

488 **Supplemental material**

489 Table S1: ICD-10 codes used to query patient charts to determine pre-existing conditions for  
490 each of the listed diagnoses. Electronic medical record also queried for listed text strings to  
491 determine pre-existing conditions.

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HTN*	ICD-10 codes:	I10, I11, I12, I13, I15, I16, O10.1, O10.2, O10.3, O10.4, O10.9
	String matches:	"htn", "hyperten"
DM*	ICD-10 codes:	E08, E09, E10, E11, E13, O24.4
	String matches:	"dm", "diabetes"
CAD*	ICD-10 codes:	I21, I22, I23, I24, I25, Z98.61, Z95.1
	String matches:	"cad", "coronary"
CKD*	ICD-10 codes:	N03, N07, N08, N11, N14, N18, N19, N29, I12, I13, Z99.2, E10.22, E11.22, E13.22, E08.22, O10.3, D63.1
	String matches:	"ckd", "chronic kidney"

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492 \*Abbreviations: Hypertension (HTN), diabetes mellitus (DM), coronary artery disease (CAD),  
493 chronic kidney disease (CKD)

494 Table S2: Unadjusted and adjusted Cox proportional hazards model of the association between  
 495 epidemic wave and death by 30 days after admission adjusted for potentially confounding  
 496 factors, among those  $\geq 75$  years old.

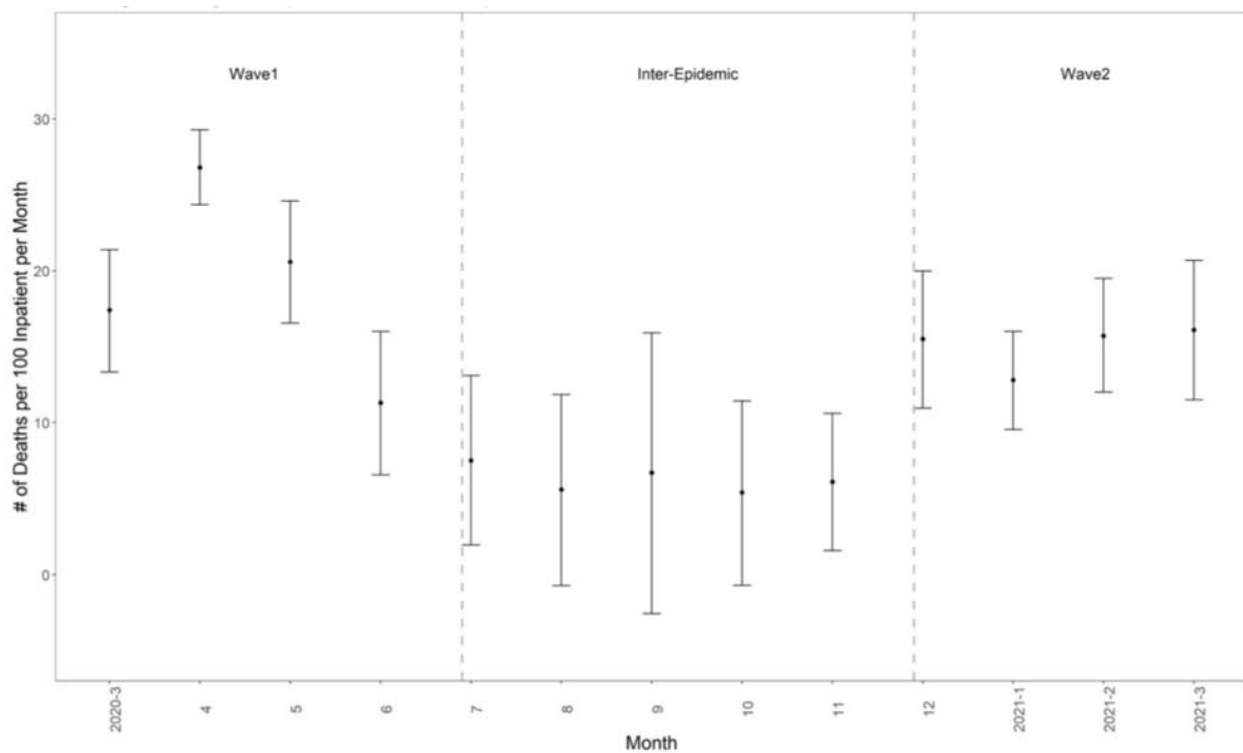
	Unadjusted	Adjusted for epi-period	
	HR (95% CIs)	HR for covariate (95% CIs) adjusted for Epidemic period	HR for epidemic period (95% CIs) adjusted each covariate individually
Epidemic Period			
First	Ref	NA	Ref
Second	<b>0.43 (0.35, 0.53)</b>		<b>0.43 (0.35, 0.53)</b>
Sex			
Female	Ref	Ref	Ref
Male	1.14 (0.95, 1.36)	1.11 (0.93, 1.33)	<b>0.43 (0.35, 0.54)</b>
Race/Ethnicity			
Hispanic/Latino	Ref	Ref	Ref
Non-Hispanic Black	1.14 (0.84, 1.54)	1.10 (0.81, 1.49)	<b>0.43 (0.35, 0.53)</b>
Non-Hispanic White	1.08 (0.83, 1.40)	1.08 (0.84, 1.41)	
Other	0.97 (0.77, 1.22)	0.98 (0.78, 1.23)	
BMI (kg/m <sup>2</sup> )			
<30	Ref	Ref	Ref
$\geq 30$	1.23 (0.99, 1.53)	1.20 (0.96, 1.50)	<b>0.48 (0.38, 0.59)</b>
Ct value, median (IQR)	<b>0.98 (0.97, 0.99)</b>	<b>0.98 (0.96, 0.99)</b>	<b>0.35 (0.22, 0.55)</b>
Viral load categories			
Low (Ct >32 or 30)	Ref	Ref	Ref
Medium (Ct 27-32 or 25-30)	<b>1.61 (1.22, 2.12)</b>	<b>1.62 (1.23, 2.14)</b>	<b>0.35 (0.22, 0.56)</b>
High (Ct <27 or 25)	<b>1.72 (1.35, 2.20)</b>	<b>1.77 (1.39, 2.26)</b>	
Ever DNI			
Yes	<b>6.81 (5.11, 9.06)</b>	<b>6.22 (4.66, 8.29)</b>	Ref
No	Ref	Ref	<b>0.54 (0.44, 0.68)</b>
Oxygen level at presentation			
Room Air	Ref	Ref	Ref
Nasal Cannula	<b>2.61 (1.93, 3.54)</b>	<b>2.55 (1.88, 3.46)</b>	<b>0.66 (0.52, 0.82)</b>
Non-rebreather	<b>8.65 (6.44, 11.6)</b>	<b>7.58 (5.60, 10.25)</b>	
Non-invasive ventilation	<b>4.79 (2.44, 9.39)</b>	<b>4.78 (2.44, 9.37)</b>	
Intubation	<b>7.82 (5.18, 11.9)</b>	<b>6.97 (4.60, 10.57)</b>	
ICU admission by time, N (%)			
Non-ICU	Ref	Ref	Ref
ICU at presentation	<b>2.54 (1.97, 3.27)</b>	<b>2.36 (1.83, 3.04)</b>	<b>0.44 (0.35, 0.54)</b>
ICU after presentation	<b>2.02 (1.51, 2.71)</b>	<b>2.14 (1.60, 2.86)</b>	
Steroid use, N (%)			
No	Ref	Ref	Ref
Yes	1.00 (0.83, 1.20)	<b>1.49 (1.22, 1.83)</b>	<b>0.37 (0.29, 0.47)</b>
Remdesivir use, N (%)			
No	Ref	Ref	Ref
Yes	<b>0.76 (0.58, 0.98)</b>	<b>1.69 (1.20, 2.37)</b>	<b>0.34 (0.26, 0.45)</b>
Hospital admission volume divided by 50 (per week)	<b>1.10 (1.08, 1.12)</b>	<b>1.08 (1.05, 1.11)</b>	<b>0.72 (0.53, 0.97)</b>

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498 Table S3: Cox proportional hazards model of the association between steroid use and 30-day  
 499 mortality stratified to examine confounding by disease severity.

Stratifying variable	Treatment Variable	Dead N	Alive N	HR (95% CI)
	Steroid <sup>+</sup>	338	1384	1.15 (1.00, 1.33)
	No Steroid	405	2052	
Age < 75 years	Steroid <sup>+</sup>	149	1034	1.47 (1.17, 1.85)
	No Steroid	139	1491	
Age ≥ 75 years	Steroid <sup>+</sup>	189	350	1.00 (0.92, 1.20)
	No Steroid	266	561	
Wave 1	Steroid <sup>+</sup>	185	527	<b>1.34 (1.12, 1.59)</b>
	No Steroid	390	1668	
Wave 2	Steroid <sup>+</sup>	153	857	<b>4.2 (2.51, 7.26)</b>
	No Steroid	15	384	
Wave 1, ICU	Steroid <sup>+</sup>	94	202	<b>0.53 (0.41, 0.70)</b>
	No Steroid	130	144	
Wave 1, Non-ICU	Steroid <sup>+</sup>	91	325	2.22 (0.97, 5.09)
	No Steroid	260	1524	
Wave 2, ICU	Steroid <sup>+</sup>	79	107	<b>1.48 (1.17, 1.88)</b>
	No Steroid	6	22	
Wave 2, Non-ICU	Steroid <sup>+</sup>	74	750	<b>3.83 (1.92, 7.64)</b>
	No Steroid	9	362	
	Remdesivir <sup>+</sup>	108	575	<b>0.81 (0.66, 0.99)</b>
	No Remdesivir	660	2922	
Age < 75 years	Remdesivir <sup>+</sup>	42	420	0.85 (0.62, 1.17)
	No Remdesivir	251	2157	
Age ≥ 75 years	Remdesivir <sup>+</sup>	66	155	<b>0.76 (0.58, 0.98)</b>
	No Remdesivir	409	765	
Wave 1	Remdesivir <sup>+</sup>	8	74	<b>0.42 (0.21, 0.84)</b>
	No Remdesivir	592	2172	
Wave 2	Remdesivir <sup>+</sup>	100	501	<b>2.06 (1.51, 2.80)</b>
	No Remdesivir	68	750	
Wave 1, ICU	Remdesivir <sup>+</sup>	6	34	<b>0.30 (0.13, 0.67)</b>
	No Remdesivir	225	319	
Wave 1, Non-ICU	Remdesivir <sup>+</sup>	2	40	0.27 (0.07, 1.07)
	No Remdesivir	367	1853	
Wave 2, ICU	Remdesivir <sup>+</sup>	45	68	0.95 (0.62, 1.45)
	No Remdesivir	40	61	
Wave 2, Non-ICU	Remdesivir <sup>+</sup>	55	433	<b>2.96 (1.88, 4.67)</b>
	No Remdesivir	28	689	

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Month	2020-3	4	5	6	7	8	9	10	11	12	2021-1	2021-2	2021-3
Deaths (N)	71	458	100	22	7	3	2	3	7	45	60	68	47
Admissions (N)	409	1708	486	195	93	54	30	56	115	291	470	432	292

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503 Figure S1. In-hospital monthly mortality rates per 100 patients and 95% confidence bounds

504 among 4132 patients admitted to the medical center between March 2020 and March 2021.