

TERBUTALINE



HOW AND WHEN THE CHANGE WILL OCCUR

- Terbutaline will be added to ODEMSA drug boxes on **October 1, 2020** using normal drug box exchange operations.
- This process will be gradual and take time. EMS providers are advised to examine their respective drug boxes carefully, especially from **October 1, 2020** onwards.
- Please refrain from presenting multiple or large quantities of ODEMSA drug boxes for exchange, at one time, in an effort to prevent overload at hospital pharmacies.

TERBUTALINE

- **Drug Name:**
 - Terbutaline
- **Trade name:**
 - Brethine
- **Drug class:**
 - Beta-adrenergic agonist
- **Mechanism of Action:**
 - Selective beta₂-receptor agonist, relaxes smooth muscle of the airway.
- **Indications:**
 - Wheezing attributed to bronchospasm
- **Contraindications:**
 - 14 years or younger
 - Hypersensitivity to Terbutaline

TERBUTALINE

- **Concentration:**
 - 1 mg/mL (1mL)
- **Dose:**
 - 0.25 mg
 - May repeat dose every 15 minutes
 - Maximum of 2 doses
- **Route:**
 - Subcutaneous injection
- **Site of Subcutaneous Injection**
 - Common: Lateral Deltoid
- **Onset:**
 - Subcutaneous: 15 minutes
- **Side Effects**
 - **Common:**
 - Tachycardia
 - Tremors
 - Headache

TERBUTALINE INCLUSION CRITERIA

- During the COVID-19 pandemic, to reduce potential exposure via nebulized treatments, albuterol and Atrovent nebulizers have been restricted in patients 15 years and older.
- In addition to age (15 years and older), criteria for Terbutaline administration include:
 - Patient presenting with wheezing attributed to bronchospasm.
 - Patient presenting with a silent chest with history of Asthma/COPD.

PRECAUTIONS

- Monitor for the potential of cardiac arrhythmias and myocardial ischemia, especially in patients with cardiac disease.
- Due to the stimulation effects of Terbutaline, as with any sympathomimetic:
 - Evaluate carefully and ensure wheezing found upon assessment is due to true bronchospasm (Asthma/COPD) versus the “cardiac wheeze“ attributed to the pulmonary edema in heart failure.
 - Administration of bronchodilators for wheezing attributed to heart failure is inappropriate and further stresses an already poorly functioning cardiovascular system.
 - The treatment goal in heart failure is to minimize the workload of the heart and remove excess fluid.
 - The treatment goal in bronchospasm is to reduce inflammation, relax the smooth muscle and dilate the bronchiole passages.

WAVEFORM CAPNOGRAPHY

- In addition to a proper patient assessment and history taking, utilize Waveform Capnography to help with treatment decisions.
- Waveform Capnography can help distinguish between wheezing attributed to bronchospasm versus wheezing attributed to pulmonary edema in heart failure.
 - The appearance of a “Sharkfin” waveform indicates bronchospasm, due to the delay in emptying of the alveoli from bronchial inflammation.
 - The appearance of a normal box waveform in the presence of wheezing is more consistent with heart failure, as carbon dioxide is still able to diffuse across fluid in the lungs from pulmonary edema.

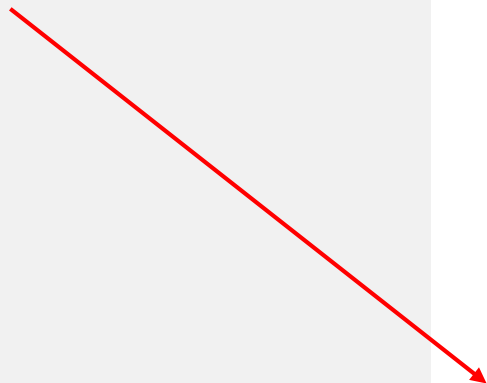
SCOPE OF PRACTICE

- Only AEMTs, Intermediates and Paramedics are permitted to administer Terbutaline.

Section
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Continued

<u>For use in patients with suspected COVID-19 infections or during times of documented or suspected community spread.</u>	FR	EMT	A	I	P
1. <u>Wear appropriate PPE</u> and perform general patient management .	•	•	•	•	•
2. Support life-threatening problems associated with airway, breathing, and circulation. Administer oxygen to maintain SPO ₂ 94-99%. Support respirations as necessary with a BVM. If on oxygen via mask, place surgical mask over oxygen mask	•	•	•	•	•
3. Place patient in a position of comfort, typically sitting upright.	•	•	•	•	•
4. Monitor pulse oximetry and capnography, if available.	•	•	•	•	•
5. If patient is wheezing and Albuterol METERED DOSE INHALER (MDI) available, administer 4-8 puffs every 20 minutes. No nebulized treatments.		•	•	•	•
6. For patients 15 years of age and older with wheezing and Albuterol MDI is not available, consider administration of Terbutaline 0.25 mg subcutaneous every 15 minutes (Max of 2 doses)			•	•	•
7. Avoid nebulized treatments. CPAP, and BiPAP should be used as a treatment of last resort (ideally with HEPA filter in place)		•	•	•	•

RESPIRATORY DISTRESS



DOCUMENTATION REMINDER

- Following turnover at hospital, a reminder to please leave documentation with Emergency Department staff (i.e. ePCR or MIVT form) to ensure clear communication and accuracy in the continuum of care.

QUESTIONS?

- The Old Dominion EMS Alliance appreciates and thanks the ODEMSA Medical Direction and ODEMSA Pharmacy Committees for their efforts in developing these protocols.
- For questions:
 - Please call the Old Dominion EMS Alliance office at (804) 560 – 3300

