

## O. Ipratropium Bromide (Atrovent®)

- I. Classification
  - Anticholinergic Agent
- II. Actions
  - A derivative of atropine, ipratropium bromide has bronchodilatory properties.
- III. Indications
  - Bronchodilator for the therapy of acute exacerbations of chronic obstructive pulmonary disease and asthma.
- IV. Contraindications/Cautions
  - Contraindicated in patients allergic to the drug.
- V. Adverse Effects
  - A. CNS
    - Headache, blurred vision, dizziness
  - B. Cardiovascular
    - Palpitations
  - C. Gastrointestinal
    - Dry mouth / bad taste
  - D. Other
    - Hypersensitivity reaction (urticaria, angioedema, rash, bronchospasm and oropharyngeal edema)
- VI. Administration
  - A. Adult
    - 1 unit dose (0.02% in 2.5ml) combined with Albuterol
  - B. Pediatric
    - 1 unit dose (0.02% in 2.5ml) combined with Albuterol
- VII. Onset/Duration
  - Onset 5 - 15 minutes, peak effects in 1 - 2 hours.
  - Duration of 2 hours.
- VIII. Notes
  - A. Ipratropium should not be used alone for the abatement of an acute asthmatic attack since the drug has a slower onset of effect than that of an adrenergic beta-2 agonist.
  - B. Care should be taken to ensure that the nebulizer mask fits the patient's face properly and that nebulized solution does not escape into the eyes. In patients with glaucoma or narrow anterior chambers, the administration by nebulizer of a combined ipratropium / beta-2 agonist solution should be avoided unless measures (e.g., use of swimming goggles or use of a nebulizer with a mouth piece) are taken to ensure that nebulized solution does not reach the eye. There have been isolated reports of ocular complications (i.e., mydriasis, increased intraocular pressure, angle closure glaucoma) when nebulized ipratropium either alone or in combination with an adrenergic beta 2 agonist solution has escaped into the eyes.