

METERED DOSE INHALER (MDI) PROTOCOL

This West Virginia OEMS EMERGENCY protocol is to provide guidance for EMS Operations utilizing Metered Dose Inhalers (MDI's). A global pandemic due to the novel coronavirus (COVID-19) has precipitated a surge in calls for Emergency Medical Services (EMS) related to viral syndromes. Centers for Disease Control and Prevention (CDC) guidance for EMS providers and healthcare personnel are continuously updated. All healthcare personnel should review these recommendations regularly. EMS providers may encounter a known or suspected symptomatic COVID-19 patient.

The COVID-19 virus will precipitate respiratory emergencies that may require treatment via nebulized medications. The CDC has advised that these procedures are considered "HIGH RISK" and require full PPE. Because nebulizer therapy with bronchodilators for presumptive or confirmed COVID-19 patients may not be safe due to the generation of aerosols, which increases the risk that respiratory droplets will remain in the air and spread the virus, delivery of these drugs via metered-dose inhalers (MDIs) is preferred.

Best practices for management of the COVID-19 outbreak are dynamic due to the rapidly evolving situation and changing scientific knowledge. In the interest of provider safety, infection control, and high-quality patient care, the following emergency protocol is enacted.



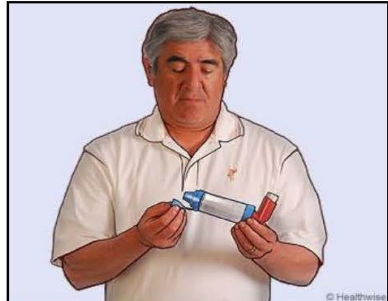

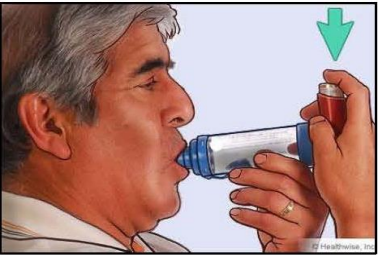
- A. MDI administration is considered an OPTIONAL treatment plan for agencies that choose to purchase them.
- B. This protocol applies to EMT, ACT, Paramedic and MCCP/MCCN level providers for appropriate patients.
- C. Carefully review information obtained by the 911 operator and utilize appropriate PPE prior to making patient contact.
- D. Perform **Initial Treatment / Universal Patient Care Protocol** to obtain pertinent information from a distance of 6 feet or greater.
- E. EMS clinicians shall utilize the WVOEMS treatment protocols 4302, 5302, and 6302 supplementing a Metered Dose Inhaler in lieu of nebulization per protocol. MDI's may be purchased based on the following:
 - 1. MDI's containing **Albuterol** and **Ipratropium Bromide (Atrovent®)** are preferred based on availability.
 - 2. If unable to purchase combination MDI's, EMS agencies are permitted to substitute **Albuterol** only MDI's during this crisis.
- F. EMS may utilize the patient's MDI when available and clinically appropriate.
- G. The use of a spacer is preferred but not required based on availability.

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- H. MDI's and Spacers are considered single patient use devices and **SHALL NOT** be utilized on subsequent patients.
- I. The use of a MDI is restricted to adult patients and shall be administered 2 puffs repeated one time in 15 minutes.

J. If respiratory distress persists, **Contact Medical Command Physician** to discuss further treatment and/or to request additional medication.



<p><u>MDI Instructions/Procedure</u></p> <ul style="list-style-type: none"> • Use of a spacer is preferred based on availability unless using the patient's own MDI. • Adult dose: 2 puffs. • May repeat dose every 15 minutes as necessary. • EMS provider supplied MDI's are considered single patient use devices, and SHALL NOT be used for subsequent patients. 	<p>1. Shake the inhaler and remove the inhaler cap.</p> 	<p>2. Place the mouthpiece of the inhaler into the spacer (if available).</p> 
<p>3. Remove the cap from the spacer.</p> 	<p>4. Hold the MDI upright, with the mouthpiece at the bottom.</p> 	<p>5. Have the patient tilt their head back slightly, and instruct them to breath out slowly and completely.</p> 
<p>6. Instruct the pt to place the mouthpiece in their mouth.</p> 	<p>7. Press down on the inhaler to spray one puff of medicine into the spacer, and instruct pt to start breathing in slowly (press first, then breathe in).</p> 	<p>8. Instruct pt to hold their breath for 5 10 secs (or as long as comfortable). Administer additional puffs in same manner.</p> 