

**SUPPLEMENTARY DATA**

**Table 1 of the supplementary data**

Characteristics of different CA125 commercial assays

Supplier	Name	Assay	Reference	Cut-off (U/mL)	Analytical Sensitivity (U/mL)	Assay Range (U/mL)
Abbott Diagnostic	ARCHITECT CA 125 II assay	Automated	2K45	35	≤ 1.0	1.0-1000
Roche Diagnostics	Elecsys CA 125 II	Automated	11776223 190	35	-	0.6-5000
Siemens Healthcare Diagnostics	ADVIA Centaur CA 125II Assay	Automated	09427226	35	2.0	2.0-600
Beckman Coulter	Access OV Monitor (Cancer Antigen 125)	Automated	386357	35	0.5	0.5-5,000
Ortho-Clinical Diagnostics	CA 125 II	Automated	6800038	35	-	5.5-1000
DiaSorin	LIAISON CA 125 IITM	Automated	314211	35	0.3	0-1000
LDN Labor Diagnostika Nord GmbH&Co	CA125 ELISA	ELISA	TM E-4300	35-65	0.25	0.25-600
DRG Diagnostics	DRG TM-CA 125 ELISA	ELISA	EIA-5072	35-65	0.25	0.25-600
IBL International	CA125 ELISA	ELISA	CA511201	35	-	1.5-500
Invitrogen	MUCIN 16/CA125 Human ELISA Kit	ELISA	EHMUC16	-	0.6	0.55-400
LSBio LifeSpan BioSciences	Human MUC16 / CA125 (Sandwich ELISA) ELISA Kit	ELISA	LS-F428-1	-	0.549	0.549-133.3

Abcam	Human CA125 ELISA Kit (MUC16)	ELISA	ab195213	-	0.07	1.56-100
R&D Systems	Human CA125/MUC16 Quantikine ELISA Kit	ELISA	DCA125	35	0.099	0.5-32

CA125, carbohydrate antigen 125; ELISA, enzyme-linked immunosorbent assay.

**Table 2 of the supplementary data**

Baseline characteristics among CA125 categories. Validation cohort

Variables	CA125 < 23 U/mL (n = 432)	CA125 23-34.9 U/mL (n = 149)	CA125 35-64.9 U/mL (n = 216)	CA125 ≥ 65 U/mL (n = 786)	P	P for trend
<b>Epidemiology and medical history</b>						
Age, y	68.5 ± 12.0	69.3 ± 13.3	71.0 ± 11.6	68.7 ± 12.4	.469	.589
Sex, male	312 (72.2)	109 (73.1)	154 (71.3)	566 (72.0)	.984	.883
Hypertension	291 (67.4)	99 (66.4)	150 (69.4)	462 (58.8)	.003	.002
Diabetes	143 (33.1)	52 (34.9)	74 (34.3)	271 (34.5)	.963	.668
Smoker	70 (16.2)	18 (12.1)	35 (16.2)	137 (17.4)	.449	.856
Former smoker	214 (49.6)	69 (43.6)	107 (49.5)	356 (45.3)	.455	.184
Prior valve surgery	24 (5.6)	14 (9.4)	14 (6.5)	64 (8.1)	.269	.163
Prior HF admission	116 (26.8)	45 (30.2)	51 (23.6)	213 (27.1)	.566	.893
IHD	251 (59.1)	84 (57.5)	116 (54.5)	399 (51.7)	.092	.011
Coronary revascularization	149 (34.5)	52 (34.9)	69 (31.9)	246 (31.3)	.635	.212
COPD	72 (16.7)	35 (23.5)	36 (16.7)	141 (17.9)	.280	.890
Stroke	33 (7.6)	13 (8.7)	31 (14.3)	74 (9.4)	.052	.269
PAD	45 (10.4)	16 (10.7)	35 (16.2)	94 (12)	.182	.361
<b>Signs</b>						
Heart rate, bpm <sup>a</sup>	79 ± 20	80 ± 18	83 ± 22	84 ± 21	.031	< .001
SBP, mmHg <sup>a</sup>	125 ± 23	122 ± 20	128 ± 24	122 ± 23	.081	.023
DBP, mmHg <sup>a</sup>	74 ± 13	73 ± 12	74 ± 17	74 ± 14	< .001	.837
Peripheral edema <sup>a</sup>	176 (51.5)	72 (56.7)	131 (72.8)	517 (75.0)	< .001	< .001
<b>ECG</b>						
Atrial fibrillation	183 (42.4)	67 (45.0)	108 (50.0)	371 (47.2)	.239	.096
BBB <sup>b</sup>	122 (28.6)	48 (32.4)	59 (27.3)	249 (32.0)	.411	.282

<b>Echocardiography</b>						
LVEF, % <sup>c</sup>	32.0 ± 9.8	31.5 ± 11.9	34.3 ± 12.7	30.1 ± 11.9	< .001	< .001
LVEF categories					.004	.157
< 40%						
40-49%	350 (89.1)	115 (87.1)	144 (77.4)	587 (86.4)		
≥ 50%	21 (5.3)	5 (3.8)	20 (10.7)	32 (4.7)		
	22 (5.6)	12 (9.1)	22 (11.8)	60 (8.8)		
LVEDD, mm <sup>d</sup>	61 ± 10	59 ± 10	60 ± 11	60 ± 9	.020	.852
LVEDS, mm <sup>e</sup>	49 ± 12	48 ± 11	49 ± 13	50 ± 12	.387	.088
LA diameter, m <sup>f</sup>	46 ± 8	46 ± 9	47 ± 8	48 ± 8	.281	< .001
<b>Laboratory</b>						
Hemoglobin, g/dL <sup>g</sup>	13.1 ± 1.9	13.1 ± 1.8	12.8 ± 2.0	13.1 ± 2.0	.720	.266
Serum creatinine, mg/dL <sup>h</sup>	1.28 ± 0.59	1.27 ± 0.48	1.32 ± 0.65	1.35 ± 0.62	.001	.082
eGFR (MDRD formula), mg/dL/1.73 m <sup>2h</sup>	64.4 ± 6.6	63.5 ± 23.0	63.0 ± 25.5	61.6 ± 24.7	.124	.070
BUN, mg/dL <sup>i</sup>	36.6 [22.7-59.2]	34.8 [22.2-52.2]	29 [19.1-50.9]	33.1 [21.9-54.6]	< .001	.060
Sodium, mmol/L <sup>h</sup>	140 ± 3	139 ± 4	139 ± 4	138 ± 4	< .001	< .001
Potassium, mmol/L <sup>h</sup>	4.2 ± 0.6	4.3 ± 0.7	4.2 ± 0.5	4.2 ± 0.6	< .001	.288
NT-proBNP, pg/dL <sup>j</sup>	1524 [755-3682]	2578 [1007-5478]	3371 [1520-6073]	4623 [2384-8656]	< .001	< .001
CA125, U/mL	13.2 [9.1-17.5]	28.2 [24.8-31.8]	48.3 [39.3-56.3]	170.1 [103.6-312.2]	< .001	< .001
<b>Medical treatment at discharge<sup>k</sup></b>						
Diuretics	431 (99.8)	148 (99.3)	216 (100)	786 (100)	.161	.137
Aldosterone antagonists	235 (54.4)	87 (58.4)	100 (46.3)	427 (54.3)	.099	.747
Beta-blockers	350 (81.0)	126 (84.6)	166 (76.8)	625 (79.5)	.299	.346
ACEI/ARB	303 (70.1)	96 (64.4)	152 (70.4)	542 (69.0)	.592	.890
<b>Endpoints</b>						
1-month death	5 (1.1)	2 (1.34)	5 (2.3)	30 (3.8)	.027	.005
1-month death or HF-readmission	17 (3.9)	8 (5.4)	14 (6.5)	81 (10.3)	< .001	< .001

<i>6-month death</i>	26 (6)	12 (8.1)	25 (11.6)	120 (15.3)	< .001	< .001
<i>6-month death or HF-readmission</i>	65 (15.1)	29 (19.5)	49 (22.7)	228 (29)	< .001	< .001

ACEI, angiotensin-converting enzyme inhibitors; ARB, angiotensin receptor blockers; BBB, bundle branch block; BUN, blood urea nitrogen; CA125, carbohydrate antigen 125; COPD, chronic obstructive pulmonary disease; DBP, diastolic blood pressure; eGFR, estimated glomerular filtration rate; HF, heart failure; IHD, ischemic heart disease; LA, left atrial LVEDD, left ventricle end-diastolic diameter; LVEF, left ventricle ejection fraction; LVESD, left ventricle end-systolic diameter; MDRD, Modification of Diet in Renal Disease; NT-proBNP, N-terminal pro-B-type natriuretic peptide; PAD, peripheral artery disease; SBP, systolic blood pressure.

Variables are expressed as No. (%), mean  $\pm$  standard deviation, or median [interquartile range].

<sup>a</sup>Data available in 1577 patients

<sup>b</sup>Data available in 1569 patients

<sup>c</sup>Data available in 1390 patients

<sup>d</sup>Data available in 1320 patients

<sup>e</sup>Data available in 897 patients

<sup>f</sup>Data available in 1128 patients

<sup>g</sup>Data available in 1553 patients

<sup>h</sup>Data available in 1568 patients

<sup>i</sup>Data available in 1419 patients

<sup>j</sup>Data available in 1548 patients

<sup>k</sup>Treatment received at discharge or on admission in patients with in-hospital mortality.

Figure 1 of the supplementary data

All-cause mortality risk among the prespecified subgroups. eGFR, estimated glomerular filtration rate; LVEF, left ventricle ejection fraction; NT-proBNP, N-terminal pro-B-type natriuretic peptide.

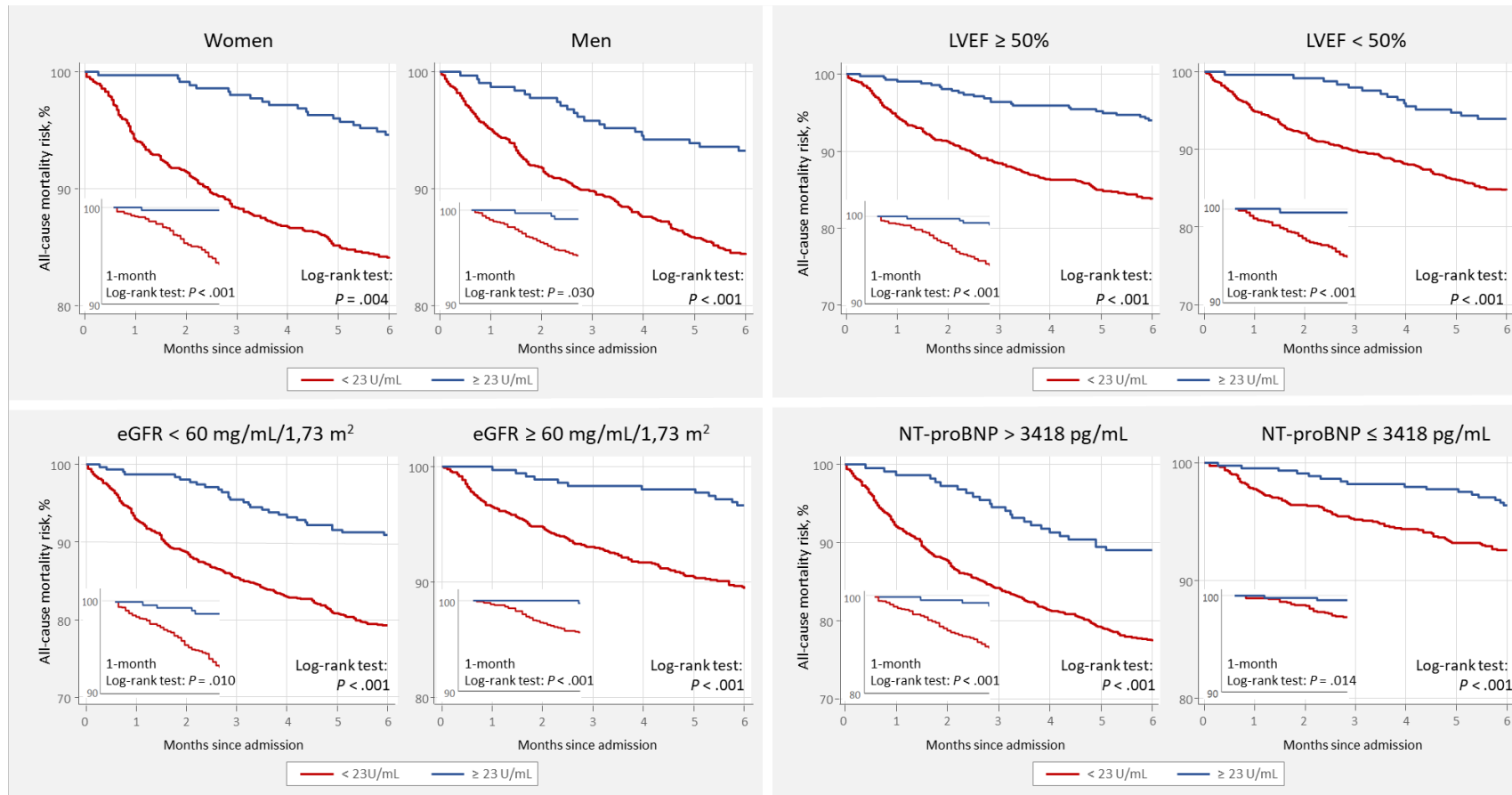


Figure 2 of the supplementary data

Death/HF-hospitalization risk among the prespecified subgroups. eGFR, estimated glomerular filtration rate; LVEF, left ventricle ejection fraction; NT-proBNP, N-terminal pro-B-type natriuretic peptide.

