



# EMS System for Metropolitan Oklahoma City and Tulsa 2026 Medical Control Board Treatment Protocols



Approved 9/17/25, Effective 1/15/26, replaces all prior versions

## 16X – IPRATROPIUM BROMIDE (ATROVENT®)

EMT

EMT-INTERMEDIATE 85

ADVANCED EMT

PARAMEDIC

**Class:** Parasympatholytic Bronchodilator

**Actions/Pharmacodynamics:** Atrovent is an anticholinergic agent, chemically related to atropine. Given in a nebulized form, it acts directly on the smooth muscle of the bronchial tree by inhibiting acetylcholine at receptor sites. By blocking parasympathetic action, it dilates the bronchial smooth muscle and decreases secretions. It also abolishes the vagally mediated reflex bronchospasm caused by inhaled irritants such as smoke, dust, and cold air and by a range of inflammatory mediators such as histamine.

**Indications:**      Dyspnea - Asthma (3C)  
                            Dyspnea - Chronic Obstructive Pulmonary Disease (3D)  
                            Acute Allergic Reactions (8D)  
                            Bee/Wasp Stings (8F)

**Contraindications and Precautions:** Atrovent is contraindicated in patients with hypersensitivity to atropine. It should not be used as the sole pharmacologic treatment for acute bronchospasm. By protocol, atrovent is always administered in conjunction with albuterol.

**Pharmacokinetics:** Absorption: 10% of inhaled dose reaches lower airway; approximately 0.5% of dose is systemically absorbed; onset within 5-15 minutes; peak effect in 1.5 – 2 hours; duration of effect is up to 4 – 6 hours; half – life is 1.5 – 2 hours.

**Side Effects:** Cough, reflex bronchospasm, hoarseness, nasal/oral dryness, bitter taste.

**Dosage:**      **Dyspnea - Asthma - Adult & Pediatric weight  $\geq 15$  kg (3C)**  
                            **Acute Allergic Reactions - Adult & Pediatric weight  $\geq 15$  kg (8D)**  
                            **Bee/Wasp Stings - Adult & Pediatric weight  $\geq 15$  kg (8F)**  
                            0.5 mg nebulized (with albuterol 5 mg)  
  
**Dyspnea - Chronic Obstructive Pulmonary Disease - Adult (3D)**  
                            0.5 mg nebulized (with albuterol 5 mg), may repeat twice



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## PROTOCOL 16X: Ipratropium bromide (Atrovent®)

### Dosage, cont.:

**Dyspnea - Asthma - Pediatric weight < 15 kg (3C)**

**Acute Allergic Reactions - Pediatric weight < 15 kg (8D)**

**Bee/Wasp Stings - Pediatric weight < 15 kg (8F)**

0.25 mg nebulized (with albuterol 2.5 mg)

**How Supplied:** 0.5 mg/2.5 mL nebulizer solution vials.  
(Always check concentration and dose per container at time of patient medication administration)