

**Class**

Sympathomimetic, Bronchodilator

**Pharmacologic properties**

Albuterol is primarily a beta-2 agonist that produces bronchodilation with limited cardiovascular side effects due to its high specificity for beta-2 receptors. Onset is within 15 minutes; peak effect is in 60-90 minutes. Therapeutic effects may be active up to 5 hours.

**Indications**

- Acute bronchospasm (wheezing) due to asthma, COPD or allergic reactions [Protocol 8, Protocol 8P](#).

**Contraindications**

- Known hypersensitivity/allergy

**Precautions**

- Use cautiously in patients with coronary artery disease, hypertension, hyperthyroidism, diabetes
- Epinephrine should not be used at the same time as albuterol, however, either may be used subsequent to a failure of the other

**Side Effects/Adverse reactions**

- Nervousness
- Tremor
- Tachycardia
- Hypertension
- Nausea
- Vomiting

### Dosage and Administration

- Each unit dose delivers by nebulization 2.5 mg of Albuterol Sulfate in 3 mL of 0.083 % of total solution in adult and pediatric patients.

#### Adult

- Administer 1 vial 2.5 mg/3 mL of premixed single unit dose via nebulizer.
  - Initial dose is combined with Ipratropium Bromide (Atrovent) 0.5 mg [Medication 18](#).
  - Albuterol may be repeated according to respective protocol, if bronchospasms are still present.

#### Pediatric

- ≤ 10 kg, administer 1.25 mg (1.5 mL of vial) diluted in 2 mL of Normal Saline via nebulizer.
  - Initial dose is combined with Ipratropium Bromide (Atrovent) 0.25 mg [Medication 18](#).
  - Albuterol may be repeated according to respective protocol, if bronchospasms are still present.
- > 10 kg, administer adult dose, 1 vial (2.5 mg) of premixed single unit dose via nebulizer.
  - Initial dose is combined with Ipratropium Bromide (Atrovent) 0.5 mg [Medication 18](#).
  - Albuterol may be repeated according to respective protocol, if bronchospasms are still present.