



# General EMS Guidance during COVID-19

## Protocol Continued

- Properly doff PPE, clean and disinfect equipment, and dispose of material according to agency protocol/policy.
- When supply and ability to re-supply is adequate fit-tested EMS personnel should return to use of respirators for patients with known or suspected COVID-19.
- If a patient at risk of COVID-19 is ambulatory and his or her clinical condition allows, it is acceptable to permit the patient to walk to the ambulance. Utilizing a stair chair or stretcher for a well appearing, ambulatory patient who is at risk of COVID-19 may unnecessarily place EMS personnel in close proximity to the patient.

## Guidance Regarding Aerosol-Generating Procedures in Patients with Known or Suspected COVID-19

- Aerosol generating procedures are interventions performed on patients that can generate infectious aerosols. Nebulized medications, CPAP, BVM, intubation, alternate airway placement, suctioning, CPR, etc are all aerosol-generating procedures.
- When possible, please attempt to avoid these procedures unless considered essential to treat a life-threatening illness (severe asthma not responding to other interventions, BVM in a patient not ventilating adequately, CPR needed in a pulseless patient, etc).
- EMS may (if patient condition allows) defer CPAP, respiratory therapies or other aerosol generating procedures to the receiving hospital to reduce exposure risk.
- Please consider the use of less invasive modalities if feasible – e.g. use of a supraglottic airway instead of endotracheal intubation; use of video laryngoscopy instead of direct laryngoscopy.
- The amended asthma protocols permit metered dose inhaler (MDI) use in place of nebulizers, and it is acceptable to do so for all patients during this period. Parenteral therapy (e.g. intramuscular epinephrine) may be necessary for the safer treatment of severe bronchospasm. If any questions, please discuss individual cases with direct medical oversight.
- As with EVERY patient encounter, make attempts to minimize the number of providers that must be within 6 feet of the patient
- When necessary to use these modalities, ensure all providers within proximity to the patient are wearing appropriate PPE - eye protection (goggles or face shield), gown, gloves, and an N95 mask.
- Please **DISCONTINUE** aerosol producing procedures (i.e. nebulizers or CPAP) **PRIOR TO ENTERING** an Emergency Department. This is critical to avoid unnecessary exposure to others.
- If **NOT POSSIBLE** to discontinue the procedure, please alert the receiving facility to this situation.
- If available, consider use of high-efficiency filters in-line with CPAP and on BVM exhalation ports to reduce aerosol release. Keep in mind that leaks in the BVM/CPAP mask seal may still release aerosolized infectious fluid. Filters should be of a design consistent for this intended use (e.g. inline filter for ventilator circuit). Test for fit and function prior to patient use. Carefully monitor CPAP pressure and ETCO<sub>2</sub> to assure proper function is maintained with introduction of an in-line filter. **This step may reduce aerosol release but does not take the place of appropriate PPE including an N95 with droplet/contact precautions.**

Protocol Continues

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v2020.1

Protocol Continued

## **Recommendations regarding PPE:**

- Surgical masks can be used and reused throughout a shift unless soiled, damaged, or exposed to person of concern.
- While relying on a surgical mask as PPE it is important to place a surgical mask or oxygen face mask (if clinically indicated) on any patient that has clinical concern for COVID-19
- N95 masks can be used until soiled, damaged, or exposed to a person of concern. This could mean multiple - shift use for a single N95 mask. Keep your N95 mask in a paper bag in between uses.
- Face shields may be reused after appropriate cleaning and disinfection. Adhere to recommended manufacturer instructions.

When manufacturer instructions for cleaning and disinfection are unavailable (such as for single use disposable face shields) consider:

1. While wearing gloves, carefully wipe the inside, followed by the outside of the face shield or goggles using a clean cloth saturated with neutral detergent solution or cleaner wipe.
  2. Carefully wipe the outside of the face shield or goggles using a wipe or clean cloth saturated with EPA-registered hospital disinfectant solution.
  3. Wipe the outside of face shield or goggles with clean water or alcohol to remove residue.
  4. Fully dry (air dry or use clean absorbent towels).
- Remove gloves and perform hand hygiene.

## **Helpful Links:**

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

<https://www.cdc.gov/niosh/topics/hcwcontrols/recommendedguidanceextuse.html>

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html>

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/index.html>

## 2.5A

# Asthma, COPD, RAD - Adult

## (Modified COVID-19 Pandemic Protocol)

- A modified protocol will be utilized during the COVID-19 State of Emergency to limit the use of aerosol-generating procedures (AGPs) such as nebulizers and CPAP. This is due to the associated higher risk of disease transmission to personnel in the immediate area of AGPs.
- **Nebulized medications and CPAP should be reserved for patients in moderate to severe respiratory distress who are non-responsive to, or ineligible for, non-AGP treatments (i.e. MDI, IM epinephrine, etc.)**
- If a nebulizer/CPAP/AGP must be used, personnel should utilize both airborne and droplet precautions including an N95 mask, gloves, gown, face shield and appropriately fitting goggles.
- Services may consider administration of nebulized medication while on scene outdoors or with ambulance doors open (if environment and circumstances permit).
- If necessary to administer an AGP in the ambulance, utilize exhaust fan and close the connection to the driver's compartment.
- EMS agencies unable to obtain MDI medications may administer the patient's own inhaler.
- **Temporarily discontinue nebulized medication and CPAP during the move from ambulance to hospital room.**

**ALL LISTED TREATMENTS ARE AUTHORIZED ON STANDING ORDER UNLESS OTHERWISE SPECIFIED. AEMT and paramedic treatment is inclusive of all prior treatment options.**

### EMT STANDING ORDERS

E

- Routine Patient Care.
- Administer oxygen as needed to maintain O<sub>2</sub> saturation of 94% to 99% (≥90% for COPD patients).
- Administer patient's metered dose inhaler (MDI)\*: 4 - 6 puffs, via spacer if available; Repeat every 5 minutes as needed.
- For impending respiratory failure, if available with sponsor hospital training and approval consider:
  - CPAP up to a maximum of 10cm H<sub>2</sub>O pressure support. [\*\*\*HIGH-RISK AGP\*\*\*]

### ADVANCED EMT STANDING ORDERS

A



#### \*\*If operating under 2007 National Scope of Practice

- Consider administering MDI\* 4-6 puffs, via spacer if available; May repeat every 5 minutes as needed.
- For moderate/severe symptoms not responding to MDI (if available) contact DMO for possible orders:
  - 0.3 mg (0.3 ml) Epinephrine\*\* IM (1mg/ml or 1:1,000), lateral thigh preferred
- Consider nebulized albuterol 2.5 mg & ipratropium bromide 0.5 mg ('DuoNeb') [\*\*\*HIGH-RISK AGP\*\*\*]
  - Consider repeat 'DuoNeb' every 5 minutes (3 doses total). [\*\*\*HIGH-RISK AGP\*\*\*]
- Consider nebulized albuterol 2.5 mg every 5 minutes, as needed [\*\*\*HIGH-RISK AGP\*\*]

Protocol Continues

Connecticut OEMS in conjunction with CEMSMAC has taken caution to ensure all information is accurate and in accordance with professional standards in effect at the time of publication. These protocols, policies, or procedures MAY NOT BE altered or modified without prior approval.

## 2.5A Asthma, COPD, RAD - Adult (Modified COVID-19 Pandemic Protocol)

Protocol Continued

### PARAMEDIC STANDING ORDERS

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- Consider administering MDI\*: 4-6 puffs, via spacer if available; May repeat every 5 minutes as needed.
- If 40 years old or younger, no history of cardiac disease and with moderate/severe symptoms, consider prior to nebulized medication:
  - 0.3 mg (0.3 ml) Epinephrine\*\* IM (1mg/ml or 1:1,000), lateral thigh preferred
- For severe distress after administration of IM Epinephrine, MDI or nebulized beta agonist, consider: Magnesium sulfate, 2 grams in 100ml NS given IV/IO over 10 minutes.
- If age greater than 40 years or history of cardiac disease, consider MDI or nebulized bronchodilator prior to epinephrine.
  - For patients age greater than 40 years or history of cardiac disease who do not respond to treatment or, for impending respiratory failure, consider: 0.3 mg (0.3 ml) Epinephrine\*\* IM (1 mg/ml or 1:1,000), lateral thigh preferred.
- Consider Levalbuterol 1.25mg via nebulizer, repeat every 20 minutes (4 doses total).  
[\*\*\*HIGH-RISK AGP\*\*\*]



\* MDI must contain either albuterol, levalbuterol, or a combination of albuterol/ ipratropium bromide.



\*\*With sponsor hospital approval: MDIs containing terbutaline may be administered; paramedics may substitute terbutaline 0.25mg IM or SC in place of epinephrine

### PEARLS:

- Be certain of diagnosis when considering epinephrine. The use of epinephrine in patients with known cardiac disease may increase cardiac complications.
- Chronic Obstructive Pulmonary Disease (COPD) refers to a group of lung diseases that block airflow and make breathing difficult. Emphysema and chronic bronchitis are the two most common conditions that make up COPD.
- Reactive Airway Disease (RAD) refers to a group of conditions that include reversible airway narrowing due to the external stimulation.
- Beware of patients with a “silent chest” as this may indicate severe bronchospasm and impending respiratory failure.

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**\*Refer to explanatory guidance at beginning of Appendix 4 2.5A - Adult Asthma\***

<b>ASTHMA, BRONCHIOLITIS, CROUP – EMT STANDING ORDERS</b>	
<b>E</b>	<ul style="list-style-type: none"> <li>Routine Patient Care.</li> <li>If breathing is adequate, administer oxygen as needed to maintain O2 saturation of 94% to 99%; increase the oxygen rate with caution and observe for fatigue, decreased mentation, and respiratory failure.</li> <li>Administer patient's metered dose inhaler (MDI)*: 4 - 6 puffs, via spacer if available; Repeat every 5 minutes as needed</li> <li>For patients ≤ 2 who present with increased work of breathing and rhinorrhea, provide nasal suctioning with saline drops and bulb syringe. <b>[*** HIGH-RISK AGP***]</b></li> </ul>
<p>↓</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 5px auto;">             Wheezing ≥ 2 years or history of asthma         </div> <p>NO ↓</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 5px auto;">             Wheezing &lt; 2 years old         </div> <p>NO ↓</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 5px auto;">             History of stridor or barky cough         </div>	<div style="background-color: #ffff00; padding: 5px;"> <p><b>ASTHMA – ADVANCED EMT STANDING ORDERS</b> If operating under 2009 National Scope of Practice</p> <p style="font-size: 48px; text-align: center;"><b>A</b></p> <ul style="list-style-type: none"> <li>Consider administering MDI*: 4-6 puffs, via spacer if available; Repeat every 5 minutes as needed</li> <li>For moderate/severe symptoms not responding to MDI (if available) and no history of cardiac disease, consider: 0.01 mg/kg (0.01 ml/kg) Epinephrine IM (1 mg/ml or 1:1,000 concentration). Maximum dose &lt;25kg is 0.15 mg or &gt;25 kg is 0.3 mg.</li> <li>Consider nebulized albuterol 2.5 mg &amp; ipratropium bromide 0.5 mg ('DuoNeb'); may repeat every 5 minutes (max 3 doses total) <b>[*** HIGH-RISK AGP***]</b></li> <li>Consider nebulized albuterol 2.5 mg every 5 minutes, as needed. <b>[*** HIGH-RISK AGP***]</b></li> <li>For patients who do not respond to treatments, or for impending respiratory failure, consider: CPAP, See <a href="#">CPAP 5.2 Procedure</a>. <b>[*** HIGH-RISK AGP***]</b></li> </ul> </div> <div style="background-color: #ff0000; color: white; padding: 5px;"> <p><b>ASTHMA – PARAMEDIC STANDING ORDERS</b></p> <p style="font-size: 48px; text-align: center;"><b>P</b></p> <ul style="list-style-type: none"> <li>For severe distress after administration of IM Epinephrine, MDI or nebulized beta agonist, consider Magnesium sulfate 40 mg/kg in 100 ml normal saline IV/IO over 20 minutes.</li> </ul> </div> <div style="background-color: #ff0000; color: white; padding: 5px;"> <p><b>BRONCHIOLITIS – PARAMEDIC STANDING ORDERS</b></p> <p style="font-size: 48px; text-align: center;"><b>P</b></p> <ul style="list-style-type: none"> <li>Provide appropriate supportive care including supplemental oxygen, suctioning, hydration and ventilatory support if indicated</li> </ul> </div> <div style="background-color: #ff0000; color: white; padding: 5px;"> <p><b>CROUP – PARAMEDIC STANDING ORDERS</b></p> <p style="font-size: 48px; text-align: center;"><b>P</b></p> <p>Consider:</p> <ul style="list-style-type: none"> <li>Dexamethasone 0.6 mg/kg by mouth or IM/IV/IO (by mouth preferred) maximum 10mg</li> <li>Croup with stridor at rest, consider:                     <ul style="list-style-type: none"> <li>Nebulized racemic epinephrine 0.5 ml of 2.25% (11.25mg) with 3 mL 0.9% NaCl OR</li> <li>Nebulized epinephrine, 5 mg of 1mg/ml (1:1,000). <b>[*** HIGH-RISK AGP***]</b></li> </ul> </li> </ul> </div>

\* MDI must contain either albuterol, levalbuterol, or a combination of albuterol/ ipratropium bromide  
Child with a "silent chest" may have severe bronchospasm with impending respiratory failure.

**PEARLS:**

- Suspected Epiglottitis: Transport patient in upright position and limit your assessment and interventions
- Bronchiolitis:
  - Incidence peaks in 2-6 month old infants.
  - Frequent history of low-grade fever, runny nose, and sneezing.
  - Signs and symptoms include: tachypnea, rhinorrhea, wheezes and / or crackles.
- Croup: Incidence peaks in children over age 6 months. Signs and symptoms include: hoarseness, barking cough, inspiratory stridor, signs of respiratory distress. Avoid procedures that will distress child.

# COVID-19

## Emergency Medical Services Non-Transport Guidance

### Purpose:

We are actively monitoring the spread and community impact of the novel coronavirus, COVID-19 on local Emergency Medical Services and Emergency Department resources. We propose a policy to identify and advise patients with suspected COVID-19 infections who activate the EMS system who do not require transport to the hospital.

### When is this policy enacted?

This is NOT a standing protocol, but may be enacted by local EMS agency Medical Direction when significant strain is recognized within the EMS or hospital system. Such strain may manifest as lack of staff or lack of resources including when:

- 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
- There is a significant shortage of available transport-capable EMS units

### Background:

COVID-19 infections in the community have the potential to overwhelm both pre-hospital and in-hospital resources. Transport of well-appearing patients, in the absence of available treatment options, will both take resources away from critically ill patients, and unnecessarily expose additional people to infection. As such, we propose a non-transport policy to allow EMS personnel to screen and advise patients who can safely remain at home.

### Where can I go for more information?

#### **CDC COVID-19 Interim Guidance for EMS:**

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

#### **CDC COVID-29 What to do if I'm Sick:**

<https://www.cdc.gov/coronavirus/2019-ncov/about/steps-when-sick.html>

**Local Resources as applicable**

# COVID-19

## Emergency Medical Services Non-Transport Guidance

### For patients with suspected COVID-19 infection

Don appropriate PPE prior to patient contact,  
Minimize number of providers having contact and maintain social distancing as able.

#### Does the patient have symptoms consistent with COVID-19?

Fever  
Cough  
Shortness of breath  
Other symptoms including: fatigue, myalgias, sore throat, anosmia

YES

#### Are the patient's vital signs within the following limits?

HR <100  
RR <20 and >8  
BP >100 Systolic  
O2 Saturation >94% (ambulatory)

YES

#### Does the patient meet any of the following exclusions?

- Red flag or worrying symptoms:
  - Chest pain
  - Altered mental status
  - Seizure
  - Respiratory distress or exhaustion
  - Rapidly worsening symptoms
  - Significant wheezes, rales, or rhonchi
  - Unstable or unwell appearing based on the judgement of the EMS provider
- Patients with underlying comorbidities including:
  - Transplant, HIV, Sickle Cell Disease or other immunocompromising conditions
  - Patients receiving chemotherapy or other immunosuppressive medications
- Patient can not tolerate PO
- Patient does not agree to non-transport
- Patient does not have medical decision-making capacity.

NO

NO

YES

NO

Follow normal treatment protocols.

#### Consider Non-Transport

- Evaluate the patient's appropriateness for home care including:
  - Other caregivers at home
  - A separate room where the patient can recover
  - Access to food and other necessities
  - Medically fragile people in the home
- Consider 211, local public health, or other services as available
- Provide the patient with information on COVID-19:
  - CDC handout: "What to do if I'm Sick"
  - Number for the local public health department
  - Local COVID-19 Hotline
- Encourage the patient to call their PCP (or OB/GYN if pregnant)
- Maintain a record of patients who are not transported including basic demographics and assessment
- EMS should contact local direct medical oversight with questions



**Connecticut Emergency Medical Services  
COVID-19 Patient Non-Transport Form**

Provider: \_\_\_\_\_ Report Date: \_\_\_\_\_

Incident/Call Number \_\_\_\_\_ Ambulance Service: \_\_\_\_\_

**Patient Information**

Last name: \_\_\_\_\_ First name: \_\_\_\_\_ MI: \_\_\_\_\_

DOB: \_\_\_\_\_ Last 4 of SSN: \_\_\_\_\_

Street Address: \_\_\_\_\_

City/Town: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Gender: \_\_\_\_\_

Race/Ethnicity (check all that apply):    Asian    Native American/Alaska Native    Black/African American    White  
Native Hawaiian/Pacific Islander    Unknown    Other: \_\_\_\_\_

PCP: \_\_\_\_\_ PCP Phone Number: \_\_\_\_\_

**Clinical Screening**

Is patient a healthcare provider?    Y    N    Unk    Recent travel hx, if yes, where? \_\_\_\_\_

Contact with known COVID-19 Patient?    Y    N    Unk    Date of Symptom Onset: \_\_\_\_\_

Presenting Vital Signs: BP: \_\_\_\_\_ RR: \_\_\_\_\_ HR: \_\_\_\_\_ SPO2: \_\_\_\_\_

**Does the Patient Have COVID-19 Symptoms?**

Fever  
Shortness of breath  
Myalgias  
Others: \_\_\_\_\_

Cough  
Fatigue  
Sore throat

**Are the Patient's Vital Signs Within the Following Limits?**

BP >100 Systolic  
HR <100 BPM  
RR >8 and <20  
SPO2 >94% Ambulatory

**Does the Patient Meet any of the Following Exclusions to Non-Transport?**

- Chest pain
- Altered mental status
- Respiratory distress/failure
- Rapidly Worsening Symptoms
- Significant wheezes/ronchi/rales
- Patient cannot tolerate PO
- Patient does not agree to non-transport
- Unstable/unwell in provider's judgment
- Significant comorbidities including
  - HIV
  - Transplant patient
  - Sickle Cell Disease
  - Other immunocompromising conditions
- Patients receiving chemotherapy or other immunosuppressive medication

**Consider Non-Transport:**

Evaluate the patient's appropriateness for home care:

- Other caregivers at home
- A separate room where the patient can recover
- Access to food/water/other necessities
- Medically fragile people in the home?

Provide resources:

- 211, local public health, other resources as available
- Information on COVID-19 including:
  - CDC handout "What to do if I'm sick"
  - Local COVID hotline

Encourage the patient to call their PCP or OB/GYN (if pregnant)

**EMS should direct questions to local direct medical oversight or their Medical Director**