Supplement: Presence of antibodies to SARS-CoV-2 on admission is associated with decreased mortality in COVID-19 critical illness

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Table S1: Intra-plate coefficient of variation (CV) by assay.

Assay	%CV
Anti-SARS-CoV-2 Spike	2.77%
Anti-SARS-CoV-2 Nucleocapsid	5.05%
IL-6	10.18%

%CV is the Intraplate CV

Table S2. Association of ICU admission Total Spike protein antibody levels and nucleocapsid antibody levels with risk of hospital mortality.

Antibody type and classification	N at risk (N events)	Unadjusted HR (95% CI)	p-value	Adjusted[1] HR (95% CI)	p-value
Absence of Spike Protein Antibodies (≤ 0.8)	46 (18)	1.0 (Ref.)		1.0 (Ref.)	
Presence of Spike Protein Antibodies (> 0.8)	47 (9)	0.39 (0.17, 0.90)	0.03	0.40 (0.17, 0.94)	0.04
Absence of Nucleocapsid antibodies (≤ 1.0)	48 (17)	1.0 (Ref.)		1.0 (Ref.)	
Presence of Nucleocapsid Protein Antibodies (> 1.0)	44 (10)	0.47 (0.21, 1.06)	0.07	0.47 (0.21, 1.08)	0.07

[1]Adjusted for age, gender, and BMI

Table S3. Association of dexamethasone therapy with time-to-seroconversion, among those with absence of Anti-Spike antibodies on ICU admission.

Dexamethasone*	N at risk (N events)	Unadjusted HR (95% CI)	p-value	Adjusted[1] HR (95% CI)	p-value
No	9 (3)	1.0 (Ref.)		1.0 (Ref.)	
Yes	12 (11)	2.59 (0.78, 8.62)	0.12	2.42 (0.57, 10.37)	0.23

[1]Adjusted for age, gender, and BMI

Time to seroconversion defined as difference from date of first PCR to date of first positive anti-Spike antibody test, censored at the date of final sample in those who were discharged or died.

*Excludes participants receiving convalescent plasma upon ICU admission.