scores, and discharge status are shown in Table 1. Average daily peak temperatures (T_{max}) pre- and post- TCZ were 100.7 and 98.9°F, p< 0.001. Mean CRP pre- and post- were 234 and 84.6 mg/L, p=0.001 (Fig.1). Decrease in T_{max} and CRP was rapid and sustained (Fig. 2, 1st 8 patients shown for clarity.). 58% had improved clinical improvement by OSCI by day 7, 68% by day 14. 7 of 19 of patients were discharged home, 6 to rehab or acute care facility, and 6 died.

Table 1: Patient Demographics, Clinical Severity Score, and Discharge Status

			Ordinal Scale for Clinical Improvement			
Patient	**Age - Sex**	**PMHx**	**TCZ day 0**	**Day 7**	**Day 14**	**Discharge status**
1	70 M	HT,HL,DM,CD	7	7	4	Rehab* day 19
2	67 M	None	7	6	6	Deceased day 24
3	58 M	HL	7	6	4	Home day 26
4	51 M	HT,HL,OB	7	4	3	Home day 24
5	62 M	CAD	7	7	7	Rehab day 27
6	66 M	HT	4	4	-	Home day 11
7	64 M	CD,DM,HT	7	8	8	Deceased day 3
8	84 M	HT,PD	3	-	-	Home day 6
9	45 M	None	4	2	-	Rehab day 5
10	44 M	SM	7	4	3	Home day 15
11	64 M	HT,AS	4	4	-	Home day 11
12	79 F	KD	4	8	8	Deceased day 1
13	56 M	HT,HL,OB	7	8	8	Deceased day 6
14	91 F	HT, HF	4	8	8	Deceased day 5
15	58 F	CD	7	6	6	Rehab day 20
16	46 M	None	4	3	-	Home day 7
17	86 F	HT	7	4	8	Deceased day 10
18	94 F	HT,HL,DM	4	-	-	Rehab day 3
19	53 F	HT,DM,OB	6	4	3	Rehab day 13

*Rehab (includes Skilled Nursing Facility, or Long Term Acute Care). AS=Asthma, CA=Cancer, CD=Cardiovascular Disease, DM=Diabetes, HF=Heart Failure, HT=Hypertension, HL=Hyperlipidemia, KD=Kidney Disease, OB=Obesity, PD=COPD, SM=Smoking

Figure 1 CRP and Tmax pre- and post- Tocilizumab

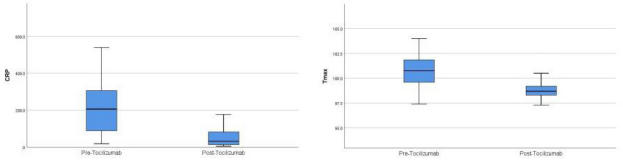
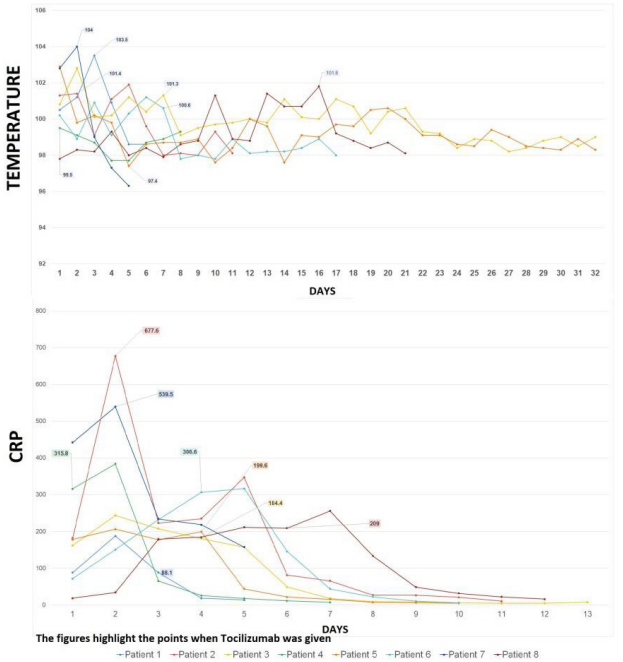


Figure 2: Time course of Temperature and CRP after Tocilizumab



Conclusion: In this cohort of patients with moderate-to-severe COVID-19 and evidence of Cytokine Release Syndrome, tocilizumab was associated with rapid resolution of fever and marked decline in CRP. Most patients showed improvement in clinical severity scores and no adverse reactions were noted. Tocilizumab may be useful in control of pathological inflammation in COVID-19. Controlled trials will be needed to assess overall clinical benefit.

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

565. Tocilizumab Use in COVID-19: Act(emra) to Inhibit Intubation and Decompensation

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Session: P-21. COVID-19 Treatment

Background: Tocilizumab is an IL-6 receptor inhibitor that has been utilized for the prevention and treatment of the cytokine storm inflammatory reaction in COVID-19. The objectives of this analysis were to evaluate clinical outcomes of tocilizumab treatment in relation to respiratory status improvements and to analyze the association between initial inflammatory markers and treatment outcomes.

Methods: IRB approved retrospective chart review of adult patients with confirmed COVID-19 treated with tocilizumab from March- May 2020. Data collection focused on relevant past medical history, hematologic and inflammatory markers before and after tocilizumab administration, concomitant COVID-19 treatments, and disease outcomes such as mortality and discharge. Assessed baseline characteristics and treatment outcomes in patients who received tocilizumab prior to intubation versus after intubation, and evaluated for any significant markers of treatment success and failure.

Results: 84 patients were evaluated. Baseline characteristics did not vary between intubated and not intubated patients (Figure 1). Overall mortality in patients who received an IL-6 inhibitor was 43%. Mortality in patients who received IL-6 inhibitor when intubated (63%) compared to patients who were not intubated (26%) was significantly higher (p = 0.005). Patients with BMI's of 30 or above and patients with diabetes had a higher rate of treatment failure (p < 0.05) (Figure 2). Patients with IL-6 levels of 1000 or above had higher rates of treatment failure (p = 0.0001); however, given the small sample size larger studies are required for further analysis (Figure 3).

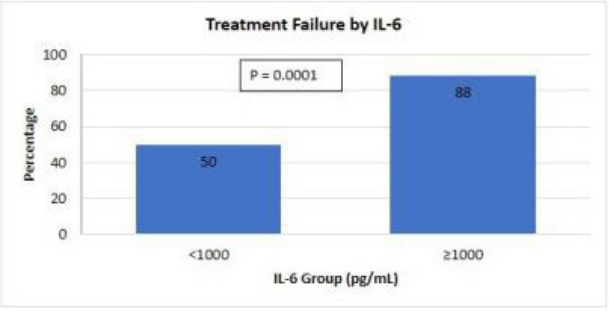
Baseline Characteristics by Respiratory Status Pre-Tocilizumab Administration

	Not Intubated (N=46)	Intubated (N=38)	P-value
Age (median)	59	55	0.26
Gender			
Male	70%	68%	0.91
Female	30%	32%	
Ethnicity			
Hispanic	65%	45%	0.06
Non-Hispanic	35%	55%	
Race			
Black	65%	61%	0.5
White	35%	39%	
Past medical history			
Hypertension	41%	44.7%	0.44
Diabetes	35%	34%	0.06
Asthma/COPD	19%	13%	0.79
BMI (kg/m²)	28.9	30.5	0.45
Baseline labs/vitals			
T-max (°F)	100.5	101.4	0.08
IL-6 (pg/mL)	116.5	233.5	0.08
CRP (mg/dL)	21.9	24.9	0.07

Subgroup Analysis

	Total Number	Treatment Failure	P-value
Age			
<65	55	52%	0.06
≥65	29	62%	
Gender			
Male	58	55%	0.54
Female	26	58%	
Ethnicity			
Hispanic	47	57%	0.55
Non-Hispanic	37	54%	
Past medical history			
Diabetes	29	66%	**0.003**
No diabetes	55	51%	
BMI (kg/m^2)			
<30	38	47%	**0.001**
≥30	46	63%	
Il-6 (pg/mL)			
<1000	70	50%	**0.0001**
≥1000	8	88%	
CRP (mg/dL)			
<20	25	48%	0.1
≥20	55	56%	

Outcome by Baseline IL-6 Levels



Conclusion: Overall mortality in our patients was 43%; however, our sample size was small and the study did not have a control group to fully assess treatment success or failure. Comorbidities such as diabetes and obesity, and elevated IL-6 levels were associated with significantly higher rates of treatment failure. Randomized control trials are needed to determine the true benefit of tocilizumab in COVID-19.

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

566. Tocilizumab: A Friend or a Foe in COVID-19 Management?

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Session: P-21. COVID-19 Treatment

Background: The emergence of severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) has led to many proposed treatments for COVID-19 induced cytokine release syndrome (CRS). We aimed to investigate the treatment response of Tocilizumab (TZB), an Interleukin-6 (IL-6) inhibitor in this single center study.

Methods: A retrospective chart review in COVID-19 patients was conducted from 03/18/20 - 05/20/20. Patients with PCR confirmed COVID-19 who received TZB were included. Variables included dose and timing of TZB, trend of acute phase reactants, time to improved oxygenation and defervescence, 30-day mortality, and hospital/intensive care unit (ICU) length of stay (LOS). Descriptive statistics were used.

Results: Twelve patients received TZB at least once during the study period. Median patient age was 51.5 years (interquartile range (IQR), 34–87), and mean body weight of 109 kg (SD = 33.8). At time of admission, mean day of illness was 6.6 days (SD = 3.3) into their illness. All patients received a standardized TZB dose of 400 mg, and 2 patients received a second dose. Nine out of 11 patients (75%) had elevated median IL-6 baseline levels of 38.3 (IQR < 5- 96.22). The average CRS score was elevated at 3.3 at the time of TZB administration.

All patients who received TZB were on supplemental oxygen, and 58% were mechanically ventilated. A decrease in oxygen requirement in 24 hours was seen in mechanically ventilated patients (71%) compared to those not on mechanical ventilation (20%). Median ICU days were 17.5 (IQR, 3–39), and median LOS days were 21.5 (IQR 8–46). All patients had sustained decreases in CRP post-TZB administration.

Almost half of patients (42%) were treated for bacterial pneumonia post TZB and 3 (25%) patients were treated for herpes simplex virus (HSV) reactivation. Majority (92%) of patients received additional COVID-19 therapies such as hydroxychloroquine, convalescent plasma, or remdesivir. During the study period only one patient expired.

Conclusion: Our findings suggest that TZB may have a role in mechanically ventilated patients in decreasing oxygen requirement. However larger randomized studies are needed to understand which patients would benefit the most. Our study also highlights secondary infections and HSV reactivation in TZB patients.

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

567. Use of corticosteroids and COVID-19 mortality in patients with pneumonia in a tertiary care center in México City

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Session: P-21. COVID-19 Treatment

Background: The use of corticosteroids, specifically dexamethasone has been associated to low mortality in COVID-19 patients. We present here the mortality related to the use of corticosteroids in the first two months of the SARS-CoV-2 outbreak in México City.

Methods: We conducted a case series of patients with the diagnosis of pneumonia due to SARS-CoV-2 virus admitted to a tertiary care center in Mexico City, between March 14th and May 14th, 2020. Data collected included demographic information, comorbidities, treatment and outcomes including mortality.

Results: We included 109 patients with diagnosis of COVID-19 associated pneumonia with computed tomography; 76(69.7%) were male and 33(30.3%) female with a median age of 52 yo (24–85) and 51 yo (25–81), respectively. Most common comorbidities were overweight (48.6%), obesity (35.8%), hypertension (23.8%), and diabetes (18.3%). Thirty-eight patients received corticosteroids (Methylprednisolone 30, Hydrocortisone 6 and dexamethasone and prednisone in on case). Mortality in those that used corticosteroids was 21% (8/38) and 5.6% for those that did not received (4/71), p=0.014.

Forty cases needed mechanical ventilation from the beginning, and 24 of those received corticosteroids with a mortality of 29% (7/24), while the mortality was 18.7% (3/16) in those with no steroid use, p=0.45.

Conclusion: Mortality in our small cohort with predominantly use of methylprednisolone is not lower in those using steroids. In fact, mortality was significantly higher in those that received corticosteroids, while this significance was not maintained in those that needed immediate mechanical ventilation. Use of corticosteroids for COVID-19 patients with pneumonia, should be further investigated.

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568. Healthcare Cost and Length of Stay for Cytomegalovirus (CMV) Infection-Related Hospitalizations in Allogeneic Hematopoietic Cell Transplant (allo-HCT) recipients: A Multicenter Analysis

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Session: P-22. Care Strategies for Transplant Patients

Background: CMV reactivation is associated with significant morbidity and mortality in allo-HCT recipients and could be a resource intensive condition to manage. Limited data are available on the economic ramification of CMV reactivation in allo-HCT. Therefore, we aimed to examine healthcare cost and length of hospital stay (LOS) among allo-HCT recipients treated for CMV infection.

Methods: We performed a retrospective cohort study that included 56 consecutive allo-HCT recipients who were diagnosed with CMV infection within 100 days post-transplant and admitted to two medical centers, University of Texas MD Anderson Cancer Center and University of Chicago, Department of Infectious Disease between January 2016 and December 2017. CMV-related hospitalization was determined as an inpatient admission with or for CMV reactivation within 100 days post-transplant. Data were limited to only the first CMV-related hospitalization. Descriptive statistics were reported on patient characteristics, first CMV-related hospitalization and costs.

Results: Most patients were 40 years or older (64%), female (55%), Caucasian (66%), CMV seropositive recipients (87%), received a matched unrelated donor HCT (49%) and had a myeloablative or reduced intensity conditioning regimen (65%)