S1 Table. Logistic regression for the presence of hyponatremia in the derivation cohort (ACE 2 study)

	Patients with acute exacerbation of COPD (n=83)		Patients with acute heart failure (n=143)	
	Odds ratio (95% CI)	***P***	**Odds ratio (95% CI)**	***P***
Clinical findings at admission:				
Age (years)	1.02 (0.96-1.07)	0.58	1.05 (1.00-1.09)	0.05
Male sex	0.72 (0.26-1.97)	0.52	0.27 (0.12-0.63)	0.003
Body mass index (Kg/m^2)	0.96 (0.88-1.04)	0.34	0.86 (0.78-0.95)	0.002
Heart rate (per 5 beats/minute)	1.09 (0.95-1.24)	0.23	0.99 (0.92-1.07)	0.82
Mean arterial blood pressure (per 5 mmHg)	1.03 (0.90-1.18)	0.66	0.97 (0.87-1.07)	0.50
Peripheral edema	0.54 (0.19-1.57)	0.26	0.64 (0.28-1.44)	0.28
Pre-hospital SpO_2 (%)	0.99 (0.94-1.05)†	0.83	1.06 (0.85-1.32)‡	0.61
NYHA class IV vs. II-III	0.89 (0.33-2.38)	0.82	1.37 (0.61-3.10)	0.45
Heart and lung function:				
LVEF (%)	1.05 (0.95-1.15)†	0.34	1.02 (0.99-1.05)	0.27
FEV_1 (per 100 mL)	0.97 (0.87-1.09)	0.64	n.a.	
FEV_1 % of predicted (per 10 %)	0.96 (0.71-1.31)	0.81	n.a.	
FEV_1/FVC (per 10%)	1.04 (0.74-1.46)	0.81	n.a.	
Smoking:				
Current vs. previous and never	1.99 (0.73-5.43)	0.18	1.59 (0.62-4.07)	0.33
Never vs. current and previous	n.a.		1.54 (0.64-3.70)	0.33
History of:				
Diabetes mellitus	0.32 (0.04-2.68)	0.29	0.69 (0.27-1.76)	0.44
Heart failure	0.77 (0.15-4.03)	0.76	0.52 (0.23-1.19)	0.12
Coronary artery disease	1.61 (0.57-4.54)	0.37	0.87 (0.38-1.96)	0.73
Hypertension	3.07 (1.11-8.50)	0.03	0.84 (0.37-1.91)	0.68
COPD	n.a.		0.78 (0.34-1.81)	0.57
Medication at admission:				
Beta-blocker	0.72 (0.26-2.02)	0.53	0.99 (0.43-2.30)	0.98
ACEi/ARB	2.16 (0.79-5.91)	0.14	1.91 (0.78-4.67)	0.16
Thiazide diuretic	2.04 (0.52-8.04)	0.31	2.22 (0.75-6.53)	0.15
Loop diuretic	1.17 (0.42-3.25)	0.76	1.07 (0.44-2.57)	0.88
Aldosterone antagonist	1.43 (0.24-8.38)	0.70	2.27 (0.82-6.29)	0.11
Laboratory findings at admission:				
Arterial pH (per 0.1)	1.20 (0.45-3.22)	0.71	0.87 (037-2.03)	0.75
Arterial pO_2 (kPa)	0.88 (0.69-1.12)	0.29	1.23 (1.01-1.51)	0.04
Arterial pCO_2 (kPa)	1.04 (0.82-1.31)	0.75	0.95 (0.65-1.40)	0.79

Glucose (mmol/L)	0.92 (0.74-1.15)	0.47	0.82 (0.66-1.01)	0.07
K^+ (mmol/L)	1.34 (0.50-3.60)	0.57	1.43(0.71-2.86)	0.32
Creatinine clearance (mL/min)	1.00 (0.98-1.02)	1.00	0.99 (0.97-1.00)	0.045
C-reactive protein (mg/L)[a]	1.29 (0.95-1.75)	0.11	1.05 (0.80-1.38)	0.75
NT-proBNP (pg/mL) [a]	1.24 (0.86-1.78)	0.25	1.09 (0.80-1.48)	0.59
hs-TnT (ng/L) [a]	0.82 (0.45-1.48)	0.51	1.25 (0.83-1.88)	0.28
Significant risk factors after multivariate analysis				
History of hypertension	3.07 (1.11-8.50)	0.03	n.s.	
Body mass index (Kg/m2)	n.s.		0.83 (0.75-0.93)	0.001

Odds ratios are expressed per unit (yes vs. no for binary variables) unless otherwise specified.

[a] Log transformed because of severe right skew; † Missing = 10-50%; ‡ Missing = 51-85%. Hyponatremia is defined as $Na^+ < 137$ mmol/L after correction for hyperglycemia by the Hillier formula.

Abbreviations: ACE 2 Study, Akershus Cardiac Examination 2 Study; ACEi, angiotensin-converting-enzyme inhibitor; ARB, angiotensin II receptor blocker; CI, confidence interval; COPD, chronic obstructive pulmonary disease; FEV1, forced expiratory volume in one second; FVC, forced vital capacity; hs-TnT, high sensitivity troponin T; LVEF, left ventricular ejection fraction; n.a., not applicable (missing data > 85% for FEV1 and FVC in acute HF, all subjects with acute exacerbation of COPD had a history of COPD and only 3 of them had never smoked); n.s., not statistically significant.; NT-proBNP, N-terminal pro-B-type natriuretic peptide; NYHA, New York Heart Association; pCO_2, partial pressure of carbon dioxide; pO_2, partial pressure of oxygen; SpO_2, peripheral capillary oxygen saturation; vs., versus.