

ONLINE SUPPLEMENTARY DOCUMENT

Title: Clinical characterization, treatment outcomes, and case fatality risk of patients with different SARS-CoV-2 variants in Bangladesh

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Table S1. Actual risk of death in hospitalized COVID-19 patients, in Dhaka, Bangladesh.

	Fatal cases n=111	Survivors n=755	Absolute Risk	RR (95% CI)	P-value
Sex					
Female	41 (36.9)	405 (47.4)	9.19	Ref.	
Male	70 (63.1)	450 (52.6)	13.46	1.46 (1.02, 2.11)	0.038
Age Category					
18 to 40 years	4 (3.6)	186 (21.8)	2.11	Ref.	
41 to 60 years	28 (25.2)	412 (48.2)	6.36	3.02 (1.07, 8.50)	0.036
Above 60 years	79 (71.2)	257 (30.1)	23.51	11.17 (4.15, 30.03)	<0.001
Disease severity					
Moderate	7 (6.3)	299 (35.0)	2.29	Ref.	
Severe	13 (11.7)	154 (18.0)	7.78	3.40 (1.38, 8.37)	0.008
Critical	91 (82.0)	402 (47.0)	18.46	8.07 (3.79, 17.2)	<0.001
MEWS ≥ 4	71 (64.0)	315 (36.8)	18.39	2.67 (1.85, 3.84)	<0.001
Prevalent Variant					
Ancestral	19 (17.1)	180 (21.1)	9.55	Ref.	
Alpha/Beta	23 (20.7)	121 (14.2)	15.97	1.67 (0.95, 2.95)	0.076
Delta	45 (40.5)	354 (41.4)	11.28	1.18 (0.71, 1.96)	0.521
Omicron	24 (21.6)	200 (23.4)	10.71	1.12 (0.63, 1.99)	0.692
Vaccine against COVID-19					
Vaccinated	18 (19.0)	219 (28.6)	7.59	Ref.	
Not vaccinated	77 (81.0)	546 (71.4)	12.36	1.63 (1.0, 2.66)	0.052

Data are n (%), RR, risk ratio; CI, confidence interval; MEWS, Modified Early Warning Score.

Table S2. Impact of COVID-19 vaccine and risk of case fatality among hospitalized COVID-19 patients in Dhaka, Bangladesh.

Characteristics	aRR (95% CI)	P-value
COVID-19 vaccine	0.63 (0.40, 0.99)	0.048
Age Category		
Above 60 years	Ref.	
18 to 40 years	0.12 (0.04, 0.32)	<0.001
41-60 years	0.27 (0.17, 0.43)	<0.001
Hospital stay (in days)	0.86 (0.81, 0.91)	<0.001
ICU not required	0.29 (0.16, 0.52)	<0.001
SpO2 level	0.97 (0.96, 0.98)	<0.001

aRR, adjusted risk ratio; CI, confidence interval.

Table S3. Impact of dexamethasone and risk of case fatality in ancestral, alpha/beta, and omicron variants compared with delta among moderate to severe COVID-19 patients.

Characteristics	aRR (95% CI)	P-value
Not received dexamethasone	Ref.	
Received dexamethasone	0.22 (0.06, 0.84)	0.026
Age		
Above 40 Year	Ref.	
18 to 40 Years	0.33 (0.04, 2.57)	0.287
Female	Ref.	
Male	0.76 (0.29, 1.94)	0.562
Hospital stay (days)	1.02 (0.97, 1.08)	0.390
Required ICU care	Ref.	
Not required ICU care	0.05 (0.02, 0.13)	<0.001
Prevalent variant		
Delta	Ref.	
Ancestral	0.37 (0.16, 0.88)	0.024
Alpha/Beta	0.79 (0.19, 3.26)	0.746
Omicron	0.21 (0.06, 0.76)	0.018

aRR, adjusted risk ratio; CI, confidence interval.

Table S4. Impact of remdesivir and risk of case fatality in ancestral, alpha/beta, and omicron variants compared with delta among moderate to severe COVID-19 patients.

Characteristics	aRR (95% CI)	P-value
Not received remdesivir	Ref.	
Received remdesivir	0.59 (0.20, 1.75)	0.345
Age		
Above 40 Year	Ref.	
18 to 40 Years	0.35 (0.04, 2.74)	0.317
Female	Ref.	
Male	1.02 (0.44, 2.37)	0.964
Hospital stay	1.01 (0.95, 1.07)	0.703
Required ICU care	Ref.	
Not required ICU care	0.07 (0.03, 0.18)	<0.001
Prevalent Variant		
Delta	Ref.	
Ancestral	0.44 (0.17, 1.14)	0.090
Alpha/Beta	0.77 (0.20, 2.93)	0.703
Omicron	0.24 (0.06, 0.88)	0.031

aRR, adjusted risk ratio; CI, confidence interval.