



Recommendations for EMS for possible or confirmed COVID-19

Patient assessment

If information about potential for COVID-19 has not been provided, 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 2 meters from the patient, if possible.
- Patient contact should be minimized to the extent possible until a facemask is on the patient.
- If COVID-19 is suspected, use PPE (see attached table).
- If COVID-19 is not suspected, EMS should follow standard procedures.
- A facemask should be worn by the patient for source control. If a nasal cannula is in place, a facemask should be worn over the nasal cannula. Alternatively, an oxygen mask can be used if clinically indicated. If the patient requires intubation, see below for additional precautions for aerosol-generating procedures.

Recommended Personal Protective Equipment (PPE)

- EMS who will directly care for a patient with possible COVID-19 infection or who will be in the compartment with the patient should follow Standard, Contact and Droplet Precautions and use PPE (see table attached)
- Drivers, if they provide direct patient care (e.g., moving patients onto stretchers), should wear recommended PPE. After completing patient care and before entering an isolated driver's compartment, the driver should remove and dispose of PPE and perform hand hygiene to avoid soiling the compartment.
- If the transport vehicle does not have an isolated driver's compartment, driver should remove the face shield or goggles, gown and gloves and perform hand hygiene. A facemask should continue to be used during transport.
- All personnel should avoid touching their face while working.
- On arrival, after patient is released to the facility, EMS should remove, discard PPE and perform hand hygiene.

If a patient with a history and signs and symptoms suggestive of COVID-19 requires transport

- EMS should notify the receiving healthcare facility that the patient has signs and symptoms of COVID-19.
- Keep the patient separated from other people as much as possible.
- Isolate 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.
- 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. If the vehicle has a rear exhaust fan, use it to draw air away from cab, toward patient area, and out the back end of 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.
- 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 to create negative pressure gradient.
- Documentation of care should be done after EMS have removed their PPE, and performed hand hygiene.

Precautions for Aerosol-Generating Procedures

- Aerosol-generating procedure includes the following: 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).
- An N95 respirator should be worn for performing aerosol-generating procedures. (see table)
- BVMs, and other ventilatory equipment, should be equipped with HEPA filtration to filter expired air.
- If possible, the rear doors of the transport vehicle should be opened and the HVAC system should be activated during aerosol-generating procedures. This should be done away from pedestrian traffic.

Cleaning EMS Transport Vehicles after Transporting a PUI or Patient with Confirmed COVID-19

- 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 should provide sufficient air changes.
- When cleaning the vehicle, EMS should wear a disposable mask, gown and gloves. A face shield or goggles should be worn if splashes or sprays during cleaning are anticipated.
- Doors should remain open when cleaning the vehicle. Routine cleaning and disinfection procedures using detergent and water to pre-clean surfaces prior to applying chlorine disinfectant to frequently touched surfaces or objects. 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) should be thoroughly cleaned and disinfected.
- For chlorine concentration of 1000 ppm, use chlorine tablet according manufacturer instructions or freshly prepare from household chlorine solution (add 20 ml chlorine solution to 2 litres of water)
- Clean and disinfect reusable patient-care equipment before re-use according to manufacturer's instructions.
- Follow standard procedures for the disposal of used PPE and treat as infectious waste.
- Treat used linen as infectious, send in heat soluble bag to laundry and void shaking the linen.

Recommended Personal Protective Equipment (PPE)

Target personnel or patients	Activity	Type of PPE
Healthcare workers	Transporting suspected COVID-19 patients to the referral healthcare facility.	Medical mask Gowns Gloves Eye protection Perform hand hygiene
Driver	Involved only in driving the patient with suspected COVID-19 and driver's compartment is separated from the COVID-19 patient.	Maintain spatial distance of at least 1 m. No PPE required Perform hand hygiene
	Assisting with loading or unloading patient with suspected COVID-19 disease.	Medical mask Gowns Gloves Eye protection Perform hand hygiene
	No direct contact with suspected COVID-19 patient, but no separation between driver's and patient's compartments.	Medical mask Perform hand hygiene
Patient with suspected COVID-19 disease.	Transport to the referral healthcare facility.	Medical mask if tolerated
Cleaners	Cleaning after and between transport of patients with suspected COVID-19 disease to the referral healthcare facility.	Medical mask Gown Heavy duty gloves Eye protection (if risk of splash) Closed work shoes Perform hand hygiene