

COVID19 Patient Care Guidelines for EMS Providers

General Management

- If your PPE supply allows, all patients are to arrive at the hospitals wearing a surgical mask. If limited surgical mask supply, prioritize mask placement on patients with fever, cough, dyspnea, or other flu-like symptoms discussed in prior updates. Receiving EDs will provide patient with a mask if you don't have one available.
- In cases failing to respond to standard oxygenation techniques consider positioning patient on their side or prone to improve oxygen saturation.

Airway Management

- When high risk droplet procedures are required, the provider is recommended to wear a minimum of eye protection, gown, gloves and an N95. This may include intubation, CPAP, suction, aerosol treatments or management of symptomatic tracheostomy patients.
- If BVM ventilation of patient is required, use 2-hand mask seal and gentle reduced volume ventilation to help prevent aerosolization of virus.
- If a patient has an unstable airway, don PPE as described above and place an advanced airway. A supraglottic airway (e.g., LMA, iGel, King) creates less exposure to aerosols / droplets and is preferred. Endotracheal intubation is permitted as a backup. Consider placing a towel around a properly secured airway to help prevent sprayed droplets.
- Video laryngoscopy is preferred (if available) to help ensure distance from the patient if endotracheal intubation is required.
- Do not use delivery of high flow oxygen via nasal cannula during endotracheal intubation procedure in COVID-19 cases.
- In-line HEPA filters (where available) should be utilized during ventilation of patients with ETT or supraglottic airway. Use of these filters with CPAP or nebulizer treatments can vary with product. If using in-line sampling capnography as well, make sure the HEPA filter is placed closest to the patient and the capnography sampling connector is after the HEPA filter.

Oxygen Delivery

- Place oxygen delivery devices (nasal cannulas / non-rebreathers) under the surgical mask to help prevent aerosolization of virus, particularly if the patient is coughing.

Inhaled Medications

- If the patient has a metered dose inhaler, make sure this goes with the patient if transported. EMS may utilize patient's MDI in place of standard aerosol/nebulizer treatments to help minimize risk of these procedures in these patients.
- If nebulized treatments must be given, attempt to give in location other than the confined space of the ambulance, but also nowhere that will expose others. Ensure receiving facility is aware of the treatments you're giving in your EMS-to-Hospital report.
- Consider the use of IM epinephrine or IV magnesium per standard respiratory distress protocols for severe cases. This is indicated earlier and for milder symptoms in COVID19 patients to help minimize the risk associated with nebulized treatments.

Cardiac Arrest

- In the absence of ROSC, follow termination of resuscitation guidelines.

Transfer of Care

- To limit exposure to others in common areas, discontinue all aerosol treatments, CPAP and BVM ventilation without a HEPA filter immediately prior to entering ED and resume immediately once you're in the patient's room with the door closed.

Respiratory Clinical Pearls

- Status asthmaticus = severe prolonged asthma attack unresponsive to therapy - life threatening! Use inhalers, nebulizers (if necessary), early steroids, IV magnesium, IM epinephrine and early CPAP
- If the patient is > 50 years of age, has a history of cardiac disease, or if the patient's heart rate is > 120, Epinephrine may precipitate cardiac ischemia; use with caution
- Monitor pulse oximetry continuously during treatment and transport.
- A silent chest in a patient with respiratory distress is a sign of imminent respiratory arrest!
- Be alert for respiratory depression in COPD patients on prolonged high flow oxygen; they have a hypoxic drive to breathe. That being said, DO NOT withhold oxygen from hypoxic patients.
- If Albuterol and/or a DuoNeb is given, monitor the patient's cardiac rhythm.
- Ensure a long enough expiration time when ventilating COPD or asthma patients to prevent breath stacking and allow CO₂ elimination.
- Albuterol and Ipratropium *can* be given down an ETT or Tracheotomy during ventilation if there is evidence of bronchoconstriction. However, the absorption of medication by these routes is poor and unpredictable; use this method only if no other option remains.
- Continuous SaO₂ monitoring should be utilized in all patients with inadequate respiratory function.
- ETCO₂ measurement is mandatory with all methods of intubation. Document results of SaO₂ as well.
- Limit intubation attempts to 2 per patient max.
- If unable to intubate, continue BVM ventilations, transport, and notify receiving hospital early.
- Do not assume hyperventilation is psychogenic - use oxygen, not a paper bag.
- Consider c-collar to help maintain airway placement for all managed airway patients. Recheck the position of the airway and the adequacy of ventilation each time you move the patient; it is easy for the airway to slip out of place!
- Consider the use of intubation aids such as a bougie or video laryngoscope to facilitate endotracheal intubation.

Purpose

To identify patients that are safe to assess and not transport to a hospital during widespread cases of confirmed COVID-19 patients.

Indication for COVID-19 Non-Transport Protocol

- If local, EMS agency Medical Direction has decided to enact non-transport guidelines based on local Indications and consultation with hospital community leaders, EMA, Public Health, etc.
- Healthcare infrastructure is overwhelmed
 - Hospitals are exceeding maximum census
 - Hospitals and stand-alone emergency departments are experiencing significant overcrowding
 - Hospitals have enacted surge plans, i.e. alternative care sites

1. Initial Assessment

- If call takers advise that the patient is suspected of having COVID-19, EMS personnel should don appropriate PPE before entering the scene.
- Initial assessment should begin from a distance of at least six feet from the patient and be limited to one EMS provider if possible.

2. Patient Assessment

- Does the patient have symptoms of viral syndrome illness? (e.g. cough, nasal and chest congestion, sore throat, body aches, generalized fatigue)?
- Is the patient between 3 and 60 years old?
- Vital Signs:
 - Respiratory Rate < 22
 - O2 Sat > 94% on room air
 - Heart Rate < 110 bpm
 - Systolic BP at least 100
 - GCS 15

No to Any



Proceed with standard medical treatment protocols if "NO" to any questions

Yes to All



3. Exclusions?

- Chest pain, other than mild with coughing
- Shortness of breath with activity
- Syncope
- Diaphoretic
- Cyanotic or obvious respiratory distress
- RISK based on history alone is relative. CALL OLMC to discuss transport IF: Age > 60 or < 3, ESRD on dialysis, h/o CAD, CHF, HTN or lung disease, h/o immunocompromise

No to All



Yes to Any



Proceed with standard medical treatment protocol and transport

4. Non-Transport Decision

- Patient has a support system
- Patient has medical capacity and is legally competent to choose
- Patient consents to "no transport"
- The EMS provider notifies local public health authorities
- Patient should receive follow-up by local public health authorities, EMS agency community paramedicine program or other mechanism