

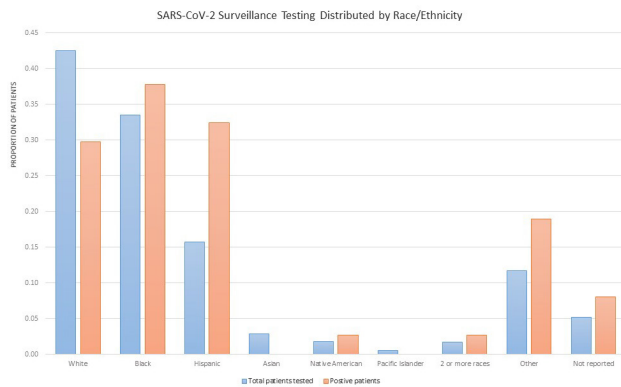
Session: P-16. COVID-19 Epidemiology and Screening

Background. Children infected with SARS-CoV-2 often have mild or no symptoms, making symptom screening an ineffective tool for determining isolation precautions. As an infection control measure, universal pre-procedural and admission SARS-CoV-2 testing for pediatric patients was implemented in April and August 2020, respectively. Limited data exist on the utility screening programs in the pediatric population.

Methods. We performed a retrospective cohort study of pediatric patients (birth to 18 years) admitted to a tertiary care academic medical center from April 2020 to May 2021 that had one or more SARS-CoV-2 point-of-care or polymerase chain reaction tests performed. We describe demographic data, positivity rates and repeat testing trends observed in our cohort.

Results. A total of 2,579 SARS-CoV-2 tests were performed among 1,027 pediatric inpatients. Of these, 51 tests (2%) from 45 patients (4.3%) resulted positive. Community infection rates ranged from 4.5-60 cases/100,000 persons/day during the study period. Hispanic patients comprised 16% of the total children tested, but were disproportionately overrepresented (40%) among those testing positive (Figure 1). Of 654 children with repeated tests, 7 (0.1%) converted to positive from a prior negative result. Median days between repeat tests was 12 (IQR 6-45), not necessarily performed during the same hospital stay. Five of these 7 patients had tests repeated < 3 days from a negative result, of which only 2 had no history of recent infection by testing performed at an outside facility. Pre-procedural tests accounted for 35% of repeat testing, of which 0.9% were positive. Repeated tests were most frequently ordered for patients in hematology/oncology (35%) and solid organ transplant/surgical (33%) wards, each with < 3% positive conversion rate. Notably, no hematopoietic stem cell transplant patients tested positive for SARS-CoV-2 during the study period.

Pediatric SARS-CoV-2 Testing Distributed by Race/Ethnicity



Conclusion. The positivity rate of universal pre-procedural and admission SARS-CoV-2 testing in pediatric patients was low in our inpatient cohort. Tests repeated < 3 days from a negative result were especially low yield, suggesting limited utility of this practice. Diagnostic testing stewardship in certain populations may be useful, especially as community infection rates decline.

Disclosures. Michael J. Smith, MD, M.S.C.E, Merck (Grant/Research Support) Pfizer (Grant/Research Support) Rebekah W. Moehring, MD, MPH, UpToDate, Inc. (Other Financial or Material Support, Author Royalties)

385. SARS-CoV-2 Infections Among Military Personnel Deployed on the USNS COMFORT to New York City During the COVID-19 Pandemic and One-Year Follow-Up

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Session: P-16. COVID-19 Epidemiology and Screening

Background. The USNS COMFORT deployed to New York City to augment the inpatient health care capacity in March 2020. The aim of this study was to determine the prevalence of severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) infection among US Navy personnel upon return from deployment, and to identify incident cases of SARS-CoV-2 infection during 1 year of follow-up.

Methods. Crewmembers, the majority of whom were health care workers (HCW), were enrolled following deployment, in May 2020. PCR results from symptomatic

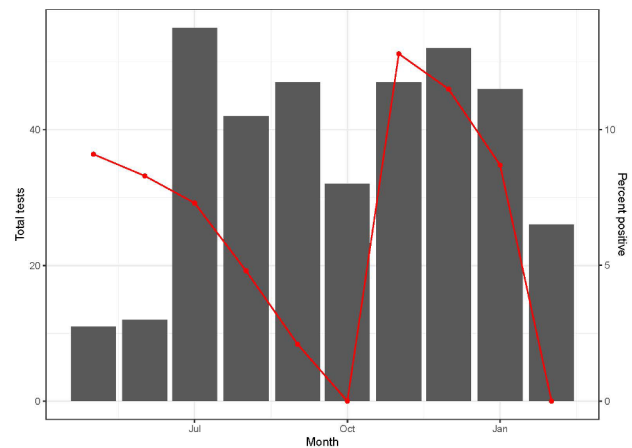
crewmembers during deployment, and Day 0 and Day 14 post-deployment screening swabs conducted on all crewmembers, per military order, were abstracted. A questionnaire and serum were collected on Day 14 post-deployment. SARS-CoV-2 infection was defined as a positive SARS-CoV-2 spike glycoprotein immunoglobulin G antibody (IgG) or PCR. COVID-19 related medical encounters, PCR and antibody testing results within 1 year following deployment were abstracted from the Military Health System Data Repository (MDR). There was adequate provision of personal protective equipment (PPE) in the hospital and the COVID-19 vaccine roll-out for HCW began in December 2020.

Results. Of the 1200 crewmembers, 449 were enrolled and completed the questionnaire and screening swabs, and 432 (96.2%) completed the Day 14 blood draw (Table 1). The cumulative prevalence of SARS-CoV-2 infection was 3.01% (13/432; 95% CI, 1.61%–5.09%). One of 17 subjects did not complete the blood draw and was PCR positive on Day 14. 433/449 (96.4%) had a PCR performed during the follow-up period (i.e. after the Day 14 post-deployment visit until Feb 2021), for HCW screening or symptomatic illness (median number of tests: 2 [IQR: 1, 2; range: 1,6]). 25 of 433 (5.8%) were PCR positive (Fig 1). 19 (76.0%) occurred in corpsmen, 23 (92.0%) were symptomatic and none were hospitalized. One asymptomatic re-infection occurred in a crewmember who was PCR negative and IgG positive at Day 14 post-deployment.

Table 1. Characteristics of the overall cohort and by SARS-CoV-2 infection

	Overall (n=449)	SARS-CoV-2 positive during or post-deployment ^a (N=14)	SARS-CoV-2 PCR positive during at 1-year follow-up (n=25)
Age			
18-29 years	219 (50.9%)	8 (57.1%)	17 (68.0%)
30-39 years	122 (28.2%)	3 (21.4%)	3 (12.0%)
40+ years	108 (25.0%)	3 (21.4%)	5 (20.0%)
Female Gender	222 (51.4%)	9 (64.3%)	11 (44.0%)
Race			
White	258 (59.7%)	7 (50.0%)	14 (56.0%)
Black	61 (14.1%)	2 (14.3%)	4 (16.0%)
Hispanic	42 (9.7%)	1 (7.1%)	4 (16.0%)
Other	88 (20.4%)	4 (28.6%)	3 (12.0%)
Clinical role			
Non-clinical		1 (7.1%)	1 (4.0%)
Corpsman	197 (45.6%)	5 (35.7%)	19 (76.0%)
Nurse	118 (27.3%)	7 (50.0%)	3 (12.0%)
Physician/medical assistant	41 (9.5%)	1 (7.1%)	2 (8.0%)
Lab Diagnosis			
PCR positive ^b	34 (7.6%)	9 ^b (64.3%)	25 ^b
Serology positive ^c	N/A	12 ^c (85.7%)	0 ^c
Symptomatic infection	31	8 (57%)	23 (92.0%)

Figure 1. Number of PCR tests (bar graph) and positivity rate (red line) by month in 449 USNS COMFORT crewmembers during 1-year follow-up after return from deployment



Conclusion. The post-deployment prevalence of SARS-CoV-2 infection was low. A high proportion of HCW underwent PCR testing during 1-year follow-up but a low incidence of infection was observed. This was likely from community transmission as nosocomial transmission was mitigated by adequate PPE and vaccine roll-out.

Disclosures. All Authors: No reported disclosures

386. A Systematic Review of COVID-19 Transmission Dynamics and Clinical Response on Cruise Ships Globally Between January and October 2020

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