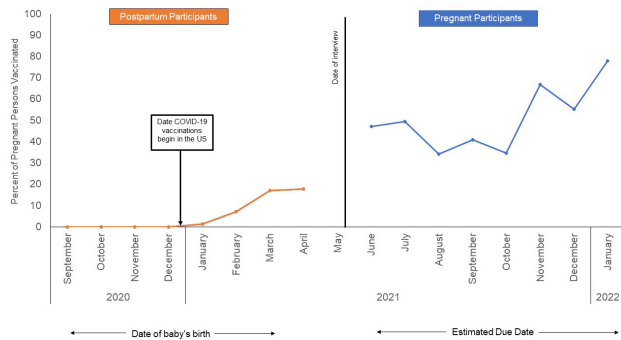


to intensive care and greater mortality. Despite the potential benefits of COVID-19 vaccines for pregnant persons, current guidelines for the use of COVID-19 vaccines during pregnancy are limited, and the uptake of COVID-19 vaccines among US pregnant adults is unclear.

Methods. As part of an ongoing national longitudinal cohort study, 1,372 pregnant and recently postpartum pregnant persons participated in an online baseline survey, including questions on COVID-19 vaccination status and perceptions of COVID-19 vaccines. Preliminary analyses were restricted to 1,041 individuals who were pregnant during vaccine availability (after 14 December 2020). Post-stratification survey weights were applied to ensure results are representative of the general population. Weighted percentages and odds ratios were estimated based on survey responses.

Results. 39.4% (95% CI 33.7, 45.1%) of respondents received a COVID-19 vaccine during pregnancy. Predictors of vaccination included belief that COVID-19 was a serious disease (OR 2.49; 95% CI 1.41, 4.11) and concerns about giving birth during the COVID-19 pandemic (OR 1.83, 95% CI 1.10, 3.04). The most common reason for receiving a COVID-19 vaccine was to protect themselves (21.2%) or their baby (39.1%). Among unvaccinated respondents, 14.9% planned to receive a vaccine during their pregnancy and 35.3% after pregnancy, 28.6% had no intention of receiving a vaccine, and the remaining 21.1% were uncertain. Among those who never planned to vaccinate, the most common reason was concern about side effects (57.2%). Percent of pregnant persons receiving at least one dose of COVID-19 vaccine, by month of delivery (postpartum participants) or estimated month of delivery (pregnant participants).



Conclusion. Our results indicate that despite the lack of clear recommendations for vaccination during pregnancy, more than one-third of pregnant persons received a COVID-19 vaccine during pregnancy. Evaluation of the health effects of COVID-19 vaccination during pregnancy, including the ability to protect pregnant persons and their infants from infection, is needed.

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491. Persistence of SARS-CoV-2 Infection in Immunocompromised Children

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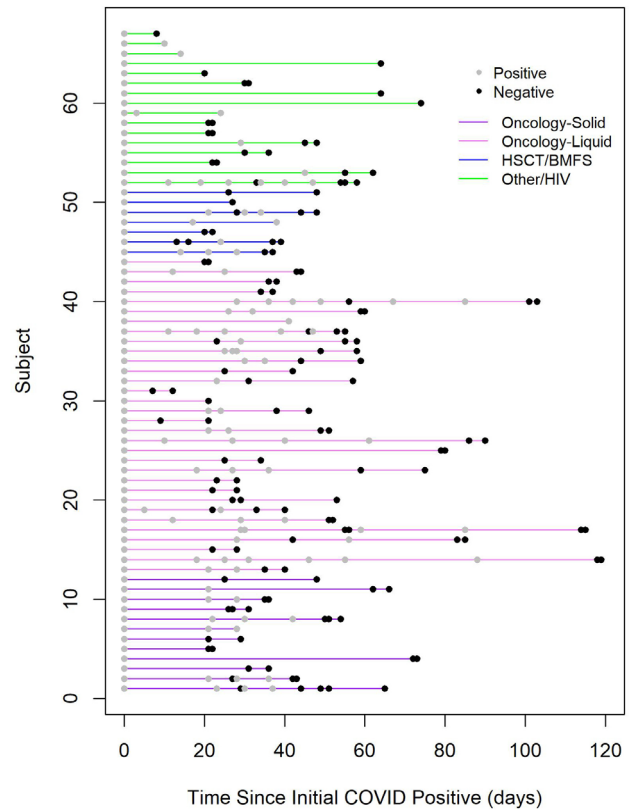
Session: P-23. COVID-19 Special populations (e.g. pregnant women, children, immunocompromised, etc)

Background. The temporal dynamics of SARS-CoV-2 infectivity in immunocompromised children (IC) are unknown but may have important infection control implications. We evaluated SARS-CoV-2 viral persistence and assessed factors associated with viral persistence and cycle threshold (CT) values as a surrogate of viral load for IC.

Methods. We conducted a retrospective cohort study of SARS-CoV-2-positive IC at a large quaternary pediatric hospital from March 2020-2021. Immunocompromised status was defined as primary or secondary/acquired immunodeficiencies due to comorbidities or immunosuppressive treatment. The primary outcome was time to first-of-two consecutively negative SARS-CoV-2 PCR tests ≥ 24 hours apart. Polymerase chain reaction (PCR) testing of sequential patient samples was conducted using the Centers for Disease Control 2019-nCoV Real-Time RT-PCR Diagnostic Panel (CDC assay). Chi-square, Fisher exact, and Wilcoxon tests were used to compare demographic and clinical characteristics. Kaplan-Meier curve median event times and log-rank tests were used to compare outcomes. Subjects without 2 consecutive negative tests censored at the last test. Analyses were conducted using SAS v 9.4.

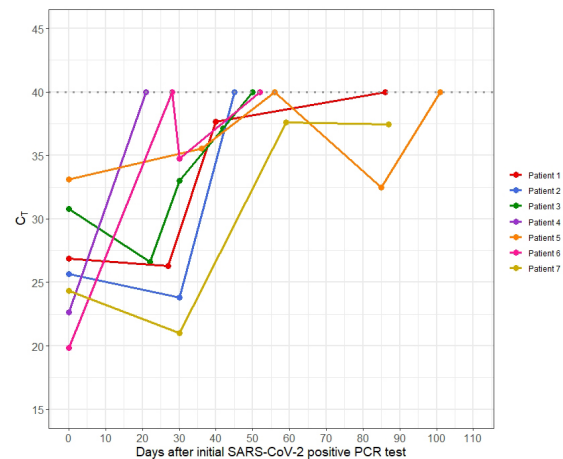
Results. Ninety-one children met inclusion criteria, and 67 children had more than 1 test (Figure 1). Median age was 15.5 years (IQR 8-18 yrs), 64% were male, 58% of children were white, and 43% were Latinx. Most (67%) were tested in outpatient settings, and 58% of children were asymptomatic. The median time to two negative tests was 42 days (IQR 25.0,55.0), with no difference in duration of positivity with specific diagnoses, degree of lymphopenia, or symptomatic vs asymptomatic illness. Five of 7 (71%) children with samples available for repeat testing had initial C_t values < 30 , indicating a moderate to high viral load, and of these, 4 (57%) had repeat testing 21 to 30 days later with C_t values < 30 (Figure 2), suggesting persistence of moderate to high viral loads.

Figure 1. Plot of immunocompromised children in cohort with positive SARS CoV2 PCR and subsequent testing (n = 67).



Timelines of immunocompromised children in cohort with positive SARS CoV2 PCR and subsequent testing, grouped by immunocompromising condition. Each line represents an individual patient. Positive results are shown in light grey, negative results are shown in black.

Figure 2. Plot of CT values from SARS-CoV-2 PCR testing over time among children with sequential samples available for retesting (n = 7)



Plot of CT values (y axis) from SARS-CoV-2 PCR testing on the CDC assay over time (x axis) in days from initial positive test. Repeated testing which yielded a negative result on the CDC assay or intermittent negative results on clinical testing represented as CT value of 40. Each line represents a unique patient.

Conclusion. The median duration of viral persistence among IC with SARS-CoV-2 infection was 6 weeks, with no significant difference in immunocompromised diagnoses or clinical presentation, with over half of children with testing on the same platform having moderate to high viral loads after 3 weeks, suggesting potential transmission risk.

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