



**REGION 11
CHICAGO EMS SYSTEM
PROTOCOL**

Title: COVID-19

Section: Medical

Approved: EMS Medical Directors Consortium

Effective: April 3, 2020

COVID-19

I. PATIENT CARE GOALS

- A. To identify the proper EMS assessment, treatment, and transport for patients at risk for COVID-19 infection within the Region 11 EMS System.
- B. To follow current CDC, IDPH, and CDPH guidelines.
- C. To minimize any possible exposure of COVID-19 to EMS providers, Emergency Department staff, or any other patients or family in the healthcare setting.

II. PATIENT MANAGEMENT

A. CASE IDENTIFICATION

- 1. COVID-19 identification is primarily based on fever and/or symptoms of acute respiratory illness (e.g. cough and difficulty breathing), but patients may also have other viral syndrome symptoms such as chills, myalgias (muscle aches), rhinorrhea (runny nose), sore throat, nausea, vomiting, headache, abdominal pain, and diarrhea. Atypical presentations with any of the above symptoms should be considered.
- 2. Higher risk patients for COVID-19 includes those with close contact with a COVID-19 positive patient, recent travel to areas with widespread COVID-19, living in close quarters, healthcare workers, chronic medical conditions or immunocompromised state.
- 3. Emergency Medical Dispatchers (OEMC) should screen calls for suspected COVID-19 and communicate to EMS prior to their arrival on scene to allow for use of proper PPE.

B. PPE GUIDELINES

- 1. EMS providers should apply proper PPE per CDC guidelines.
 - a. **Surgical facemasks** are an acceptable alternative if N-95 or higher level respirators are in short supply.
 - b. **Respirators/N-95s** should be prioritized for procedures that are likely to generate respiratory aerosols, which would pose the highest exposure risk to the healthcare provider.
 - c. **Eye protection.** (i.e. goggles or disposable face shields that fully covers the front and side of face. Personal eyeglasses are not considered adequate eye protection).



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- d. **Gloves.** A single pair of disposable patient examination gloves that should be changed if torn or heavily contaminated.
 - e. **Isolation gown.** If there is a shortage of gowns it should be prioritized for aerosol generating procedures, care activities where splashes and sprays are anticipated and high contact patient care activities that provide opportunities for transfer of pathogens to the hands and clothes of EMS providers (e.g. moving patient onto stretcher).
2. After patient handoff at the hospital, EMS providers should safely remove PPE to prevent contamination. Discard PPE in accordance with routine procedures and perform good hand hygiene.

C. SUSPECTED COVID-19 PATIENT ASSESSMENT

1. Initial Assessment

- a. EMS providers should exercise appropriate precautions when responding to a call with signs or symptoms of a respiratory infection and apply proper PPE before entering the scene.
- b. For patients with suspected COVID-19, EMS providers should avoid exposure of multiple personnel if possible.
- c. Initial assessment should begin at a distance of at least 6 feet from the patient and a facemask should be placed on the patient for source control.
- d. Patient contact should be minimized to the extent possible until a facemask is on the patient.

2. Patient Assessment

- a. Perform Adult or Pediatric Assessment
- b. Travel history
- c. COVID-19 exposure history
- d. Past medical history
- e. Vital signs
- f. Physical examination

3. Procedures

- a. **Aerosol-Generating Procedures should be to minimized to reduce virus transmission unless exhibiting signs of severe respiratory illness.**
- b. EMS providers should exercise caution when an aerosol-generating procedure is necessary, an N-95 or higher level respirator should be used by EMS providers performing aerosol-generating procedures including bag



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valve mask (BVM) ventilation, oropharyngeal suctioning, nebulizer treatment, continuous positive airway pressure (CPAP) or resuscitation involving CPR.

- c. If possible, Aerosol Generating Procedures should be done with the rear doors of the ambulance open and the HVAC system active or in a negative pressure room away from patient care areas.
- d. At the hospital, nebulizers and CPAP should be temporarily discontinued between the ambulance and the patient room to minimize disease transmission.
- e. BVMs and other ventilator equipment should be equipped with HEPA or other viral filter to filter expired air if available.

4. Treatment

a. **Oxygenation**

- i. Maintain SpO₂ > 90%.
- ii. Nasal cannula with surgical mask over the cannula is the preferred method of oxygenation. May use higher than normal flow rates (up to 7 liters per minute) if needed to maintain desired oxygen saturation.
- iii. If persistently hypoxic despite nasal cannula apply non-rebreather.

b. **Nebulization Therapy**

- i. Restrict nebulizer treatments to patients who are exhibiting signs of severe respiratory distress.
- ii. Metered dose inhaler (MDI) with a spacer, if available, is the preferred route for medication administration
 - 1. Consider 4-6 puffs per dose of MDI with spacer, if available, may repeat every 5 minutes as needed.
 - 2. Use of patient's MDI with spacer if available is preferred.
- c. **Continuous Positive Airway Pressure (CPAP)** should be used with caution in suspected COVID-19 patients due to increased transmission risk.
- d. **Endotracheal intubation** should be avoided in suspected COVID-19 patients due to increased transmission risk. Supraglottic airway placement should be performed for advanced airway management during



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resuscitation.

- e. **Epinephrine:** For patients with severe respiratory distress and wheezing, epinephrine IM can be used for rescue therapy.

5. Transportation of Suspected COVID-19 Patients

- a. Transport to the closest appropriate Emergency Department.
- b. Close door/window between driver and patient compartment.
- c. During transport, vehicle ventilation in both compartments should be on non-circulated mode and rear exhaust fan on.
- d. If a vehicle without an isolated patient compartment and ventilation must be used, open the outside air vents in the driver area and turn on the rear exhaust ventilation fans to create a negative patient gradient in the patient area.
- e. Online Medical Control should be consulted for any questions regarding patient care and all refusals of transport.
- f. Pre-notification to the receiving hospital is mandatory to allow for room and equipment preparation.
- g. EMS must coordinate with receiving hospital staff prior to entering the hospital to minimize exposure.
- h. Family members and contacts should not ride in the ambulance if possible, but should wear a mask if their presence is critical for patient care.

III. DOCUMENTATION

- A. Document any patient with suspected COVID-19 in the narrative.
 - 1. For CFD select "Suspected Case of Corona/COVID-19" on the Special Event/Situation tag under Incident.
- B. Document all EMS and public safety providers involved in the care of a suspected COVID-19 patient, level of contact, and level of PPE worn during treatment for follow-up of testing results
- C. Positive COVID-19 tests should be reported from the hospital to local health department. The hospital should notify the EMS Agency Designated Infection Control Officer to facilitate appropriate follow-up for agency personnel.
- D. EMS Agencies should develop policies for assessing exposure risk and management



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of EMS providers that are exposed to and that become infected with COVID-19.

III. CLEANING

- A. After patient transport, leave the rear doors of the ambulance open to remove potentially infectious particles. The time to complete patient transfer, cleaning, and documentation should provide sufficient air changes.

- B. Routine cleaning and disinfectant procedures are appropriate. When cleaning the vehicle, EMS providers should wear a disposable gown and gloves. A facemask and eye protection should be used if splashes or sprays during cleaning are anticipated.

- C. All surfaces that may have come in contact with the patient or materials contaminated during patient care should be thoroughly cleaned and disinfected (e.g. stretcher, rails, control panels, floors, walls, work surfaces).

- D. EPA registered disinfectants for emerging viral pathogens should be used.

IV. RESTOCKING

- A. EMS agencies should maintain a stock of PPE for their EMS providers as the primary means of replacement.

- B. Hospitals should replace individual PPE after patient transport if the same level of PPE is available.