

Guidelines for PPE Use in the ED during COVID-19 Pandemic

Introduction

Given high rates of community transmission during the COVID-19 pandemic, as well as the variety of presentations that patients with SARS-CoV-2 infection may display (ranging from completely asymptomatic to respiratory failure/cardiac arrest), the Harbor-UCLA Department of Emergency Medicine, in conjunction with Department of Infection Prevention and Control, has implemented guidelines to maximize protection of all workforce members, students, and trainees involved in patient care. In some cases, these guidelines may be more stringent than used in other inpatient settings. However, given the undifferentiated nature of ED patients, and the unpredictable nature of ED care, we believe that these guidelines will minimize exposure to staff, students, and patients.

Key Terms and Definitions

- **Surgical/Procedure mask:** standard mask that provides droplet protection (see appendix for details)
 - **Faceshield:** clear barrier protection to prevent aerosol/droplet contamination of facial skin or facemask (see appendix for details). Must cover whole face (forehead to chin)
 - **Goggles:** provides protection against droplet transmission by preventing blood and body fluids from entering your eyes (see appendix for details). Must have a seal around the eyes (i.e. not splash glasses)
 - **Filtering Facepiece Respirator (FFR):** face mask with respiratory seal certified to filter a minimum of 95% of particles >0.3 microns in size. Often referred to as a N95 (see appendix for details)
 - **PAPR/CAPR:** air-purifying respirators that do not require a face seal unlike FFRs
 - **Isolation gown:** here at Harbor, yellow gowns that provide contact isolation (see appendix for details)
 - **Aerosol Generating Procedures (AGP):** any procedure that may generate higher concentrations of infectious respiratory aerosols than activities such as breathing, coughing, talking or sneezing.
 - These procedures include: intubation, CPR, NIPPV, BVM ventilation, open/deep suctioning, sputum induction, nebulizer administration, high flow oxygen via nasal cannula
 - Procedures that may generate aerosols include: swabbing patients for COVID-19, chest tube placement
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Minimum PPE Requirements

In the ED, during periods **not** providing patient care (i.e. workstations, huddles, non-clinical duties):

- Surgical/Procedure Mask
- Maintain a minimum of 3 feet, but preferably 6 feet social distancing, between coworkers

For patients **without** suspicion for COVID and not requiring AGP

- Surgical/Procedure Mask
- Faceshield/Goggles
- Gloves

For patients **with suspected/diagnosed** COVID not requiring AGP (*i.e. special precautions*)

- Surgical/Procedure Mask **or** N95/FFR
- Faceshield/Goggles
- Isolation gown
- Gloves
- Use of a doffing buddy is strongly advised to prevent inadvertent contamination.

For patients with suspected/known COVID requiring AGP (*i.e. special precautions*)

- N95/FFR or CAPR/PAPR (CAPR/PAPR provides the same respiratory protection as a properly worn N95/FFR and Face shield, and should be prioritized for those healthcare workers who have been unable to fit test available N95s/FFR.)
- Faceshield/Goggles (unless wearing a CAPR/PAPR)
- Isolation gown
- Gloves
- Use of a doffing buddy is strongly advised to prevent inadvertent contamination.

For patients who may/do require AGP but with or without suspicion for COVID (includes: TTA-1, Critical Medical, ROSC, in-hospital codes)

- N95/FFR or CAPR/PAPR
- Faceshield/Goggles (unless wearing a CAPR/PAPR)
- Isolation gown
- Gloves
- Use of a doffing buddy is strongly advised to prevent inadvertent contamination.

Hand hygiene tips and when to perform:

- Should be performed either with alcohol-based hand scrub or with soap and water
- After doffing/changing gown and/or gloves
- Before leaving room
- After exiting room

- Before removing faceshield/goggles
- After removing and/or cleaning faceshield/goggles
- Before touching mask/FFR/N95/CAPR/PAPR
- After touching mask/FFR/N95/CAPR/PAPR

Hand washing with soap and water (for 20 seconds) should be performed after using bathroom or eating, and/or whenever hands are visibly soiled or after providing care to patients with diarrheal illness such as suspected *C. difficile*.

Additional notes:

- Gown and gloves should be removed prior to exiting patient room
- Face shield and/or goggles should be cleaned between patient encounters
- Procedure/Surgical masks can be re-used unless worn in a COVID-19 suspected/confirmed patient room, or unless mask becomes wet or soiled.
- CAPR/PAPR should be thoroughly wiped down after every use
- N95s/FFR used for patients without suspected/known COVID-19 can be re-used by a single staff member up to 5 times on the same shift; but should be discarded after 5 uses **or at the end of the shift**. N95s/FFRs should be stored in a paper bag (not plastic) between uses. A seal check and visual inspection should be performed before **each** use.
- N95s that are not contaminated with any blood or body fluids can be disposed of in designated N95 receptacles. N95s that are contaminated with blood or body fluids, or have makeup staining on the interior surface, can be disposed of in regular trash
- **Important:** Many of our N95s were provided to us from the Strategic National Stockpile through state and local agencies. These masks may be beyond their manufacturer's original shelf-life date but can still be used per FDA Emergency Use Authorization during the current pandemic. However, visual inspection and a seal check (see CDC link below) should be performed whenever these masks are donned, prior to entering a patient care area.

Appendix

Procedure Mask/Surgical Mask



Face Shields



Goggles



FFR/N95 (selected examples)



CAPR/PAPR



Isolation Gown



For additional information:

- DHS Expected Practice: PPE Expected Practice During the COVID-19 Pandemic. <https://lacounty.sharepoint.com/sites/DHS-COVID19/SitePages/PPE-Expected-Practice-During-the-COVID-19-Pandemic.aspx>
- Cal/OSHA Interim Guidance on COVID-19 for Health Care Facilities. <https://www.dir.ca.gov/dosh/coronavirus/Cal-OSHA-Guidance-for-respirator-shortages.pdf>
- CDC. Performing a Seal Check for FFR/N95. <https://www.cdc.gov/niosh/docs/2018-130/pdfs/2018-130.pdf?id=10.26616/NIOSH PUB2018130>
- National Emergency Special Pathogens Training and Education Center (NETEC). PPE Infographics and Resources for COVID-19. <https://repository.netecweb.org/exhibits/show/ppe-cons/ppe-cons>