Supplemental material

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Supplemental Table A. Variable of Interest List

Demographics	Date of Birth Sex Body Mass Index (BMI) Admission Campus
Clinical data	Discharge status Discharge date Date of death Do not intubate (DNI) status First Vitals Presenting symptoms Symptom duration Comorbidities (diabetes mellitus, cardiovascular, pulmonary, and kidney disease) Oxygen supplementation modality (if any) Oxygen flow requirements. Glasgow coma scale (GCS) < 15 vs = 15 (disorientation or other indication from clinical note) Systolic blood pressure, Respiratory Rate, and GCS were used to calculate the Quick Sequential Organ Failure Assessment (qSOFA).
Comorbidities	Cardiovascular diseases included: Hypertension Coronary artery disease Heart failure History of cardiac resynchronization device placement or left ventricular assisting device placement
	Lung diseases included: Asthma Chronic Obstructive Airway Disease Pulmonary hypertension Obstructive sleep apnea Interstitial lung disease Use of home oxygen Use of home continuous positive airway pressure (CPAP) or bilevel positive airway pressure (BiPAP).
	Chronic kidney disease included: Any stage 1-5 or end stage renal disease requiring renal replacement therapy.

Supplemental Figure 1. Original cohort characteristics prior to exclusion, N = 352

	WHO ordinal scores <6 N =287	WHO ordinal scores 6-9 N =65	
	N (%)		p- values
Symptoms			
Cough	147 (51.2)	39 (60.0)	-
Dyspnea	150 (52.3)	45 (69.2)	
Rhinorrhea	13 (4.5)	5 (7.7)	
Anosmia	16 (5.6)	3 (4.6)	
Dysgeusia or hypogeusia	27 (9.4%)	9 (13.8)	
Sore throat	15 (5.2)	4 (6.2)	
Fever	116 (40.4)	36 (55.4)	
Hemoptysis	4 (1.4)	0 (0)	
Nausea and/or vomiting	66 (23)	10 (15.4)	
Diarrhea	54 (18.8)	20 (30.8)	
Myalgia and/or arthritis	47 (16.4)	11 (16.9)	
Rash	1 (0.3)	0 (0)	
Altered mental status	16 (5.6)	5 (7.7)	
Asymptomatic	54 (18.8)	4 (6.2)	
Comorbidities			
Cardiovascular	172 (59.9)	41 (63.1)	-
Diabetes mellitus	87 (30.3)	24 (36.9)	
Lung disease	56 (19.5)	8 (12.3)	
Renal	34 (11.8)	6 (9.2)	
Liver	23 (8)	10 (15.4)	
HIV	2 (0.7)	2 (3.1)	
Malignancy on chemotherapy	4 (1.4)	1 (1.5)	
Solid organ transplant	6 (2.1)	1 (1.5)	
Dementia	16 (5.6)	3 (4.6)	
Others	46 (16.0)	6 (9.2)	
No known PMH	35 (12.2)	8 (12.3)	
Campuses			
Angleton	22 (7.7)	4 (6.2)	-
League City	44 (15.3)	17 (26.2)	

Clear Lake	51 (17.8)	9 (13.8)	
Galveston	165 (57.5)	32 (49.2)	
Non UTMB transfers	4 (1.4)	2 (3.1)	
Missing values	1 (0.3)	1 (1.5)	
Demographics			
Sex			
Male	165 (57.5)	44 (67.7)	0.17
Female	122 (14.5)	21 (32.3)	
Code status			
Comfort care	8 (2.8)	10 (15.4)	-
DNI	18 (6.3)	6 (9.2)	
Full code	261 (90.9)	47 (72.3)	
Missing values	0 (0)	2 (3.1)	

Clinical variables **	Mean ($\pm$ SD)		p- values
BMI	31.4 (7.43)	33.9 (8.86)	0.0408
O2 saturation, %	95.6 (6.58)	93.0 (5.62)	0.00133
NLR	5.69 (5.10)	9.92 (11.2)	0.00505
CRP	4.46 (7.62)	11.5 (10.2)	< 0.001
D-dimer	1.99 (7.86)	3.62 (16.6)	0.449
qSOFA	0.286 (0.475)	0.569 (0.558)	<0.001
LDH	402 (418)	783 (559)	<0.001
	N (%)		p- values
Categorical LDH			
Normal value	197 (68.6)	19 (29.2)	<0.001
1-2 x ULN	77 (2638)	30 (46.2)	
> 2 x ULN	13 (4.5)	14 (21.5)	

** 2 subjects in ordinal score 6-9 group had consistently missed values on clinical variables

Supplemental Figure 2. Initial regression model of cohort, N=329

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard	Wald	Pr > Chi Sq
			Error	Chi-Square	
Intercept	1	3.18E+55	1.97092E+47	1.3761	0.2408
Sex	1	0.918237	6.234510078	0.0022	0.9628
Age	1	0.985309	1.066838925	0.0521	0.8195
Sex*Age	1	0.991982	1.028910011	0.0797	0.7777
Admission Date	1	0.994326	1.004952222	1.3234	0.25
BMI	1	0.945066	1.119743902	0.2499	0.6171
Age*BMI	1	1.002062	1.001881768	1.2095	0.2714
Admission SpO2	1	0.930345	1.052638638	1.9798	0.1594
Duration Sx	1	0.947432	1.106276642	0.2857	0.593
Admit NLR	1	1.178686	1.064281581	6.9766	0.0083
Admit Procalcitonin	1	0.835939	1.566587991	0.1594	0.6897
Admit D-Dimer	1	0.938943	1.046341715	1.9368	0.164
Admit LDH	1	2.308505	1.372179017	6.993	0.0082
Admit CRP	1	1.807058	1.546354152	1.8428	0.1746
qSOFA	1	2.932338	1.429178781	9.0749	0.0026

*Note that complete case exclusion not applied for this table

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Supplemental Figure 3. Stratified BMI Analysis

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > Chi Sq
Intercept	1	0.000554	6.30599	16.5798	<.0001
Age	1	1.032931	1.019284	2.8751	0.09
Admit NLR	1	1.190294	1.09319	3.8177	0.0507
Admit LDH	1	5.452641	1.594085	13.2276	0.0003

Lower BMI Analysis (BMI <30)

Analysis of Maximum Likelihood Estimates					
Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > Chi Sq
Intercept	1	7.73534434	204.95696	0.1477	0.7007
Sex	1	0.32184024	1.6594729	5.0094	0.0252
Age	1	1.05812661	1.0196914	8.401	0.0038
BMI	1	1.06822672	1.0338607	3.9238	0.0476
Admit SpO2	1	0.90429468	1.054746	3.5653	0.059
Admit NLR	1	1.16602438	1.0778842	4.1962	0.0405
Admit D-Dimer	1	0.65422758	1.215311	4.736	0.0295
Admit LDH	1	2.40873087	1.4663847	5.2744	0.0216
Admit CRP	1	2.86967849	1.708473	3.8735	0.0491

Higher BMI Analysis (BMI => 30)

Supplemental Figure 4. DNI Sensitivity Analysis

Analysis of Maximum Likelihood Estimates					
Parameter	**DF**	**Estimate**	**Standard Error**	**Wald Chi-Square**	**Pr > Chi Sq**
Intercept	1	77.2154835	175.3002	0.7078	0.4002
Age	1	0.97384804	1.051061	0.2828	0.5949
BMI	1	0.93304672	1.104839	0.4836	0.4868
Age*BMI	1	1.00215231	1.001561	1.8954	0.1686
Admit SpO2	1	0.92154838	1.043312	3.7208	0.0537
Admit NLR	1	1.07422557	1.026238	7.66	0.0056
Admit D-Dimer	1	0.98049278	1.01349	2.1498	0.1426
Admit LDH	1	3.46668914	1.288785	24.006	<.0001
qSOFA	1	2.37049786	1.370533	7.5001	0.0062