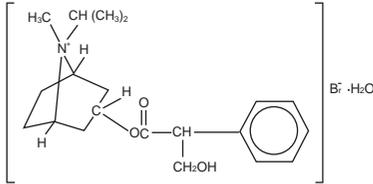


## DESCRIPTION

OPTRA HFA (Ipratropium bromide) Inhaler is a pressurized metered dose Inhaler that delivers 20mcg ipratropium bromide per actuation into the mouth piece of a specially designed actuator. OPTRA HFA (Ipratropium bromide) contains HFA 134a as propellant and does not contain any chlorofluorocarbons. Ipratropium bromide is a synthetic quaternary ammonium compound, chemically related to atropine. It is chemically described as (1R,3r,5S,8r)-3-[[[(2RS)-3-Hydroxy-2-phenylpropanoyl]oxy]-8-methyl-8-(1-methylethyl)-8-azoniabicyclo[3.2.1]octane bromide monohydrate. Its molecular formula is  $C_{20}H_{30}BrNO_3 \cdot H_2O$  and the structural formula is:



Ipratropium bromide

## QUALITATIVE & QUANTITATIVE COMPOSITION

OPTRA HFA (Ipratropium bromide) Inhaler is available for administration as:

OPTRA HFA Inhaler 20mcg  
Each metered dose contains:  
Ipratropium bromide BP...20mcg  
(as monohydrate)

## CLINICAL PHARMACOLOGY

### Mechanism of Action

Ipratropium bromide is an anticholinergic (parasympatholytic) agent it appears to inhibit the vagally mediated reflexes by antagonising the action of acetylcholine, the transmitter agent released from the vagus nerve. Anticholinergics prevent the increase in intracellular concentration of  $Ca^{++}$  which is caused by interaction of acetylcholine with the muscarinic receptor on bronchial smooth muscle.

The bronchodilation following inhalation of ipratropium bromide is induced by local drug concentrations sufficient for anticholinergic efficacy at the bronchial smooth muscle and not by systemic concentrations.

### Pharmacokinetics

#### Absorption

Ipratropium bromide is absorbed quickly after oral inhalation from a pressurized metered dose inhaler. Following inhalation about 10% to 30% of a dose is deposited in the lungs where it exerts its therapeutic effect. Mean plasma concentrations ( $C_{max}$ ) is reached within 5 minutes after inhalation. Time courses of bronchodilation and systemic pharmacokinetics do not run in parallel. The total systemic bioavailability of inhaled dose of Ipratropium bromide is estimated to be in the range of 7% to 28%.

#### Distribution

Ipratropium bromide is minimally bound (less than 20%) to plasma protein. The quaternary amine of the ipratropium ion does not cross the blood-brain barrier.

#### Metabolism

After inhalation about 77% of the systemically available dose is metabolized by ester hydrolysis (41%) and conjugation (36%).

#### Excretion

The elimination half-life is about 2 hours after inhalation. After inhalation 4.4% to 13.1% of ipratropium bromide from a metered dose inhaler is excreted as unchanged compound in urine.

## THERAPEUTIC INDICATIONS

OPTRA HFA (Ipratropium bromide) Inhaler is indicated as:

- Bronchodilator for maintenance treatment of bronchospasm associated with chronic obstructive pulmonary disease (COPD), including chronic bronchitis and emphysema.
- Adjunct to beta<sub>2</sub>-agonists in the management of acute severe asthma.

## DOSAGE AND ADMINISTRATION

### Adults (including the elderly):

Usually 1 or 2 inhalations three or four times daily, although some patients may need up to 4 inhalations at a time to obtain maximum benefit during early treatment. Patients may take additional inhalations as required, however, the total number of inhalations should not exceed 12 in 24 hours.

### Children:

Between 6-12 years: Usually 1 or 2 inhalations, three times daily.

Under 6 years: Usually 1 inhalation, three times daily. In order to ensure that the inhaler is used correctly, administration should be supervised by an adult. The recommended dose should not be exceeded.

If therapy does not produce a significant improvement, if the patient's condition gets worse or if a reduced response to treatment becomes apparent, medical advice must be sought. In the case of acute or rapidly worsening dyspnea (difficulty in breathing) a doctor should be consulted immediately.

## Instructions for Use

Patients should be instructed in the proper use of their inhaler. During inhalation, the patient should preferably sit or stand.

### Testing the inhaler:

Before using for the first time or if your inhaler has not been used for a week or more remove the mouthpiece cover by gently squeezing the sides of the cover, shake the inhaler well and release one puff into the air to make sure that it works.

### Cleaning:

Your inhaler should be cleaned at least once a week.

- Remove the metal canister from the plastic casing of the inhaler and remove the mouthpiece cover.
- Rinse the plastic casing thoroughly under warm water.
- Dry the plastic casing thoroughly inside and out.
- Replace the metal canister into the plastic casing and put on mouthpiece cover.

Do not put the metal canister in water.

## ADVERSE REACTIONS

Following adverse reactions have been reported with the use of ipratropium bromide:

**Common:** Headache, dizziness, cough, throat irritation, nausea, dryness of mouth and gastrointestinal motility disorder.

**Uncommon:** Blurred vision, mydriasis, intraocular pressure increased, eye pain, halo vision, conjunctival hyperemia, corneal oedema, glaucoma, anaphylactic reaction, hypersensitivity, angioedema of tongue, lips & face, palpitations, supra-ventricular tachycardia, bronchospasm, paradoxical bronchospasm, laryngospasm, pharyngeal oedema, dry throat, diarrhea, constipation, vomiting, stomatitis, rash, pruritus and urinary retention.

**Rare:** Accommodation disorder, atrial fibrillation, heart rate increased and urticaria.

**"To report SUSPECTED ADVERSE REACTIONS to Getz Pharma's Pharmacovigilance Section, please contact at dsafety@getzpharma.com or +92-21-38636363"**

## CONTRAINDICATIONS

Ipratropium bromide is contraindicated in patients with:

- Hypersensitivity to Ipratropium bromide or to any excipient of the product.
- Hypersensitivity to atropine or its derivatives.

## PRECAUTIONS

### Use For Maintenance Treatment Only

Ipratropium bromide is a bronchodilator for the maintenance treatment of bronchospasm associated with COPD and is not indicated for the initial treatment of acute episodes of bronchospasm where rescue therapy is required for rapid response.

### Ocular Effects

Ipratropium bromide is an anticholinergic and its use may increase intraocular pressure. This may result in precipitation or worsening of narrow-angle glaucoma. Therefore, it should be used with caution in patients with narrow-angle glaucoma. Patients should avoid spraying ipratropium bromide inhaler into the eye.

### Paradoxical Bronchospasm

Ipratropium bromide can produce paradoxical bronchospasm that can be life threatening. If this occurs, treatment with ipratropium bromide should be stopped and other treatments considered.

### Hypersensitivity Reactions, Including Anaphylaxis

Hypersensitivity reactions including urticaria, angioedema, rash, bronchospasm, anaphylaxis and oropharyngeal edema, may occur after the administration of ipratropium bromide. If such a reaction occurs, therapy with ipratropium bromide should be stopped at once and alternative treatment should be considered.

### Urinary Retention

Ipratropium bromide may cause urinary retention. Therefore, caution is advised when administering ipratropium bromide to patients with prostatic hyperplasia or bladder-neck obstruction.

### Cystic fibrosis

Patients with cystic fibrosis may be prone to gastrointestinal motility disturbances, ipratropium bromide should be used with caution in these patients.

## Pregnancy

There are no adequate and well-controlled studies of ipratropium bromide in pregnant women. Ipratropium bromide should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

## Nursing Mothers

It is not known whether ipratropium bromide is excreted into human milk. Caution should be exercised when ipratropium bromide is administered to a nursing mother.

## DRUG INTERACTIONS

- Administration of ipratropium bromide with beta-adrenergics and xanthine preparations may intensify the bronchodilator effect.
- Co-administration of ipratropium bromide with other anticholinergic drugs should be avoided, as this may lead to an increase in anticholinergic adverse effects.

## OVERDOSAGE

No symptoms specific to overdosage have been encountered. Minor systemic manifestations of anticholinergic action, including dry mouth, visual accommodation disturbances and tachycardia may occur.

## STORAGE

Store below 30°C.  
Protect from direct sunlight, heat and frost.

As with most inhaled medications in aerosol canisters, the therapeutic effect of this medication may decrease when the canister is cold.

The canister should not be broken, punctured or burnt, even when apparently empty.

The expiration date refers to the product correctly stored at the required conditions.

## HOW SUPPLIED

OPTRA HFA (Ipratropium bromide) Inhaler 20mcg is available as metered dose Inhaler with specially designed actuator. Each canister provides 200 inhalations.

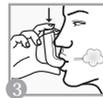
## HOW TO USE INHALER



Shake the inhaler well before use. Remove the cover from the mouthpiece and hold the inhaler upright, with the mouthpiece down.



Breathe out gently and completely, to empty lungs.



Place the mouthpiece between your teeth and close your lips around the mouthpiece tightly. Press down the top of the inhaler and breathe in deeply and slowly through your mouth. Continue breathing in steadily and deeply.



Right after the spray comes out, remove your finger off the canister. Take the inhaler out of your mouth and hold your breath for 10 seconds or as long as you can, then breathe normally.

- 5 If you have to take another inhalation, keep the inhaler upright. Wait for 1 minute, shake the inhaler again and repeat the steps 2, 3 and 4.

**After use always replace the mouthpiece cover and make sure that the cap snaps firmly into place.**

Please read the contents carefully before use.  
This package insert is continually updated from time to time.

*Keep out of reach of children.*

*To be sold on prescription of a registered medical practitioner only.*

Manufactured by:

 **Getz**  
pharma  
(PVT) LIMITED | 29-30/27,  
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