

runners), and the need to cluster care affected the quality of care. A nurse working in the intensive care unit (ICU) lamented, "We were sometimes given 4–5 ICU patients who were very sick and required a lot of care. Shortcuts had to be taken to prioritize the most important needs. Sometimes IVs remained longer than desired. Foleys remained in longer. To avoid PPE shortages, we didn't go into the rooms nearly as much as we normally would, [and] things got missed." Feelings of being overwhelmed and helpless permeated the nurses' comments. **Conclusions:** When caring for COVID-19 patients, frontline nurses struggled with adherence to necessary patient safety protocols, which ultimately disrupted care delivery. Future research should quantify the extent to which the COVID-19 pandemic affected care delivery, including adherence to patient safety protocols among frontline providers.

**Funding:** No

**Disclosures:** None

*Antimicrobial Stewardship & Healthcare Epidemiology* 2021;1(Suppl. S1):s54–s55

doi:10.1017/ash.2021.105

### Presentation Type:

Poster Presentation

**Subject Category:** COVID-19

### COVID-19 Vaccine Readiness Among Acute-Care Registered Nurses in New Jersey: Results of a Statewide Survey

Monika Pogorzelska-Maziarz; Mary Lou Manning; Angela Gerolamo; Mary Johansen; Irina Grafova; Suzie Crincoli and Pamela de Cordova

**Background:** The coronavirus disease 2019 (COVID-19) vaccine is an important intervention to control the COVID-19 pandemic. As the most trusted profession integral to providing care to patients across all care settings, nurses play a critical role in educating patients regarding the SARS-CoV-2 vaccine. However, little is known about the readiness of registered nurses (RNs) to receive the vaccine. **Methods:** In October 2020, prior to FDA approval of vaccines, we conducted a cross-sectional electronic survey of all active registered nurses in the state of New Jersey. The eligibility criteria included providing direct patient care in a New Jersey hospital in an emergency or an adult inpatient unit during the emergence of COVID-19 (March 2020). **Results:** In total, 3,027 RNs completed the survey (15% response rate). When asked whether they plan to get vaccinated, 27% of RNs responded yes, 30% responded no, and 43% were undecided. Among those RNs who reported that they were planning to get vaccinated, their main reasons for their willingness to receive the vaccine included (1) wanting to protect themselves and their families (95%), (2) wanting to protect the community at large (76%), wanting to protect their patients (75%), the belief that life won't get back to normal until most people are vaccinated (72%), and the belief that getting vaccinated is the best way to avoid getting seriously ill from COVID-19 (67%). The main reasons reported for not planning to or being undecided about getting vaccinated included the belief that the vaccine will likely be developed too quickly to be safe (81%) and concern about the side effects from the vaccine (74%). RNs also reported being in a low-risk group for becoming seriously ill (12%) and having had COVID-19 (8%) as reasons for planning not to get vaccinated. In open-ended responses, participants also discussed several additional issues driving vaccine hesitancy: their lack of trust in the political process, planning to become pregnant or currently pregnant or breastfeeding, questions about effectiveness of the vaccine and long-term side effects, and the need for more information before making a decision. **Conclusions:** This cross-sectional study of all acute-care RNs in the State of New Jersey was conducted prior to the FDA approval of COVID-19 vaccines. The results outline factors driving vaccine hesitancy among RNs. Although vaccine efficacy data and approval by the FDA may have alleviated some of these fears, immunization programs for healthcare workers and the public should focus on dispelling myths about vaccine development and side effects.

**Funding:** No

**Disclosures:** None

*Antimicrobial Stewardship & Healthcare Epidemiology* 2021;1(Suppl. S1):s55

doi:10.1017/ash.2021.106

### Presentation Type:

Poster Presentation

**Subject Category:** COVID-19

### Optimizing COVID-19 Symptom Screening in the Pediatric Population

Geena Zhou; Prachi Singh; Emily R. Perito; Naomi Bardach; Nicole Penwill; William Burrough; Ann Cheung; Margaret Nguyen; Shalini Mittal; Grace Cheng and Mia-Ashley Spad

**Background:** Research analyzing COVID-19 symptom screening has primarily focused on adult patients. In efforts to safely reopen schools, symptom screeners are being widely utilized. However, pediatric-specific outpatient data on which symptom combinations best identify children with COVID-19 are lacking. Such data could refine school symptom screening by improving screener sensitivity and specificity. In this study, we assessed the frequency of symptoms and symptom combinations in children tested for SARS-CoV-2 in outpatient settings. We aim to contribute to the optimization of pediatric COVID-19 screening questionnaires, to ultimately minimize both COVID-19 transmission in schools and missed school days. **Methods:** We conducted a retrospective analysis of outpatient symptoms screens, SARS-CoV-2 test results, and demographics of children ( $\leq 18$  years) tested for SARS-CoV-2 between March 30 and November 30, 2020, at 3 UCSF-affiliated COVID-19 outpatient screening clinics in northern California. Those with incomplete symptom screens,  $>7$  days between symptom documentation and test, and invalid test results were excluded. **Results:** Of 473 children tested at 1 site, 21 children had positive SARS-CoV-2 results and 452 children had negative results (4.4% positivity rate). Moreover, 85.7% of SARS-CoV-2-positive children had a known exposure to COVID-19 (Table 1). Of SARS-CoV-2-positive children, 61.9% had  $>1$  symptom. Also, 52.4% of SARS-CoV-2-positive children had at least 1 symptom (fever, cough, or loss of taste or smell) versus 62.8% of SARS-CoV-2-negative children (Table 2). Runny nose or nasal congestion was the most frequently reported symptom in the SARS-CoV-2-positive group (47.6%) as well as the SARS-CoV-2-negative group (58.6%). Also, 14.3% of SARS-CoV-2-positive children had eye redness or discharge versus 3.1% of SARS-CoV-2-negative children. Isolated runny

Table 1. Demographics of 1 site cohort

Characteristics	Positive SARS-CoV-2 Result (N=21)	Negative SARS-CoV-2 Result (N=452)
Sex, female (%)	61.9%	45.1%
Age, yrs (med, IQR)	4 (11)	4 (6)
<b>Age Group*</b>	—	—
Age 0-4 yr	52.4%	94.7%
Age 5-10 yr	4.8%	25.0%
Age 11-13	14.3%	8.4%
Age 14-18	28.6%	11.7%
<b>Ethnicity (%)</b>	—	—
Hispanic or Latino	28.6%	17.9%
Not Hispanic or Latino	66.7%	77.9%
Unknown/Declined	4.8%	4.2%
<b>Race (%)</b>	—	—
White	52.4%	52.2%
Other	23.8%	16.8%
Asian	9.5%	19.2%
Black or African American	4.8%	5.8%
Native Hawaiian, other Pacific Islander, Alaska Native, or American Indian	4.8%	1.1%
Unknown/Declined	4.8%	4.9%
<b>Language Preference (%)*</b>	—	—
English	90.5%	98.7%
Spanish	9.5%	0.4%
Other	0.0%	0.9%

\*Chi-square test  $p < 0.05$

Table 2. Clinical characteristics of one site cohort

Clinical characteristics (%)	Positive SARS-CoV-2 Result (N=21)	Negative SARS-CoV-2 Result (N=452)
Contact Exposure*	85.7%	15.1%
More than 1 symptom	61.9%	67.7%
Fever or Cough or Loss of Taste or Smell	52.4%	62.8%
Runny Nose or Nasal Congestion	47.6%	58.6%
Fever	42.9%	33.0%
Cough	23.8%	40.7%**
Fatigue	38.1%	23.2%
Sore Throat	33.3%	19.5%
Headache	19.0%	13.0%**
Eye redness or discharge	14.3%	3.1%**
Diarrhea	9.5%	13.1%
Chills	4.8%	6.6%**
Loss of taste or smell	4.8%	1.8%**
Muscle Aches	4.8%	6.7%**
Nausea or Vomiting	4.8%	8.4%
Abdominal Pain	4.8%	10.7%**
Rash	0.0%	4.3%**
Shortness of Breath	0.0%	0.9%
Runny Nose or Nasal Congestion Only	9.5%	10.8%

\* Chi-square test  $p < 0.05$

\*\*N < 452 due to use of a non-updated symptom screener form

nose presented in 10.8% of SARS-CoV-2-negative versus 9.5% of SARS-CoV-2-positive children. All children with isolated diarrhea ( $n = 5$ ), isolated headache ( $n = 3$ ), and isolated rash ( $n = 2$ ) tested negative. Preliminary symptom data based on 176 children from a second site showed that 9.9% of symptomatic children had a positive test result. **Conclusions:** Runny nose or nasal congestion was the most frequently reported symptom in all children tested for SARS-CoV-2. However, isolated runny nose or nasal congestion identified 2 cases of COVID-19 in our cohort. Eye redness or discharge may be an important symptom to screen for COVID-19 in children. Further research with a larger number of positive cases is needed to make conclusions about improving efficiency and efficacy of symptom screeners for COVID-19 in children.

**Funding:** No

**Disclosures:** None

*Antimicrobial Stewardship & Healthcare Epidemiology* 2021;1(Suppl. S1):s55-s56

doi:10.1017/ash.2021.107

#### Presentation Type:

Poster Presentation

**Subject Category:** COVID-19

#### Characteristics of Inpatients with False-Negative SARS-CoV-2 PCR Test Results

Antigone Kraft; Jessica Ridgway; Erica Mackenzie; Aniruddha Hazra; Maggie Collison; Cassandra Oehler and Madan Kumar

**Background:** At our institution, the concern for false-negative nasopharyngeal testing for SARS-CoV-2 at the onset of illness led to a general policy of retesting inpatients at 48 hours. For such patients, 2 negative SARS-CoV-2 PCR test results were required prior to discontinuation of COVID-19 control precautions. To assess the utility of routine repeat testing We analyzed patients presenting to our hospital who initially tested negative for SARS-CoV-2 but were found to be positive on repeated testing. **Methods:** All inpatients with symptoms concerning for COVID-19 were tested via nasopharyngeal sample for SARS-CoV-2 by PCR on admission. Patients with continued symptoms and no alternative diagnosis were retested 48 hours later. Testing was performed using either the Roche cobas SARS-CoV-2

RT-PCR assay or the Cepheid Xpert Xpress SARS-CoV-2 test. Between March 17, 2020, and May 10, 2020, we retrospectively analyzed data from patients with false-negative SARS-CoV-2 PCR test results who were subsequently confirmed positive 48 hours later. We evaluated demographic information, days since symptom onset, symptomatology, chest imaging, vital sign trends, and the overall clinical course of each patient. **Results:** During the study period, 14,683 tests were performed, almost half ( $n = 7,124$ ) were performed through the ED and in the inpatient setting. Of 2,283 patients who tested positive for SARS-CoV-2, only 19 (0.01%) initially tested negative. Patients with initial false-negative test results presented with symptoms that ranged from fever and dyspnea to fatigue and vomiting. Notably, few patients presented “early” in their disease (median, 6 days; range, 0–10 days). However, patients with initial false-negative PCR test results did seem to have consistent imaging findings, specifically bilateral bibasilar ground glass opacities on chest radiograph or computed tomography scan. **Conclusions:** Among inpatients with COVID-19, we found a very low rate of initial false-negative SARS-CoV-2 PCR test results, which were not consistently related to premature testing. We also identified common radiographic findings among patients with initially false-negative test results, which could be useful in triaging patients who may merit retesting. Based on these data, we revised our existing clearance criteria to allow for single-test removal of COVID-19 precautions. Evaluating subsequent reduction in unnecessary testing is difficult given changing community prevalence, increased census, and increased opening to elective procedures. However, given the significant percentage of ED and inpatient testing, removal of repeated testing has likely resulted in a reduction of several thousand unnecessary COVID-19 tests monthly.

**Funding:** No

**Disclosures:** None

*Antimicrobial Stewardship & Healthcare Epidemiology* 2021;1(Suppl. S1):s56

doi:10.1017/ash.2021.108

#### Presentation Type:

Poster Presentation

**Subject Category:** COVID-19

#### COVID-19 Outbreak in an Acute-Care Hospital: Lessons Learned

Supriya Narasimhan; Vidya Mony; Tracey Stoll; Sheryllyn Oribello; Karanas Yvonne and Dolly Goel

**Background:** We describe the infection prevention investigation of a cluster of 15 healthcare workers (HCWs) and 7 patients in a single non-COVID-19 unit of an acute-care hospital in September 2020. **Methods:** The infection prevention team was notified of 13 SARS-CoV-2-positive, symptomatic HCWs in an acute-care non-COVID-19 unit in 1 week (August 30, 2020, to September 3, 2020). In the same week, 2 patients who had been on the unit were diagnosed with nosocomial COVID-19. An epidemiologic investigation identified the exposure period to be between August 19, 2020, and September 3, 2020. The following immediate containment measures were implemented: closing the unit to new admissions, restricting float staff, moving existing patients to private rooms, mandatory masking of patients, and mandatory respirator and eye protection on unit entry for all HCWs. Exposed unit staff were tested immediately and then every 4 days until September 18, 2020. Likewise, exposed patients, including those discharged, were notified and offered testing. Hospital-wide HCW surveillance testing was conducted. Enhanced environmental control measures were conducted, including terminal cleaning and ultraviolet C (UV-C) disinfection of common areas and patient rooms and a thorough investigation of airflow. Detailed staff interviews were performed to identify causes of transmission. Multiple town hall meetings were held for staff education and updates. **Results:** In total, 108 total patients were deemed exposed: 33 were inpatients and 75 had been discharged. Testing identified 5 additional patient cases among 57 patients who received testing; 51 chose to self-monitor for symptoms. Staff testing identified 2 additional cases. Thus, 15 HCWs and 7 patients were linked in this cluster. The containment measures successfully ended staff transmission as of September 5, 2020. The last patient case was detected on September 10, 2020. Secondary cases were noted in 6 HCW families. We identified staff