

COVID-19

I am confident that you have heard about 2019 novel Coronavirus (COVID-19) as the cause of an outbreak of pneumonia in Wuhan, Hubei Province, China, which has led to several thousand confirmed and suspected cases and a tragic number of deaths. There have been cases identified all over the world, with several confirmed cases and potential cases under investigation in the United States, including New Mexico.

COVID-19 is a coronavirus, which are common throughout the world, and typically cause mild to moderate illness. COVID-19 is a member of this family, which includes SARS-CoV and MERS-CoV, that can lead to severe illness. Limited human-to-human transmission has been observed with an incubation period estimated to be about 6 to 14 days. Known and suspected symptoms include fever, difficulty breathing, cough and potentially other mild to severe respiratory symptoms including severe pneumonia. Available treatment is currently limited to supportive care.

The potential risk of infection of the US population, including EMS caregivers, is low.

PSAPs or Emergency Medical Dispatch (EMD) centers should coordinate with their local EMS agencies and medical direction to develop or utilize modified caller queries that question callers and determine the possibility that this call involves a person who may have signs or symptoms and risk factors for COVID-19. If a caller provides information about a potential patient with a travel history to high-risk areas within the past 2 weeks, or that has had close contact potential exposure to a patient / person under investigation (PUI), that information should be confidentially relayed to responding field crews.

EMS clinicians are advised to maintain a high index of suspicion in patients who present with fever and respiratory symptoms with a travel history to countries and areas considered to be high risk. Countries and areas of concern may change daily.

Routine exposure control precautions will offer protection to first responders. **It would be good practice to assure that N95 fit-testing has been completed for all EMS caregivers.**

New Mexico Emergency Medical Services

COVID-2019 Preparedness and Guidance for 911 Call Centers, 911 EMS Response, Decontamination, and Transfer of Highly Suspected or Confirmed COVID-19 Patients

The New Mexico Department of Health Emergency Medical Systems Bureau strongly recommends that Emergency Medical Services (EMS) Medical Directors and EMS Agency supervisory personnel prepare for the possibility of dealing with COVID-19 by utilizing, in addition to this document, the CDC publications “Resources for Hospitals and Healthcare Professionals Preparing for Patients with Suspected or Confirmed COVID-19” and “Interim Guidance for Emergency Medical Services (EMS) Systems and 911 Public Safety Answering Points (PSAPs) for COVID-19 in the United States” both of which are referenced in this document.

- <https://www.cdc.gov/coronavirus/2019-ncov/hcp/preparedness-checklists.html>
- <https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-for-ems.html>

911 (PSAP) and other EMS Call Centers

- When taking a call, all PSAP call takers should screen callers for individuals who have both signs and symptoms and risk factors for COVID-19.
 - An individual should be considered a person under investigation (PUI) for COVID-19 if they meet the following criteria:
 - Fever **or** symptoms of lower respiratory illness (e.g. cough, shortness of breath) in any person who has had close contact with a laboratory-confirmed COVID-19 patient within 14 days of symptom onset.
 - Fever **and** symptoms of lower respiratory illness in any person who has a history of travel from affected geographic areas [see link below] within 14 days of symptom onset
 - Fever with acute lower respiratory illness (e.g. pneumonia, ARDS) requiring hospitalization and without an alternative explanatory diagnosis (e.g. influenza)
 - Information on the current clinical screening criteria and affected geographic areas can be found at <https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-criteria.html>
 - If PSAP call takers have information alerting them to a person who meets these criteria, they should make sure any first responders and EMS personnel enroute to the call are made confidentially aware (i.e., cell phone or data message) of the potential for COVID-19 and any noted symptoms before the responders arrive on scene.
 - Once the responders are notified, the call taker should contact the **New Mexico Department of Health (NMDOH) Epidemiology Hotline (available 24/7/365) at (505) 827-0006** and advise NMDOH of the situation.
 - If responding at an airport or other port of entry to the United States, the PSAP should notify the CDC Quarantine Station for the port of entry. The PSAP can call the CDC’s Emergency Operations Center at 770-488-7100 to be connected with the appropriate quarantine station.

Further information for CDC Quarantine Stations can be accessed at the following link:
<http://www.cdc.gov/quarantine/quarantinestationcontactlistfull.html>

- If the screening questions do not indicate that a patient meets the criteria to become a PUI, the call taker should proceed as per normal procedures and pre-arrival instruction guidelines.

911 EMS Response and Transport

- The New Mexico Department of Health EMS Bureau recommends that, especially in larger services, a limited number of crews and units be designated for response to a caller with symptoms and risk factors to limit exposure to as few as individuals as possible.
- If advised of a call taker's concern about the possibility of COVID-19 while enroute to a patient's location, EMS caregivers should don appropriate personal protection equipment (PPE) that meets the CDC guidelines. Drivers who provide patient care should also wear all recommended PPE. The CDC guideline states that all healthcare providers should follow standard, contact, and airborne precautions, including:
 - A single pair of disposable patient examination gloves. Change the gloves if they become torn or heavily contaminated.
 - A disposable isolation gown.
 - Respiratory protection that is at least as protective as a fit-tested NIOSH-certified disposable N95 filtering facepiece respirator.
 - If reusable respirators (e.g., powered air purifying respirator/PAPR) are used, they must be cleaned and disinfected according to manufacturer's reprocessing instructions prior to re-use.
 - Eye protection (i.e. goggles or disposable face shield that fully covers both the front and sides of the face).
- If the driver has provided patient care (e.g. assisting with moving the patient or assessment) and is clad in PPE, they should remove their face mask or goggles, gown, and gloves (following proper doffing procedures) and perform appropriate hand hygiene. Generally, the driver should continue to use the N-95 respirator during patient transport. If the driver's area is completely isolated from the patient care compartment, the driver may doff their mask along with their other PPE. If the driver must assist with patient off-loading and transfer, then the standard PPE must be donned again.
- If information about potential for COVID-19 has not been provided by PSAP, EMS clinicians should exercise appropriate precautions when responding to any patient with signs or symptoms of a respiratory infection. Initial assessment should begin from a distance of at least 6 feet from the patient. Patient contact should be minimized until a facemask is on the patient.
- If COVID-19 risk factors are identified, patient care should be continued per local treatment and transport guidelines.
- A surgical/medical type facemask should be worn by the patient. The facemask may be worn over a nasal cannula. An oxygen mask may also be used if clinically indicated.
- Some procedures performed on COVID-19 patients could generate infectious aerosols. In particular, procedures that are likely to induce coughing (e.g., sputum induction, open suctioning of airways) should be performed cautiously and avoided if possible. EMS clinicians should exercise caution if an aerosol-generating procedure [e.g., bag valve mask (BVM) ventilation, oropharyngeal suctioning,

endotracheal intubation, nebulizer treatment, continuous positive airway pressure (CPAP), bi-phasic positive airway pressure (biPAP)], or resuscitation involving emergency intubation or cardiopulmonary resuscitation (CPR) is necessary. If possible, consult with medical control for specific guidance before performing aerosol-generating procedures.

- Donning and doffing of PPE should follow the guidance published on www.CDC.gov, <https://www.cdc.gov/hai/pdfs/ppe/ppe-sequence.pdf>
- Care should be taken during transport to minimize the risk of transmission. The patient should be kept separated from others as much as possible, and family members and other contacts should not ride in the transport vehicle. Utilize air conditioning units on non-recirculating settings, as well as exhaust fans to maximize air changes in both the driver and patient compartments of the ambulance.
- EMS clinicians should notify the receiving facility that the patient has signs, symptoms, and risk factors suggestive of COVID-19. Upon arrival, 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 should be done after EMS providers have transported, removed PPE, and performed appropriate hand hygiene. Any written documentation should match the verbal communication given to the emergency department providers at time of patient handover.
 - EMS documentation should include a listing of public safety providers involved in the response and level of contact with the patient (such as, 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 COVID-19

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.
 - The time to complete transfer of the patient to the receiving facility and complete all documentation should provide sufficient air changes.
 - Doors should remain open when cleaning the vehicle.
- When cleaning the vehicle, the NM DOH EMS Bureau recommends that clinicians wear standard PPE, including a disposable gown, gloves, N-95 mask, and face/eye protection, as splashes or sprays during cleaning are anticipated.
- Patient-care surfaces (including stretchers, railings, medical equipment control panels, and adjacent flooring, walls and work surfaces) are likely to become contaminated and should be cleaned and disinfected after transport.
- EMS providers should follow routine cleaning and disinfection procedures, including using cleaners and water to pre-clean surfaces prior to applying an EPA-approved disinfectant that is appropriate for SARS-CoV-2. This disinfectant should be applied with the instructions as indicated on the product's label. 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
- 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 and for containing and laundering used linen. Avoid shaking the linen.

Follow-up and/or Reporting Measures by EMS Clinicians After Caring for a PUI or Patient with Confirmed COVID-19

EMS clinicians should be aware of the follow-up and/or reporting measures they should take after caring for a PUI or patient with confirmed COVID-19:

- If PSAP and the hospital have not already notified the New Mexico Department of Health, EMS clinicians should notify NMDOH by calling the 24/7/365 epidemiology hotline at 505-827-0006.
- EMS personnel who have been exposed to a patient with suspected or confirmed COVID-19 should notify their chain of command to ensure appropriate follow-up.
 - Any unprotected exposure (e.g., not wearing recommended PPE) should be reported to occupational health services, a supervisor, and/or a designated infection control officer for evaluation.
 - EMS clinicians who have had contact with a COVID-19 PUI should be alert for fever or respiratory symptoms (e.g., cough, shortness of breath, sore throat). If symptoms develop, they should self-isolate and notify occupational health services and/or their public health authority to arrange for appropriate evaluation.

SUMMARY of EMS MANAGEMENT AND TRANSPORT CONSIDERATIONS:

1. If the patient exhibits symptoms of an acute febrile lower respiratory infection (fever, shortness of breath/difficulty breathing, cough). Please note, fever may not be present in all patients; those who are immunocompromised, very young, elderly or taking fever-lowering medications:
 - a. Place a surgical mask on the patient AND
 - b. Obtain a detailed travel history. Determine whether the patient has traveled to affected countries within the past 14 days, had close contact with someone under investigation for COVID-19, or has severe respiratory symptoms (ARDS, pneumonia) with no alternative explanation (e.g. influenza).
 - (i) The list of affected countries may change over time and can be confirmed at: <https://www.cdc.gov/coronavirus/2019-nCoV/>
 - (ii) Close contact is defined as being within about 6 feet, or within the same room or care area, of a patient with confirmed COVID-19 without wearing PPE for a prolonged period OR having direct contact with COVID-19 patient secretions.
2. **If there is a history consistent with concern for potential COVID-19, initiate standard contact and airborne precautions (gloves, gown, N95 respirator) and eye protection (goggles) for EMS clinicians.**
3. Notify the receiving hospital (according to local protocols) of potential infection as soon as possible to allow emergency department preparation.
4. Use caution with aerosol generating procedures. Contact medical control for guidance if possible.
5. Properly doff and dispose of PPE according to protocol.
6. Clean and disinfect using EPA registered disinfectants with known effectiveness against human coronaviruses. Leave doors open while cleaning the vehicle. Wear PPE while cleaning.
7. Waste management per policy for medical waste (red bag).
8. Continue to work with your agency infection control staff and local hospitals, emergency department and public health agencies to coordinate all response activities and notifications.

We will continue to follow this event and keep the NM EMS system as up to date as possible.

CDC website link: <https://www.cdc.gov/coronavirus/2019-nCoV/>