influenza or other respiratory viruses were identified. The deceased group was older (77.5 vs 71 years, *P* = 0.007), had lower oxygen saturation and higher respiratory rate on presentation, had longer length of stay (*P* = 0.091), more likely to be in ICU and intubated, had lower bicarbonate levels, higher SAPS (*P* < 0.001), higher lactate dehydrogenase, blood urea nitrogen, potassium levels, and higher peak procalcitonin, CRP, ferritin, ESR levels. There was no difference between recovered and deceased in terms of comorbidities except atrial fibrillation. Also, no difference in use of ACE inhibitors, statins, tamoxifen, hydroxychloroquine (HCQ), azithromycin, doxycycline, steroids. Beta lactam antibiotics and tocilizumab were given more in the deceased group. HCQ was stopped in 1 patient due to QTc prolongation. No bacteremia identified in the recovered group contrary to two occasions in the deceased, *E. faecalis* and *S. mitis*. Six pneumonias in intubated deceased patients were identified (3 had received steroids and 1 tocilizumab) and 4 in recovered (2 intubated/steroids and 1 tocilizumab). 12 recovered patients had persistent positive nasopharyngeal PCR for SARS-CoV-2 for average 29 days (14 to 79 days), and 4 of them were checked and had detectable IgG antibody.

**Dates of Tests for Hospitalized Veterans with COVID-19**

**Comparison of Demographic Data and Comorbidities in Recovered vs Diseased Hospitalized Veterans with COVID-19**

**Comparison of Laboratory Data in Recovered vs Diseased Hospitalized Veterans with COVID-19**

**Conclusion:** The inpatient mortality of hospitalized VETS with COVID-19 in our institution was 30%. Mortality was associated with older age. Ongoing monitoring of outcomes in hospitalized patients will be important to understand the evolving epidemiology of COVID-19 among US VETS.

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

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528. Coronavirus Disease 2019 in Children Cared for at Texas Children’s Hospital: Implications of Repeat Testing on Infection Control Strategies

Catherine Foster, MD1; Lucila Marquez, MD, MPH2; Tjin Koy, MPH, CIC3; Ila Singh, MD, PhD3; Judith Campbell, MD2; 1Baylor College of Medicine, Houston, TX; 2Baylor College of Medicine and Texas Children’s Hospital, Houston, Texas; 3Texas Children’s Hospital, Houston, Texas

**Session:** P-20. COVID-19 Special Populations

**Background:** Accurate diagnosis of coronavirus disease 2019 (COVID-19) is key for source control and interrupting disease transmission. To better understand the length of viral shedding in children and potential infection control implications, we describe 51 children with COVID-19 who underwent repeat testing for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) at Texas Children’s Hospital (TCH).

**Methods:** We performed a retrospective chart review of all pediatric patients (< 21 years of age) with ≥ 2 nasopharyngeal specimens tested for SARS-CoV-2 by reverse transcription-polymerase chain reaction (rt-PCR) and at least one positive result between 3/13/2020 and 6/7/2020 through the TCH Molecular Microbiology Laboratory.

**Results:** Fifty-one patients met inclusion criteria. The median age was 8.6 years (0.02-19.2 years). Sixteen (31%) children were hospitalized. Fourteen (27%) patients underwent testing for surveillance purposes (including 3 admitted patients). Two SARS-CoV-2 tests were performed in 25 (49%) children; while 12 (24%) children had 3 tests, 4 (8%) children had 4 tests, and 10 (20%) children had ≥ 5 tests (including 1 patient with underlying malignancy who had 9 SARS-CoV-2 PCRs performed). SARS-CoV-2 testing timeline for 9 hospitalized children is shown (Fig 1). The median time between collection of tests 1 and 2 was 14 days (n=51, range 1, 53 days). For children with conversion (first detected to first not-detected sample), the median time was 15 days (n=31, range 1, 45 days). For patients with consecutive positive SARS-CoV-2 PCRs, the median time of positivity was 10 days (n=19, range 2, 31). One patient with sickle cell disease likely had re-infection and had a positive test after having 2 consecutive negative tests; his last SARS-CoV-2 rt-PCR was positive 68 days after initial positive.

**Conclusions:** The inpatient mortality of hospitalized VETS with COVID-19 in our institution was 30%. Mortality was associated with older age. Ongoing monitoring of outcomes in hospitalized patients will be important to understand the evolving epidemiology of COVID-19 among US VETS.

**Disclosures:** All Authors: No reported disclosures
Conclusion: We observed variation in the duration of SARS-CoV-2 rt-PCR positivity in children with COVID-19. For children with COVID-19, a single negative molecular assay for SARS-CoV-2 may not be predictive of sustained negativity.

Disclosures: All Authors: No reported disclosures

529. COVID-19 Antibody Responses in Solid Organ Transplant Recipients

Fanaam Zverua, MD; Nicole Ali, MD; Henry J. Neumann, MD, MSc; Rebecca Pellett Madan, MD; Sapna A. Mehta, MD; NYU School of Medicine, New York, NY; New York University School of Medicine, New York, NY

Session: P-20. COVID-19 Special Populations

Background: Studies to date indicate that most adults develop IgG antibody to severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) within 6 weeks of COVID-19 symptom onset. The seroconversion rate of solid organ transplant recipients (SOTR) following COVID-19 is unknown. Elucidation of humoral immune responses following COVID-19 in SOTR may inform risk of reinfection and the development of safe and effective vaccines for immunocompromised hosts.

Methods: We assessed the frequency of SARS-CoV-2 IgG detection among adult SOTR diagnosed with COVID-19 by nasopharyngeal PCR assays between 3/1/2020 and 6/5/2020. SARS-CoV-2 IgG was detected in serum using the Abbott IgG assay at the manufacturer's recommended cut-off. Our primary objective was the frequency of SARS-CoV-2 IgG seropositivity after COVID-19. A secondary objective was to identify clinical factors associated with seroconversion. The mean age and nadir absolute lymphocyte count (ALC) were calculated between seropositive and negative SOTR and compared by Student's t-test.

Results: Among 93 SOTR diagnosed with COVID-19, 19 died before SARS-CoV-2 IgG testing could be performed, and 18 had testing pending as of abstract submission. 56 SOTR (44 kidney, 5 heart, 4 liver, 1 lung, and 1 heart–kidney recipients) completed testing and were included in the analysis. Median age was 58 years (IQR 49.5–67), and all received maintenance immunosuppression. The time of SARS-CoV-2 IgG testing was performed at a median of 60 days (IQR 50–70) from symptom onset, the shortest interval being 16 days. 47 out of 56 SOTR tested positive for SARS-CoV-2 IgG. The likelihood of seroconversion was not different between those who were tested at < or ≥ 60 days from symptom onset (p=0.26), nor did it vary significantly by age (p =0.59), gender (p=0.53) or nadir ALC (p =0.28).

Conclusion: 83% of evaluated SOTR with COVID-19 disease had detectable SARS-CoV-2 IgG in serum at a median of 60 days after symptom onset. Studies are ongoing to identify variables associated with poor antibody response among the nearly 20% of SOTR in this cohort who failed to seroconvert. The significance of seroconversion on risk of reinfection and vaccine immunogenicity remains to be determined.

Disclosures: All Authors: No reported disclosures

530. COVID-19 in kidney transplant recipients: Single-center experience and case-control study

Anita Hardesty, MD; Aakriti Pandita, MD; Yyun Shi, MD; Kendra Vieira, n/a; Ralph Rogers, MD; Basma Merhi, MD; Adena Osband, MD; George Bayliss, MD; Reginald Cohly, MD; Paul Morrissey, MD; Curt Beckwith, MD; Dimitris Farmakiotis, MD; Brown University Internal Medicine Residency, Providence, Rhode Island; Warren Alpert Medical School of Brown University, Providence, Rhode Island; Rhode Island Hospital, Warren Alpert Medical School of Brown University, Providence, Rhode Island; Division of Nephrology, the Warren Alpert Medical School of Brown University, Providence, Rhode Island; Department of Surgery (Transplantation), the Warren Alpert Medical School of Brown University, Providence, Rhode Island; Brown University School of Medicine, Providence, RI; Division of Infectious Diseases, The Warren Alpert Medical School of Brown University, Providence, Rhode Island

Session: P-20. COVID-19 Special Populations

Background: Organ transplant recipients (OTR) are considered high-risk for morbidity and mortality from COVID-19. Case-fatality rates (CFR) vary significantly in different case series, and some patients were still hospitalized at the time of analyses. To our knowledge, no case-control study of COVID-19 in OTR has been published to-date.

Methods: We captured kidney transplant recipients (KTR) diagnosed with COVID-19 between 3/1 and 5/18/2020. After exclusion of KTR on hemodialysis and off immunosuppression (IS), we compared the clinical course of COVID-19 between hospitalized KTR and non-transplant patients, matched by sex and age (controls). All patients were discharged from the hospital or died.

Results: 16 KTR had COVID-19. All 3 KTR off IS, who were excluded from further analyses, survived. Median age was 54 (range: 34–65) years; 5/13 KTR (38.4%) were men. Median time from transplant was 41 (range: 1–203) months. Two KTR, both transplanted >10 years ago, were managed as outpatients. IS was reduced in 12/13 (92.3%), most often by discontinuation of the antimitobolite. IL6 levels were >1,000 (normal: < 5) pg/mL in 3 KTR. Tacrolimus or sirolimus levels were >10 mg/mL in 6/9 KTR (67%) (Table 1). Eleven KTR were hospitalized (84.6%) and matched with 44 controls. One KTR, the only one treated with hydroxychloroquine, died (CFR 5.8%; 7/6% in KTR on IS; 9% in hospitalized KTR on IS). Four controls died (CFR 9%; state CFR: 5.2%; inpatient CFR: 16.6%). There were no significant differences in length of stay or worst oxygenation status between hospitalized KTR and controls. Four KTR (30.7%), received remdesivir, 4 convalescent plasma, 3 (23%) tocilizumab. KTR received more often broad-spectrum antibiotics, convalescent plasma or tocilizumab, compared to controls (Table 2).

Table 1: Characteristics of KTR on IS with COVID-19

<table>
<thead>
<tr>
<th>ID</th>
<th>Age (yr)</th>
<th>Sex</th>
<th>KTR</th>
<th>IS</th>
<th>Serum IgG Status</th>
<th>LDH</th>
<th>Ast</th>
<th>ALT</th>
<th>AST/ALT</th>
<th>IL-6</th>
<th>IL-10</th>
<th>Tocilizumab</th>
<th>Hydroxychloroquine</th>
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Table 2: Comparison of hospitalized KTR on IS with COVID-19 and controls. Data are presented as a (%) of median (range) and compared with Fisher’s exact or Manna-Whitney tests. Abbreviations as in the abstract and Table 1.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>KTR</th>
<th>Controls</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (yr)</td>
<td></td>
<td>52 (24–68)</td>
<td>52 (23–68)</td>
</tr>
<tr>
<td>Men</td>
<td>4 (36.3)</td>
<td>17 (38.6)</td>
<td>0.812</td>
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</table>

Table 3: Outcomes

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Absent</th>
<th>Present</th>
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<tbody>
<tr>
<td>Mortality</td>
<td>1 (9)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>LOS days</td>
<td>6 (1–20)</td>
<td>9 (1–16)</td>
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<tr>
<td>CFR (%)</td>
<td>5.2%</td>
<td>16.6%</td>
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</table>

Conclusion: Unlike early reports from the pandemic epicenters, the clinical course and outcomes of KTR with COVID-19 in our small case series are comparable to those of non-transplant patients. Calcineurin or mTOR inhibitor levels were high, likely due to diurexia and COVID-19 related hepatic dysfunction. Extremely high IL6 levels were common. The role of IS and potential benefits from investigational treatments remain to be elucidated. A larger multi-institutional study is underway.

Disclosures: All Authors: No reported disclosures

531. COVID-19 infection outcome in African American Renal Transplant recipients

Detroit Medical Center experiences

Angela Beatt, V. Cruz, MD; Claudia Garza-Tijada, MD; Mareena Zachariah, MD; Shakir Hussein, MD; Elizabeth Wilpula, PharmD; Nicole Meeks, n/a; Jeffrey A. Wolf, MSN, AGACNP-BC; Pranatharthi Chandrasekhar, MD; Detroit Medical Center - Wayne State University, Sterling Heights, Michigan; Wayne State University School of Medicine, Detroit, Michigan; DMC Harper Hospital,
Evidence supports the high barrier to resistance of Dovato up to 5 years.

Confidence in Dovato across treatment settings

| Treatment-naive resistance rates, with up to 3 years of evidence | 0.03% (n=10/35,888) |
| Treatment-experienced resistance rates, with up to 5 years of evidence | 0% (n=0/615) |

Dovato is supported by a wealth of evidence, with outcomes of >40,000 people living with HIV captured within clinical trials and real-world evidence, including those with: 4–9, 11, 12

- No prior treatment experience
- High baseline viral load (>100,000 copies/mL and even >1M copies/mL)
- Low CD4+ count (<200 cells/mm³)

Patients from phase III RCTs
Patients from unique real-world cohorts

Is it time to reconsider the value of the 2nd NRTI?

Abbreviations

- 3TC, lamivudine; CD4, cluster of differentiation 4; DTG, dolutegravir; FDA, United States Food and Drug Administration; FTC, emtricitabine; HIV, human immunodeficiency virus; ITT-E, intention-to-treat exposed; NRTI, nucleoside/nucleotide reverse transcriptase inhibitor; RCT, randomised controlled trial; RNA, ribonucleic acid; TAF, tenofovir alafenamide fumarate; TDF, tenofovir disoproxil fumarate; XTC, emtricitabine.

Footnotes

- Data extracted from a systematic literature review of DTG+3TC real-world evidence. Overlap between cohorts cannot be fully excluded.
- The reported rate reflects the sum-total of resistance cases calculated from GEMINI I and II (n=716, through 144 weeks), STAT (n=0/131, through 52 weeks), and D2ARLING (n=0/106, through 24 weeks).
- GEMINI I and II are two identical 148-week, phase III, randomised, double-blind, multicentre, parallel-group, non-inferiority, controlled clinical trials testing the efficacy of DTG/3TC in treatment-naive patients. Participants with screening HIV-1 RNA ≤500,000 copies/mL were randomised 1:1 to once-daily DTG/3TC (n=716, pooled) or DTG + TDF/FTC (n=717, pooled). The primary endpoint of each GEMINI study was the proportion of participants with plasma HIV-1 RNA <50 copies/mL at Week 48 (ITT-E population, snapshot algorithm).
- STAT is a phase IIIb, open-label, 48-week, single-arm pilot study evaluating the feasibility, efficacy, and safety of DTG/3TC in 131 newly diagnosed HIV-1-infected adults as a first line regimen. The primary endpoint was the proportion of participants with plasma HIV-1 RNA <50 copies/mL at Week 48. Results at week 24 of the study.

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References