

Class

Anticholinergic, Bronchodilator

Pharmacologic Properties

Ipratropium bromide is an anticholinergic bronchodilator classified as a quaternary ammonium compound. Anticholinergics prevent the binding of acetylcholine with muscarinic receptors on bronchial smooth muscle, inhibiting bronchoconstriction. The bronchodilation effect of ipratropium is primarily local and site specific. Since it is not well absorbed systemically, there is low potential for toxicity.

Indications

- Acute bronchospasm (wheezing) associated with asthma or COPD in adult and pediatric patients [Protocol 8](#), [Protocol 8P](#).

Contraindications

- Hypersensitivity to ipratropium, atropine or its derivatives, soya lecithin or related food products such as soybean or lecithin

Precautions

- Use with caution in patients with narrow angle glaucoma, prostatic hypertrophy, or bladder-neck obstruction
- Contact with eyes can cause irritation and precipitation of narrow angle glaucoma

Side Effects/Adverse Reactions

- Palpitations
- Nervousness
- Dizziness
- Headache
- Nausea
- GI distress
- Dry mouth
- Cough

Dosage and Administration

- Each unit dose delivers by nebulization 0.5 mg of Ipratropium Bromide in 2.5 mL of solution.

Adult

- Administer 1 vial 0.5 mg/2.5 mL premixed single unit dose via nebulizer.
 - Initial dose is combined with Albuterol (Proventil) 2.5 mg [Medication 2](#).
 - Atrovent may be repeated according to respective protocol, if bronchospasms are still present.

Pediatric

- < 10 kg, administer 0.25 mg (1.25 mL) into nebulizer barrel
 - Initial dose is combined with Albuterol (Proventil) 1.25 mg [Medication 2](#).
 - Atrovent may be repeated according to respective protocol, if bronchospasms are still present.
- > 10 kg, 0.5 mg/2.5 mL into nebulizer barrel
 - Initial dose is combined with Albuterol (Proventil) 2.5 mg [Medication 2](#).
 - Atrovent may be repeated according to respective protocol, if bronchospasms are still present.