Novel Coronavirus (COVID-19) Outbreak

Updated: February 12, 2020

The Centers for Disease Control and Prevention (CDC) and our Public Health departments continue to closely monitor an outbreak of a 2019 novel coronavirus (COVID-19) in Wuhan City, Hubei Province, China that began in December 2019. This coronavirus causes upper and lower respiratory symptoms often including pneumonia, and can produce severe complications for older adults and people with underlying conditions. There have been recent human-to-human transmissions, and health care workers have become infected. There are more than 44,000 global cases, and over 1000 deaths reported.

San Francisco Public Health Department is actively monitoring this rapidly evolving situation. The best up-to-date national information can be found at CDC's COVID-19 Situation Summary. For the City and County of San Francisco’s specific public health guidance and instructions for reporting, check SFCDCP Novel Coronavirus 2019

- **Novel Coronavirus (COVID-19) has been seen in multiple countries throughout the world including the US** – 99% of cases and deaths are from China. Outside of mainland China there have been only 2 deaths reported. Currently, there are 13 cases in the US of which 7 are from California. No cases have been reported in San Francisco.

- **All travelers from mainland China are being screened at our international airport (SFO)** - Passengers on direct and indirect incoming flights from mainland China will be screened by the CDC at selected U.S. international airports including SFO for symptoms of lower respiratory illness (cough or shortness of breath) and/or fever.

- **Guide Evaluation of Persons Under Investigation (PUI)** -
  - Persons with fever or signs/symptoms of lower respiratory illness (e.g. cough or SOB) AND close contact with a lab-confirmed case within 14 days of symptom onset.
  - Persons with fever and signs/symptoms of lower respiratory illness (e.g. cough or SOB) AND a history of travel from Hubei Province, China within 14 days of symptom onset.
Persons with fever and signs/symptoms of a lower respiratory illness (e.g. cough or SOB) requiring hospitalization AND a history of travel from mainland China within 14 days of symptom onset.

Once a PUI has been identified, samples to confirm or rule out Novel Coronavirus (COVID-19) are collected. Ideally, samples should be collected in a health care setting that has an Airborne Infection Isolation Room (AIIR) and by health care providers using personal protective equipment for airborne, contact, eye protection, and standard precautions.

**EMS Operational Procedures for Novel Coronavirus (COVID-19)**

**CDC Guidance: Information for Healthcare Professionals**

EMS system may become involved with these patients in several scenarios.

- PUI may need transport to a medical facility.
- Patient with a history of close contact to someone with recent travel to Hubei Province, China and fever or respiratory symptoms may contact their medical providers resulting in a 911 call.
- Patient with a history of recent travel to mainland China (excluding Hong Kong and Macau) and fever or respiratory symptoms may call 911.
- Other scenarios may occur as well ...

EMS providers should take the following precautions in these scenarios:

- Use standard, contact, airborne precautions and eye protection prior to entering scene.
  - Gloves, gown, N-95 mask, and eye protection (goggles or face shield)
  - Maintain proper donning and doffing of PPE (Personal Protective Equipment).
- Providers should use a fit-tested N-95 or P-100 respirator
- Immediately have the patient wear a surgical/facemask upon entering scene if appropriate.
- Use extra caution during aerosol generating procedures.
- **Timely Notifications:**
  1) Dispatch should notify EMS provider of possible PUI transport.
  2) EMS provider should notify receiving facility (ER) in advance of possible PUI requiring an isolation room. Should not bring patient into facility until AIIR is ready for direct admit of patient.
  3) Once evaluated by receiving facility, ER should contact SFDPH Communicable Disease Control Unit for possible Novel Coronavirus patients at 415-554-2830 (after hours and weekend number: 415-554-3613 and ask for Public Health Duty Officer On Call.

- **Non-Transport** – If patient refuses transport and meets criteria for refusal, contact SFDPH-CDCU for next steps, and your supervisor. Please consider base physician contact for all PUI refusals.
- Contact your supervisor
Orders for contaminated uniform:
1) Proper **doffing** of PPE should protect uniform from being contaminated.
2) If uniform was contaminated, place in biohazard red bag, and launder immediately at your facility.
3) If uniform is unable to be laundered requiring **dry cleaning**, then place in biohazard red bag for 24 hours and have clothing item **dry-cleaned** as needed.

- Use standard operational procedures for decontamination after the call is completed – In addition, see NHTSA recommendations: [CDC Interim Guidance for EMS Providers](https://www.cdc.gov/niosh/hhe/reports/pdfs/1995-0031-2601.pdf) that includes removal of PPE used on transport and putting on new PPE (gown, gloves, facemask, eye protection) for decontamination procedures if splashing, sprays, or possible aerosolization expected.

- For further questions, you can contact the EMS duty officer at **415-260-2591**.

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**EMS Transport of a PUI or Patient with Confirmed 2019-nCoV to a Healthcare Facility (including interfacility transport)**

If a patient with an exposure history and signs and symptoms suggestive of 2019-nCoV infection requires transport to a healthcare facility for further evaluation and management (subject to EMS medical direction), the following actions should occur during transport:

- EMS clinicians should notify the receiving healthcare facility that the patient has an exposure history and signs and symptoms suggestive of 2019-nCoV infection so that appropriate infection control precautions may be taken prior to patient arrival.
- Keep the patient separated from other people as much as possible.
- Family members and other contacts of patients with possible 2019-nCoV infection should **not** ride in the transport vehicle, if possible. If riding in the transport vehicle, they should wear a facemask.
- Isolate the ambulance driver from the patient compartment and keep pass-through doors and windows tightly shut.
- When possible, use vehicles that have isolated driver and patient compartments that can provide separate ventilation to each area.
  - Close the door/window between these compartments before bringing the patient on board.
  - During transport, vehicle ventilation in both compartments should be on non-recirculated mode to maximize air changes that reduce potentially infectious particles in the vehicle.
  - If the vehicle has a rear exhaust fan, use it to draw air away from the cab, toward the patient-care area, and out the back end of the vehicle.
  - Some vehicles are equipped with a supplemental recirculating ventilation unit that passes air through HEPA filters before returning it to the vehicle. Such a unit can be used to increase the number of air changes per hour (ACH) ([https://www.cdc.gov/niosh/hhe/reports/pdfs/1995-0031-2601.pdf](https://www.cdc.gov/niosh/hhe/reports/pdfs/1995-0031-2601.pdf)).
• If a vehicle without an isolated driver compartment and ventilation must be used, open the outside air vents in the driver area and turn on the rear exhaust ventilation fans to the highest setting. This will create a negative pressure gradient in the patient area.
• Follow routine procedures for a transfer of the patient to the receiving healthcare facility (e.g., wheel the patient directly into an Airborne Infection Isolation Room).

Documentation of patient care

• Documentation of patient care should be done after EMS clinicians have completed transport, removed their PPE, and performed hand hygiene.
  o Any written documentation should match the verbal communication given to the emergency department providers at the time patient care was transferred.
• EMS documentation should include a listing of EMS clinicians and public safety providers involved in the response and level of contact with the patient (for example, no contact with patient, provided direct patient care). This documentation may need to be shared with local public health authorities.

Cleaning EMS Transport Vehicles after Transporting a PUI or Patient with Confirmed 2019-nCoV

The following are general guidelines for cleaning or maintaining EMS transport vehicles and equipment after transporting a PUI:

• After transporting the patient, leave the rear doors of the transport vehicle open to allow for sufficient air changes to remove potentially infectious particles.
  o The time to complete transfer of the patient to the receiving facility and complete all documentation should provide sufficient air changes.
• When cleaning the vehicle, EMS clinicians should wear a disposable gown and gloves. A face shield or facemask and goggles should also be worn if splashes or sprays during cleaning are anticipated.
• Ensure that environmental cleaning and disinfection procedures are followed consistently and correctly, to include the provision of adequate ventilation when chemicals are in use. Doors should remain open when cleaning the vehicle.
• Routine cleaning and disinfection procedures (e.g., using cleaners and water to pre-clean surfaces prior to applying an EPA-registered, hospital-grade disinfectant to frequently touched surfaces or objects for appropriate contact times as indicated on the product’s label) are appropriate for 2019-nCoV in healthcare settings, including those patient-care areas in which aerosol-generating procedures are performed.
• Products with EPA-approved emerging viral pathogens claims are recommended for use against 2019-nCoV. These products can be identified by the following claim:
“[Product name] has demonstrated effectiveness against viruses similar to 2019-nCoV on hard non-porous surfaces. Therefore, this product can be used against 2019-nCoV when used in accordance with the directions for use against [name of supporting virus] on hard, non-porous surfaces.”

This claim or a similar claim, will be made only through the following communications outlets: technical literature distributed exclusively to health care facilities, physicians, nurses and public health officials, “1-800” consumer information services, social media sites and company websites (non-label related). Specific claims for “2019-nCoV” will not appear on the product or master label.

See additional information about EPA-approved emerging viral pathogens claimsexternal icon.

- If there are no available EPA-registered products that have an approved emerging viral pathogen claim, products with label claims against human coronaviruses should be used according to label instructions.
- Clean and disinfect the vehicle in accordance with standard operating procedures. All surfaces that may have come in contact with the patient or materials contaminated during patient care (e.g., stretcher, rails, control panels, floors, walls, work surfaces) should be thoroughly cleaned and disinfected using an EPA-registered hospital grade disinfectant in accordance with the product label.

- Clean and disinfect reusable patient-care equipment before use on another patient, according to manufacturer’s instructions.

- Follow standard operating procedures for the containment and disposal of used PPE and regulated medical waste.

Excerpt from CDC: Interim Guidance for Emergency Medical Services (EMS) Systems and 911 Public Safety Answering Points (PSAPs) for 2019-nCoV in the United States.