# 11.06 SPECIAL CIRCUMSTANCES: RESPIRATORY PANDEMIC

## ACTIVATION/DEACTIVATION OF RESPIRATORY PANDEMIC PROTOCOL

This protocol is only authorized by the County Health Officer or their designee.

## PATIENT ASSESSMENT

**Goal**: Protect EMS providers by minimizing exposure.

### Prior to Arrival

1. Using dispatch information and call type, determine whether the patient is at risk for pandemic illness. If dispatch information is limited or unavailable, initial scene assessment by a first responder should be used to determine risk level for pandemic illness.
2. Risk factors for pandemic respiratory disease may include the following: fever, cough, shortness of breath, wheezing, GI symptoms, flu-like illness, contact with a known or suspected pandemic illness positive person, or travel to affected areas as listed by the SFDPH or CDC. If the patient is undifferentiated, treat them as infected until determined otherwise.

### Assessment on Scene

1. If the patient requires immediate medical attention (e.g. cardiac arrest, severe respiratory distress, appears medically unstable) all available responders should treat the patient per relevant treatment protocols immediately after donning appropriate PPE.
2. If the patient appears stable and immediate attention is not required, only one provider should don appropriate PPE and enter the scene while the remaining crew remains outside (or at least 6 feet from patient). The initial assessing provider should be the provider with the highest level of medical training. If additional assistance is required at patient side (e.g. unstable medical condition or patient movement) the initial assessing provider should contact other crewmembers on scene by voice or radio. Additional crew members will don PPE before entering the scene.
3. Upon arrival of a transport ambulance, the crew member who will provide care in the patient compartment should contact the patient while the driver remains on standby.
4. The Emergency Medical Dispatcher (EMD) may consider providing prearrival instructions for the patient to meet the crew at the entryway of the domicile and/or outside when the patient is able and ambulatory. This is a function of the EMD only, not the first responders.

## PATIENT TREATMENT

1. An isolation mask (not N95) should be placed on patients with respiratory complaints, who are coughing or sneezing, or are at higher risk for pandemic illness.
    - If a nasal cannula is used, place isolation mask over cannula.
2. Aerosol-generating procedures such as advanced airways, nebulizer treatments, and high flow oxygen should be minimized to the extent possible. If procedures are necessary:

- Wear full PPE, including N95-or-higher respirator (not isolation mask), when performing treatment or if operating within 6 feet of the patient.
- Use exhaust fan in patient compartment.
- If **Albuterol** is generally indicated, attempt to treat with oxygen first. If respiratory distress is refractory to oxygen alone, consider use of a Metered Dose Inhaler in lieu of a nebulizer to minimize aerosolizing infectious particles. See **Protocol 2.11 Respiratory Distress: Bronchospasm** for details.
- Equipment filtration should be used to filter expired air when available.

**MEDICATIONS**

**Goal**: Conservation of medications due to anticipated shortages and minimizing exposure.

**Anticipated High-Utilization Medications**

1. Beta-2 specific bronchodilators (Albuterol).
    - Use of oxygen alone as a frontline treatment for mild respiratory distress with wheezes or use of a Metered Dose Inhaler (see Patient Treatment).
2. Normal Saline
    - Consider judicious use of fluids, such as only when SBP <90.
3. Oxygen
    - Use minimum necessary to treat hypoxia when SPO2 <94%.

**Considerations During Cardiac Arrest**

1. May limit to 3 doses of Epinephrine for all cardiac arrest rhythms.
2. May limit to 1 dose of Amiodarone.
3. Apply mechanical CPR device if available, as early as possible to minimize exposure and direct patient contact.
4. Base contact can be made after these initial medication doses for field pronouncements if you suspect resuscitation efforts to be futile, as opposed to the timeframes set forth in standard policy.
5. Discontinue chest compressions during intubation procedure to reduce exposure to aerosolized particles.

**TRANSPORT**

**Ambulance Riders**

1. Only allow essential personnel in the patient compartment to minimize exposure. Family and/or caregivers should not ride in the ambulance unless absolutely necessary, such as in the case of an infant.

**Cabin Ventilation**

1. If able, circulate air away from cab toward the patient area and out back of vehicle. Use a HEPA filter when available.

2. Isolate driver when able, keeping doors/windows tightly shut before onboarding patient.
3. If unable to isolate driver, open air vents in driver area and set rear exhaust fans to high.

**Driver Instructions**

1. If driver was involved in patient care on scene:
    - Isolated Cabin: remove/dispose all PPE, maintain hand hygiene.
    - Non-Isolated Cabin: wear isolation mask or respirator, remove all other PPE and maintain hand hygiene.
2. Driver should don appropriate PPE prior to re-contacting the patient following transport.

**Hospital Drop-Off**

1. Providers should minimize expenditure of PPE by waiting to doff PPE until the patient transfer and vehicle decontamination processes are complete.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Goal**: Utilize correct PPE for clinical scenario and conserve materials given expected shortages.

| Patient Risk Stratification for Pandemic Illness | Level of PPE |
|---|---|
| **Normal Risk**<br>Patient without the following: pandemic illness symptoms, contact with known/suspected pandemic illness patient(s), and travel to highly affected areas. | • Isolation mask<br>• Standard universal precautions |
| **Low risk**<br>Pandemic illness symptoms per SFDPH information. | • N95 respirator<br>• Eye protection<br>• Gown<br>• Gloves |
| **High Risk**<br>Low Risk criteria **plus** contact with known/suspected pandemic illness patient **or** travel to highly affected areas. | • N95 respirator<br>• Eye protection<br>• Gown<br>• Gloves<br>• Face shield or other environmental controls (if available) to improve droplet protection. |
| **Undifferentiated Patient**<br>Found down, non-responsive, language barrier, etc. | |
| **High risk procedures, and while inside vehicle for 1 hour after performing high risk procedures (including while cleaning the ambulance after the call).**<br>Examples: nebulizer treatments, CPAP, high flow oxygen, BVM, oropharyngeal suctioning, intubation, CPR. | |

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1. If there is a significant shortage of PPE items, consider reusing isolation mask, N95's, gowns, glasses and eye shield between patients if not soiled, and if the integrity of the structure not compromised. Reusable, half or full rubber respirators may also be used, provided they are cleaned with disinfectant wipes between uses. Conservation steps include:
    - Place an isolation mask over the N95 and change the isolation mask after close contact with patients who may be infected, as opposed to discarding the N95 every time. However:
    - Discard N95 respirators following use during aerosol generating procedures.
    - Discard N95 respirators contaminated with blood, respiratory or nasal secretions, or other bodily fluids from patients.
    - If using reusable eye protection be sure to disinfect them between patients.
    - Perform hand hygiene with soap and water or an alcohol-based hand sanitizer before and after touching or adjusting the respirator.
2. Each provider agency should have a plan for minimizing transmission between providers while at work (e.g. in vehicles, fire stations, ambulance deployments, or other common area). This may include wearing PPE, such as an isolation mask, while around others and decontaminating common areas on a regular, frequent basis.
3. Other considerations for all personnel:
    - Avoid touching face (eyes, nose, mouth) while working.
    - Follow SFDPH and/or CDC guidelines for end-of-shift and home environment protection.

**CLEANING AND DECONTAMINATION**

1. The following vehicle cleaning procedure should occur after every patient during a pandemic:
    - Leave rear doors open while delivering patient and completing paperwork.
    - PPE for cleaning vehicles includes gloves, gown, mask/respirator, and eye protection.
    - Use EPA approved disinfectants for pandemic illness as directed by SFDPH and/or CDC.