Clinical Treatment for Patient with Suspected or Confirmed COVID-19

I. Applicable patients:
Patients prescreened or encountered by EMS personnel who may or may not have been pre-identified by 911/EMD as a potential COVID-19 patient:
- A. Have signs and symptoms of respiratory illness (cough, shortness of breath)
- B. Have signs and symptoms of respiratory illness (cough, shortness of breath) AND known exposure to patient with suspected COVID-19
- C. Have other signs or symptoms associated with COVID-19 (fever, chills, shaking with chills, sore throat, loss of sense of taste/smell, muscle pain, headache, profound fatigue).

II. Personal Protective Equipment:
- A. Standard, contact, and airborne precautions
- B. Surgical masks for personnel may be substituted for N95 masks when no aerosolized procedures are taking place and when not in an enclosed area (e.g. ambulance patient compartment) with actively coughing patient.
- C. Surgical masks or non-rebreather masks with supplemental oxygen for patients in respiratory distress should be applied to the patient whenever possible to perform source control. All patients regardless of COVID-19 suspicion should have surgical mask applied for source control.

III. Treatment:
- A. Follow **General Prehospital Care Protocol and other applicable protocols modified as below**
- B. Patients should receive oxygen to maintain SPO2 ≥94%
  - i. Nasal cannula should be applied under a surgical mask.
  - ii. Non-rebreather masks, for patients with hypoxia or respiratory distress should be used in lieu of surgical masks.
  - iii. Combined nasal cannula at 6 LPM and non-rebreather mask at 12-15 LPM may be considered in patients remaining hypoxic after non-rebreather alone.
- C. Assess breath sounds
  - i. For patients with clear breath sounds, continue supportive oxygenation.
  - ii. For patients with wheezing
    1. Preferred mechanism for pharmacological intervention is albuterol by metered dose inhaler (MDI) with spacer (including assisting patient with personal inhaler of albuterol), if available.
       - a. Administer 4 puffs over 30-60 seconds (equivalent to 2.5 mg of albuterol)
       - b. Dose may be repeated as needed every 5 minutes.
    2. If patient has wheezing with moderate to severe dyspnea and there is not access to MDI and the patient has a known history of asthma/COPD
       - a. Administer bronchodilator via nebulizer in open area with maximum air ventilation, with N95 or greater respirator applied to personnel, and single rescuer monitoring patient from maximal distance possible. Contact medical control for direction, as needed.

Protocol Source/References: https://www.cdc.gov/infectioncontrol/guidelines/isolation/precautions.html

b. **DO NOT** administer nebulized medication in closed ambulance.
(S) c. For patients with known history of asthma/COPD and in moderate to severe dyspnea WITH wheezing, may administer: epinephrine (1 mg per mL) 0.3 mL IM. (Skill may be BLS or MFR, depending on MCA selection.)

iii. For patients with severe respiratory distress AND a history of CHF or COPD and positioning, oxygenation, and other treatments (e.g. nitroglycerin 0.4 mg SL q 3 minutes for CHF) are not effective:
1. Apply CPAP per protocol.
2. Use HEPA filter for exhalation port, if available.
3. CPAP being utilized in the patient compartment should be limited to necessity and only when all providers in the patient compartment have N95 respirators in place.
4. Contact receiving hospital as early as possible to advise them of patient requiring CPAP to allow for appropriate transition of care upon arrival.

D. Hypotensive patients – those with SBP <90mmHg with signs and symptoms of shock
(S) i. Administer normal saline 250 mL bolus.
ii. Reassess BP and signs and symptoms of shock prior to administering more fluid
iii. Normal saline boluses of 250 mL may be repeated to a maximum of one liter as signs/symptoms persist before contacting medical control.

E. Airway management
i. **DO NOT** Intubate or perform (mouth to mask/mouth) rescue breathing on patients with suspected COVID-19.
ii. Utilize supraglottic airways with ETCO2 if an advanced airway needs to be placed.
iii. Place filter inline for ventilations or utilize a BVM with filtration capability, if available.

IV. Time sensitive patients:
A. Patients in need of immediate intervention will be treated with a minimum of gloves, eye protection, and mask

V. Transport:
A. Interventions should be performed **PRIOR** to loading into or closing patient compartment of the ambulance.
B. Only one provider will remain with patient for transport, if possible.
C. Follow COVID-19 Destination and Transport Protocol

VI. Cardiac arrest- Follow CARDIAC ARREST IN A PATIENT WITH SUSPECTED COVID-19

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