



PROTOCOL VARIANCES

Guidance for COVID-19 Treatment and Transport



September 9, 2020

The following are updated variances for the 2020 SPEMS Protocols for dealing with COVID-19 in the pre-hospital setting and pertains to all levels of practice within the SPEMS Protocols.

These variances become effective immediately and will continue until the Medical Director deems that the COVID-19 threat has been eliminated.

****This variance replaces the variances dated March 23, 2020****

These protocol variances are:

- Insertion of the **Suspected COVID-19 Treatment/Transport Algorithm dated 9/9/2020**
- Insertion of the **Non-Transport Guidance for Minor Cases of Suspected COVID-19 Algorithm dated 9/9/2020**
- Insertion of the **COVID-19 Treatment Supplements dated 9/9/2020**
- To the equipment list of all levels of the SPEMS Protocols:
 - **Add “2 – Albuterol Metered Dose Inhalers (MDIs) (90mcg per activation) (As available)”**
 - This medication should be added to each ambulance as soon as possible. This may be difficult to find but each EMS service should make every effort to find and stock this as soon as possible. It is imperative that patients with suspected COVID-19 NOT be given medications via a nebulizer.
 - It will not be a violation of protocol if an EMS service cannot find this medication. If unable to obtain, EMS services shall maintain documentation of backorder from their vendor.
 - Procedure should be followed as detailed in the COVID-19 Treatment Supplements dated 9/9/2020
 - **Add “2 - HEPA or Bacterial/Viral (B/F) Nebulizer Assemblies” (Optional)(As available)**

Surgical Mask Recommendation: The American College of Emergency Physicians (ACEP) now recommends that EMS personnel wear surgical masks for all patient contact, if available. These masks can be used for an entire shift unless contaminated. All personnel should use an N-95 mask for all exposure to possible COVID-19 patients.

Again, these variances become effective immediately and will remain in effect until further notified by Medical Direction.

A copy of this page, both algorithms dated 09/09/2020 and the COVID-19 Treatment Supplements dated 09/09/2020 must be inserted into each official copy of the SPEMS Protocols.

Dr. Charles Addington II, D.O.
SPEMS Medical Director

*Non-Transport Guidance for Minor Cases of Suspected CoVID -19



* Does patient present with high suspicion of CoVID-19?

YES

NO

* Suspected CoVID-19 Criteria:

History

- Flu-like symptoms
- Contact with CoVID-19 patient

Signs/Symptoms

- Temperature > 100.4°
- Nasal congestion or runny nose
- Cough
- Chills
- Weakness and/or flu-like symptoms
- Body aches
- Shortness of breath
- Fatigue
- Headache
- Acute loss of taste/smell
- Nausea, vomiting, diarrhea

Familiarize yourself frequently with the CDC's evolution of the current CoVID-19 S/S

** EMS Checklist: Safe to leave at home?

- Is the patient stable enough to receive care at home?
- Does the patient meet all the criteria in the algorithm?
- Does the patient have access to appropriate caregivers?
- *Recommended:* Is there separate bedroom or living area where the patient can recover isolated from other family members?
- Does the patient have access to food, phone, and other necessities?
- Does the patient and other family members/caregivers have access to appropriate PPE (minimum, gloves and facemask) and are capable of adhering to precautions as part of home care or isolation?

Universal Precautions with appropriate PPE Utilization:

- N95 mask, gloves, eye protection, gown
- Limit patient contact to one provider if at all possible
- All providers should attempt to maintain a distance of 6 feet or more when feasible and does not interfere with indicated patient care

- Is the pt between the ages of 18 and 60?
- Is the respiratory rate between 8 and 20/min
- Is the pulse Oximeter $\geq 94\%$ on room air?
- Is the pulse rate $\leq 120/\text{min}$?
- Is the SBP $\geq 100 \text{ mmHg}$?
- Does the patient have a temperature $\geq 100.4^\circ$ (either confirmed by EMS or home testing)?
- *Does the patient have one or more symptoms noted in the "Suspected CoVID-19 Criteria" section listed above?

NO to ANY

YES to ALL

- Does the pt report any of the following:
- Chest pain
 - Shortness of breath
 - Syncope

YES

Refer to appropriate algorithm/protocol

NO

The patient is safe not to be transported:

- Discuss non-transport risks, self-isolation (CDC guidelines), and when to seek further care (see checklist**)
- Patient must agree not to be transported, be of sound mind and judgement, and have an appropriate support system in place (see checklist**)

Transport or contact Medical Control if the patient does NOT meet or can not comply with the above criteria

Other Considerations:

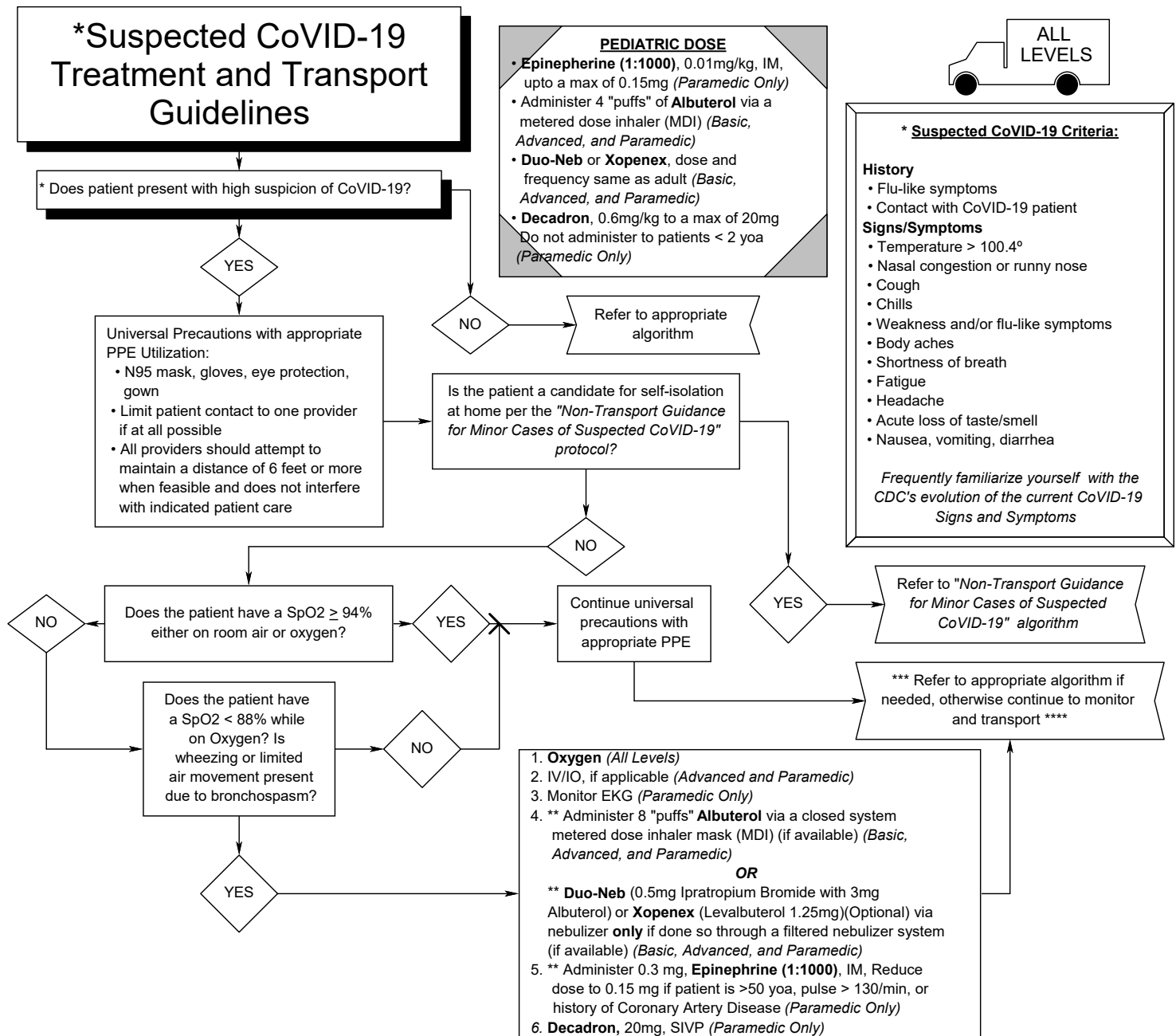
- For non-transports, the patient must be fully alert and able to make sound decisions as with any other patient refusal.
- Ensure that the patient does not have any obvious indications of experiencing an exacerbation of chronic illnesses such as COPD, CHF, Asthma, etc.
- If the patient's temperature remains above 100.4 and NSAIDs or Acetaminophen was utilized with the last 6 hours, transport should be highly encouraged.
- The patient must be able to contact 911 if needed again (functional phone, LifeAlert, or other appropriate means of communication).
- CoVID-19 is a droplet precaution viral disease. However, droplets may be aerosolized by coughing, sneezing, or aerosol type treatments (i.e. nebulizer) and remain in the air for several hours. Use an N95 mask on yourself and if the patient is transported, apply a surgical mask to the patient. Do NOT use N95 masks on these patients.

Destination Guidelines:

If patient is transported to a facility:

- Radio Report: Proceed with report as normal with one difference. Provide a covert warning to the receiving facility of the high suspicion of CoVID-19. If cellular communication is not available then the driver of the unit should enter facility to advise of the situation while the patient and provider remain in the unit awaiting further instruction.
- At Destination: Once the patient has been moved over to facility bed and patient care has been transferred remove PPE and follow your agencies Standard Operating Procedures (SOPs) for disposal or reuse.
- Ambulance Disinfection: At a minimum, and while utilizing appropriate PPE, carefully clean/disinfect any surface contacted by the patient or provider before returning to service. Follow your agencies SOPs for equipment and ambulance disinfection.

*Suspected CoVID-19 Treatment and Transport Guidelines



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- The closed system metered dose inhaler (MDI) mask should be used instead of administering medications via the "traditional" non-filtered nebulized route as defined in the CoVID-19 Treatment Supplements (see following pages) (*Basic, Advanced, and Paramedic*). However, **Duo Neb** or **Xopenex** may be administered via nebulizer, **ONLY** if done so through a filtered nebulizer system as defined in the CoVID-19 Treatment Supplements (see following pages) (*Basic, Advanced, and Paramedic*). This is to help prevent the transmission of the virus by aerosolization.
- IM **Epinephrine (1:1000)** is highly recommended for its bronchodilation effects. Consider the cautions and contraindications for the administration of **Epinephrine (1:1000)** (see SPEMS Protocol Supplements for more information) (*Paramedic Only*).

*** If respiratory status continues to decline and the airway must be secured, **INTUBATION VIA THE DIRECT LARYNGOSCOPY TECHNIQUE IS NOT RECOMMENDED**. Instead, focus on BLS airway management to reduce the risk of personal contamination from respiratory droplets. Intubation via indirect laryngoscopy (King Vision, Airtraq, etc...) or placement of a King Airway is an option, but only indicated for rare cases where BVM ventilation is inadequate.

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Suspected CoVID-19 Treatment Procedure Supplements

Epinephrine 1:1000 (1 mg per 1 mL concentration)

0.15 mg = 0.15 mL

This is the maximum single dose for:

- Pediatrics over 15 kg (33 lbs), or
- Adults with a history of cardiac disease, or
- Adults over 50 years old, or
- Adults with a heart rate exceeding 130 bpm



0.3 mg = 0.3 mL

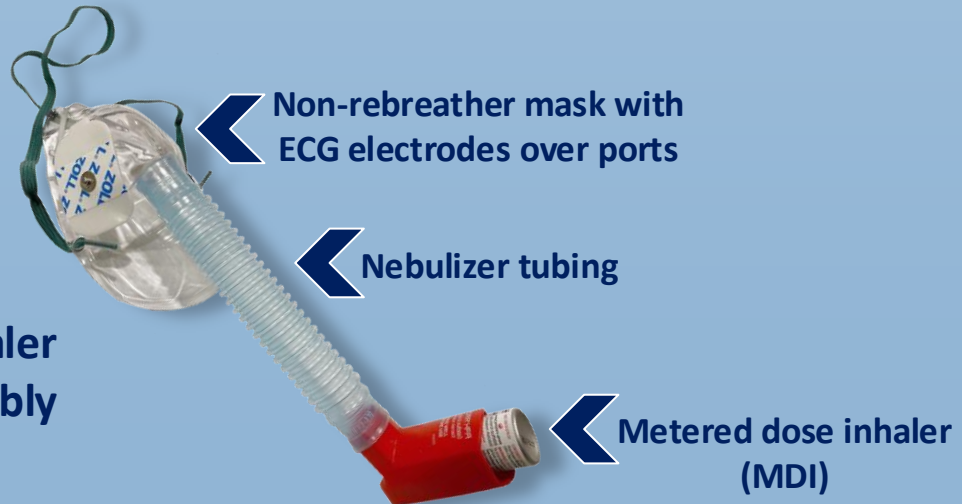
This is the maximum single dose for:

- Adults with no known history of cardiac disease, and
- Adults 50 years old and younger, and
- Heart rate under 130 bpm



Paramedic Only

Metered Dose Inhaler (MDI) Mask Assembly



Basic, Advanced, and Paramedic

- If available, the Metered Dose Inhaler (MDI) should be utilized with the above pictured closed system inhaler mask. This mask is used to help prevent the transmission of the virus by utilizing a closed system to limit aerosolization. This inhaler mask is assembled using a NRB or nebulizer mask, nebulizer spacer tube, two (2) ECG electrodes, and the MDI. Connect the corrugated spacer tube to the mask and MDI and cover the two (2) exhaust ports on the mask with the ECG electrodes. (*Basic, Advanced, and Paramedic*)
- Instructional video: <https://www.youtube.com/watch?v=8qalk59u4mc&feature=youtu.be&app=desktop>
- If MDIs are not available, **DO NOT** administer any nebulized bronchodilators unless done so utilizing a filtered nebulizer system (see following page) (*Basic, Advanced, and Paramedic*). Instead focus on basic airway management and the use of a BVM (*All levels*).
- CoVID-19 is considered as a droplet-precaution viral disease. However, droplets may be aerosolized by coughing, sneezing, or nebulized medication use (home nebulizer) and remain in the air for several hours. Use an N95 mask on yourself when making patient contact. If the patient is transported, apply a surgical mask to the patient to protect others. Do NOT use an N95 mask on these patients.
- If respiratory status continues to decline and the airway must be secured, **INTUBATION VIA THE DIRECT LARYNGOSCOPY TECHNIQUE IS NOT RECOMMENDED**. Instead, focus on BLS airway management to reduce the risk of personal contamination from respiratory droplets. Endotracheal intubation via indirect laryngoscopy (King Vision, Airtraq, etc...) or placement of a King Airway is an option, but only indicated for rare cases where BVM ventilation is inadequate.

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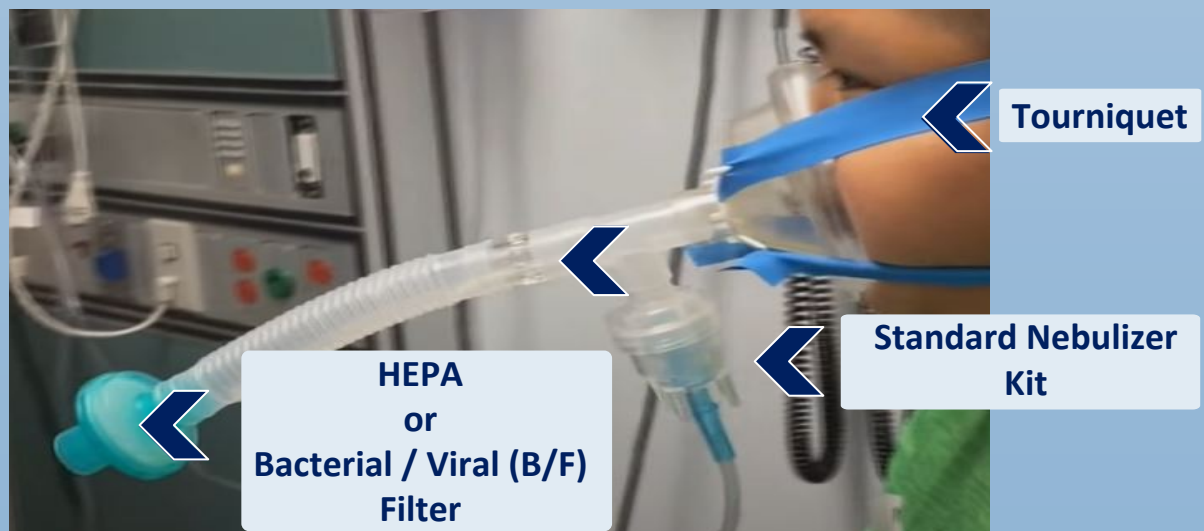
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Filtered Nebulizer Mask Assembly



Basic, Advanced, and Paramedic

- Traditional nebulizers are reported to increase droplet dispersion, causing uncertainty in use for COVID patients. A national shortage of Metered Dose Inhalers (MDI's) has led to difficulty obtaining them. However, administering a nebulized bronchodilator while utilizing a **leak free** filtered nebulized system has proven to be both effective and safer for healthcare professionals (*Basic, Advanced, and Paramedic*).
- If a nebulized bronchodilator is administered it **MUST** be done through a filtered nebulizer system that creates a seal around the patient's face throughout the entire treatment (if a mouth piece is used in the place of a vent free mask the patient must maintain a seal around mouth piece throughout the entire treatment). It is recommended to use a vent free mask either strapped to the patient's face or held firmly in place by the EMS provider (*Basic, Advanced, and Paramedic*).
- There are different ways to create a leak free filtered nebulizer system. The above pictured technique is merely a suggestion. To make a safe and effective filtered nebulizer system it must be free of leaks where the system meets the patient's face or mouth. It must also utilize a HEPA (preferred) or a Bacterial / Viral (B/F) Filter located at the exhaust end of the system. If constructed adequately there should not be signs of the nebulized bronchodilator (fog) exiting anywhere from the filtered nebulizer system.
- Instructional video:* [k o uChj U \ \) @ U ^ j](#)
- If MDIs or an effective filtered nebulizer system are not available, **DO NOT** administer any nebulized bronchodilators. Instead focus on basic airway management and the use of a BVM (*All levels*).
- If respiratory status continues to decline and the airway must be secured, **INTUBATION VIA THE DIRECT LARYNGOSCOPY TECHNIQUE IS NOT RECOMMENDED**. Instead, focus on BLS airway management to reduce the risk of personal contamination from respiratory droplets. Endotracheal intubation via indirect laryngoscopy (King Vision, Airtraq, etc...) or placement of a King Airway is an option, but only indicated for rare cases where BVM ventilation is inadequate.
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