Comparison and analysis of baseline characteristics in patients with or without superinfection present.

Day-28 mortality comparison in patients with or without superinfection. Mortality was observed in 7/58 patients with a superinfection versus 20/346 patients without superinfection present (p < 0.001).

| Significant Variables with Correlation of Increased Superinfection Risk | p value |
|---------------------------------------------------------------|--------|
| Black Ethnicity                                             | 0.046  |
| Chronic Kidney Disease                                       | 0.008  |
| ICU upon Admission                                           | <0.001 |
| Lymphocytopenia                                              | 0.007  |
| Tocilizumab                                                  | 0.029  |

Multivariable analysis results for increased superinfection risk. All baseline characteristics with univariate analysis resulting in a p value of < 0.2 were included in the backwards, stepwise logistic regression model.

Conclusion. In conclusion, our retrospective cohort study reports a superinfection rate of 13.9%. Presence of a superinfection significantly increases the likelihood of mortality within 28-days from admission. Characteristics that have a significant correlation to increased risk of superinfections include Black ethnicity, chronic kidney disease, ICU upon admission, and receipt of tocilizumab.

Disclosures. Kevin W. Garey, Pharm.D., M.S., FASHP, Summit Therapeutics (Research Grant or Support)

339. COVID-19 Mortality in a Private Hospital in Mexico City
Maria Lorena Cabrera Ruiz, MD;1 Paulo Castañeda-Méndez, MD;2 Daniel Aguilar-Zapata, MD;3 Javier Reyes Mar, MD;4 Gonzalez Chon Octavio, n/a;4 Luis E. Soto-Ramírez, MD5;1 Hospital Medica Sur, Ciudad de México, Distrito Federal, Mexico;2 Hospital Medica Sur, Ciudad de México, Distrito Federal, Mexico;3 Hospital Medica Sur, Hospital San Angel Inn Universidad, Mexico city, Distrito Federal, Mexico;4 MEDICA SUR, Mexico City, Distrito Federal, Mexico

Session: P-14. COVID-19 Complications, Co-infections, and Clinical Outcomes

Background. According to the Institute of Global Health Science (IGHS), mortality for Covid-19 patients treated in public hospitals in Mexico ranges between 30-50%, decreasing to 20% in private health care facilities. Our objective was to describe the mortality rate in a teaching private hospital in Mexico City.

Methods. We included all patients that were admitted to hospital Medica Sur in the south part of Mexico City during year 2020. We analyzed the total mortality present in all our patients with a follow up of two months, and relay that to age and gender.

Results. During year 2020, we admitted in our hospital 1,075 patients with confirmed diagnosis of COVID-19 through nasopharyngeal molecular test; 772 were male (71.8%) with more than 50% between 40 and 59 years, while females were more frequent between 40 and 69 years’ age. Seventy-four patients (6.88%) died during hospitalization; 59 (79.7%) males and 15 females. Mortality rate was clearly related to age (figure 1) with 30% mortality for males between 80-89 years and 19% for females. Mortality rate by gender and age

Conclusion. Mortality in private hospitals was clearly lower than in public hospitals. In our hospital, mortality was lower than 10%, mostly related to their availability of unlimited intensive care without ECMO and despite the lack of some drugs like Remdesivir. As described, space limitations for intensive care as well as the lack of trained personal impacted significantly the mortality in public hospitals.

Disclosures. All Authors: No reported disclosures

340. Outcomes of COVID-19 in Hospitalized SOT Recipients: Experience in Colombia, South America
Fernando Rosso, MD, MSC;1 Eric Tafurt, Doctor;2 Fundación Valle del Lili Universidad Icesi, Cali, Valle del Cauca, Colombia;2 Fundacion Valle del lili, Cali, Valle del Cauca, Colombia

Session: P-14. COVID-19 Complications, Co-infections, and Clinical Outcomes

Background. SOTs (SOT) recipients with COVID-19 are considered to be at high risk. Several clinical outcomes studies have reported a high frequency of intensive care unit admission and death rates. There is a lack of evidence regarding the best approach for immunosuppressive therapy in SOT recipients with COVID-19.

Methods. We performed a single-centered, retrospective, observational study of all SOT recipients with SARS-CoV-2 confirmed infection RT-PCR from nasopharyngeal swab specimens who were admitted to the emergency department from March 25 to September 1, 2020. Glucocorticoid therapy was administered according to the criteria of the attending physician. We classified glucocorticoid therapy if the patient received dexamethasone 6 mg/day or methylprednisolone 40 mg/day, and a high dose if the patient received methylprednisolone 80–160 mg/day. Specimens collected within the first 48 hours were defined co-infection, while specimens collected after 48 hours were defined hospital-acquired superinfection.

Results. Of a total of 43 SOT recipients with COVID-19, 17 (39%) required intensive care unit admission. 32 (74.4%) required glucocorticoid therapy: 13 received low dose and 19 high dose. 15 (34.8%) had secondary infections. A total of 12 (27.9%) presented hospital-acquired bacterial superinfections, mostly caused by P. aeruginosa, mostly of hospital-acquired co-infections. According to the Institute of Global Health Science (IGHS), mortality was 50% in patients who received tocilizumab compared to 27.5% in the control group (p = 0.0059), with echinocandins being the most used class in both groups.

Conclusion. The median days of antimicrobial use in the tocilizumab group was 14 (IQR 7, 24.5) compared to 9 (IQR 6.5, 19) in the control group (p = 0.3346). In the treatment group, 60% of patients developed a secondary infection compared to 35% of patients in the control group (p < 0.0017). Secondary infection treatment failure was observed in 75% of tocilizumab patients compared to 60.7% of control patients (p = 0.1910). In hospital mortality was 50% in patients who received tocilizumab compared to 27.5% in the control group (p < 0.0039).

Disclosures. All Authors: No reported disclosures

341. Evaluation of Antimicrobial Use and Prescribing Patterns During the COVID-19 Pandemic in Patients Receiving Tocilizumab
Barbara Barsoum, PharmD;2 Kai-Ming Chang, MD;2 Nicole Mulvey, PharmD;3 Henry Donaghy, MD;2 Thien-Ly Doan, PharmD;2 Long Island Jewish Medical Center, Flushing, New York;2 North Shore University Hospital, Manhasset, New York

Session: P-14. COVID-19 Complications, Co-infections, and Clinical Outcomes

Background. Severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) infected patients experience systemic inflammation and respiratory distress, which appears to be associated with increased cytokine release. During the peak of coronavirus disease 2019 (COVID-19), tocilizumab was used to treat critically ill patients with potential cytokine storm. However, tocilizumab has an increased risk of developing serious infections.

Methods. This retrospective observational chart review was approved by Institutional Review Board and evaluated patients admitted from March to November 2020, who were SARS-CoV-2 positive and received tocilizumab for the treatment group and no tocilizumab for the control group. The primary endpoint is usage of antimicrobials. The secondary endpoints are development and outcomes of co-infections and hospital length of stay and mortality. Chi-square test is usage of antimicrobials. The secondary endpoints are development and outcomes of co-infections and hospital length of stay and mortality.

Results. A total of 160 patients were included in analysis, with 80 in each arm. 60% of patients in the treatment group required antibiotics compared to 35% in the control group (p = 0.0015), with the highest usage of anti-MRSA coverage, beta-lactams, cephalosporins, and carbapenems in both groups. Antifungal therapy was required in 21.3% of patients in the tocilizumab group compared to 6.3% in the control group (p = 0.0059), with echinocandins being the most used class in both groups. The median days of antimicrobial use in the tocilizumab group was 14 (IQR 7, 24.5) compared to 9 (IQR 6.5, 19) in the control group (p = 0.3346). In the treatment group, 60% of patients developed a secondary infection compared to 35% of patients in the control group (p < 0.0017). Secondary infection treatment failure was observed in 75% of tocilizumab patients compared to 60.7% of control patients (p = 0.1910). In hospital mortality was 50% in patients who received tocilizumab compared to 27.5% in the control group (p < 0.0039).

Conclusion. Patients on tocilizumab received more antimicrobials, but with a similar spectrum of antimicrobial coverage. Patients who received tocilizumab had