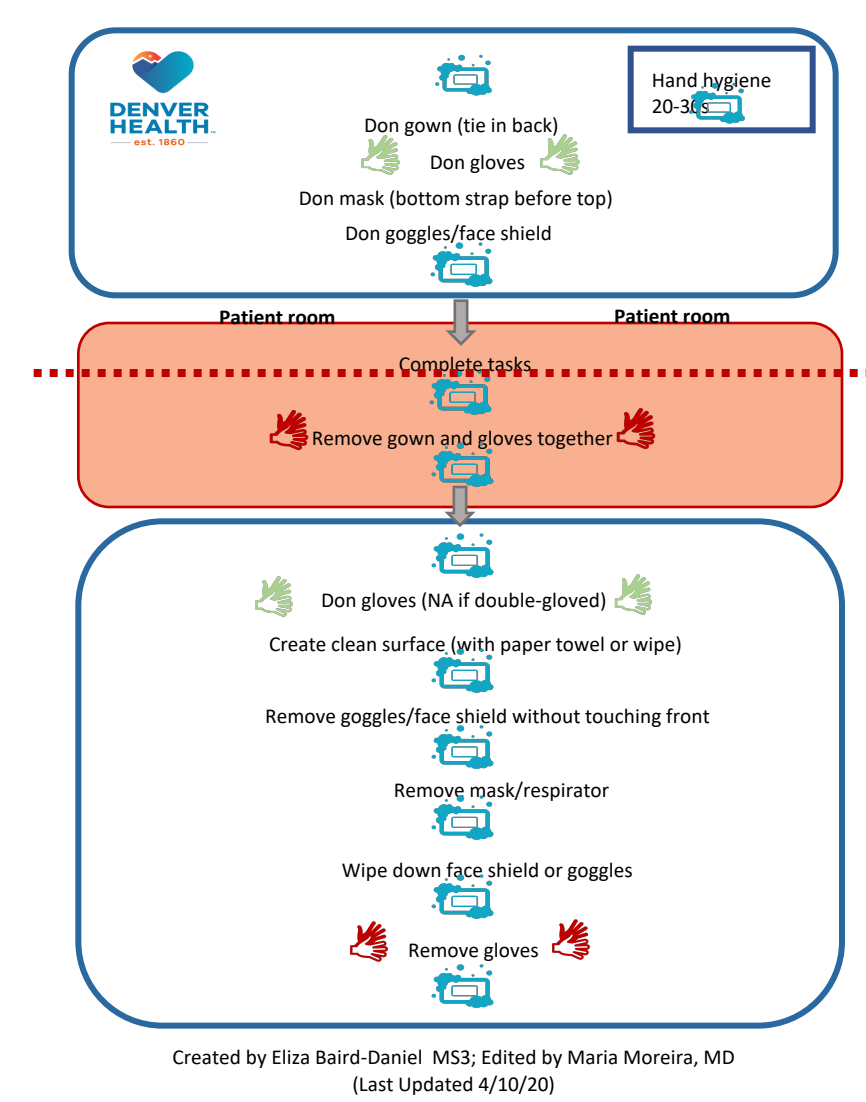


Promoting PPE Education Safely Through In-Person and Virtual Simulation in the Midst of a Pandemic

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INTRODUCTION

The COVID19 pandemic lead to limitations in student and resident exposure to bedside teaching opportunities.

The pandemic incited fear of contamination, need for continuous personal protective equipment (PPE), and the desire to find ways to increase provider safety.

While providers use gowns, gloves, and masks in the clinical setting, PPE as used for contagions was not a part of the staffs normal operating procedures.

CURRICULAR DESIGN

In Person:

- Simulation-based training curriculum developed.
- During sessions, learners viewed a PPE video, questions were answered and then each learner simulated donning and doffing PPE in front of the group.
- Steps were emphasized as learners watched each other don and doff.
- PPE checklist, picture flow chart, and frequently asked questions form was developed to enhance educational process.
- Medical Students and Dental Residents helped facilitate sessions

| DONNING PPE | YES | NO |
|----------------------------------------------------------------------------------------------------------------------------|-----|----|
| Perform Hand Hygiene (20-30 seconds) | | |
| Don Gown (tie in back of neck and waist)** | | |
| Don Gloves | | |
| Don Mask/Respirator (secure ties/elastic bands at middle of head & neck/fit flexible band to nose bridge/fit snug to face) | | |
| Don Goggles or Face Shield | | |
| Disinfect Gloves (Use alcohol-based hand hygiene product) | | |
| Enter Room | | |
| Disinfect Gloves | | |

| DOFFING PPE | YES | NO |
|--------------------------------------------------------------------------------------------------------|-----|----|
| Disinfect Gloves (20-30 seconds) | | |
| Remove Gown and Gloves together in the room | | |
| Perform hand hygiene | | |
| Exit room | | |
| Perform hand hygiene | | |
| Put on new gloves | | |
| Create a clean surface by putting a wipe on a surface | | |
| Disinfect Gloves (Use alcohol-based hand hygiene product) | | |
| Remove Goggles or Face Shield (Don't touch front of eye protection) and place on the disinfectant wipe | | |
| Disinfect Gloves (Use alcohol-based hand hygiene product) | | |
| Remove Mask or Respirator by Touching Only Straps & Leaning Forward | | |
| Disinfect Gloves (Use alcohol-based hand hygiene product) | | |
| Wipe face shield or goggles on both sides and place in a clean area | | |
| Disinfect Gloves (Use alcohol-based hand hygiene product) | | |
| Remove Gloves | | |
| Perform Hand Hygiene | | |

CURRICULAR DESIGN

Virtual:

- Training for new intern orientation was adjusted to accommodate zoom simulation.
- Interns watched videos prior to their session.
- Each session was scheduled for 15 minutes.
- The session started with answering questions and a reminder of the different steps of donning and doffing.
- The learner walked through the steps of placing PPE with props from home or from the zoom site.



IMPACT/EFFECTIVENESS

| LEARNER TYPE | NUMBER OF IN-PERSON LEARNERS |
|---------------------|------------------------------|
| Pre-health students | 29 |
| Residents | 91 |
| Nurses | 115 |
| Techs | 39 |
| APPs | 13 |
| Attendings | 43 |
| Outreach workers | 7 |
| Other | 3 |
| Total | 323 |
| Zoom PPE | 126 Learners |

AREAS/SPECIALTIES REPRESENTED BY LEARNERS

| | |
|-----------------------|----------------------|
| Anesthesiology | Occupational Therapy |
| Behavioral Health | Orthopedics |
| Cardiology | Neurology |
| Critical Care | Pathology |
| Dental | Pediatrics |
| Emergency Medicine | Physical Therapy |
| ENT | PM & R |
| Family Medicine | Psychiatry |
| Hematology/Oncology | Rheumatology |
| Infectious Disease | Sports Medicine |
| Internal Medicine | Surgery |
| Obstetrics/Gynecology | Urology |

NEXT STEPS

- Include PPE training for all future intern orientations (in person or virtual).
- New staff to participate in PPE training prior to clinical work.
- All hospital workers to simulate donning and doffing once a year.
- Introduce an interprofessional, interdisciplinary high-fidelity simulation to practice real time PPE donning and doffing while taking care of a simulated critical patient.

OBJECTIVES

Our goal was to provide PPE education and practice to our staff to promote safety, increase comfort with application of PPE, and emphasize the importance of the steps in the process.

Additionally, we wanted to provide opportunities for medical students and residents to be involved in the educational process.

DISCLOSURE

The authors have no financial disclosures.