



8. ATROVENT (IPRATROPIUM)

a) Pharmacology

- (1) Anticholinergic (parasympatholytic) bronchodilator
- (2) Bronchodilator is site-specific, not systemic
- (3) Dries respiratory tract secretions
- (4) Most effective in combination with a beta-adrenergic bronchodilator

b) Pharmacokinetics

- (1) Improved pulmonary function in 15–30 minutes
- (2) Peak effects occur in 1–2 hours
- (3) Duration of action is usually 4–5 hours

c) Indications

- (1) Allergic reactions/anaphylaxis
- (2) Bronchial asthma
- (3) Reversible bronchospasms associated with chronic bronchitis and emphysema

d) Contraindications

- (1) Hypersensitivity to the drug
- (2) Hypersensitivity to atropine
- (3) Less than one year of age

e) Adverse Effects

- (1) More common: dry mouth, cough, or unpleasant taste
- (2) Less common: vision changes, eye burning or pain, dizziness, headache, nervousness, palpitations, sweating, trembling, chest tightness, rash, hives, or facial sweating

f) Precautions

- (1) Use with caution in patients with congestive heart failure, heart disease, hypertension, glaucoma, and with elderly patients.
- (2) May worsen the condition of glaucoma if it gets into the eyes. Having the patient close their eyes during nebulization may prevent this.
- (3) Not to be used as a single agent—must be used in combination with a beta-agonist.



g) Dosage

(2) Adult:

Single administration ONLY, 500 **mcg** (2.5 mL) by nebulized aerosol connected to 6–8 lpm of oxygen in combination with albuterol 2.5 mg.

(2) Pediatric:

Single administration ONLY. In combination with albuterol, nebulized aerosol is connected to 6–8 lpm of oxygen.

(a) **Less than 1 year of age:** contraindicated

(b) **Age 1 year but less than 2 years:**

250 **mcg** (1.25 mL) by nebulized aerosol

(c) **Age 2 and older:**

500 **mcg** (2.5 mL) by nebulized aerosol