Disclosures. Shruti K. Gohil, MD, MPH, Medline (Other Financial or Material Support, Co-Investigator in studies in which participating hospitals and nursing homes received contributed antiseptic and cleaning products); Molnlycke (Other Financial or Material Support, Co-Investigator in studies in which participating hospitals and nursing homes received contributed antiseptic and cleaning products); Stryker (Sage) (Other Financial or Material Support, Co-Investigator in studies in which participating hospitals and nursing homes received contributed antiseptic and cleaning products).

Edward Septimus, MD, Medline (Other Financial or Material Support, Conducted studies in which participating hospitals received contributed antiseptic products); Molnlycke (Other Financial or Material Support, Conducted studies in which participating hospitals received contributed antiseptic products); Kenneth Sands, MD, MPH, Medline (Other Financial or Material Support, Conducted studies in which participating hospitals received contributed antiseptic products); Julia Moody, MS, Medline (Other Financial or Material Support, Conducted studies in which participating hospitals received contributed antiseptic product); Eunice J. Blanchard, MSN RN, Medline (Other Financial or Material Support, Conducted studies in which participating hospitals received contributed antiseptic product).

Methods. Between October-December 2020, we conducted a voluntary, anonymous, IRB-approved survey of UNC Medical Center HCP regarding their views on personal protective equipment (PPE) and hospital policies designed to prevent COVID acquisition. We distributed a questionnaire (REDCap) to clinical and non-clinical hospital staff. Of the 694 HCP who responded to the survey, we found HCP were largely (68%) satisfied that the organization was taking all the necessary measures to protect them from COVID-19. A significantly greater proportion (14% more) of HCP (81.7% compared to 67.6%; 95% CI of difference 9.4-18.5%; P < 0.0001) agreed that all PPE was available to them compared to those who were confident that the organization was taking necessary steps for protection, highlighting that safety is more than simply availability of supplies. More than 90% felt that daily screening of patients/visitors and patient/visitor mask requirements were important for protecting them from acquiring COVID in the workplace and that wearing a mask themselves was a key intervention for protecting others. Fewer HCP (72-80%), although still a majority, perceived that eye protection and daily symptom screening for HCP were beneficial. Symptom screening for patients/visitors was perceived by 19% more HCP (90.9% compared to 72.2%; 95% CI of difference 15-23%) to be beneficial than symptom screening of HCP (P < 0.0001).

Conclusion. Although infection prevention strategies were implemented based on evidence and in alignment with CDC recommendations, it is important to acknowledge that the perception and acceptance of these recommendations varied among our HCP. Compliance can only be optimized with key interventions when we seek to understand the perceptions of our staff.

Disclosures. David J. Weber, MD, MPH, PDI (Consultant)

428. Assessing the Confidence, Knowledge and Preferences of Hospital Staff with Regards to Personal Protective Equipment (PPE) Practices During the COVID-19 Pandemic

Rachel Brown, MSHS; Sharon Markman, MHA; Amanda Brown, MS, MLS(ASCP), CIC; Rukhshan Mian, MS; Vineet Arora, MD, MA; Craig Umscheid, MD, MS; UChicago Medicine, Chicago, Illinois

Session: P-19. COVID-19 Infection Prevention

Background. Effective use of personal protective equipment (PPE) by hospital staff is critical to prevent transmission of COVID-19. This study examines hospital staff confidence in and knowledge of effective PPE use, and their preferences for learning about PPE practices.

Methods. Three isolation precautions signs were created for use in the care of those with or under investigation for COVID-19 infection: first, a special respiratory precautions sign designed by infection control; and next, two signs outlining proper donning and doffing practices – one created internally with the support of health literacy, and another developed with a design firm (IDEO) using principles of human-centered design (Figure 1). All signs were used for ≥10 weeks prior to distribution of a questionnaire (REDCap) to clinical and non-clinical hospital staff. Those who had not worked on hospital units during the pandemic (after March 15, 2020) were excluded. The 38-item survey was sent by supervisors over email between July 14-31, 2020, and examined demographics, confidence in and knowledge of PPE best practices, and preferences for each precaution sign with regards to trustworthiness, ease of following, informative content, and clarity of image/layout. Responses were reported using descriptive statistics. A non-parametric test of trends compared staff preferences across signs. Logistic regression examined the association between answering all knowledge-based questions correctly and staff role and confidence in PPE practices (Stata).
Results. Of the 531 respondents, 461 were eligible for inclusion. The majority were female, white, and not high risk for COVID-19 (Table 1). Most were confident about PPE use, correctly answered questions examining knowledge of PPE best practices, and found PPE signage helpful (Table 2). Staff preferred the professionally designed signage for informative content (p<0.01) and clear imagery/layout (p=0.01) (Table 3). Confidence in PPE practices and physician or nurse roles were associated with answering all knowledge-based questions correctly (p<0.001 and p=0.04, respectively).

### Table 1. Descriptive Characteristics of Survey Respondents

| Variable                  | Value | N (%)  |
|---------------------------|-------|--------|
| Role                      | Trip   | 180 (34.7) |
|                           | Nurse  | 191 (41.4) |
|                           | Other  | 110 (23.9) |
| Gender                    | Female | 302 (70.6) |
|                           | Male   | 104 (22.6) |
| Prefer not to answer      |       | 26 (5.6)  |
| Race                      | White  | 259 (56.2) |
|                           | Asian  | 44 (9.5)  |
|                           | Black  | 41 (9.0)  |
|                           | More than one race selected | 32 (6.9) |
|                           | Prefer not to answer | 85 (18.4) |
| Age in years              | 18-34  | 156 (34.3) |
|                           | 35-44  | 148 (31.5) |
|                           | 45-65+ | 143 (31.0) |
| Provide care to:          | COVID-19 cohort unit patients | 171 (36.7) |
|                           | No COVID-19 or PUI patients | 51 (11.1) |
|                           | COVID-18 or PUI, but no cohort unit patients | 333 (72.2) |
| Work on following units   | Adult medical surgical | 215 (49.4) |
|                           | Adult intensive care | 173 (36.3) |
|                           | Adult emergency department | 80 (17.4) |
|                           | Pediatric medical surgical | 63 (14.1) |
|                           | Pediatric intensive care | 78 (16.9) |
|                           | Pediatric emergency department | 61 (13.4) |
|                           | Family birth center | 57 (12.6) |
|                           | Operating rooms | 56 (12.1) |
| High risk for COVID-19    | No | 305 (64.2) |
|                           | Yes | 127 (27.5) |
| Prefer not to answer/Blank| 29 (6.3) |
| Tested positive for COVID-19 | No | 431 (93.5) |
|                           | Yes | 8 (1.7)  |
| Prefer not to answer/Other|       | 1 (0.2)  |

Abbreviations: APP, advanced practice provider; COVID-19, coronavirus disease; PUI, person under investigation.

### Table 2. Survey Items Assessing Confidence, Knowledge and Learning

| Variable                                                   | Value                                      | N (%)  |
|------------------------------------------------------------|--------------------------------------------|--------|
| Confident about PPE use                                     | Extremely                    | 100 (23.6) |
|                                                           | Somewhat                    | 206 (47.8) |
|                                                           | Neutral                      | 25 (5.6)  |
|                                                           | Not confident                | 37 (8.5)  |
|                                                           | Extremely not confident       | 7 (1.6)   |
| Proper steps for donning PPE prior to room entry           | Correct                      | 395 (77.0) |
|                                                           | Incorrect                    | 81 (17.5)  |
|                                                           | Do not know                  | 23 (4.4)  |
| Where to doff when leaving room                            | Correct                      | 396 (84.4) |
|                                                           | Incorrect                    | 55 (11.9)  |
|                                                           | Do not know                  | 25 (5.3)   |
| If remove N95 from over nose and mouth, I can reuse       | Correct                      | 365 (75.0) |
|                                                           | Incorrect                    | 84 (16.3)  |
|                                                           | Do not know                  | 52 (10.3)  |
| Selecting mask to safely enter room of COVID-19 PUI        | Correct                      | 445 (95.5) |
| undergoing aerosol generating procedure                    | Incorrect                    | 6 (1.3)    |
| Using signage to facilitate use of PPE                    | Always                       | 173 (37.5) |
|                                                           | Initially, not currently      | 96 (21.3)  |
|                                                           | Often                        | 96 (21.3)  |
|                                                           | Only when COVID-19 precautions present | 88 (18.4) |
|                                                           | Only when a COVID-19 cohort unit exists | 7 (1.5)  |
| Following is most helpful to understand COVID-19 related PPE practices | Signage | 353 (76.6) |
|                                                           | Email                        | 214 (46.4) |
|                                                           | Huddles                      | 130 (28.2) |
|                                                           | Observers                    | 96 (20.8)  |
|                                                           | Videos                       | 95 (20.8)  |
|                                                           | Town halls                    | 57 (12.4)  |
|                                                           | Other                        | 36 (7.8)   |

Abbreviations: COVID-19, coronavirus disease; PPE, personal protective equipment; PUI, person under investigation.
430. Strategies for Prevention of COVID-19 Transmission in Hospitals

Wooyoung Jang, n/a; Bongyoung Kim, MD, PhD; Eun Suk Kim, MD, PhD; Kyung-Ho Song, MD, PhD; Song Mi Moon, M.D., PhD; Myung Jin Lee, MD, MSc; Ji Young Park, MD, PhD; Ji Yeon Kim, M.D. n/a; Myoung Jin Shin; Kurt Stevenson, MD, MPH; Hong Bin Kim, M.D., PhD; Hanyang University College of Medicine, Seongdong gu, Seoul-tukpyolssi, Republic of Korea; Department of Internal Medicine, Seoul National University College of Medicine, Seoul, Korea, Seoul, Seoul-tukpyolssi, Republic of Korea; Department of Internal Medicine, Seoul National University College of Medicine, Seoul, Korea, Seoul, Seoul-tukpyolssi, Republic of Korea; Division of Infectious Diseases, Department of Internal Medicine, Inje University Sanggye-Paik Hospital, Seoul, Korea, Seoul, Seoul-tukpyolssi, Republic of Korea; Seoul National University Bundang Hospital, Seongnam, Kyonggi-do, Republic of Korea; Seongnam Citizens Medical Center, Seongnam-si, Kyonggi-do, Republic of Korea; 7. Seoul National University Bundang Hospital; Sungnam, Kyonggi-do, Republic of Korea; 8. The Ohio State University College of Medicine and College of Public Health, Columbus, Ohio

**Session:** P-19. COVID-19 Infection Prevention

**Background.** The COVID-19 pandemic required hospitals to care for influxes of patients in cohort locations during critical shortages of personal protective equipment (PPE). Safety zones can be used to protect healthcare workers caring for patients with infectious pathogens. During the COVID-19 pandemic, our hospital developed a Warm Zone model (WZM) to streamline the care of patients with COVID. We established specific areas in our COVID cohort units where staff were permitted to bridge between rooms without donning gowns, but still donning gloves and performing hand hygiene between patients. We recognized that a WZM could inadvertently increase risk of nosocomial transmission of pathogens if gowns acted as fomites. For this reason, patients with COVID were cohorted were included in surveillance. The timeframe for this analysis was July 1, 2020 - September 30, 2021.

**Methods.** Two intensive care units and 3 wards where COVID positive patients were cohorted were included in surveillance. The timeframe for this analysis was July 1, 2020 - September 30, 2021.

**Results.** During the study period, there were no COVID-19 infections in hospitals that were cohorted. The HO CDI and MRSA bloodstream infections were not increased in cohort units. There was no evidence to suggest that the HO CDI and MRSA bloodstream infections were associated with COVID-19 patients. The HO CDI and MRSA bloodstream infections were not increased in cohort units. There was no evidence to suggest that the HO CDI and MRSA bloodstream infections were associated with COVID-19 patients.

**Conclusion.** In conclusion, our study suggests that the use of a WZM to streamline patient care in COVID cohort areas without evidence of causing nosocomial infections via patient-to-patient transmission.