Results. 648 patients were enrolled: 216 cases and 432 controls. Patients' characteristics at admission are reported in Table 1. VC was observed in 490 patients (75.6%) in a median time of 25 (16-34) days. Overall, time to VC was similar in patients receiving or not receiving remdesivir (p=0.519). However, time to VC was different when considering both the use of RDV (yes vs no) and age (≤ or > 63 years), as shown in Figure 1A. A significant finding was also observed considering the use of RDV and P/F values at admission (≤ or > 200 mmHg), as reported in Figure 1B. Among the 490 patients who reached VC during follow-up, overall time to VC was similar in patients receiving or not receiving RDV (p=0.075; Figure 2A); however, RDV use was associated with a higher probability of VC in the subgroup of patients with P/F admission values ≤200 mmHg (p=0.035; Figure 2B), in the age group 55-65 years (p=0.025; Figure 2C) and in patients with comorbidities (p=0.028).

Table 1. Characteristic, respiratory function and laboratory values at admission of hospitalized patients according to the use of remdesivir

| Variable          | Overall (n=490) | Remdesivir (n=216) | No remdesivir (n=274) | P-value |
|-------------------|-----------------|--------------------|-----------------------|---------|
| Age (years)       |                 |                    |                       |         |
| Sex               |                 |                    |                       |         |
| Ethnicity         |                 |                    |                       |         |
| Body Mass Index, kg/m² |             |                    |                       |         |
| Duration of symptoms, days |             |                    |                       |         |
| Number of comorbidities |             |                    |                       |         |
| Neurological disorders/encephalitis |             |                    |                       |         |
| Cardiac disease   |                 |                    |                       |         |
| Diabetes          |                 |                    |                       |         |
| Hypertension      |                 |                    |                       |         |
| P/F<200, mmHg     |                 |                    |                       |         |
| P/F≥200, mmHg     |                 |                    |                       |         |
| ALT, U/L          |                 |                    |                       |         |
| AST, U/L          |                 |                    |                       |         |
| Creatinine, mg/dL |                 |                    |                       |         |
| Procalcitonin, ng/mL |               |                    |                       |         |
| CRP, mg/dL        |                 |                    |                       |         |
| D-dimer, mg/mL    |                 |                    |                       |         |
| Interleukin-6, pg/mL |              |                    |                       |         |

Time to viral clearance among the 490 patients who reached VC during follow-up. Panel A: time to VC according to RDV use. Panel B: time to VC according to RDV and P/F ratio value at admission. Panel C: time to VC according to RDV in the age group 55-65 years.

Conclusion. Time to viral clearance was similar in patients receiving or not receiving remdesivir; however the use of RDV was associated with a benefit on time to viral clearance in younger patients and in those with a P/F ratio at admission ≤200 mmHg.

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506. Outpatient Bamlanivimab, Casirivimab and Imdevimab for COVID-19: Single Center Feasibility Analysis

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Session: P-24. COVID-19 Treatment

Background. Monoclonal Antibodies directed at the spike protein of SARS-CoV-2 are approved by the FDA for Emergency Use for outpatients with COVID-19 who are at risk for severe complications. Here we present a single center experience using Bamlanivimab and Casirivimab/Imdevimab to prevent hospitalizations due to SARS-CoV-2.

Methods. Adult patients who tested positive for SARS-CoV-2 in our health system were offered outpatient monoclonal antibody infusion if: (1) testing was done within the previous 7 days, (2) the patient had fewer than 10 days of symptoms, (3) the patient was not currently hospitalized, and (4) met at least 1 of 8 criteria in the FDA EUA Fact Sheet for Bamlanivimab and Casirivimab/Imdevimab. Patients who met the criteria were offered the monoclonal antibody available at time of infusion. Those who declined antibody infusion were used as potential controls. The primary outcome was the discrepancy in hospitalization rates at 14-days past the infusion date for patients receiving the monoclonal antibody regimen versus 14-days past when those in control group would have been scheduled for infusion had they accepted. Secondary outcomes included emergency room visits, duration of hospitalization, and Intensive Care Unit stays. Coarsened exact matching (CEM) was used to obtain balance between treatment and control groups. A logistic regression model measured statistical differences between the groups. The primary outcome was the discrepancy in hospitalization rates at 14-days past the infusion date for patients receiving the monoclonal antibody regimen versus 14-days past when those in control group would have been scheduled for infusion had they accepted. Secondary outcomes included emergency room visits, duration of hospitalization, and Intensive Care Unit stays. Coarsened exact matching (CEM) was used to obtain balance between treatment and control groups. A logistic regression model measured statistical differences between the groups.

Results. Between November 23, 2021 and February 8, 2021, 5567 patients were offered outpatient monoclonal antibody infusion. Those who declined antibody infusion were used as potential controls. A total of 894 patients completed infusion who were able to be matched with patients in the control group. Patients who received the infusion were statistically less likely to be hospitalized than those who did not receive the infusion (2.68% vs 6.70%, p< 0.001).

Conclusion. This feasibility study shows reduction in hospitalization in patients who received monoclonal antibody versus standard care. It provides real-world information regarding using monoclonal antibodies as a tertiary prevention strategy to limit the progression of SARS-CoV2 infections, which will lead to improved clinical outcomes and decreased healthcare costs.

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507. Impact of Baricitinib on Outcomes in Patients Treated with Remdesivir and Dexamethasone for SARS-CoV-2 Pneumonia: A Retrospective Cohort Study

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Session: P-24. COVID-19 Treatment

Background. There is a lack of data specifically addressing the effects of triple therapy consisting of baricitinib plus remdesivir plus dexamethasone compared to dual therapy with remdesivir plus dexamethasone in patients with severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) pneumonia.

Methods. This retrospective study enrolled hospitalized adults with SARS-CoV-2 receiving supplemental oxygen without invasive mechanical ventilation (IMV) being treated baricitinib (≤10 days) plus remdesivir (≤10 days) plus dexamethasone (≤10 days) or remdesivir (≤10 days) plus dexamethasone (≤10 days). The primary outcomes were overall time to viral clearance among the 490 patients who reached VC during follow-up. Overall time to VC was similar in patients receiving or not receiving RDV; however the use of RDV was associated with a benefit on time to viral clearance in younger patients and in those with a P/F ratio at admission ≤200 mmHg.

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endpoint was 28-day mortality. Secondary objectives of this study were to measure progression to IMV, pulse oximetry (SpO2)/fraction of inspired oxygen (FiO2) from hospitalization to discharge, hospital length of stay (LOS), 14-day mortality, 14-day hospital readmissions, inflammatory markers, and safety outcomes.

**Results.** Among patients receiving supplemental oxygen without IMV, 28-day mortality for favipiravir therapy was 20% and 24%, respectively (P = 1.000). The effect of triple therapy compared to dual therapy on lung function was demonstrated by a 76% vs. 25% increase in SpO2/FiO2. This benefit must be contextualized by an increased progression to IMV among patients receiving triple therapy compared to dual therapy (10 patients [50%] vs. 28%, respectively; P = 0.130). The increase in IMV translated to a significantly longer hospital LOS among patients receiving triple therapy compared to dual therapy. Significant baseline differences between the two unmatched groups existed, but not between the PSmatched groups (N = 774) (Table 1). After PS-matching, favipiravir was started within a median of 5 days from symptoms onset. The unmatched cohort included 1,493 patients, of which 51.7% were in the favipiravir group, and 48.3% were not receiving supplemental oxygen at baseline.

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

508. Title Favipiravir for the Treatment of Coronavirus Disease 2019; A Propensity Score Matched Cohort Study

**Background.** Treatment strategies for COVID-19 have evolved based on clinical trials. We performed a retrospective analysis to determine treatment outcomes for Remdesivir (RDV), Tocilizumab (TOCI), and/or Dexamethasone (DEX) at a Mid-Atlantic Hospital Consortium.

**Methods.** A retrospective chart review was performed for patients admitted to Medstar hospitals within the D.C./Baltimore corridor from 03/01/2020 to 12/31/2020, and diagnosed with COVID-19 using a NP SARS-CoV-2 RT PCR assay. The MedStar Pharmacy Database was utilized to stratify based on any combination of RDV, TOCI, and/or DEX treatment regimens. We performed a retrospective analysis to determine treatment outcomes for Remdesivir (RDV), Tocilizumab (TOCI), and/or Dexamethasone (DEX) in a representative population from the Mid-Atlantic region.

**Results.** A total of 2488 patients were included. Overall, the average age of patients was 62yrs, 53% male, and the majority of patients were of Black (54%) or White (27%) race. The average length of stay was 11 days (SD = 12) with a mortality of 14%. Univariate analyses, all combinations of RDV, TOCI, and DEX treatment regimens were evaluated. Patients who received DEX required the most ventilatory support on Day 1 (5%, p < 0.001) compared to all other groups. These same patients, however, did not go on to have higher ventilatory needs (17%, p < 0.001) compared to the group which ultimately required the most ventilatory support, TOCI plus DEX (94%, p < 0.001) at Day 28 of treatment. TOCI use alone was associated with a 4% to 6% (p < 0.001) increase in need for ventilatory support over the course of 28 days (Figure 1). The shortest LOS was seen in those treated with DEX alone (9.5 days, p < 0.001). Longer LOS outcomes were associated with the use of RDV alone (10% to 14%, p < 0.001).

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

509. Clinical Characteristics and Outcomes in Patients Infected with SARS-CoV-2 Treated with Remdesivir, Tocilizumab, and/or Dexamethasone at a Mid-Atlantic Hospital Consortium

**Background.** Treatment strategies for COVID-19 have evolved based on clinical trials. We performed a retrospective analysis to determine treatment outcomes for Remdesivir (RDV), Tocilizumab (TOCI), and/or Dexamethasone (DEX) in a representative population from the Mid-Atlantic region.

**Methods.** A retrospective chart review was performed for patients admitted to Medstar hospitals within the D.C./Baltimore corridor from 03/01/2020 to 12/31/2020, and diagnosed with COVID-19 using a NP SARS-CoV-2 RT PCR assay. The MedStar Pharmacy Database was utilized to stratify based on any combination of RDV, TOCI, and/or DEX treatment regimens. We performed a retrospective analysis to determine treatment outcomes for Remdesivir (RDV), Tocilizumab (TOCI), and/or Dexamethasone (DEX) in a representative population from the Mid-Atlantic region.

**Results.** A total of 2488 patients were included. Overall, the average age of patients was 62yrs, 53% male, and the majority of patients were of Black (54%) or White (27%) race. The average length of stay was 11 days (SD = 12) with a mortality of 14%. Univariate analyses, all combinations of RDV, TOCI, and DEX treatment regimens were evaluated. Patients who received DEX required the most ventilatory support on Day 1 (5%, p < 0.001) compared to all other groups. These same patients, however, did not go on to have higher ventilatory needs (17%, p < 0.001) compared to the group which ultimately required the most ventilatory support, TOCI plus DEX (94%, p < 0.001) at Day 28 of treatment. TOCI use alone was associated with a 4% to 6% (p < 0.001) increase in need for ventilatory support over the course of 28 days (Figure 1). The shortest LOS was seen in those treated with DEX alone (9.5 days, p < 0.001). Longer LOS outcomes were associated with the use of RDV alone (10% to 14%, p < 0.001).

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