

## SUPPLEMENTARY MATERIAL

**Table 1 of the supplementary material**

### Inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
<ul style="list-style-type: none"> <li>• Presence of symptoms (dyspnea at rest or minimal exertion) and/or signs attributable to congestion (signs of congestion on chest radiography or presence of peripheral edema or ascites or jugular engorgement to 45° or crackles on lung auscultation)</li> <li>• NT-proBNP &gt; 1000 pg/mL or BNP &gt; 100 mg/dL at presentation</li> <li>• Serum creatinine <math>\geq</math> 1.4 mg/dL on admission, with eGFR &lt; 60 mL/min/1.73 m<sup>2</sup></li> <li>• Intention to be treated with intravenous loop diuretics</li> <li>• Participants or their legal representatives are willing and able to give informed consent for participation in the study</li> </ul>	<ul style="list-style-type: none"> <li>• Life expectancy &lt; 6 mo due to other comorbid conditions</li> <li>• Cardiogenic shock</li> <li>• Diagnosis of ACS in the previous 30 d</li> <li>• Pregnancy at the time of inclusion</li> <li>• Severe obstructive or restrictive lung disease</li> <li>• Previously known stage V CKD (eGFR &lt;15 mL/min/1.73 m<sup>2</sup>) or patient included in the dialysis program</li> <li>• Participation in another randomized trial at the time of inclusion</li> <li>• History of cancer within the last 2 y</li> <li>• Temperature <math>\geq</math> 38°C or diagnosis of pneumonia</li> </ul>

ACS, acute coronary syndrome; BNP, brain natriuretic peptide; CKD, chronic kidney disease; eGFR, estimated glomerular filtration rate; NT-proBNP, N-terminal pro-brain natriuretic peptide.

**Table 2 of the supplementary material**

Diuretic strategies

Conventional strategy	
Loop diuretic dosage according to the presence of signs and symptoms of systemic congestion	
CA125-guided strategy	
CA125 ≤ 35 U/mL	CA125 > 35 U/mL
<ul style="list-style-type: none"> <li>Initial dose of intravenous furosemide ≤ 80 mg/d</li> <li>Removal of thiazides or chlorthalidone</li> <li>After 24 h: dose adjustment based on clinical and/or laboratory criteria</li> </ul>	<ul style="list-style-type: none"> <li>Initial dose of intravenous furosemide &gt; 120 mg/d or 2.5 times the previous oral dose</li> <li>If CA125 &gt; 100 U/mL and/or concomitant unequivocal clinical signs of systemic congestion, dose &gt; 160 mg/d</li> <li>After 24 h: an increased dose of intravenous furosemide and/or the addition of chlorthalidone 25-50 mg/d will be recommended if diuresis &lt; 3 L during the first 24 h</li> </ul>

CA125, carbohydrate antigen 125.

Table 3 of the supplementary material

Sensitivity analysis according to UNa<sup>+</sup> at baseline

Outcome	Exposure	SHR	95%CI		P
* HF-related mortality	UNa <sup>+</sup> at baseline	0.49	0.29	0.83	.008
* CV mortality	UNa <sup>+</sup> at baseline	0.59	0.32	1.08	.087

\* Model covariates: age, sex, randomization variable, prior admission for acute heart failure, ischemic heart disease, systolic blood pressure, glomerular filtration rate, blood urea nitrogen, N-terminal pro-brain natriuretic peptide, and furosemide equivalent dose prior to randomization (mg/24 h). These competing risk regression analyses used the standard error adjustment (also called the Huber/White/sandwich estimator) to account for any clustering effects of patients within centers. CI, confidence interval; CV, cardiovascular; HF, heart failure; SHR, subdistribution hazard ratio; UNa<sup>+</sup>, urinary sodium.