# Supplemental Material

**BioDome Staff Personal Protective Equipment (PPE)**

All staff whose cultural and/or religious practices allowed clean shaven faces per Centers for Disease Control and Prevention recommendations were fit tested to either an N-95 mask or Dräger 3300 X-plore® 3300 (Draeger Safety, Inc.) (S1). All staff had access to a personal powered air purifying respirator (PAPR) hood. Shared belt-mounted Versaflo PAPRs (3M, St. Paul, MN) and rechargeable batteries were present in the donning room, cleaned by dedicated safety officers in the doffing rooms, and returned for reuse. PAPRs were used preferentially by staff members working longer periods in the BioDome, with 1–2-hour breaks per shift in alternate mask type respirators for those fit tested to allow for battery recharging for oncoming shifts. Those spending shorter intervals (consultants, radiology technologists, and environmental services) used N-95 and Dräger masks.

# Staff Education

All BioDome providers received electronic education on COVID-19 disease and ICU management, JHH COVID-19 policies, and available evidence for therapies and clinical trials (S2). Nurses were educated on adult intravenous pumps, equipment, medications, code carts, and proning techniques. RTs were oriented to key COVID-19 ventilator strategies. Environmental services workers were oriented to enhanced BioDome cleaning practices.

# Launch Day Orientation

A comprehensive half day on unit orientation was held for the initial staff opening our BioDome. Staff were expected to have reviewed job specific educational materials. The in person unit

orientation was filmed and could be simultaneously viewed by those who would work remotely (pharmacy, nutrition) or at a later date for future staff. The orientation consisted of the following:

**A Unit Tour** using virtual reality headset and specifically highlighting:

* The new unit geography with the separation wall between the BioDome and neo- PICU.
* General flow including staff entrances via the donning space and exit via one of the two doffing spaces. Patient flow which importantly included transport routes into and out of the BioDome using a dedicated doffing room that was large enough to accommodate patient stretchers and concurrent equipment.
* New locations of equipment, supplies, medications, and formula moved from usual storage locations into re-located storage areas in unused office, conference, or educational spaces.
* Emergency exits and procedures, including evacuation routes in case the unit was unable to shelter in place.

**Patient Care and Operations** highlighting unique procedures in the BioDome:

* Adult intensivists and physician’s assistant presented general information about adult ICU operations, experience with critically ill COVID-19 patients, comprehensive rounding scripts, safety checklists, and remained as a resource throughout orientation day for questions as they arose.
* Emergency resuscitation equipment and orientation to adult resuscitation carts and medication boxes. Distribution and location of dedicated Adult Cardiovascular Life Support cards.
* Ultrasound locations and cleaning procedures. Point-of-care ultrasound training for all physicians.
* Presentation from centralized COVID-19 airway team who reviewed the institutional procedure for intubations (Supplemental Fig. 1, http://links.lww.com/CCX/A327).
* Nurse led room orientation:
  + Contents of restocked bedside servers.
  + Adult intravenous and feeding pump operations and library contents.
  + Pyxis supply locations.
  + Linen and trash movement workflows.
* Physical, occupational, and speech therapy staff reviewed standard adult services and communication expectations.
* Social worker reviewed expectations and avenues for communication with families and legality of establishing a decision-maker for an incapacitated patient.
* Child life staff discussed role in adult unit, including creating personal connections with patients when no family are present and support for children of hospitalized patients.

**REFERENCES**

S1. Centers for Disease Control and Prevention: Facial Hairstyles and Filtering Facepiece Respirators. 2017. Available at: <https://www.cdc.gov/niosh/npptl/pdfs/FacialHairWmask11282017-508.pdf?source=techstories.org>. Accessed September 11, 2020

16. Wolpaw J; Anesthesia and Critical Care Reviews and Commentary: Episode 170: Lessons From 40 COVID Patients in the ICU With Brian Garibaldi. 2020. Available at: <http://accrac.com/episode-170-lessonsfrom-40-covid-patients-in-the-icu-with-brian-garibaldi/>. Accessed May 26, 2020