General EMS Guidance during COVID-19

COVID-19 Dispatch Modification for First Responders

- In an effort to reduce the exposure of emergency medical first responders, many of whom are relied upon for providing critical law enforcement and fire protection to the community, dispatch practices for first responders may be altered from what you are used to. Please be aware of how resources are being dispatched in your area of operations.

Patient at Risk for COVID-19

- When treating a patient who may be at risk for COVID-19, minimize the number of responders making patient contact and providing direct care as needed. Consider limiting the initial number of personnel entering the scene (area of patient contact) to one unless the situation dictates more (e.g. cardiac arrest).
- When first responders and the transporting ambulance arrive at the same time, the patient contact should be made by a transporting crew member unless the first responder is of a higher certification. Additional personnel should only enter when needed for care or extrication as requested by the primary responder.
- Screen all patients for COVID-19 (observing 6 feet separation during initial phase), use appropriate PPE, and place a surgical mask on any patient who screens positive for COVID-19 symptoms.
- Patient care should never be delayed if imminent risk cannot be ruled out and/or life-saving care is needed that can be provided by the first responder (CPR, hemorrhage control, etc.).
- If a patient at risk for COVID-19 is refusing transport (and for this subset of EMS patients only) EMS may dispense with obtaining a signature as part of an informed patient refusal. In these cases, document the patient's verbal informed refusal (and any witnesses present) to avoid unnecessary close contact with the patient. Urge these patients to contact their local public health authority and primary care for further guidance.

If COVID-19 is suspected, EMS providers should use all personal protective equipment (PPE), as follows:

- Facemask
  - A surgical mask is acceptable when not performing aerosol generating procedures and there is a shortage of N-95 respirators.
  - N-95 respirators or respirators that offer a higher level of protection should be used when performing or present for an aerosol-generating procedure.
- Eye protection (i.e., goggles or disposable face shield that fully covers the front and sides of the face).
  - Personal eyeglasses and contact lenses are NOT considered adequate eye protection.
- A single pair of disposable patient examination gloves. Change gloves if they become torn or heavily contaminated and,
- Isolation Gown
  - When in limited supply, gowns should be prioritized for aerosol generating procedures, and 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 clothing of EMS personnel (e.g., moving patient onto a stretcher).

Protocol Continues

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 respirator.
- 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 ETCO2 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

General EMS Guidance during COVID-19

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 O2 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_2O pressure support. [***HIGH-RISK AGP***]

ADVANCED EMT STANDING ORDERS

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

A

- 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

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

Protocol Continued

PARAMEDIC STANDING ORDERS

P

- 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.

2.5P Asthma/Bronchiolitis/Croup - Pediatric (Modified COVID-19 Pandemic Protocol)

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

ASTHMA, BRONCHIOLITIS, CROUP – EMT STANDING ORDERS

E

- Routine Patient Care.
- 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.
- Administer patient's metered dose inhaler (MDI)*: 4 - 6 puffs, via spacer if available; Repeat every 5 minutes as needed
- For patients ≤ 2 who present with increased work of breathing and rhinnorhea, provide nasal suctioning with saline drops and bulb syringe.[*** HIGH-RISK AGP***]

Wheezing ≥ 2 years or history of asthma — YES →

NO ↓

Wheezing < 2 years old — YES →

NO ↓

History of stridor or barky cough — YES →

ASTHMA – ADVANCED EMT STANDING ORDERS

A

If operating under 2009 National Scope of Practice

- Consider administering MDI*: 4-6 puffs, via spacer if available; Repeat every 5 minutes as needed
- 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 <25kg is 0.15 mg or >25 kg is 0.3 mg.
- Consider nebulized albuterol 2.5 mg & ipratropium bromide 0.5 mg ('DuoNeb'); may repeat every 5 minutes (max 3 doses total) [*** HIGH-RISK AGP***]
- Consider nebulized albuterol 2.5 mg every 5 minutes, as needed. [*** HIGH-RISK AGP***]
- For patients who do not respond to treatments, or for impending respiratory failure, consider: CPAP, See CPAP 5.2 Procedure. [*** HIGH-RISK AGP***]

ASTHMA – PARAMEDIC STANDING ORDERS

P

- 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.

BRONCHIOLITIS – PARAMEDIC STANDING ORDERS

P

- Provide appropriate supportive care including supplemental oxygen, suctioning, hydration and ventilatory support if indicated

CROUP – PARAMEDIC STANDING ORDERS

P

Consider:

- Dexamethasone 0.6 mg/kg by mouth or IM/IV/IO (by mouth preferred) maximum 10mg

Croup with stridor at rest, consider::

- Nebulized racemic epinephrine 0.5 ml of 2.25% (11.25mg) with 3 mL 0.9% NaCl OR
- Nebulized epinephrine, 5 mg of 1mg/ml (1:1,000). [*** HIGH-RISK AGP***]

* 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

NO → Follow normal treatment protocols.

YES ↓

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

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

NO → Follow normal treatment protocols.

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.

YES → NO → Consider Non-Transport

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
Cough
Fatigue
Sore throat
Others: _____

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 immunosuppresive 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