

Supplementary Table 4. Logistic regression analyses of the risk factors for critical illness in patients with hospital-acquired COVID-19 using SOFA subscores

Variable	Univariable		Multivariable	
	OR (95% CI)	p value	OR (95% CI) ^{a)}	p value
Age	1.01 (0.99–1.03)	0.471		
Sex, male	0.65 (0.30–1.40)	0.269		
Body mass index	0.91 (0.83–0.99)	0.035		
Comorbidity				
Respiratory disease	3.26 (1.30–8.17)	0.012		
Cardiovascular disease	1.65 (0.74–3.68)	0.217	5.04 (1.49–18.30)	0.010
Hypertension	0.77 (0.37–1.62)	0.488	0.35 (0.11–1.01)	0.061
Diabetes	0.64 (0.28–1.44)	0.279		
Chronic liver disease	2.29 (0.81–6.50)	0.118		
Chronic kidney disease	2.52 (1.10–5.76)	0.028		
Connective tissue disease	1.07 (0.34–3.39)	0.909		
Solid malignancy	1.60 (0.76–3.38)	0.216		
Hematologic malignancy	1.51 (0.56–4.08)	0.419		
Immunocompromised	2.17 (1.05–4.46)	0.036	4.14 (1.43–13.31)	0.012
Abnormal white blood cell count ^{b)}	3.38 (1.60–7.12)	0.001	2.85 (0.92–7.64)	0.075
Abnormal heart rate ^{c)}	2.76 (1.33–5.72)	0.006		
Abnormal body temperature ^{d)}	1.08 (0.48–2.19)	0.953		
SOFA score				
Pulmonary	3.63 (2.24–5.87)	<0.001	3.57 (1.94–7.35)	<0.001
Cardiovascular	1.92 (1.41–2.61)	<0.001	2.05 (1.38–3.21)	0.001
Coagulation	1.64 (1.18–2.29)	0.003		
Liver	1.32 (0.89–1.97)	0.169		
Central nervous system	1.40 (0.97–2.04)	0.076		
Renal	1.43 (0.86–2.38)	0.168		
CFS	2.99 (1.98–4.51)	<0.001	3.24 (1.95–5.99)	<0.001
Dexamethasone use ^{e)}	2.29 (0.81–6.50)	0.118		
Remdesivir use ^{e)}	1.06 (0.52–2.15)	0.882		
Former antibiotics	3.06 (1.13–8.29)	0.028		

OR, odds ratio; CI, confidence interval; SOFA, sequential organ failure assessment; CFS, clinical frailty scale.

^{a)}Stepwise selection for age, sex, body mass index, respiratory disease, cardiovascular disease, hypertension, diabetes, chronic liver disease, chronic kidney disease, connective tissue disease, solid malignancy, hematologic malignancy, immunocompromised status, white blood cell count, heart rate, body temperature, pulmonary SOFA subscore, cardiovascular SOFA subscore, liver SOFA subscore, coagulation SOFA subscore, renal SOFA subscore, central nervous system SOFA subscore, CFS, the use of dexamethasone, remdesivir before progression to critical illness, and former antibiotics use was conducted and cardiovascular disease, hypertension, immunocompromised, abnormal white blood cell count, pulmonary SOFA subscore, cardiovascular SOFA subscore and clinical frailty scale were included in the final model; Hosmer–Lemeshow test yielded a nonsignificant *p* value of 0.557.

^{b)}Abnormal WBC was defined as outside the range of 4,500–11,000/mL.

^{c)}Abnormal heart rate was defined as outside the range of 60–100 beats per minute.

^{d)}Abnormal body temperature was defined as outside the range of 36.5–37.3°C.

^{e)}Days from COVID-19 diagnosis to critical illness.