

**Supplemental table 2. characteristics of the 19 subjects with pulmonary edema-associated VAEs**

No	Age	Sex	VAE-day <sup>a</sup>	NT-pro-BNP <sup>b</sup>	Cr <sup>c</sup>	CHF history	Main findings of echocardiography <sup>d</sup>
1	84	M	8	891.2	1.53	Yes	LVEF: 60%, reverse E/A ratio, mild AR
2	74	M	8	NA	0.9	No	LVEF :54%, small amount of pericardial effusion
3	89	F	7	>35000	4.92	Yes	LVEF 56%, reverse E/A ratio, moderate AR
4	78	M	10	NA	8.69	No	LVEF: 55%, reverse E/A ration, small amount of pericardial effusion
5	58	M	6	2311	3.83	No	NA
6	88	F	21	885.9	1.14	Yes	LVEF 40%, global hypokinesia
7	92	M	12	2127	0.23	No	NA
8	59	F	7	>35000	3.05	No	NA
9	58	F	28	NA	1.45	No	NA. (pleural effusion: transudate)
10	65	F	8	16237	1.04	Yes	NA
11	73	M	13	3419	10.52	No	NA
12	91	F	28	15371	1.32	Yes	LVEF: 50%, moderate AR, hypokinetic motion of proximal inferior wall
13	38	M	4	NA	0.54	No	NA
14	84	M	23	2364	0.93	Yes	LVEF: 60%, reverse E/A ratio, mild AR
15	64	M	51	NA	1.89	No	LVEF 62%, reverse E/A ratio.
16	66	M	6	411	0.48	No	LVEF 59%, reversed E/A ratio, prolapse of anterior mitral leaflets
17	93	M	5	22576	2.32	No	NA
18	86	M	4	>35000	5.59	Yes	LVEF 37%, moderate AR, severe MR
19	71	M	4	333.5	5.61	Yes	NA

<sup>a</sup>Days after receiving mechanical ventilation. <sup>b</sup>NT-pro-BNP (mg/dL) during admission. (Reference range: < 75-year-old: <125; >75-year-old <450)

<sup>c</sup>Serum creatinine (mg/dL) 3 days within VAE-diagnosis <sup>d</sup>Echocardiography two years within VAE-diagnosis

Abbreviations. VAE: ventilator-associated event; Cr: creatinine; CHF: congestive heart failure; NA: not available; LVEF: left ventricular ejection fraction; E/A ratio: ratio of peak velocity flow in early diastole (the E wave) to that in late diastole caused by atrial contraction (the A wave); AR: aortic regurgitation; MR: Mitral regurgitation.