Findings 47 patients received standard treatment with tocilizumab. Total death was 44.7% in control group and 17% in tocilizumab group ($p=0.008$). 46.8% of patients in the tocilizumab group required ITU admission compared to 31.6% in the control group ($p=0.18$). 27.6% in tocilizumab needed intubation whereas 10.5% in control group ($p=0.06$). 57.5% in tocilizumab group were escalated to non invasive ventilation (NIV) or high flow nasal oxygen (HFNO) whereas only 23.7% in control group required ventilatory support (p value = 0.002). Further analysis of those in the ITU cohort revealed a mortality rate of 22.7% in the tocilizumab group and 58.3% in the control group. Length of hospital stay was twice in the tocilizumab group (12 days) vs control (6 days) ($p<0.001$).

Conclusion This study showed that tocilizumab may be associated with mortality benefit but no reduction in the rate of progression to intubation or need of NIV/HFNO. Further data with larger patient cohort is required to ascertain the benefits of tocilizumab in COVID 19 pneumonia.

P187 **CLINICAL OUTCOMES AND TREATMENT-RELATED ADVERSE EVENTS TO TOCILIZUMAB IN SARS-COV-2 ILLNESS**

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Background Severe SARS-CoV-2 is associated with release of Interleukin-6 and other pro-inflammatory cytokines that are markers of systemic inflammation and this response may cause or exacerbate lung injury leading to life-threatening disease. Tocilizumab, an IL-6 receptor antagonist licensed in certain Rheumatological disorders has shown to have beneficial effects on mortality and reduces the need for ventilator and organ support if used early. We evaluated the clinical outcomes and treatment-related adverse events in patients who were treated with Tocilizumab.

Method A hospital treatment protocol with inclusion/exclusion criteria, dose regimen and clinical monitoring post dose and post discharge patient alert card (figure-1) was implemented. Two clinicians had to concur to the treatment and this was limited to patients needing either Acute Respiratory Care Unit (Level-1 HDU) or ICU. Electronic medical records of all patients who had Tocilizumab between January-May 2021 were reviewed. Baseline demographics, dose regimen, respiratory support at the time of treatment and adverse events were reviewed.

Results 108 patients (age; 56 ± 14 , BMI; 32 ± 3 , males-66%) received Tocilizumab. The dosing regimen was weight based (8mg/kg, maximum 800 mg) and was given within 24 hours in 79% patients and 21% within 48 hours of admission to either ARCU or ICU. Majority (95%) received one dose and the second dose was only considered in the absence of clinical improvement. Respiratory support at the time of Tocilizumab treatment included CPAP -93% (PEEP; 8-12), 1% nasal high flow therapy and 6% invasive ventilation including ECMO. Over a third of patients had no complications but 67% had deranged liver functions (elevated ALT) but settled with supportive measures, 1% had thrombocytopenia and 1% had reactivation of TB (TB Lymphadenitis). The mortality rate in patients who received Tocilizumab was

ALERT

NAME.....

I have received Tocilizumab for COVID-19

Date of treatment.....

For 3 months:

- Live vaccines should be avoided for 3 months
- Avoid contact with anyone with shingles/chicken pox if not immune
- Seek medical advice if you experience signs or symptoms of an infection
- Females of child bearing age should avoid pregnancy

Show this information to any healthcare provider involved in your care.

Abstract P187 Figure 1 Showing the post Tocilizumab alert card

24% ($n=26$). Post discharge alert card to the patients and specific discharge information to primary care were provided.

Conclusion Appropriate treatment protocol and regular monitoring are needed for patients who receive Tocilizumab in severe SARS-CoV-2 illness. Clinicians should bear in mind the high incidence of treatment-related adverse events and the lack of data about long term effects. Treatment alert cards and specific discharge advice may be beneficial.

P188 **TICK TOCK...WHERE AND WHEN CAN WE GIVE TOC? REVIEW OF COVID-19 PATIENTS RECEIVING TOCILIZUMAB IN A NON CRITICAL CARE SETTING**

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Introduction The REMAP-CAP trial demonstrated the positive effects of interleukin-6 receptor antagonists (tocilizumab and sarilumab), on mortality in COVID-19 patients managed in a critical care setting.¹ Prior to this, adjuvant drug therapies such as remdesivir and dexamethasone have shown limited benefits regarding COVID-19 related mortality in patients requiring non-invasive respiratory, managed in non-critical care settings.

During the pandemic the Mater Hospital, Belfast was designed as the local COVID-19 centre. Prior to January 2021 standard ward level care included IV antibiotics, IV remdesivir, oral dexamethasone and non-invasive ventilation. Continuous positive airway pressure was used first line (commenced when FiO2 requirements exceeded 4L/min via nasal cannula). After the release of the Department of Health's position statement regarding tocilizumab for COVID-19 patients on respiratory support, a decision was taken to use tocilizumab off license in a non-critical care setting.

Our hypothesis was that COVID-19 positive patients on non-invasive ventilation who received tocilizumab in addition to standard care would have reduced hospital mortality compared with standard care alone. The REMAP-CAP trial administered tocilizumab to COVID-19 patients in a critical care setting, however we postulated that those 'less unwell' patients requiring ward level respiratory support but not 'critical care' could still benefit.

Methods Patients commenced on tocilizumab in a non-critical care setting were identified and followed up prospectively. A