SSH SimSeries
Covid-19: MORE
Ideas and
Resources for PPE
Provider Training

Connie M. Lopez
April 23, 2020
Together we are stronger
Our journey and the role of simulation

Stories

Resources

• Back to basics - PPE guidelines
• New workflows and processes
• Stewardship Strategies

Questions & Discussion

• Success and Challenges
STORIES & CASES
What are we fighting?

“Coronaviruses are enveloped viruses, meaning they are one of the easiest to kill with the appropriate disinfectant product...”

Environmental Protection Agency (EPA)
**Standard Precautions** *(Standard precautions NCAL Regional Policy)*: Barriers deemed necessary to protect health care workers, staff and volunteers from the exposure to blood, body fluids, secretions, excretions, mucous membranes, and non-intact skin. Determined by the nature of the staff-patient interaction and the extent of anticipated pathogen exposure. These types of protections (depending on the anticipated exposure) include hand hygiene, gloves, gown, mask, and/or eye protection or face shield.

Examples of exposures may include:

- Vaginal exam/assessment for rupture of membranes, appropriate attire may include hand hygiene, gloves
- Spasm risk from a vaginal delivery, appropriate attire may include hand hygiene, shoe covers, gown, gloves, mask, eye protection
- Foley insertion/removal/emptying, appropriate attire may include hand hygiene, gloves, gown, mask, eye protection
- Vomiting, appropriate attire may include hand hygiene, gloves, gown, mask, eye protection
- Procedure of artificial rupture of membranes, appropriate attire may include hand hygiene, gloves. If concerned regarding splash risk, gown, mask, and eye protection may be considered.

**Surgical Attire** *(Surgical Attire NCAL Regional Policy)*: Hospital-provided laundered (or single-use disposable shirt/pants), cover jacket, disposable headgear, mask, and eye protection. Socks or hosiery are recommended, closed toe shoes are required.

- Staff present directly within surgical field: surgical mask, eye protection, sterile gown, gloves, bouffant hair cover, shoe covers
- Staff present in OR: surgical mask, gloves, bouffant hair cover, jacket or gown, shoe covers

**Transmission based precautions** *(Transmission based precautions: Airborne, Contact, Contact plus, Droplet; and Special and Protective Precautions NCAL Regional Policy)*: Barriers used for patients known or suspected to be infected with epidemiologically important pathogens spread by contact (direct or indirect), droplet or airborne routes. The CDC has recommended transmission-based precautions be used in addition to standard precautions for these types of
### PPE & STEWARDSHIP GUIDELINES

**USE FOR:**
- Persons Under Investigation (PUI)
- COVID-19

#### PUI & COVID-19

**CONTACT PRECAUTIONS**

<table>
<thead>
<tr>
<th>Gloves</th>
<th>Gown</th>
<th>Isolation Mask</th>
<th>N95</th>
<th>CAPR/PAPR</th>
<th>Safety Glasses</th>
<th>Goggles</th>
<th>Face Shield</th>
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</table>

**DROPLET PRECAUTIONS**

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**+ EYE PROTECTION**

- This is not an exclusive list, refer questions to your Infection Preventionist/Infectious Disease Physician for more information.

#### ROUTINE CARE

- **Discard After Use**:
  - Extend: Use continuously with COVID-19 patients without doffing
  - Discard After Doffing

- **Reuse**:
  - Doff and store in between patients
  - Do not clean

#### HIGH RISK PROCEDURE

- **Example**: Intubation

- **Discard After Use**:
  - Discard after use if face shield

- **Reuse N95 Mask**:
  - Wash and disinfect

- **Clean Before Reuse**:
  - Use continuously with multiple patients without doffing
  - Discard After Doffing

- **1st**
  - Goggles

- **2nd**
  - Face Shield

- **3rd**
  - Goggles

- **Face Shield**
  - Goggles

Guidelines Based on Policy
### Job Aid for PPE

PPE Recommendations for Labor & Delivery v1.1  
Effective 3/27/20

#### Procedural/ Clinical Scenarios and Personal Protective Equipment:

**Definitions:**

- **Standard Precautions:** Procedural/ isolation mask + eye protection (safety glasses or attached to mask) + gown + gloves
- **Enhanced Respiratory Precautions (ERP):** Isolation/ Procedural mask + goggles or face shield + gown + gloves
- **Surgical attire:** Surgical masks + eye protection if not attached to mask, gown + gloves
- **Airborne PPE:** CAPR/PAPR or N95 + Face shield + gown + gloves  
  - Consider N95 + face shield as much as possible

<table>
<thead>
<tr>
<th>Clinical Scenario</th>
<th>Procedure</th>
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</table>
| Confirmed COVID negative patient (w/n 48hrs) | Epidural  
Labor/Vaginal Delivery  
C-Section |
| PUI/COVID +             | Epidural  
Labor/Vaginal Delivery  
C-Section |
| Asymptomatic            | Epidural  
Labor/Vaginal Delivery  
C-Section |
Maternal Child Health First Step: Table Top Simulation

Triage Workflow

Advice Calls - RN to ask ALL patients if they have a cough, SOB, fever. If yes, consult with MD and only invite patient to the hospital on MD recommendation. If the patient is invited to the hospital by MD, ask the patient to use GPS to provide ETA and instruct patient to meet outside ED by tents. Alert the House Supervisor at ext. 56965. The House Supervisor will meet the L&D RN within 5 minutes of patient arrival. RN will have CAPR, gown and gloves on. Give patient and partner masks on arrival. Security will be alerted by the House Supervisor and will clear hallways and elevators and unlock the elevators closest to the ED to go directly to unit floor. House Supervisor will notify EVS to bring dirty gurney or wheelchair to area designated outside the ED for cleaning.

If a patient arrives at the L&D security desk without calling and has a cough, SOB, fever arrives -- RN dressed in gown, gloves, CAPR will greet patient at the security desk outside L&D and hand the patient and partner a mask. RN will walk the patient directly to LDR #1. If LDR#1 is occupied, bring patient to Triage Room #1 and call MD for evaluation. Patient is a 1:1 assignment.

L&D bed assignment –
Admit PUI/COVID-19 patient directly to LDR #1. If LDR #1 is occupied, room patient in
## Scenario Development Worksheet
### Storyboard for Planning

<table>
<thead>
<tr>
<th>Identified Problem/Scenario Topic</th>
<th>Scenario Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID-19 L&amp;D Emergency Cesarean</td>
<td>1. Recognize obstetric emergency (fetal bradycardia to 60 bpm with recurrent variables)</td>
</tr>
<tr>
<td>Fetal bradycardia to 60 bpm</td>
<td>2. Call for help (emergency c-section)</td>
</tr>
<tr>
<td></td>
<td>3. Responders don appropriate PPE and assist with patient transfer to OR</td>
</tr>
<tr>
<td></td>
<td>4. Patient is transported to L&amp;D OR (hallways cleared)</td>
</tr>
<tr>
<td></td>
<td>5. Ensure all the equipment is ready for delivery</td>
</tr>
<tr>
<td></td>
<td>6. Communicate and collaborate with team and patient during scenario</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Goals</th>
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</thead>
<tbody>
<tr>
<td>Recognize the need for immediate delivery and provide appropriate patient care while maintaining staff safety and infection prevention controls.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Case Summary</th>
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</thead>
<tbody>
<tr>
<td>30-YEAR-OLD G2P0010 @ 40 weeks with spontaneous ROM clear fluid at 5 CM in active labor. Vertex presentation. Develops more severe variables.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Critical Performance Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Huddle with team to communicate plan prior to entering the room</td>
</tr>
<tr>
<td>2. Assemble appropriate supplies prior to entering to room using role</td>
</tr>
</tbody>
</table>
SCENARIO DEVELOPMENT WORKSHEET
STORYBOARD FOR PLANNING

IDENTIFIED PROBLEM/SCENARIO TOPIC
COVID-19 Respiratory Distress

GOALS
Recognize respiratory distress and provide appropriate patient care while maintaining staff safety and infection prevention controls.

SCENARIO OBJECTIVES
1. Don and doff appropriate PPE for scenario
2. Recognize patient is clinically deteriorating requiring airway support
3. Ensure all the equipment is ready and available for intubation
4. Perform intubation of a patient in a timely manner protecting staff and other patients
5. Communicate and collaborate with team and patient during scenario

CASE SUMMARY
A 71-year-old male with suspected COVID-19 is sent to the ED after calling the triage center with a high fever, coughing, chest pain, and difficulty breathing. Patient reports he was at a

CRITICAL PERFORMANCE ELEMENTS
1. Don and doff appropriate PPE prior to entering the room following current guidelines
2. Check each other’s PPE prior to entering room
<table>
<thead>
<tr>
<th>Physician</th>
<th>Nursing</th>
<th>RT</th>
</tr>
</thead>
</table>
| • Glidescope  
  • Preferred glidescope blade  
  • Glidescope stylet  
  • Airway Bag  
  • Stethoscope  
  • +/- additional intubation safety device (clear poncho, etc.) | • Radio  
  • RSI Meds Kit  
  • Code Medications  
  • Pot-intubation meds  
  • Defibrillator Pads  
  • Restraints  
  • Foley Kit  
  • OG tube with syringe  
  • Lubricant  
  • Tape | • Ventilator with appropriate filter and in-line suction  
  • BVM |
| Airway Bag | Keep Outside Room | |
| • ETT (7, 7.5, 8.0) + 10ml syringe | • Code Cart | |
| • Stylet | • Airway Cart | |
| • End-tidal CO2 detector | • Additional Radios | |
| • ETT securing device (Hollister) | • Safety Monitor / Circulator | |
**Scenario Development Worksheet**

**Storyboard for Planning**

<table>
<thead>
<tr>
<th>Identified Problem/Scenario Topic</th>
<th>Scenario Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID-19 Proning Procedure of a Vented Patient</td>
<td>1. Don and doff appropriate PPE for scenario</td>
</tr>
<tr>
<td></td>
<td>2. Ensure all the equipment is ready and available for pronation of a COVID-19 patient</td>
</tr>
<tr>
<td></td>
<td>3. Transporting patient into either a pronation bed or pronating patient in a regular bed</td>
</tr>
<tr>
<td></td>
<td>4. Communicate and collaborate with team and patient during scenario</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safely prone a COVID-19 patient keeping all tubes and lines intact with staff donning the appropriate PPE.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Case Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 56-year-old male who tested positive for COVID-19 has been admitted to the ICU two days ago from the ED. Patient had called the triage center with a high fever,</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Critical Performance Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Assemble appropriate supplies to turn patient prior to entering to room (see attached checklist)</td>
</tr>
<tr>
<td>2. Don and doff appropriate PPE</td>
</tr>
</tbody>
</table>
**Scenario Development Worksheet**

*Storyboard for Planning*

<table>
<thead>
<tr>
<th>Identified Problem/Scenario Topic</th>
<th>Scenario Objectives</th>
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</thead>
</table>
| **COVID-19 Code Blue** Run Scenario twice using Debrief 1 for first run and Debrief 2 for second run | 1. Don and doff appropriate PPE for scenario  
2. Recognize patient is clinically deteriorating  
3. Ensure all the equipment is ready and available for cardiac arrest  
4. Communicate and collaborate with team and patient during scenario |

**Goals**
Recognize cardiac arrest and provide appropriate patient care while maintaining staff safety and infection prevention controls.

**Case Summary**
A 71-year-old male with suspected COVID-19 is sent to the ED after calling the triage center with a high fever, coughing, chest pain, and difficulty breathing. Patient reports he was at a family event 9 days ago with his son who tested positive for COVID 19 five days ago. The patient has a history of HTN, Diabetes Type 2, and chronic kidney disease. He has received the yearly flu vaccine.

**Critical Performance Elements**
1. Huddle with team to communicate plan prior to entering the room  
2. Assemble appropriate supplies prior to entering to room using role guideline (see attached checklist)  
3. Recheck PPE prior to entering room  
4. Check each other’s PPE prior to entering room  
5. Dons and doffs appropriate PPE prior to entering the room following standard
# COVID-19 Code Blue Critical Action Team Checklist

<table>
<thead>
<tr>
<th>Critical Action</th>
<th>Performed by Role</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each member of the team dons appropriate PPE prior to entering the room following current guidelines</td>
<td></td>
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</tr>
<tr>
<td>Each member of the team checks each other’s PPE prior to entering room</td>
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<td></td>
</tr>
<tr>
<td>Team huddles to discuss plan quickly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team rechecks each other’s PPE prior to entering the room</td>
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</tbody>
</table>
Kaiser Permanente Northern California
Mitigation Phase Playbook
Coronavirus Disease 2019 (COVID-19)

Regional
Playbook for
Addressing All
Areas
Successes

• Frequent Infection Prevention Rounds
• Daily Huddles each shift
• Real time updates on practice
• Regional assistance with research and resources: Playbook
• Evening Leadership teleconferences for all

Challenges

• New virus
• No evidence based research to review related to virus and PPE
• Immediate need to know appropriate management/PPE
• Management of emergencies using PPE
• Daily changes in PPE recommendations
• Lack of PPE resources
ORDER OF THE HEALTH OFFICER No. 20-08
ORDER OF THE HEALTH OFFICER
OF THE COUNTY OF ALAMEDA
GENERALLY REQUIRING MEMBERS OF THE PUBLIC AND WORKERS TO WEAR FACE COVERINGS
(PUBLIC HEALTH EMERGENCY ORDER)
DATE OF ORDER: April 17, 2020

Please read this Order carefully. Violation of or failure to comply with this Order is a misdemeanor punishable by fine, imprisonment, or both. (California Health and Safety Code § 120295, et seq.; Cal. Penal Code §§ 69, 148(a)(1))

Summary: The United States Centers for Disease Control and Prevention (“CDC”), California Department of Public Health (“CDPH”), and Alameda County Public Health Department (“ACP HD”) have recommended that members of the public, when they need to interact with others outside the home and especially in settings where many people are present such as waiting in lines and shopping, should cover the mouth and nose to prevent inadvertently spreading the virus that causes Coronavirus Disease 2019 (“COVID-19”). One key transmission method for the COVID-19 virus is respiratory droplets that people expel when they breathe, talk, or sneeze. With the virus that causes COVID-19, people can be infected and not have any symptoms, meaning they are asymptomatic, but they can still be contagious. People can also be infected and contagious 48 hours before developing symptoms, the time when they are pre-symptomatic. Many people with the COVID-19 virus have mild symptoms and do not recognize they are infected and contagious, and they can unintentionally infect others. Therefore, the CDC, CDPH, and ACPHD now believe that wearing a face covering, when combined with physical distancing of at least 6 feet and frequent hand washing, may reduce the risk of transmitting coronavirus when in public and engaged in essential activities by reducing the spread of respiratory droplets. And because it is not always possible to maintain at least 6 feet of distance, members of the public and workers should wear face coverings while engaged in essential activities and other activities when others are nearby. For clarity, although wearing a face covering is one tool for reducing the spread of the virus, doing so is not a substitute for sheltering in place, physical distancing of at least 6 feet, and frequent hand washing.
THANK YOU

“When I is Replaced by We, Illness Becomes Wellness!”
Discussion: Sharing of best practices for PPE Provider Training