





Inhaled Anticholinergic Agents

Anticholinergic Agents: Class Overview

Indication	MOA	Common Side Effects (>3% reported frequency)	Warnings/Precautions	Counseling Points
<p>Treatment of asthma, for indicated ages.</p> <p>Use alone or with other bronchodilators, especially beta adrenergics.</p> <p>Maintenance treatment of airflow obstruction and reducing exacerbations in patients with COPD.</p>	<p>Blocks the action of acetylcholine at parasympathetic sites in bronchial smooth muscle causing bronchodilation.</p>	<p>Bronchitis</p> <p>Exacerbation of COPID</p> <p>Sinusitis</p> <p>Headache</p> <p>Dyspepsia</p> <p>Xerostomia</p> <p>UTI</p> <p>Back pain</p> <p>Dyspnea</p> <p>Flu-like symptoms</p> <p>Cough</p> <p>Rhinitis</p> <p>URI infection</p> <p>Nausea</p> <p>Pharyngitis</p> <p>Sinusitis</p> <p>Abdominal pain</p> <p>Candidiasis</p> <p>Infection</p>	<p>Paradoxical bronchospasm</p> <p>Dizziness or blurred vision</p> <p>Hypersensitivity reactions: angioedema, rash, urticaria</p>	<p>This medication is used to open the airways in lung diseases where spasm may cause breathing problems.</p> <p>This medication is not to be used to treat intense flare-ups of shortness of breath. Use a rescue inhaler and talk with your doctor.</p>

Anticholinergic Agents: Available Medications

Name (Brand)	Dosage Forms	Product Image	FDA-Approved Indicated Age	Dosage Strengths
Ipratropium (Atrovent)	NEB		N/A	0.02% solution
	HFA		N/A	17 mcg/puff
Tiotropium (Spiriva)	Respimat (soft mist)		6y+	1.25mcg /inhalation
	Handihaler			18mcg/inhalation

Anticholinergic Agents: Dosing

Name	Dosing for Asthma	Max Daily Dose
Ipratropium	<12 years: 1-2 vials every 6-8 hours (NEB), 1-2 puffs every 6 hours (HFA) >12 years: 1-2 vials every 6 hours (NEB), 2-3 puffs every 6 hours (HFA)	12 inhalations/day (HFA)
Tiotropium	Respimat: 2 inhalations (2.5mcg) once daily Handihaler: 18mcg once daily	2.5mcg 18 mcg