP, DM, IHD, NYHA IV/III vs I/II, AF and creatinine. Model 2: model 1 + log(NtproBNP). # excludes 218 patients who had follow-up shorter than 2 years or those with missing values (n=125).

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Cause and mode of death at 2 years in 3,538 patients with HF, according to phenotype and hsCRP levels #** | | | | | | | | | | | | | | | | | | |
|  | **HFrEF** | | | | | | | | **HFmrEF** | | | | | **HFpEF** | | | | |
|  | **All**  **N=1353** | **HsCRP**  **<2**  **mg/L**  **N=381** | | **HsCRP**  **2.0-4.9 mg/L**  **N=354** | | **HsCRP**  **5.0-9.9 mg/L**  **N=310** | | **HsCRP**  **>10 mg/L**  **N=308** | **All**  **N=743** | **HsCRP**  **<2**  **mg/L**  **N=221** | **HsCRP**  **2.0-4.9 mg/L**  **N=203** | **HsCRP**  **5.0-9.9 mg/L**  **N=156** | **HsCRP**  **>10 mg/L**  **N=163** | **All**  **N=1442** | **HsCRP**  **<2 mg/L**  **N=455** | **HsCRP**  **2.0-4.9 mg/L**  **N=418** | **HsCRP**  **5.0-9.9 mg/L**  **N=286** | **HsCRP**  **>10 mg/L**  **N=283** |
| **2-Y mortality** | **20.7%**  (n=280) | **13.1%**  (n=50) | | **13.3%**  (n=47) | | **24.2%**  (n=75) | | **35.1%**  (n=108) | **18.8%**  (n=140) | **13.1%**  (n=29) | **12.3 %**  (n=25) | **19.8%**  (n=31) | **33.8%**  (n=55) | **17.3%**  (n=250) | **10.1%**  (n=46) | **13.9%**  (n=58) | **18.5%**  (n=53) | **32.9%**  (n=93) |
| **Cause and mode of Death** | | | | | | | | | | | | | | | | | | |
| **CV** | **14.4%**  (n=195) | **10.2%**  (n=39) | | **9.6%**  (n=34) | | **16.5%**  (n=51) | | **23.1%**  (n=71) | **11.4%** (n=85) | **9.5%**  (n=21) | **5.9%**  (n=12) | **11.5%** (n=18) | **20.9%** (n=34) | **9.2%**  (n=133) | **6.4%**  (n=29) | **7.4%**  (n=31) | **11.2%** (n=32) | **14.5%** (n=41) |
| *Terminal HF* | **5.0%**  (n=68) | **2.9%**  (n=11) | | **3.9%**  (n=14) | | **6.5%**  (n=20) | | **7.5%**  (n=23) | **2.4%**  (n=18) | **2.7%**  (n=6) | **0.5%** (n=1) | **3.2%**  (n=5) | **3.7%**  (n=6) | **2.5%**  (n=36) | **1.8%**  (n=8) | **1.2%**  (n=5) | **3.1%**  (n=9) | **4.9%**  (n=14) |
| *Sudden* | **8.2%**  (n=112) | **6.3%**  (n=24) | | **5.1%**  (n=18) | | **8.4%**  (n=26) | | **14.3 %**  (n=44) | **7.1%**  (n=53) | **5.4%**  (n=12) | **4.9%**  (n=10) | **7.7%**  (n=12) | **11.7%**  (n=19) | **5.3%**  (n=76) | **3.7%**  (n=17) | **4.5%**  (n=19) | **6.3%**  (n=18) | **7.8%**  (n=22) |
| *Other CV* | **1.2%**  (n=15) | **1.0%**  (n=4) | | **0.6%**  (n=2) | | **1.6%** (n=5) | | **1.3%** (n=4) | **1.9%**  (n=14) | **1.4%**  (n=3) | **0.5%**  (n=1) | **0.6%**  (n=1) | **5.5%**  (n=9) | **1.4%**  (n=21) | **0.9%**  (n=4) | **1.7%**  (n=7) | **1.8%**  (n=5) | **1.8%**  (n=5) |
| **Non-CV** | **6.3%**  (n=85) | **2.9%**  (n=11) | | **3.7%**  (n=13) | | **7.7%**  (n=24) | | **12.0%**  (n=37) | **7.4%**  (n=55) | **3.6%**  (n=8) | **6.4%**  (n=13) | **8.3%**  (n=13) | **12.9%**  (n=21) | **8.1%**  (n=117) | **3.7%**  (n=17) | **6.5%**  (n=27) | **7.3%**  (n=21) | **18.4%**  (n=52) |
| *Infection* | **2.6%**  (n=35) | **1.3%**  (n=5) | | **1.7%**  (n=6) | | **3.5%**  (n=11) | | **4.2%**  (n=13) | **3.0%**  (n=22) | **0.5%**  (n=1) | **2.0%**  (n=4) | **3.2%**  (n=5) | **7.4%**  (n=12) | **3.7%**  (n=53) | **1.7%**  (n=8) | **3.8%**  (n=16) | **2.8%**  (n=8) | **7.4%**  (n=21) |
| *Cancer* | **2.5%**  (n=34) | **0.8%**  (n=3) | | **1.1%**  (n=4) | | **2.6%**  (n=8) | | **6.2%**  (n=19) | **3.1%**  (n=23) | **1.8%**  (n=4) | **3.4%**  (n=7) | **3.8%**  (n=6) | **3.7%**  (n=6) | **2.6%**  (n=38) | **0.9%**  (n=4) | **1.5%**  (n=6) | **2.8%**  (n=8) | **7.1%**  (n=20) |
| *Other Non CV/Unknown\** | **1.2%**  (n=16) | **0.8%**  (n=3) | | **0.9%**  (n=3) | | **1.6%**  (n=5) | | **1.6%**  (n=5) | **1.3%**  (n=10) | **1.3%**  (n=3) | **1.0%**  (n=2) | **1.3%**  (n=2) | **1.8%**  (n=3) | **1.8%**  (n=26) | **1.1%**  (n=5) | **1.2%**  (n=5) | **1.7%**  (n=5) | **3.9%**  (n=11) |
| **Origin of Cancer Attributed to Death** | | | | | | | | | | | | | | | | | | |
| *Lung* | *13* | | *1* | | *3* | | *2* | *7* | *5* | *1* | *1* | *1* | *2* | *13* | *0* | *3* | *1* | *9* |
| *Prostate* | *2* | | *0* | | *0* | | *0* | *2* | *2* | *0* | *2* | *0* | *0* | *1* | *0* | *0* | *1* | *0* |
| *GI* | *5* | | *1* | | *0* | | *2* | *2* | *9* | *3* | *1* | *3* | *2* | *9* | *2* | *3* | *1* | *3* |
| *Blood* | *4* | | *0* | | *0* | | *2* | *2* | *1* | *0* | *0* | *1* | *0* | *5* | *1* | *0* | *2* | *2* |
| *Renal/Urinary* | *2* | | *0* | | *1* | | *0* | *1* | *1* | *0* | *0* | *0* | *1* | *3* | *0* | *0* | *1* | *2* |
| *Breast* | *2* | | *0* | | *0* | | *0* | *2* | *1* | *0* | *0* | *1* | *0* | *2* | *0* | *0* | *2* | *0* |
| *Pancreas* | *3* | | *1* | | *0* | | *1* | *1* | *0* | *0* | *0* | *0* | *0* | *1* | *1* | *0* | *0* | *0* |
| *Liver* | *1* | | *0* | | *0* | | *0* | *1* | *0* | *0* | *0* | *0* | *0* | *1* | *0* | *0* | *0* | *1* |
| *Other/Unknown* | *2* | | *0* | | *0* | | *1* | *1* | *4* | *0* | *3* | *0* | *1* | *3* | *0* | *0* | *0* | *3* |

**Table 5.** Rate, cause and mode of death at 2 years (2-Y) in all patients with HF, according to different HF phenotypes and cut-offs of HsCRP. Abbreviations used: CV: cardiovascular; GI: gastrointestinal; HF: heart failure; HFrEF - heart failure with reduced ejection fraction; HFmrEF - heart failure with midrange ejection fraction; HFpEF - heart failure with preserved ejection fraction.# excludes 218 patients who had follow-up shorter than 2 years. \* The mode and cause of death were adjudicated as “unknown” in two patients only (one with HFmrEF and one with HFpEF).



Figure 1



Figure 2



Figure 3