Background. The Centers for Disease Control and Prevention identified solid organ transplant (SOT) recipients as persons at high risk to develop severe illness secondary to Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). We reviewed the clinical characteristics and outcomes of SOT recipients who had SARS-CoV-2 at our center.

Methods. This was a retrospective review of SOT recipients diagnosed with SARS-CoV-2 between March 1st 2020 and February 28th 2021 in the Medical University of South Carolina (MUSC) Health care system. Subjects were included if they had undergone SOT at any time prior to a positive SARS-CoV-2 PCR. Descriptive statistics were used to analyze demographic and clinical characteristics. Primary outcomes included need for hospitalization, complications, and estimated all-cause mortality.

Results. 96 SOT recipients were diagnosed with SARS-CoV-2. Seven patients were excluded as they initially tested positive and were admitted to another facility or had a simultaneously positive IgG. 89 SOT recipients were analyzed, of which, 39 (44%) were managed as an outpatient and 50 (56%) required admission. 13 (33%) of outpatient recipients were treated with a monoclonal antibody. Of those hospitalized, 24 (48%) were male, 34 (68%) were Black, and 34 (68%) were kidney transplant recipients. Median age at positive test was 53 years of age and median time from transplant to positive test was 3.1 years. Median length of stay was three days (range 0.1–108.6). 17 (34%) patients required supplemental oxygen and 11 (22%) received care in the intensive care unit. Complications, including bacterial infections (16%), fungal infections (2%), CMV reactivation (6%), and rejection (2%) were rare. Three patients (3%) died during the study time period.

Conclusion. The majority of SOT recipients with SARS-CoV-2 in our cohort required admission, however they experienced few complications and a low mortality, despite their high-risk status.

Disclosures. All Authors: No reported disclosures

Table 1. Clinical data for 50 hospitalized solid organ transplant recipients

| Age at diagnosis, years, median (range) | 53 (15-76) |
| Sex | Male 24 (48) Female 26 (52) |
| Race | Black 34 (68) White 14 (28) Other 2 (4) |
| Organ type | Kidney 34 (68) Kidney-liver 2 (4) Kidney-pancreas 4 (8) Liver 2 (4) Heart 4 (8) Lung 4 (8) |
| Time from transplant to positive test, median (range) | 2.7 (0.03 – 25.8) |
| LOS, days, median (range) | 3.0 (0.1-109) |
| Required supplemental O2, n (%) | 17 (34) |
| Nasal cannula | 9 (18) |
| High flow nasal cannula | 2 (4) |
| Mechanical ventilation | 6 (12) |
| ICU admission, n (%) | 11 (22) |
| Treatments received, n (%) | Remdesivir 12 (24) Convalescent plasma 13 (26) Dexamethasone 14 (28) |
| Complications, n (%) | Rejection 1 (2) CMV reactivation 3 (6) Bacterial Infection 8 (16) Fungal infection 1 (2) Death 3 (6) Heart recipient, days post positive test 114 Kidney-pancreas recipient, days post positive test 47 Kidney recipient, days post positive test 33 |

The table describes the pediatric patients and clinical outcome of receiving monoclonal antibody treatment for COVID-19.

474. Unique Treatment Challenges with Multisystem Inflammatory Syndrome in Children (MIS-C) compared to Kawasaki Disease Shock Syndrome

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Background. Kawasaki disease (KD) and Multisystem Inflammatory Syndrome in Children (MIS-C) associated with Coronavirus Disease 2019 present similarly with mucocutaneous symptoms and fever. Both syndromes can progress to shock. Successful treatments for MIS-C are largely based on proven KD management. As more patients with MIS-C are treated, protocols are adjusted. Infectious Diseases (ID) specialists are often early consultants in these cases. Understanding differences in how body systems are affected in MIS-C versus KD is essential for management.

Methods. This is a single hospital comparison of 25 cases of MIS-C with mucocutaneous presentation and symptoms of shock and 25 consecutive cases of KD Shock Syndrome (KDSS). Cases were compared for demographics, symptoms, cardiac abnormalities, medical treatments, and cardiac recovery.

Results. Patients with MIS-C develop symptoms of shock including sustained hypotension and tachycardia at 3 times the rate of patients with KD (45% vs 13%; p< 0.001). On echocardiogram, left ventricular myocardial dysfunction, assessed by ejection fraction, is more commonly noted in cases of MIS-C than KDSS (fig 1). About half of patients with MIS-C show left ventricular myocardial dysfunction initially with normalization by 6 months post-presentation in the majority (96%).

Conclusion. Cardiac changes and shock events related to KD and MIS-C are thought to be caused by differing inflammatory mediators. By comparing these two syndromes, we can determine ways to manage each optimally. MIS-C often results in left ventricular myocardial dysfunction, which is rarer in KD cases. Fluid resuscitation with multiple fluid boluses followed by inotropes to treat hypotension in cases of MIS-C puts increased strain on the already weakened myocardium. Early intravenous immunoglobulin (IVIG) administration, even in the presence of mild hypotension, is more commonly noted in cases of MIS-C than KDSS (fig 1). About half of patients with MIS-C show left ventricular myocardial dysfunction initially with normalization by 6 months post-presentation in the majority (96%).

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476. A Global Survey of Countermeasures Against the COVID-19 Pandemic Among Solid Organ Transplant Centers

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Session: P-23. COVID-19 Special populations (e.g. pregnant women, children, immunocompromised, etc)

Background. Solid organ transplantation (SOT) profoundly impacts vulnerable recipients with chronic end organ diseases. The COVID-19 pandemic disrupted transplant healthcare systems, including organ transplants. We aimed to evaluate the responses of SOT centers to COVID-19 at the beginning of the pandemic around the world.

Methods. We conducted a web-based survey amongst transplant centers, sent to members of The American Society of Transplantation Infectious Diseases Community of Practice Group, between April and May 2020. The survey included basic information of each transplant center (number and types of transplants in 2019), the countermeasures employed against COVID-19 such as timing of postponing of transplantation, and management of outpatient clinics including implementation of telemedicine and rescheduling for in-person visits.

Results. A total of 65 centers from 19 countries responded (Table 1). Regarding the percentage of hospitalized patients with COVID-19 at the time of the survey, 39 (60%) centers reported < 10%, two centers reported > 80%. All centers reduced their services to some extent as shown in Table 2. Centers reported postponing living donor kidney transplant (50/58, 86%), deceased donor kidney transplant (20/57, 35%), living donor liver transplant (32/42, 80%), deceased donor liver transplant (17/41, 41%), lung transplant (20/31, 65%), heart transplant for LVAD (18/33, 55%) and non-LVAD patients (18/33, 55%). In March and April 2020, cancellation of pre- and post-transplant clinic were reported by 36/64 (56%) and 17/65 (26%) centers. Postponing clinic appointments were reported by 56/65 (86%) centers. Most institutions (54/64, 85%) study was to evaluate the number of Black persons vaccinated in community settings compared to the mass clinic.

Methods. LLU developed a tiered approach to increase COVID-19 vaccinations within Black SBC communities. The first tier engaged faith leaders with the academic community in disseminating COVID-19 health information, the second included cultural representatives LLU health care professionals in the delivery of COVID-19 educational webinars, and the third was to conduct low barrier, remote-site vaccination clinics, within targeted Black communities. Following these efforts, we compared the number of Black individuals vaccinated in the LLU mass clinic to those vaccinated in the community remote-site vaccination clinics.

Results. The remote-site COVID-19 vaccination clinics commenced in February 2021. From February 1 until April 30, 2021, 24,808 individuals were vaccinated in the LLU mass clinic with a first dose (Pfizer or Moderna) or single dose (Janssen) of a COVID-19 vaccine, however, only 908 (3.7%) were Black vaccinees. Contrastingly, the LLU remote site clinics vaccinated 1,542 individuals with a first or single dose of a COVID-19 vaccine. Of those vaccinees, 675 (44%) were Black.

Conclusion. The multi-tiered community approach (remote-site vaccination clinics) resulted in a necessary overrepresentation of Black vaccinees, previously underrepresented in the LLU traditional mass vaccination clinic effort (44% vs. 3.7%, respectively). Further research is warranted to examine the key elements to increase vaccinations amongst minoritized groups.

COVID-19 Vaccination Comparisons Between Models

| Patients Vaccinated in Mass Vaccination Clinic (Data extracted: 5/24/21; includes first or single dose) | Patients Vaccinated in Mobile Vaccination Clinic (Data extracted: 5/24/21; includes first or single dose) | San Bernardino County population's Race/electricity data |
|---|---|---|
| Black | 908 (3.7%) | 705 (43.7%) | 168,046 (7.8%) |
| American Indian or Alaska Native | 126 (0.5%) | 4 (0.25%) | 7,955 (0.4%) |
| Native Hawaiian | 87 (0.35%) | 3 (0.19%) | 6,545 (0.3%) |
| Asian | 5,895 (23.7%) | 31 (2%) | 157,172 (7.2%) |
| Latino | 6,982 (28.1%) | 367 (2.3%) | 1,186,808 (54.8%) |
| White | 9,092 (36.6%) | 301 (1.9%) | 591,870 (27.1%) |
| Other | 906 (3.5%) | 37 (2.3%) | 4,372 (0.2%) |
| Unknown | 719 (2.9%) | 43 (2.7%) | 1,472 (0.7%) |
| Total Number Vaccinated | 24,868 | 1,542 | 2,180,085 |

This table includes data from the Loma Linda University Mass Vaccination Clinic and the Remote-Site Vaccination Efforts compared to the San Bernardino County Demographics.

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