

TITLE: Dose-dependent impact of tixagevimab-cilgavimab as primary prevention against severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in immunocompromised individuals

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Supplementary Material

Supplemental Table S1: Clinical and demographic characteristics of participants with a history of hematopoietic stem cell transplant (HSCT) or chimeric antigen receptor (CAR)-T cell therapy compared between those who received tixagevimab-cilgavimab and those who did not (designated control group). Percent numbers are rounded to the nearest whole number. Significant differences are in **bold**. SD refers to the standard deviation.

Characteristic	Tixagevimab-cilgavimab Group (N=115)	Control Group (N=18)	p-value
Age—mean (SD)	60 (15)	59 (19)	0.96
Male sex—no. (%)	68 (59)	12 (67)	0.60
Body Mass Index—mean (SD)	28 (6)	31(9)	0.09
Race/Ethnicity – no. (%)			
White, non-Hispanic	95 (83)	15 (83)	0.39
Hispanic	9 (8)	1 (6)	
Black	4 (3)	0 (0)	
Asian	1 (1)	0 (0)	
Two or more race	4 (3)	0 (0)	
Others	2 (2)	2 (11)	

Supplementary Material

Prior SARS-CoV-2 infection—no. (%)	13 (11)	2 (11)	1.00
Positive COVID-19 vaccine status—no. (%)	95 (83)	5 (28)	<0.0001
No. follow up days—mean (SD)	223 (78)	197 (49)	0.06
Contact with healthcare after index date	112 (97)	12 (67)	0.0009

Supplemental Table S2: Severity of SARS-CoV-2 infections between those who received tixagevimab-cilgavimab and those who did not (designated control group).

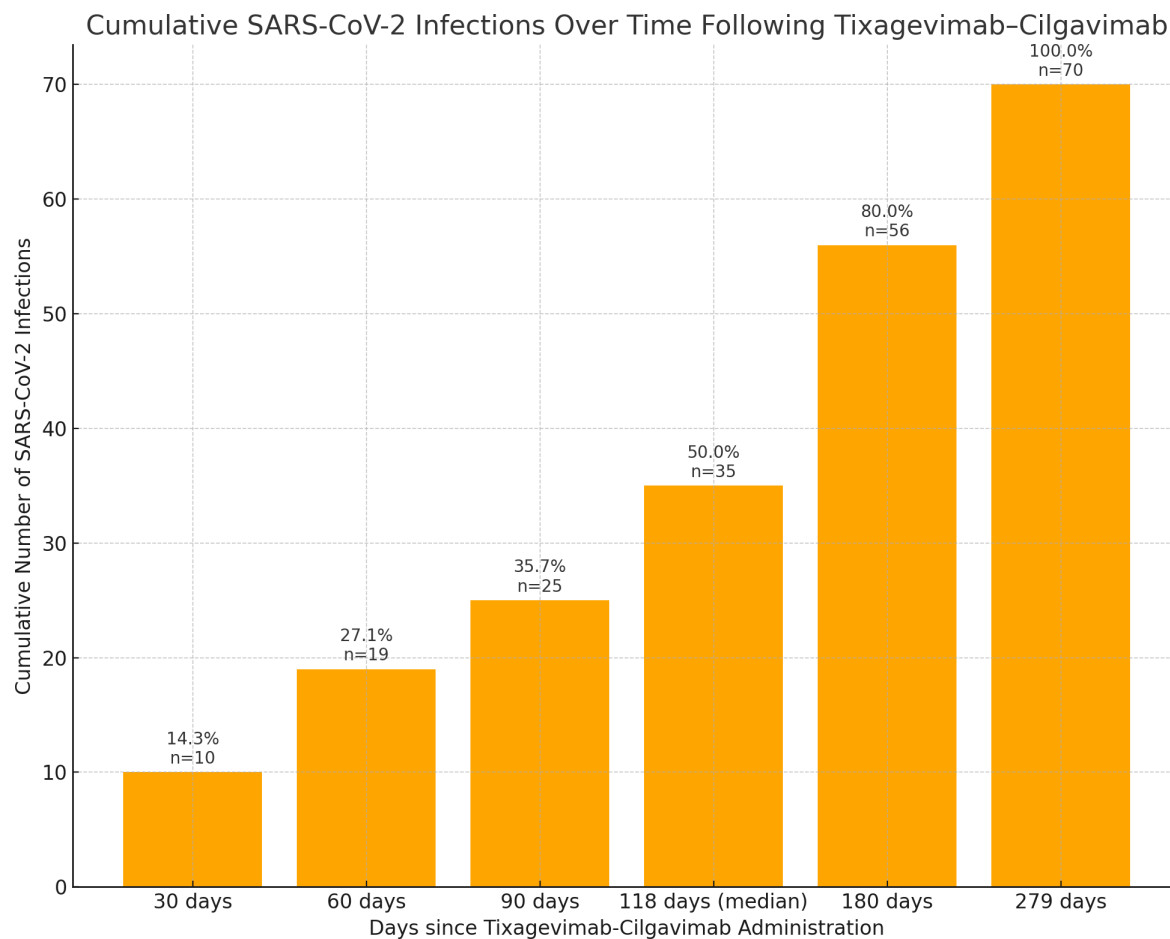
Severity	Tixagevimab-Cilgavimab Group (n = 70)	Control Group (n = 11)
Asymptomatic Infections	4	0
Symptomatic Infections	64	8
Hospitalized Infections	2	1
Death	0	0
Unsure	0	2

Supplemental Table S3: Clinical and demographic characteristics of individuals with breakthrough infection status in the tixagevimab-cilgavimab group. Percent numbers are rounded to the nearest whole number. Significant differences are in **bold**. SD refers to the standard deviation.

Characteristic	Positive COVID-19 (N=70)	Negative COVID-19 (N=401)	p-value
Age—mean (SD)	58 (15)	62 (17)	0.05
Male sex—no. (%)	36 (51)	224 (56)	0.52
Body Mass Index—mean (SD)	28 (6)	29 (7)	0.60
Race/Ethnicity – no. (%)			
White, non-Hispanic	59 (84)	344 (86)	0.87
Hispanic	4 (6)	19 (5)	
Black	3 (4)	14 (3)	
Asian	1 (1)	0 (0)	
Two or more race	1 (1)	11 (3)	
Others	2 (3)	10 (2)	
Immunocompromising Conditions – no. (%)			
Anti-CD20 Antibody Therapy	7 (10)	38 (9)	0.83
Hematopoietic Stem Cell Transplant and CAR T Cell Therapy	17 (24)	98 (24)	1.00
Secondary Agammaglobulinemia	1 (1)	13 (3)	0.70
Solid Organ Transplant	18 (26)	108 (27)	0.88
Solid Tumor Malignancies	6 (9)	26 (6)	0.60

More than 2 immunocompromising conditions	3 (4)	17 (4)	1.000
Prior SARS-CoV-2 infection—no. (%)	11 (16)	80 (20)	0.51
Positive COVID-19 vaccine status —no. (%)	60 (87)	351 (89)	0.68
No. follow up days—mean (SD)	144 (80)	244 (61)	<0.0001

Supplemental Figure S1: Cumulative SARS-CoV-2 Infections Following Tixagevimab–Cilgavimab Administration. Bar plot showing the cumulative number and percentage of SARS-CoV-2 infections among individuals who received tixagevimab–cilgavimab, assessed at key time points after administration. Infections were evaluated up to 279 days (approximately 9 months), with 50% of infections occurring by 118 days (median), and 80% by 180 days (approximately 6 months). Percentages and counts are displayed above each bar to illustrate infection accumulation over time.



Supplemental Figure S2: Time-dependent regressor for the tixagevimab-cilgavimab dose among the solid organ transplant (SOT) group. Dose amount on y-axis refers to amount of both tixagevimab and cilgavimab each subject received (e.g. Dose 150 refers to 150 mg of tixagevimab and 150 mg of cilgavimab). (A) Tixagevimab-cilgavimab group during entire study period; (B) tixagevimab-cilgavimab group with time truncated on November 1st, 2022

