

**Supplementary Table 1.** Bivariable logistic regression models of each of possible explanatory variables of the requirement of mechanical ventilation

Variable	OR	95% CI		Overall Model Test	
		Lower	Upper	X <sup>2</sup>	P
Age	1.039	0.00851	1.40	3.24	0.072
BMI	1.014	0.973	1.06	1.23	0.268
SOFA	1.409	1.134	1.751	14.5	<.001
APACHE II	1.085	0.995	1.18	3.84	0.050
Time until ICU	1.015	1.004	1.025	9.81	<b>0.002</b>
ROX index	0.856	0.688	1.06	2.21	0.137
ROX index at 4 h	0.816	0.671	0.994	4.67	<b>0.031</b>
FiO <sub>2</sub>	1.031	0.9917	1.07	2.50	0.114
Respiratory rate	0.979	0.917	1.04	0.434	0.51
SpO <sub>2</sub>	0.923	0.847	1.00	3.80	0.051
Horowitz index	0.996	0.986	1.01	0.707	0.400
LOS	1.0101	1.0049	1.015	26.2	<.001
Number of prone position	0.767	0.643	0.914	12.2	<.001
Total prone position	0.971	0.952	0.991	12.3	<.001

OR: Odds ratio, CI: Confidence interval, P: Probability, p value, X<sup>2</sup>: Chi-square test, BMI: Body mass index, SOFA: Sequential organ failure assessment, APACHE II: Acute physiology and chronic health evaluation II, ROX Index: SpO<sub>2</sub>/FiO<sub>2</sub>/Respiratory rate, FiO<sub>2</sub>: The fraction of inspired oxygen, SpO<sub>2</sub>: Peripheral capillary oxygen saturation, LOS: Length of stay

P values considered statistically significant are denoted in bold.

**Supplementary Table 2.** Predictive measures of duration of prone positioning-2

Scale: Number of prone position						
Cutpoint	Sensitivity (%)	Specificity (%)	PPV (%)	NPV (%)	Youden's index	AUC
6	57,58	81,25	76	65	0,388	0,690
7	45,45	93,75	88,24	62,5	0,392	
8	39,39	96,88	60,78	60,78	0,363	

PPV: Positive predictive value, NPV: Negative predictive value, AUC: Area under curve

**Supplementary Table 3.** Predictive measures of duration of prone positioning

Scale: Duration of prone position						
Cutpoint	Sensitivity (%)	Specificity (%)	PPV (%)	NPV (%)	Youden's index	AUC
21	78,79	53,12	63,41	70,83	0,319	0,723
22	75,76	59,38	65,79	70,37	0,351	
24	72,73	59,38	64,86	67,86	0,321	
43	54,55	78,12	72	62,5	0,327	
45	54,55	81,25	75	63,41	0,358	
49	51,52	81,25	73,91	61,9	0,328	
52	51,52	84,38	77,27	62,79	0,359	
60	42,42	90,62	82,35	60,42	0,330	
64	42,42	93,75	87,5	61,22	0,362	
65	39,39	93,75	86,67	60	0,331	
70	36,36	96,88	92,31	59,62	0,332	

PPV: Positive predictive value, NPV: Negative predictive value, AUC: Area under curve