

ALBUTEROL (Ventolin or Proventil)

EMSAC OCTOBER 2025

ACTION: Bronchodilator (beta2 adrenergic agonist)

- Albuterol is a sympathomimetic that is selective for beta-2 adrenergic receptors resulting in prompt bronchodilation.
- Albuterol also reduces serum potassium levels through stimulation of beta-2 adrenergic receptors.

INDICATIONS:

- Reversible bronchospasm due to asthma or COPD
- Hyperkalemia

CONTRAINDICATIONS:

- Tachydysrhythmias. Tachycardia ≥ 150 BPM in adults.
- Tachycardia ≥ 200 BPM in children.
- Known hypersensitivity to the drug.
- Use cautiously in elderly patients and patients with cardiovascular disease.

POTENTIAL SIDE EFFECTS:

- Tachydysrhythmias and palpitations
- Anxiety and nervousness
- Nausea and vomiting
- Dizziness
- Headache

ADULT DOSE/ROUTE:

Bronchospasm

- ⇒ Metered Dose Inhaler (MDI) *Preferred delivery method, if available*
 - Mild Distress: 6 puffs (complete exhale between puffs), q 5 min as needed.
 - Moderate Distress: 8 puffs (complete exhale between puffs), q 5 min as needed.
- ⇒ 5 mg/6 ml NS via nebulizer over 5 to 15 min. May repeat x 1 if no relief from symptoms.

Hyperkalemia

- ⇒ 5mg/6ml NS via nebulizer over 5 to 15 min, repeated 3 times.

PEDIATRIC DOSE/ROUTE:

Bronchospasm

- ⇒ Metered Dose Inhaler (MDI) *Preferred delivery method, if available*
 - Mild to Moderate Distress: 2-3 puffs (~6 breathes between puffs), q 5 min as needed.
- ⇒ 2.5 mg/3 ml NS via nebulizer over 5 to 15 min. May repeat x 1 if no relief from symptoms.

NOTES:

- MDI is only recommended for patients who can cooperate with the procedure.
- When using an MDI, a spacer should be utilized when available to increase efficacy.
- Use mask nebulizer if patient is unable to use hand-held nebulizer.
- Use in line bag valve mask to deliver albuterol if inadequate tidal volume to ensure good administration with a nebulizer.
- Albuterol may be administered as indicated during the use of CPAP.

Effective: XX/XX/XX
Supersedes: 10/1/21

DRAFT