Hospital policy required all inpatients to be screened for COVID-19 on admission by SARS-CoV-2 molecular amplification testing. All healthcare workers (HCWs) were required to wear masks and eye protection for patient care. After a patient (patient 1), who tested SARS-CoV-2 negative on admission, was positive on preprocedure screening on hospital day 9, contact tracing was initiated. Two patients (patients 2 and 3) and 13 HCWs with high-risk exposures (HREs) to patient 1 were quarantined and referred for testing. Additional surveillance testing was performed on 18 inpatients and 84 HCWs on the affected unit. Patients 2 and 3 and 3 HCWs (HCW-1, -2, and -3), only 1 of whom had a high-risk exposure to patient 1, tested positive. WGS was performed to further investigate this outbreak. Results: The outbreak variant (clade 20A) was found in samples from 6 patients and 2 HCWs. Patients 2 and 3 were roommates of patient 1 in the 2 days before patient 1’s positive test, and they did not consistently wear masks in the room. HCW-1 placed a peripheral IV in patient 1 the day before patient 1’s positive test without wearing eye protection. Four additional cases in this cluster (patients 4–6 and HCW-4) were identified by surveillance WGS of positive tests. A review indicated that patient 1 was located ~3 m (~10 feet) away from patient 4 in the emergency department (ED) for 6 hours on hospital day 1, when the admission SARS-CoV-2 test from patient 4 was not positive. No epidemiologic link was found to patient 5 or 6 or HCW-4. The specimen from HCW-2 was inadequate for WGS. The specimen from HCW-3 was not linked to this cluster. Conclusions: This complex nosocomial outbreak highlights the importance of WGS in understanding transmission events. Patient 4 was not identified by traditional contact tracing but was linked to patient 1 and was recognized as the primary case through WGS, having likely infected patient 1 in the ED. Based on these findings, we focused our corrective actions on more promptly isolating suspected COVID-19 cases in the ED, increasing in-patient masking, and improving HCW adherence to universal eye protection. Funding: No Disclosures: None

Presentation Type: Poster Presentation
Subject Category: COVID-19
Predicting SARS-CoV-2 Asymptomatic Infection Rate of Inpatients: A Time Series Analysis
Frida Rivera; Kwang Woo Ahn and L. Silvia Munoz-Price

Background: Asymptomatic SARS-CoV-2 infections play a crucial role in viral transmission. However, they are often difficult to identify given that widespread surveillance has not been the norm. We sought to determine whether COVID-19 rates reported at the county level could predict the positivity rates for SARS-CoV-2 among asymptomatic patients tested in a large academic health system. Methods: This observational study was conducted from April 23, 2020, to December 10, 2020, at Froedtert Health (FH) system, the largest academic health system in Wisconsin. On April 23, 2020, FH implemented SARS-CoV-2 surveillance among all consecutive admissions not suspected of COVID-19, all patients scheduled for elective procedures and deliveries, and all asymptomatic patients with known exposures. Samples were processed by the FH laboratory using molecular methods (RT-PCR). To obtain the daily number of newly confirmed COVID-19 cases in Milwaukee County, we accessed the Wisconsin Department of Health Services publicly available COVID-19 database. For the purpose of this study, COVID-19 rates were defined as the percentage of positive tests among all daily tests performed at the county level, while SARS-CoV-2 positivity rates were the percentage of positive tests among all daily surveillance tests performed at FH among asymptomatic patients. The association between COVID-19 rates in Milwaukee County and asymptomatic rates at FH were assessed using an autoregressive moving average time series analysis. To examine the association between these rates, we fitted a seventh-order autoregression for the residuals based on autocorrelation function and partial autocorrelation function plots of the residuals from linear regression. Results: From April 23, 2020, to
December 10, 2020, there were 2,347 new asymptomatic infections detected at FH and 75,196 new COVID-19 cases reported in Milwaukee County. Figure 1 shows the time-series plot of asymptomatic SARS-CoV-2 positivity rates at FH and Figure 2 shows COVID-19 rates in Milwaukee County. As the COVID-19 rate in Milwaukee County increased by 1 unit, the asymptomatic infection rate in FH decreased by 0.024 unit (95% CI, −0.053 to 0.004; \( P = .095 \)) after accounting for autocorrelation over time. Thus, there was no association between these rates. **Conclusions:** The positivity rates among asymptomatic patients at a large medical center were not predicted by the positivity rate at the county level. This finding suggests that the epidemiology at a county level may be determined by pockets in the population who may not interact, and thus not affect, the positivity rates among asymptomatic patients served by a hospital system within the county. **Funding:** No **Disclosures:** None

**Presentation Type:** Poster Presentation

**Subject Category:** COVID-19

**COVID-19 Vaccine Superstations as a Model to Rapidly Achieve Herd Immunity**

Jocelyn Keehner; Francesca Torriani; Shira Abeles and Lucy Horton

**Background:** The County of San Diego Health and Human Services (SDHHS) established a goal to vaccinate 1.9 million residents as quickly as possible to attain vaccine induced herd immunity. This strategy would minimize the emergence of more transmissible variants, to which some vaccines may be less effective. With this strategy in mind, UC San Diego Health (UCSDH) collaborated with the local health authorities and the San Diego Padres to build a superstation in downtown San Diego in the parking lot of a baseball stadium. **Methods:** Building on the experience of rapidly vaccinating the UCSDH workforce in mid-December 2020, UCSDH and SDHHS partnered to more efficiently distribute SARS-CoV-2 vaccine in San Diego County by building a vaccine superstation. The San Diego Padres offered their parking lot as the site; it was centrally located, easily accessible, quick to set up, and semipermanent. They also provided infrastructure support, event coordination, and internet capability. Occupying a space of ~6.5 acres, the superstation included 12 lanes serving 12 cars each, with ~3 cycles every hour, as well as a pedestrian walk-up station. Altogether, the site had the capacity for >5,000 vaccinations daily. This effort required coordination among administration, healthcare providers, IT specialists, and support staff—a daily workforce of >300 persons. The workforce needs were met using a multipronged approach, including flexible staffing, coordination of volunteers, and recruitment of previously retired providers. The private–public partnership enabled the superstation to be up and running in 5 days. **Results:** The operation was quickly ramped up to provide >6,000 vaccines daily. Initially only open to healthcare workers, on January 17 the superstation was expanded to persons aged >75 years, with further expansion to those aged ≥65 years on January 23. From January 11 to February 5, >100,000 individuals received their first dose of vaccine at the superstation, corresponding to ~31% of all San Diego county vaccinations. **Conclusions:** Vaccination of as many people as quickly as possible is essential to controlling the pandemic. Unchecked replication of SARS-CoV-2 allows the chance that the virus may develop mutations that render vaccines and therapeutics less effective. Our model vaccine superstation was replicated at 3 more sites around the county, the limited allocation of vaccine has been the only barrier to further expansion. A force of 10 superstations could administer a first dose to the remaining 1.6 million county residents within 32 days. **Funding:** No **Disclosures:** None

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**Subject Category:** COVID-19

**Investigation on Occupational Protection and Exposure of Medical Staff in the Diagnosis and Treatment of COVID-19 in Sichuan**

WenZhi Huang; Zhiyong Zong; Fu Qiao and Ji Lin

**Background:** We investigated the contact status of medical staff with confirmed or suspected patients with COVID-19 in Sichuan Province, China, as well as the use of personal protective equipment at the time of contact, and we explored the factors affecting the effective use of personal protective equipment. **Methods:** We performed a cross-sectional study by distributing a questionnaire on occupational protection and exposure of medical staff in the diagnosis and treatment of COVID-19 using a convenience sampling method for online surveys from February 23 to February 29, 2020. **Results:** In total, 13,829 valid questionnaires from 644 hospitals in Sichuan Province were retrieved, and 802 people were exposed to confirmed or suspected patients with COVID-19, accounting for 5.80%. 688 (85.79%) of 802 people who reported that they had taken effective personal protection measures for each exposure. Sex, work department, and length of service were the independent factors influencing the effective use of personal protective equipment in multivariate analysis (\( P < .05 \)). **Conclusions:** Medical institutions need to continue to strengthen the training regarding standard precautions and personal protection, especially for general departments other than fever clinics and isolation wards, as well as medical staff with few working years, to ensure the occupational safety of medical staff.

**Disclosure:** None