PRESENTATION
Nebules containing ipratropium bromide 250 micrograms in 1ml or 500 micrograms in 2ml.

ACTIONS
1. Ipratropium bromide is an antimuscarinic bronchodilator drug. It may provide short term relief in acute asthma, but beta₂ agonists (such as salbutamol) generally work more quickly. Ipratropium should be considered in acute severe or life threatening asthma or in cases of acute asthma or COPD which fail to improve with standard therapy (including salbutamol).
2. Ipratropium is considered of greater benefit in:
   a. children suffering acute asthma.
   b. adults suffering with COPD.

INDICATIONS
Acute severe or life threatening asthma (to be given concurrent with first dose of salbutamol).
Acute asthma unresponsive to salbutamol.
Exacerbation of chronic obstructive pulmonary disease (COPD), unresponsive to salbutamol.

CONTRA-INDICATIONS
None in the emergency situation.

DOSAGE AND ADMINISTRATION

<table>
<thead>
<tr>
<th>AGE</th>
<th>DOSE</th>
<th>VOLUME 1ml</th>
<th>VOLUME 2ml</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult</td>
<td>500 micrograms</td>
<td>2.0ml</td>
<td>2.0ml</td>
</tr>
<tr>
<td>2-12 years</td>
<td>250 micrograms</td>
<td>1.0ml</td>
<td>1.0ml</td>
</tr>
<tr>
<td>1 month-&lt;2 years</td>
<td>125-250 micrograms</td>
<td>0.50ml-1.0ml</td>
<td>0.50ml-1.0ml</td>
</tr>
</tbody>
</table>

- Nebulised with 6-8 litres per minute oxygen, **ONCE** only.
- Concurrent with first dose of salbutamol in acute severe or life-threatening asthma.
- Concurrent with the second or later dose of salbutamol in COPD or asthma unresponsive to salbutamol alone.
- **NOTE:** May be mixed with salbutamol in same nebuliser in life-threatening asthma.

CAUTIONS
Ipratropium should be used with care in patients with:
- glaucoma (protect the eyes from mist).
- pregnancy and breastfeeding.

SIDE EFFECTS
- Headache.
- Nausea and vomiting.
- Dry mouth.
- Difficulty in passing urine and/or constipation.
- Tachycardia/arrhythmia.
- Paroxysmal tightness of the chest.
- Allergic reaction.