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Supplemental information

Monoclonal antibody treatment drives

rapid culture conversion

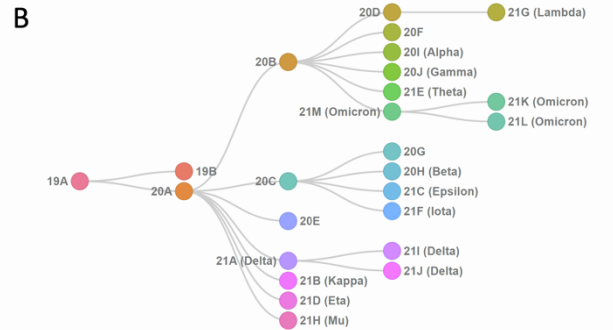
in SARS-CoV-2 infection

Julie Boucau, Kara W. Chew, Manish C. Choudhary, Rinki Deo, James Regan, James P. Flynn, Charles R. Crain, Michael D. Hughes, Justin Ritz, Carlee Moser, Joan A. Dragavon, Arzhang C. Javan, Ajay Nirula, Paul Klekotka, Alexander L. Greninger, Robert W. Coombs, William A. Fischer II, Eric S. Daar, David A. Wohl, Joseph J. Eron, Judith S. Currier, Davey M. Smith, the POSITIVES study team, Jonathan Z. Li, Amy K. Barczak, and the ACTIV-2/A5401 Study Team

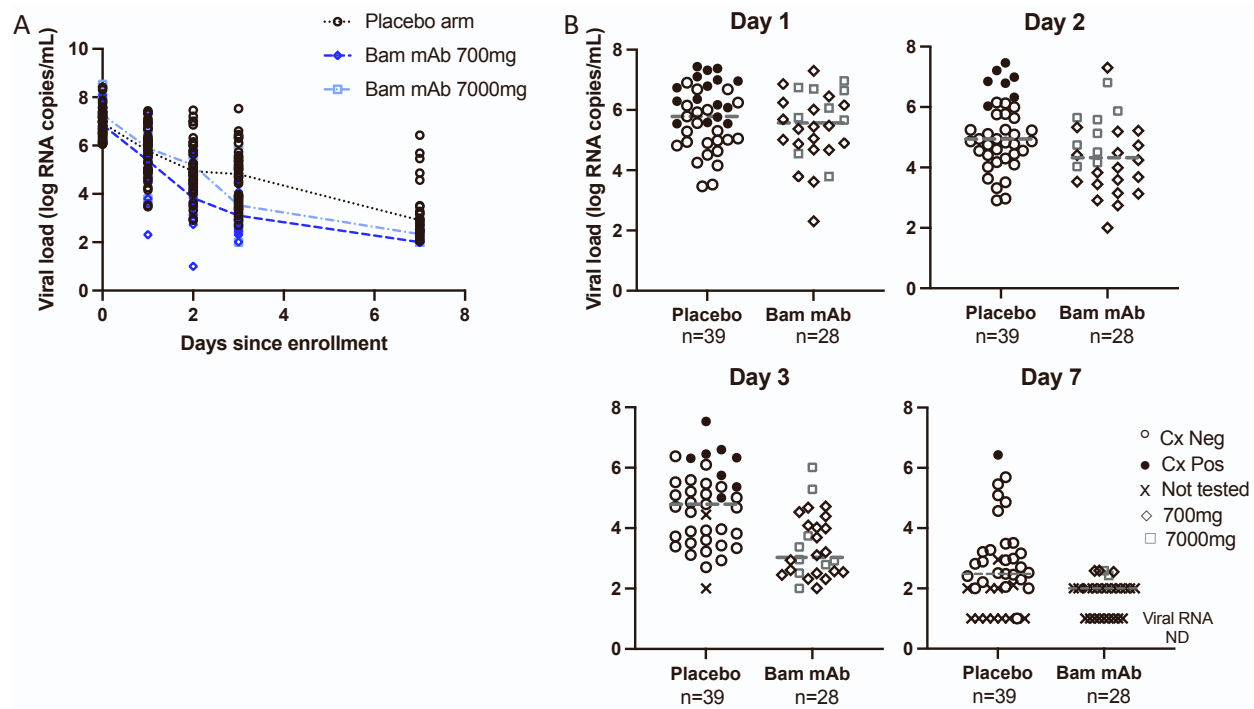
SUPPLEMENTARY FIGURES

A

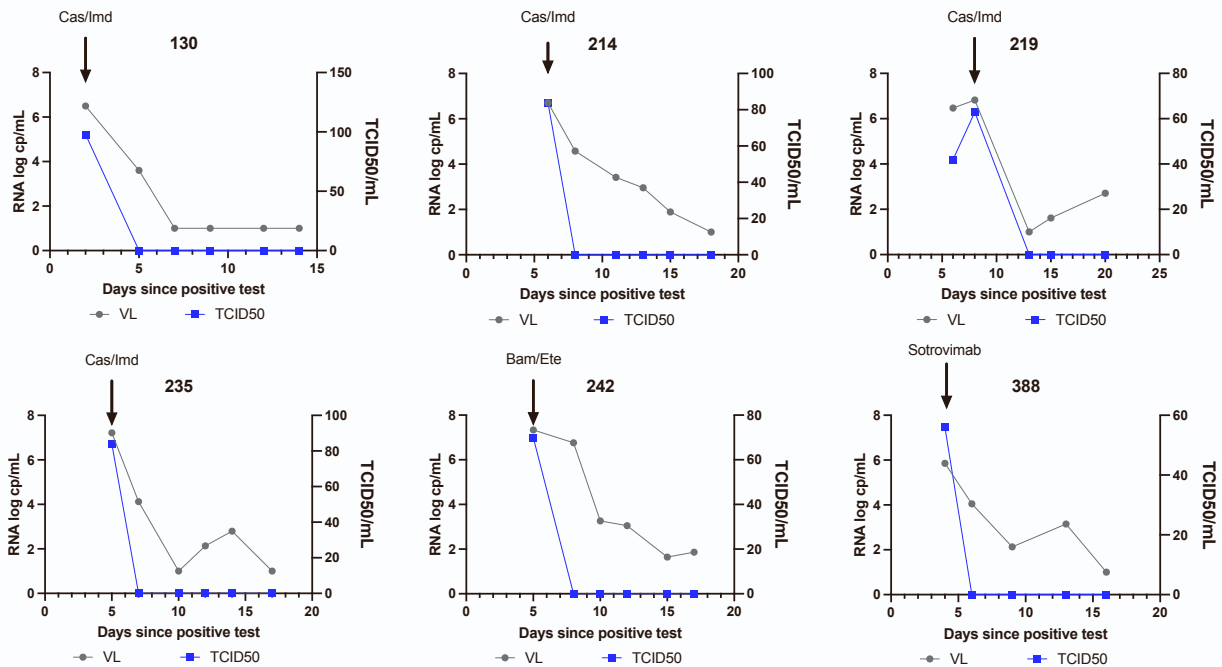
Nextclade	Number of participants, n
20A	62
20B	2
20C	2
20E (EU1)	1
20G	2



Supplementary Figure S1. (A) Clades for strains from participants in this substudy of ACTIV2, as determined by Nextclade (B) Phylogenetic relationships of SARS-CoV-2 clades as defined by Nextstrain. Related to Figure 1.



Supplementary Figure S2. (A) Decay in anterior nasal (AN) swab qPCR-determined viral load over time post-treatment by treatment arm: placebo, bamlanivimab (Bam) 700 mg, and Bam 7000 mg. Lines connect median values for each group for each timepoint. (B) AN culture positivity and viral load over time post-treatment. For the Bam mAb, the two dosages (700 n=19, diamonds and 7000 mg n=9, squares) are shown. Horizontal lines indicate median. Cx: culture. Bam mAb: bamlanivimab monoclonal antibody, ND: not detected. X indicates samples not tested either because of lack of sample availability (one placebo sample day 3) or because VL was at or below the limit of detection. Related to Figure 1.



Supplementary Figure S3. Individual patients from the POSITIVES cohort treated with mAbs. Participants 130, 214, 219, and 235 were determined to have Delta variant infection and were treated with the mAbs combination casirivimab (Cas) and imdevimab (Imd), 242 was determined to have Delta variant infection and was treated with the mAbs combination bamlanivimab (Bam) and etesevimab (Ete), and 388 was determined to have Omicron variant infection and was treated with sotrovimab. All variant identities determined by spike sequencing. Related to Figure 1.

	Placebo arm n=39	Bamlanivimab arm n=30
Age - median (range)	50 (20-71)	50.5 (25-73)
Race – White n (%)	33 (85%)	29 (97%)
Ethnicity – Hispanic or Latino n (%)	10 (26%)	3 (10%)
Gender – Female n (%)	24 (62%)	15 (50%)
Comorbidities – At least one n (%)	12 (31%)	15 (50%)
Days of symptoms before enrollment - median (range)	4 (1-10)	5 (3-8)
Seropositive at baseline (%) ¹	0 (0%)	1 (3%)

¹4 placebo and 2 intervention arm participants had unknown serostatus at baseline

Supplementary Table 1. Characteristics of participants in this substudy. Bamlanivimab arm includes participants who received both the 700mg and 7000mg doses. Related to STAR Methods.