titrated to maintain oxygen saturations greater than 94%. Demographic information, PEEP pressures, duration on CPAP, time to intubation if CPAP failed, ICU admission, hospital discharge and 60 day mortality was collected on CPAP responders and CPAP non responders over a six-week period.

Results 43/353 patients (12%) admitted with Covid pneumonia to our hospital in respiratory failure were deemed suitable for a CPAP trial and were for escalation to ICU if CPAP failed. (Table 1). 23/43 (54%) responded favourably to CPAP and avoided ICU. Males were more likely to fail CPAP (48% vs 75%, p=0.07) within the first day (5 vs 1 day, p≤0.001). Hospital length of stay in CPAP responders was considerably shorter than CPAP non responders.

Conclusions Over half of patients trialled on CPAP tolerated it well and avoided ICU admission with a shorter hospital stay. These were younger patients with relatively few comorbidities. Those who failed CPAP were mostly male and did so within the first 24 hours. The non-responders to CPAP all survived to hospital discharge. Early CPAP use in this group has had no adverse outcomes to date. More work is needed to look at the use of early CPAP in older patients with more medical co-morbidities in respiratory failure due to Covid pneumonia.

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P58 REVIEWING THE ROLE OF CONTINUOUS POSITIVE AIRWAY PRESSURE (CPAP) IN PATIENTS WITH SEVERE COVID-19: A MULTI-SITE OBSERVATIONAL STUDY

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Introduction and Objectives The COVID-19 pandemic saw unprecedented pressure placed upon healthcare services and demand for additional Critical Care capacity. National guidance recommended CPAP as a treatment option for patients with severe hypoxaemic respiratory failure. We present our experience and clinical outcomes of patients with severe COVID-19 treated with CPAP.

Methods Clinical data was prospectively collated for all patients treated with CPAP for COVID-19 at two hospital sites. Both sites used the same treatment algorithm, involving a stepwise progression of oxygen therapy, CPAP and escalation to mechanical ventilation if appropriate. CPAP was delivered within ED resus, respiratory ward CPAP area, respiratory HDU or Intensive Care Unit (ICU). Inclusion criteria included confirmed SARS-CoV2 infection by nasopharyngeal swab PCR; age³18; $FiO_2$³0.4 with increased work of breathing or $FiO_2$³0.6 to maintain target oxygen saturation; Level 2 or 3 treatment escalation plan (TEP); treatment with CPAP.

Results 115 patients were identified, 22% female. Median age was 67(36–92) years, and Clinical Frailty Score 2(1–9). At initiation of CPAP, S:F ratio was 118(87–245) and supplemental oxygen was FiO_2=0.8). Diabetes was present in 64%, hypertension in 61%, cardiac disease in 22% and respiratory disease in 17%.

84 patients had a Level 3 TEP. 30-day mortality in this group was 29%. 50% required escalation to invasive ventilation and 30-day mortality was 50%, reflective of early national data. In those who avoided intubation, mortality was 11%. 31 patients had a Level 2 TEP, where CPAP was the ceiling of treatment. 30-day mortality was 74%. Admission to ICU was avoided in 67 of 115 patients. Mortality in this group was 40%. Median CPAP use was 3(1–11) days. Survivor length of stay was 55(18–94) days in ICU mechanically ventilated patients vs. 11(5–53) days in ward treated patients.

Conclusion In patients with COVID-19 and severe hypoxaemic respiratory failure, mortality was high. Our results showed that intubation can be avoided in 50% of patients treated with CPAP. 30-day mortality in patients subsequently mechanically ventilated was 50% but was only 11% in those who avoided intubation. Further work is needed to assess the impact of CPAP on clinical outcomes in patients with COVID-19 pneumonia.

P59 SELF-PRONING IN COVID-19 PATIENTS ON LOW-FLOW OXYGEN THERAPY. A CLUSTER RANDOMISED CONTROLLED TRIAL

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Introduction and Objectives Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)-associated pneumonia is associated with severe hypoxemic respiratory failure requiring treatment in intensive care units (ICUs) in approximately 5–10% of hospitalized patients. Lung protective mechanical ventilation and intermittent prone positioning are standard care and evidence-based strategies in the management of severe acute respiratory distress syndrome. These strategies are presented in Surviving Sepsis Campaign guidelines for the management of critically-ill adults with coronavirus disease (COVID-19).

Prone positioning as a complement to oxygen therapy to treat hypoxemia in COVID-19 pneumonia in spontaneously breathing patients has been widely adopted, despite a lack of evidence for its benefit.

The objective of this single-center, cluster-randomised controlled trial is to test the hypothesis that a simple incentive to self-prone would decrease oxygen needs in patients admitted to the ward for COVID-19 pneumonia on low-flow oxygen therapy.

Methods Twenty-seven patients with confirmed COVID-19 pneumonia admitted to our University Hospital medical ward were included in the study. Ten patients were randomised to self-prone positioning and 17 to usual care.

Main Results Oxygen needs assessed by oxygen flow on nasal cannula at inclusion were similar between groups. Twenty-four hours after starting the intervention, the median oxygen flow was 1.0 L/min (interquartile range, 0.1–2.9) in the prone position group and 2.0 L/min (interquartile range, 0.5–3.0) in the control group (P = 0.507) (figure 1). Median oxygen saturation/fraction of inspired oxygen ratio was 390 (interquartile