

Table 3. Characteristics of the Patients that Survived to Discharge Stratified by Secondary Outcome Measures

	Oxygen requirement at hospital discharge			Discharge level of care at 28 days		
	No New Oxygen Requirement (n=156)	New Oxygen Requirement (n=84)	p-value	Similar or lower acuity setting (n=198)	Higher acuity setting (n=42)	p-value
Male sex – no. (%)	147 (94.2)	78 (92.9)	0.68	185 (93.4)	40 (95.2)	0.66
Age						
Mean – yr ± SD	67 ± 14	65 ± 14	0.28	65 ± 14	73 ± 13	<.001
≤ 65 yr	60 (38.5)	37 (44.1)		88 (44.4)	9 (21.4)	
> 65 yr	96 (61.5)	47 (56.0)	0.40	110 (56.6)	33 (78.6)	0.006
BMI, kg/m² (n=224)	29.4 ± 7.1	30.8 ± 6.2	0.14	30.4 ± 6.6	27.6 ± 7.5	0.018
Race or ethnic group – no. (%)						
Caucasian	76 (48.7)	43 (51.2)	0.72	96 (48.5)	23 (54.7)	0.46
Black	74 (47.4)	37 (44.1)	0.62	93 (47.0)	18 (42.9)	0.63
Hispanic	20 (12.8)	14 (16.7)	0.64	3 (7.1)	31 (15.7)	0.28
Co-Morbidities – no. (%)						
Hypertension	116 (74.4)	61 (72.6)	0.77	142 (71.7)	35 (83.3)	0.12
Chronic Kidney Disease	79 (50.6)	38 (45.2)	0.42	96 (48.5)	21 (50.0)	0.86
Diabetes mellitus	77 (49.4)	40 (47.6)	0.80	94 (47.5)	23 (54.8)	0.39
Atrial fibrillation	31 (19.9)	10 (11.9)	0.12	31 (15.7)	10 (23.8)	0.20
Heart Failure	23 (14.7)	13 (15.5)	0.88	29 (14.7)	7 (16.7)	0.74
Chronic Obstructive Pulmonary Disease	26 (16.7)	8 (9.5)	0.13	27 (13.7)	7 (16.7)	0.61
Immunosuppression	18 (11.5)	7 (8.3)	0.44	19 (9.6)	6 (14.3)	0.37
Venous thromboembolism	10 (6.4)	5 (6.0)	0.89	12 (6.1)	3 (7.1)	0.79
Malignancy	7 (4.5)	6 (7.1)	0.39	10 (5.1)	3 (7.1)	0.59
Connective Tissue Disease	5 (3.2)	2 (2.4)	0.72	6 (3.0)	1 (2.4)	0.82
Current or former smoker, n (%)	55 (35.5)	26 (31.0)	0.48	64 (32.5)	17 (40.5)	0.32
Hospital LOS, days (IQR)	7 (4, 13)	7 (5.5, 12)	0.28	6 (4, 9)	16.5 (10, 28)	<.001

Conclusion. Patients were more likely to die in-hospital within 28-days if they were greater than 65 years of age, Hispanic and had CKD. Veterans that died in-hospital within 28-days had higher inflammatory marker levels and were more likely to receive COVID-19 treatments.

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532. Establishing a SARS-CoV-2 Monoclonal Antibody Infusion Clinic: Early Trends in Outcomes and Disparities

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Session: P-24. COVID-19 Treatment

Background. SARS-CoV-2 monoclonal antibodies (SMA) have demonstrated efficacy in treatment of early, mild to moderate COVID-19 in patients at high risk for progression to severe COVID-19. We created an SMA infusion clinic at a large, urban academic medical center using both internal and community-based referral mechanisms to promote the equitable distribution of treatment.

Methods. Data were analyzed from clinic referrals from December 13, 2020 through April 20, 2021. Patient demographics, census-based area deprivation index (ADI) scores (scale of 1-10, with 1 representing least socioeconomic deprivation and 10 representing most), and relevant comorbidities were collected. Outcomes included days of symptoms until referral, patient receipt of SMA therapy after referral, adverse events, and ER visits and hospitalizations within 14 days of SMA administration. Association between demographic factors and relevant outcomes were determined using chi-square or Wilcoxon rank-sum tests as appropriate.

Results. 47/433 (11%) referred patients were ineligible based on inclusion and exclusion criteria. Of eligible patients, 310/386 (80%) received treatment; patients who did not receive treatment either declined (93%), could not be contacted (5%), no-showed (1%), or were admitted for hypoxia (1%). Of treated patients, only 3 (1%) had adverse reactions. Within 14 days of SMA administration, 28 (9%) patients visited the ER or were admitted for COVID-19. Black patients had a longer median duration of symptoms prior to referral compared to White patients (5 vs. 3 days, $p < 0.01$) (Figure 1). White patients were more likely to receive SMA after referral compared to Black patients (88% vs. 64%, $p < 0.01$), as were patients with ADI score 1-5 compared to those with ADI score 6-10 (88% vs. 70%, $p < 0.01$) (Figures 2 and 3). Black patients who received SMA had a higher rate of ER visits or admissions than White patients, although the difference was not statistically significant (14% vs. 7%, $p = 0.10$).

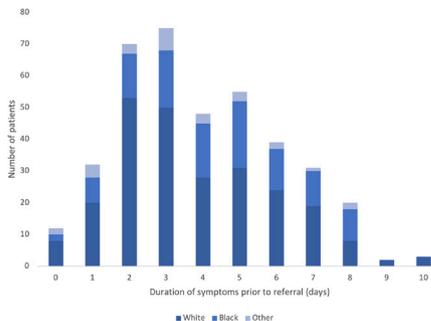


Figure 1. Bar graph displaying number of patients per race (White, Black, or Other) by duration of symptoms prior to referral.

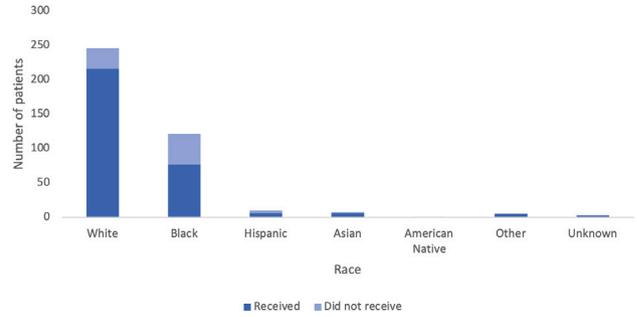


Figure 2. Bar graph displaying number of patients who did and did not receive SMA by race

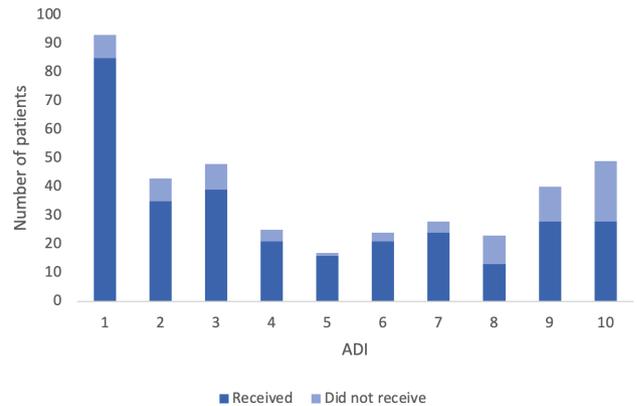


Figure 3. Bar graph displaying number of patients who did and did not receive SMA by ADI.

Conclusion. Rate of adverse reactions and COVID-related ER visits or admissions were low in patients who received SMA. Despite efforts to promote the equitable distribution of treatment through multiple referral mechanisms, racial and socioeconomic disparities still exist.

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533. Protocol for and Efficacy of Monoclonal Antibody (mAb) Treatment of SARS-CoV-2 at a VA Medical Center

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Session: P-24. COVID-19 Treatment

Background. Bamlanivimab and casirivimab/imdevimab were the first monoclonal antibodies (mAb) developed against SARS-CoV-2 and proved beneficial early in the course of infection. However, real-world administration of these therapies presents logistical challenges. We present our experience implementing mAb treatment at a large VA Medical Center and review the efficacy of therapy in preventing hospitalization from COVID-19 in a closed healthcare system.

Methods. All positive outpatient COVID tests performed at VA Greater Los Angeles Healthcare System (GLA) were reviewed by the Emergency Medicine (EM) and Infectious Diseases (ID) Sections for mAb eligibility beginning 12/2/2020. Due to limited supply, treatment was prioritized for patients at highest risk of developing severe disease, as determined by EM/ID with input from a machine learning ensemble risk estimation model produced by VA National Artificial Intelligence Institute (Figure 1). If a patient declined or did not reply, treatment was offered to the next patient on a ranked eligibility list. Those who declined or were eligible but not treated were included in the analysis. Patients were excluded if they were hospitalized before treatment was offered. We collected data on age, comorbidities, date of diagnosis, and admission at 30 days after diagnosis. A multivariate log binomial regression was performed to determine the relative risk of admission within 30 days of diagnosis for those who received mAb therapy as compared to those who did not, adjusting for age and comorbidity. All analysis was done in R (version 4.0.5).