

**Supplementary Table 1. Clinical characteristics of the patients with hospital-acquired COVID-19 according to the progression to critical illness**

Variable	Total (n = 204)	Non-critical illness (n = 167)	Critical illness (n = 37)	p value
<b>Pulmonary disease</b>				
Chronic obstructive pulmonary disease/asthma	9 (4.4)	4 (2.4)	5 (13.5)	0.011
Pulmonary tuberculosis <sup>a)</sup>	3 (1.5)	2 (1.2)	1 (2.7)	> 0.999
Interstitial lung disease	5 (2.5)	3 (1.8)	2 (5.4)	0.486
Pneumoconiosis	2 (1.0)	2 (1.2)	0 (0.0)	> 0.999
Nontuberculous mycobacteria pulmonary disease	3 (1.5)	2(1.2)	1 (2.7)	> 0.999
Obesity hypoventilation syndrome	1 (0.5)	0 (0.0)	1 (2.7)	0.407
Lung graft-versus-host disease	1 (0.5)	0 (0.0)	1 (2.7)	0.407
Bronchial stenosis after lung transplant	1 (0.5)	1 (0.6)	0 (0.0)	> 0.999
Congenital pulmonary airway malformation	1 (0.5)	1 (0.6)	0 (0.0)	> 0.999
Chronic cavitary pulmonary aspergillosis	1 (0.5)	1 (0.6)	0 (0.0)	> 0.999
<b>Cardiovascular disease</b>				
Heart failure	18 (8.8)	14 (8.4)	4 (10.8)	0.880
Ischemic heart disease	25 (12.3)	21 (12.6)	4 (10.8)	0.985
Arrhythmia	13 (6.4)	10 (6.0)	3 (8.1)	0.916
Peripheral vascular disease	3 (1.5)	2 (1.2)	1 (2.7)	> 0.999
Cardiac valve disease	6 (2.9)	3 (1.8)	3 (8.1)	0.129
Abdominal aortic aneurysm	2 (1.0)	2 (1.2)	0 (0.0)	> 0.999
Pericarditis	1 (0.5)	1 (0.6)	0 (0.0)	> 0.999
<b>Vital sign</b>				
Body temperature (°C)	37.6 ± 0.9	37.5 ± 0.8	37.7 ± 1.0	0.458
SpO <sub>2</sub> (%)	96 (95–97)	96 (95–97)	95 (93–96)	< 0.001
Heart rate (beats/min)	90 (73–107)	87 (71–104)	106 (89–120)	< 0.001
Respiration rate (breaths/min)	20 (18–20)	18 (18–20)	22 (20–25)	< 0.001
Mean blood pressure (mmHg)	92 (78–104)	92 (78–103)	90 (77–108)	0.730
<b>Laboratory</b>				
White blood cell (10 <sup>3</sup> /uL)	6.86 (4.63–8.84)	6.42 (4.63–8.22)	8.62 (5.72–13.66)	0.006
Hemoglobin (g/dL)	10 (9–11)	10 (9–12)	9 (8–10)	< 0.001
Platelet (10 <sup>3</sup> /uL)	204 (126–292)	215 (137–293)	148 (77–265)	0.037
S/F ratio (mmHg)	452 (400–462)	457 (448–462)	339 (194–452)	< 0.001
PRIEST COVID-19 clinical severity score <sup>b)</sup>	8 (7–11)	8 (6–10)	13 (11–14)	< 0.001
4C mortality score for COVID-19 <sup>c)</sup>	8.5 ± 3.5	8.0 ± 3.3	10.6 ± 3.7	< 0.001

Values are presented as number (%), mean ± standard deviation, or median (interquartile range).

COVID-19, coronavirus disease 2019; SpO<sub>2</sub>, oxygen saturation; S/F ratio, oxygen saturation/fraction of inspired oxygen ratio; PRIEST, Pandemic Respiratory Infection Emergency System Triage.

<sup>a)</sup>Pulmonary tuberculosis and tuberculosis destroyed lung.

<sup>b)</sup>PRIEST COVID-19 clinical severity score designed to predict the adverse outcomes (death or major organ support) of COVID-19 patients.

<sup>c)</sup>4C mortality score for COVID-19 predict the risk of mortality in COVID-19 patients.