Mean age was 66.2, 72% male. 94% white, in keeping with our population. Most common comorbidities included pre-existing lung disease (35%), cardiovascular disease (33%) and diabetes (29%). 52% had Rockwood clinical frailty score (CFS) 1–2.

50% were for full escalation. In total, 20% were transferred to Intensive Care Unit (ICU). Of those, average time from initiating AGP to ICU admission was 4 days. Patients transferred within 24 hours of initiating AGP and subsequently intubated, had a 40% mortality rate, versus 75% if transferred > 5 days after AGP initiation. Overall ICU mortality rate was 52%.

Average inpatient length was 16.6 days, mean AGP duration was 6.2 days. Patients with CFS 1 had a 13% mortality following AGP initiation, versus 90% mortality in those with CFS 4. We also noted a 1.1kPa PO₂ difference prior to AGP initiation for the survivors (8.8kPa vs 7.7kPa).

Overall RHC outcome: 19% discharged, 39% died, 22% transferred to other ward (87% survived), 20% ITU (48% survived). ReSPECT form was completed in 87% and End of Life care-plan initiated in 81% who died.

Despite challenges, including staff shortage, low morale, oxygen and beds limitation, we remained up-to-date throughout the pandemic offering novel treatments. Of those eligible, 100% received dexamethasone, 95% were appropriately anticoagulated, 87% were given tocilizumab and 61% received remdesivir. 29% of patients were recruited into the RECOVERY trial, far exceeding recruitment within the trust (11.2%), regionally within the West Midlands (6.3%), and nationally (10%).¹

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P216 COVID-19 AND ETHNICITY: HOW DOES IT IMPACT ADMISSION TO INTENSIVE CARE AND USE OF CPAP?

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Background In the first wave of the COVID-19 pandemic, published data suggested that patients from ethnic minority backgrounds were disproportionately affected by the disease; however, there appears to be a paucity of data regarding specific outcomes such as admission to intensive care (ICU) and use of continuous positive pressure (CPAP) ventilation.¹ We describe a patient cohort presenting to two urban district general hospitals, analysing whether ethnicity is associated with increased morbidity.

Methods A retrospective cohort analysis of 752 patients with a clinical or laboratory (RT-PCR positive) diagnosis of COVID-19 presenting to the respiratory units across two hospitals was conducted. Data was collected on patients' self-reported ethnic identity, admission to ICU, use of CPAP and intubation.

Results 48 patients' ethnic identities were unavailable and therefore excluded from analysis. Of the 704 patients included in analysis, median age was 61, 58.1% male and 41.9% female. Within this cohort, non-white patients (n=259) were more likely to require ICU admission and intubation when

compared with white patients (n=445) (RR 1.75 [p <0.0015], RR 2.092 [p <0.0063]). Subgroup analysis showed, black patients (n=47) were more likely to require ICU admission (RR 2.322 [p < 0.0184]), intubation (RR 3.293 [p <0.0017]) and CPAP (RR 1.612 [p <0.00183]) when directly compared to white patients. Patients of South Asian (n=127) origin were more likely to require intubation (RR 1.98 [p <0.0396]) but no significant difference was noted in use of CPAP.

Conclusion Existing evidence suggests that patients from ethnic minority backgrounds were disproportionately affected by acute COVID-19 and are more likely to be exposed. Our analysis demonstrates that this patient group often experienced more severe disease requiring ICU admission and respiratory support, compared to white patients. Current hypotheses include a higher prevalence of comorbidities, socio-economic factors and societal structural inequalities. Our study not only adds to current data and underlines the importance of continued research into this area, but also helps clinicians, particularly those within hospitals serving diverse populations, prepare resources for further potential surges of COVID-19.

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P217 IMPROVED COVID-19 OUTCOMES IN A LARGE NON-INVASIVE RESPIRATORY SUPPORT COHORT DESPITE NEW VARIANTS

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Background Respiratory high-dependency units (rHDU) are widely used to manage respiratory failure in coronavirus-19 (COVID-19) outside of the intensive care unit (ICU). Wave two variants of COVID-19 have been linked to increased rates of mortality and admission to ICU, however, their impact on a rHDU population, as well as the effects of new treatments, have not been previously studied.¹ In this study we aimed to compare our clinical practice and rHDU outcomes between the two main UK waves of COVID-19 infection and identify factors that influenced outcomes in the second wave.

Method We conducted a single-centre, retrospective analysis of all patients with a diagnosis of COVID-19 admitted to the rHDU of our teaching hospital for respiratory support during the first wave from 23rd March to the 4th June 2020 and the second wave in between 10th October 2020 and 31st January 2021 when our evaluation ended. Patient data including virus genotype, treatments received and patient outcomes were collected and compared between waves.

Results In total, 348 patients were admitted to rHDU; 71 (20.4%) during the first wave and 277 (79.6%) in the second wave. Patient characteristics are shown in *table 1*. Mortality and intubation rates were lower in the second wave compared with the first. Patients in the second wave were less frail and more patients in the second wave received CPAP as their primary respiratory support and were able to prone. The VOC B.1.1.7 variant did not have a significant effect on rHDU outcome.