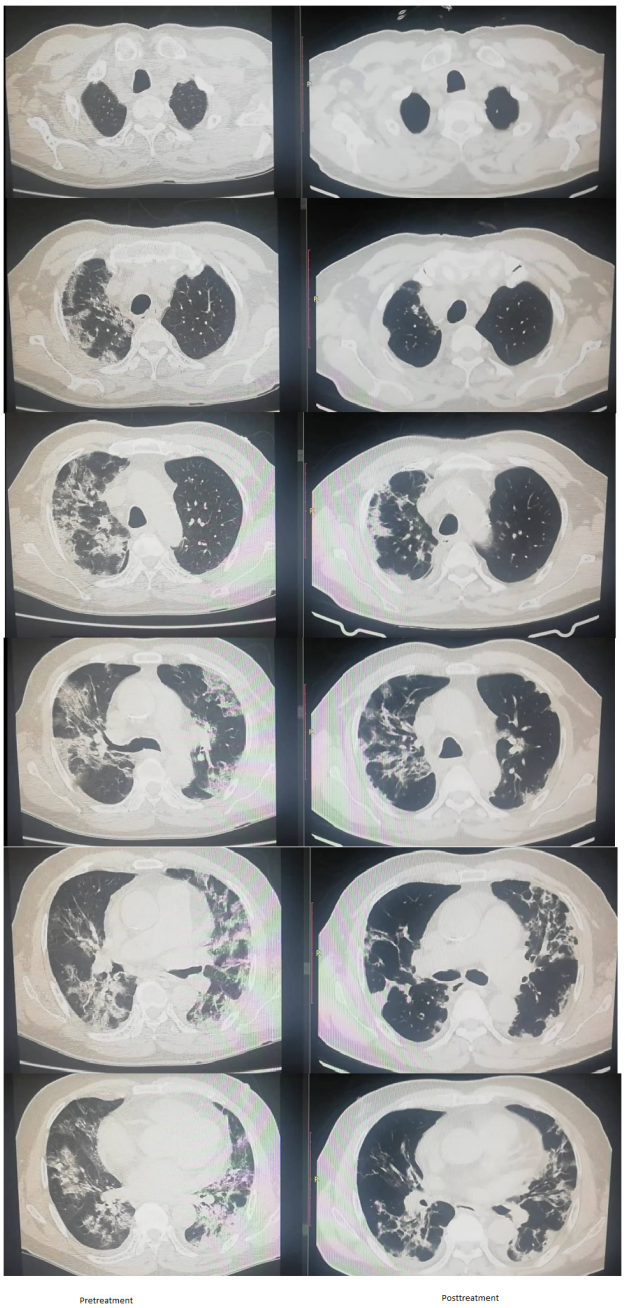
Chest CT scan. Patients with Extensive Fibrosis were then consented to undergo High Dose IV Infusion of N-acetylcysteine. (150mg/kg in 1st hour, 50mg/kg next 4 hours and 100mg/kg last 20 hours). Repeat Chest CT Scan was done.

Results. Peripheral Bilateral Ground Glass Opacities and Pulmonary Consolidation was seen on pre-treatment CT Scans. Repeat CT scans showed significant regression of Ground Glass Opacities and Pulmonary Consolidation.

CT SCAN pre and post treatment



Conclusion. High dose N-acetylcysteine showed promising results on Post COVID 19 Pulmonary Fibrosis.

Disclosures. **All Authors**: No reported disclosures

539. Impact of Corticosteroids when Combined with Tocilizumab or Remdesivir for the Treatment of Severe SARS-CoV-2

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Session: P-24. COVID-19 Treatment

Background. Tocilizumab (TCZ) and remdesivir (RDV) have both shown benefit for patients with SARS-CoV-2. However, there have been no head to head studies comparing the efficacy of the two therapies. The purpose of this study is to compare clinical outcomes of patients who have received corticosteroids (CS) along with TCZ or RDV.

Methods. This is an IRB approved retrospective observational study completed in a three hospital health system in New Jersey. Patients were included if age was ≥ 18, admitted with SARS-CoV2 infection requiring oxygen. Patients were stratified into two treatment arms; CS + TCZ and CS + RDV. The primary objective was to compare all-cause inpatient mortality (ACIM) based on oxygenation status; nasal cannula (NC), high-flow nasal cannula (HFNC), and invasive mechanical intubation (IMV). Secondary objectives was a snapshot analysis with a focus on clinical improvement (CI) defined as improvement in clinical ordinal scale by 2 or more at end of stay. Additional endpoint included progression to IMV after therapy initiation.

Results. There were total of 1053 patients included (123 in the CS+TCZ arm, 930 in the CS+RDV arm). Oxygen requirements were as follows: In the CS+TCZ arm (NC n=57, HFNC n=26, IMV n=40), and the RD+CS arm (NC n=669, HFN n=159, and IMV n=102). Results from the primary endpoints can be found in Table 1. No statistically significant differences were observed between the two treatment arms. For the secondary objective there were 214 patients included (70 in the CS+TCZ arm and 105 in the CS+RDV arm). For patients receiving NC, no difference seen in CI between two treatment arms (81.4% CS+RDV vs. 81.5% CS+TCZ). In HFNC group more patients in the CS+TCZ group observed CI compared to CS+RDV (68.8% vs. 40%). Less patients requiring HFNC progressed to IMV in CS+TCZ group (25%) compared to CS+RDV (40%).

All-Cause Inpatient Mortality			
	Remdesivir	Tocilizumab	P-Value
NC (n/N)	3% (20/669)	7% (4/57)	0.11
HFNC (n/N)	31.4% (50/159)	23% (6/26)	0.49
IMV (n/N)	70.6% (70/102)	52.5% (21/40)	0.08

Conclusion. No statistical difference in ACIM was detected between the two treatment arms regardless of baseline oxygenation requirements. There was a trend towards lower ACIM for IMV patients in the CS+TCZ arm compared to the CS+RDV arm. More patients experienced CI in CS+TCZ group compared to CS+RDV in HFNC group. Less HFNC patients also required new IMV in the CS+TCZ arm. Larger studies need to be performed to evaluate a true statistical difference between the two treatment arms.

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540. Does *Remdesivir* Impact the Clinical Outcome of Patients with *COVID 19* Infection?

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Session: P-24. COVID-19 Treatment

Background. Remdesivir (RDV), was included for the treatment of mild to moderate COVID-19 since July 2020 in our institution, following the initial results from ACTT-1 interim analysis report. With the adoption of RDV, there seems to be anecdotal evidence of efficacy as evidenced by early fever defervescence, quick recovery when on oxygen with decreased need for ventilation and ICU care. We aimed to study the impact of RDV on clinical outcomes among patients with moderate to severe COVID –19.

Methods. Nested case control study in the cohort of consecutive patients with moderate to severe COVID – 19. Cases were patients initiated on RDV and age and sex- matched controls who did not receive RDV were included. The primary outcome was in-hospital mortality. Secondary outcomes were, duration of hospital stay, need for ICU, duration of oxygen therapy and need for ventilation.

Results. A total of 926 consecutive patients with COVID – 19 were included, among which 411 patients were cases and 515 controls. The mean age of the cohort was 57.05±13.5 years, with male preponderance (75.92%). The overall in-hospital mortality was 22.46%(n=208). On comparison between cases and controls there was no statistically significant difference with respect to primary outcome [22.54% vs. 20.78%, (p value: 0.17)]. Progression to non-invasive ventilation (NIV) was higher among the controls [24.09% vs. 40.78% (p value: < 0.001*)]. Progression to invasive ventilation was also higher among the controls [5.35% vs. 9.71% (p value: 0.014*)]. In subgroup

analysis among critically ill patients, the use of RDV showed decrease in mortality (OR 0.32 95% CI; 0.13 – 0.75 p value – 0.009*).

Conclusion. RDV did not decrease the in-hospital mortality among moderate to severe COVID – 19. However, there seems to be a significant reduction in mortality in critically ill patients.

Disclosures. **All Authors**: No reported disclosures

541. Comparing Patients with Severe COVID-19 Who Improve to the Point of Discharge Following an Abbreviated Course (< 5 Days) of Remdesivir (RDV) Versus a Standard Course (≥5 Days)

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Session: P-24. COVID-19 Treatment

Background. The COVID-19 pandemic has negatively affected our healthcare system. Our hospitals have reached maximum capacity on several occasions. Because of the need to make beds available to new patients, some patients with severe COVID-19 who were on low flow O2 supplementation have been discharged home prior to completion of the standard (≥ 5-day) RDV course. To date, data are limited regarding clinical outcomes on these patients. Because of this, we conducted a retrospective study to assess the clinical outcomes of patients who received an abbreviated treatment course of RDV.

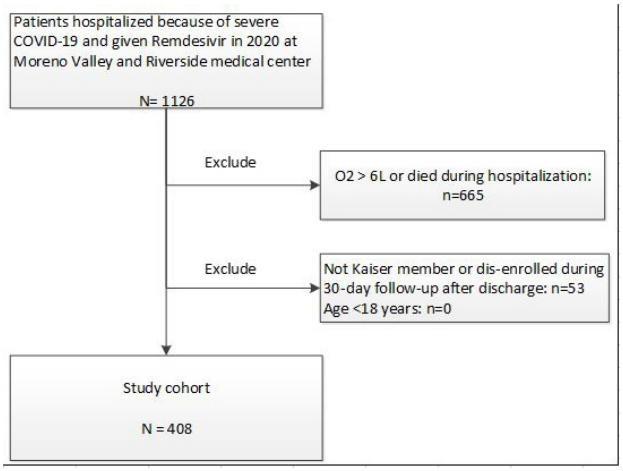
Methods. Retrospective (chart review) study

Subject population. All nonpregnant adult patients who were hospitalized at Kaiser Permanente Riverside Medical Center and Kaiser Permanente Moreno Valley Medical Center in 2020 with severe COVID-19 who required low flow O2 supplement during hospitalization who received RDV and discharged from hospital alive. Severe COVID-19 = positive SARS-CoV-2 PCR + evidence of lung involvement on lung imaging (X-ray or CT) + O2 saturation ≤ 94% on room air or requirement of O2 supplement.

Inclusion criteria. Age ≥ 18 years; Hospitalized with severe COVID-19; Given RDV

Exclusion criteria. Pregnancy; O2 requirement > 6 L including high flow and mechanical ventilation (noninvasive or invasive); discontinuation of RDV due to adverse effects

Figure 1. Patient Section.



Results. Mortality rate: no difference (2.1% vs 1.8%, p=0.84). 30 day post-discharge ED visit: twice more likely in the abbreviated RDV group as compared to the group receiving the standard duration (16.1% vs 8.5%, p=0.03). 30 day readmission: almost 10 times more likely in the abbreviated RDV group as compared to the group receiving the standard duration (11.9% vs 1.2%, p=< 0.001).

Table 1. Patient's Characteristics

	<5-day course (N=241)	>=5-day course (N=167)	Total (N=408)	P-Value
Medical Center, n(%)				0.63
Kaiser Permanente Moreno vallley	91 (37.8%)	67 (40.1%)	158 (38.7%)	
Kaiser Permanente Riverside	150 (62.2%)	100 (59.9%)	250 (61.3%)	
Sex, n(%)				0.28
Female	101 (41.9%)	79 (47.3%)	180 (44.1%)	
Male	140 (58.1%)	88 (52.7%)	228 (55.9%)	
Race/ethnicity, n(%)				0.26
White	64 (26.6%)	38 (22.8%)	102 (25%)	
Black	20 (8.3%)	19 (11.4%)	39 (9.6%)	
Hispanic	140 (58.1%)	90 (53.9%)	230 (56.4%)	
Asian/Pacific Islander	16 (6.6%)	17 (10.2%)	33 (8.1%)	
Other/unknown	1 (0.4%)	3 (1.8%)	4 (1%)	
Age at admission				0.01
Mean (SD)	60.3 (15.65)	56.8 (15.03)	58.9 (15.48)	
Median (IQR)	60.6 (50.6, 72.2)	55.6 (45.1, 67.4)	59.1 (20.1, 96.8)	
Range	(20.1-95.8)	(24.1-96.8)	(20.1-96.8)	
Charlson Comorbidities Index, n(%)				0.65
0	92 (38.2%)	71 (42.5%)	163 (40%)	
1	61 (25.3%)	41 (24.6%)	102 (25%)	
2+	88 (36.5%)	55 (32.9%)	143 (35%)	
O2 at admission				0.64
Mean (SD)	2.5 (0.96)	2.6 (1.01)	2.6 (0.98)	
Median (IQR)	2 (2, 3)	2 (2, 3)	2 (2, 3)	
Range	(1.5-6.0)	(1.0-6.0)	(1.0-6.0)	
O2 at discharge				0.14
Mean (SD)	2.5 (0.93)	2.4 (0.84)	2.4 (0.89)	
Median (IQR)	2 (2, 3)	2 (2, 3)	2 (2, 3)	
Range	(0.0-6.0)	(0.0-5.0)	(0.0-6.0)	
Steriods, n(%)	229 (95%)	145 (86.8%)	374 (91.7%)	0.003
Dexamethasone, n(%)	223 (92.5%)	141 (84.4%)	364 (89.2%)	0.01

Table 2. Clinical Outcomes. *8 Patients Who Died Within 30-Day from Discharge Were Excluded

30-day outcomes, n(%)				
Mortality	5 (2.1%)	3 (1.8%)	8 (2%)	0.84
ED*	38 (16.1%)	14 (8.5%)	52 (13%)	0.03
Readmission*	28 (11.9%)	2 (1.2%)	30 (7.5%)	<0.001

Clinical Outcomes *8 patients who died within 30-day from discharge were excluded

Conclusion. Though there is no difference in 30 day mortality rate, the patients who received the abbreviated RDV course are twice more likely to have ER visit and 10 times more likely to have readmission within 30 day post discharge despite more patients in the abbreviated course receiving steroids. The findings suggest that completing an at least 5-day course of RDV may be beneficial even in patients who demonstrate a clinical response earlier in course.

Disclosures. **All Authors**: No reported disclosures

542. Use of Bamlanivimab in Cancer Patients with Mild-to-Moderate COVID-19

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Session: P-24. COVID-19 Treatment

Background. Bamlanivimab is a monoclonal antibody that was granted an emergency use authorization by the US Food and Drug Administration in November 2020 for patients with mild to moderate coronavirus disease 2019 (COVID-19). It initially showed promising results with decreasing hospitalizations and return emergency department visits in immunocompetent patients. We evaluated the role of bamlanivimab in the cancer patient population.