

**Table S1.** Logistic regression model for in-hospital mortality, as scrutinized in the posthoc sensitivity analysis. Apart from variables included in models detailed in the main manuscript, the comorbidities from Table 1a were included in the model. Exp (B) is equivalent to the Odds Ratio (OR), a measure of relationship's strength between the predictors and the binary outcome.

<b>Model S:</b> Deceased ~ Age + GenderM + ActiveSmoker + SP or SPM + COVID-19 + COPD + Asthma + Hypertension + Diabetes mellitus + Obesity + CKD + Active cancer			
Predictor	B ± Std. err	p-value	Exp (B) (95% CI)
Age	0.082 ± 0.023	< 0.001**	1.085 (1.038 – 1.135)
GenderM	-0.767 ± 0.459	0.095	0.465 (0.189 – 1.141)
ActiveSmoker	0.032 ± 0.516	0.950	1.033 (0.375 – 2.841)
SP or SPM	1.206 ± 0.533	0.024*	3.341 (1.176 – 9.496)
COVID-19	1.959 ± 0.888	0.027*	7.091 (1.245 – 40.405)
COPD	0.471 ± 0.827	0.569	1.602 (0.317 – 8.099)
Asthma	2.041 ± 0.809	0.012*	7.700 (1.577 – 37.588)
Hypertension	0.067 ± 0.599	0.911	0.935 (0.289 – 3.028)
Diabetes mellitus	0.345 ± 0.485	0.477	1.412 (0.546 – 3.654)
Obesity	0.219 ± 0.557	0.694	1.245 (0.418 – 3.714)
CKD	1.134 ± 0.710	0.110	3.108 (0.773 – 12.493)
Active cancer	1.525 ± 0.869	0.079	4.595 (0.837 – 25.221)
AIC = 178.53, Nagelkerke R-square = 0.404			

**Abbreviations:** AIC, Akaike information criterion; B ± Std. err, coefficient of regression ± standard error; CI, confidence interval; df, degrees of freedom; CKD, Chronic kidney disease; COPD, chronic obstructive pulmonary disease; SP, spontaneous pneumothorax; SPM, spontaneous pneumomediastinum

\* statistical significance, p < 0.05; \*\* high statistical significance, p < 0.01