

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
Epidemiology and medical history						
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
Signs						
Heart rate, bpm ^a	79 ± 20	80 ± 18	83 ± 22	84 ± 21	.031	< .001
SBP, mmHg ^a	125 ± 23	122 ± 20	128 ± 24	122 ± 23	.081	.023
DBP, mmHg ^a	74 ± 13	73 ± 12	74 ± 17	74 ± 14	< .001	.837
Peripheral edema ^a	176 (51.5)	72 (56.7)	131 (72.8)	517 (75.0)	< .001	< .001
ECG						
Atrial fibrillation	183 (42.4)	67 (45.0)	108 (50.0)	371 (47.2)	.239	.096
BBB ^b	122 (28.6)	48 (32.4)	59 (27.3)	249 (32.0)	.411	.282

Echocardiography						
LVEF, % ^c	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 ^d	61 ± 10	59 ± 10	60 ± 11	60 ± 9	.020	.852
LVEDS, mm ^e	49 ± 12	48 ± 11	49 ± 13	50 ± 12	.387	.088
LA diameter, m ^f	46 ± 8	46 ± 9	47 ± 8	48 ± 8	.281	< .001
Laboratory						
Hemoglobin, g/dL ^g	13.1 ± 1.9	13.1 ± 1.8	12.8 ± 2.0	13.1 ± 2.0	.720	.266
Serum creatinine, mg/dL ^h	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 ^{2h}	64.4 ± 6.6	63.5 ± 23.0	63.0 ± 25.5	61.6 ± 24.7	.124	.070
BUN, mg/dL ⁱ	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 ^h	140 ± 3	139 ± 4	139 ± 4	138 ± 4	< .001	< .001
Potassium, mmol/L ^h	4.2 ± 0.6	4.3 ± 0.7	4.2 ± 0.5	4.2 ± 0.6	< .001	.288
NT-proBNP, pg/dL ^j	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
Medical treatment at discharge ^k						
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
Endpoints						
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

6-month death	26 (6)	12 (8.1)	25 (11.6)	120 (15.3)	< .001	< .001
6-month death or HF-readmission	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 ± standard deviation, or median [interquartile range].

^aData available in 1577 patients

^bData available in 1569 patients

^cData available in 1390 patients

^dData available in 1320 patients

^eData available in 897 patients

^fData available in 1128 patients

^gData available in 1553 patients

^hData available in 1568 patients

ⁱData available in 1419 patients

^jData available in 1548 patients

^kTreatment 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.

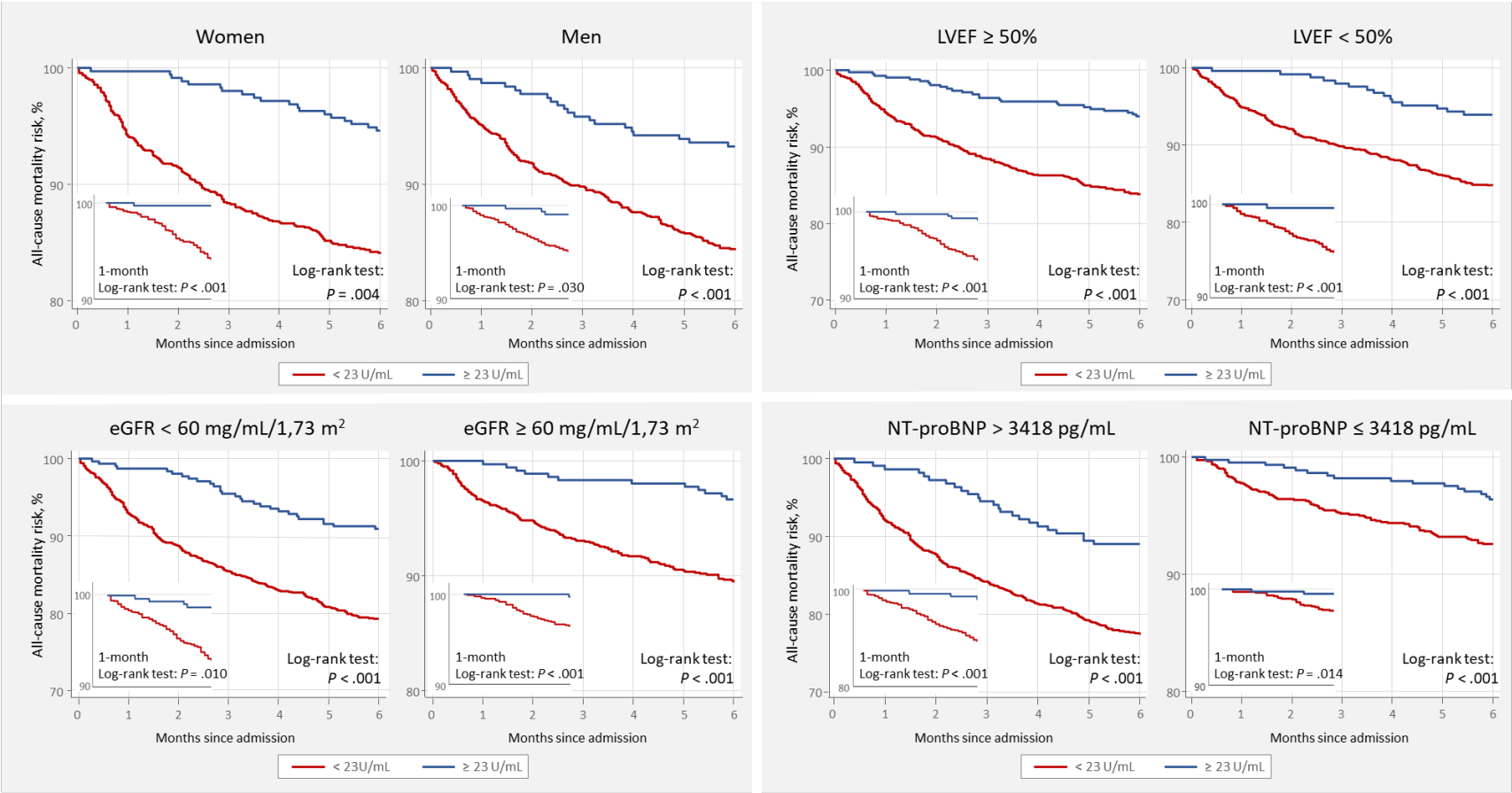


Figure 2 of the supplementary data

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.

