

Stepwise Approach for Managing Asthma in Adults and Children Older Than 5 Years of Age: Treatment

Classify Severity: Clinical Features Before Treatment or Adequate Control			Medications Required to Maintain Long-Term Control	<p>↓ Step down</p> <p>Review treatment every 1 to 6 months; a gradual stepwise reduction in treatment may be possible.</p> <p>↑ Step up</p> <p>If control is not maintained, consider step up. First, review patient medication technique, adherence, and environmental control.</p>
	Symptoms/Day Symptoms/Night	PEF or FEV ₁ PEF Variability	Preferred Daily Medications	
STEP 4 Severe Persistent	Continual Frequent	≤ 60% > 30%	High-dose inhaled corticosteroid (ICS) + long-acting beta ₂ -agonist (LABA)	<p>Goals of Therapy: Asthma Control</p> <ul style="list-style-type: none"> • Minimal or no chronic symptoms day or night • Minimal or no exacerbations • No limitations on activities; no school/work missed • Maintain (near) normal pulmonary function • Minimal use of short-acting inhaled beta₂-agonist • Minimal or no adverse effects from medications
STEP 3 Moderate Persistent	Daily > 1 night/week	> 60% – < 80% > 30%	Low-to medium-dose ICS + LABA <i>If needed—particularly in patients with recurring severe exacerbations: Medium-dose ICS + LABA</i>	
STEP 2 Mild Persistent	> 2/week but < 1x/day > 2 nights/month	≥ 80% 20–30%	Low-dose ICS	
STEP 1 Mild Intermittent	≤ 2 days/week ≤ 2 nights/month	≥ 80% < 20%	No daily medication needed	
QUICK RELIEF All Patients	<ul style="list-style-type: none"> • Short-acting bronchodilator: 2–4 puffs short-acting inhaled beta₂-agonists as needed for symptoms. • Intensity of treatment will depend on severity of exacerbation; up to 3 treatments at 20-minute intervals or a single nebulizer treatment as needed. Course of systemic corticosteroids may be needed. • Use of short-acting beta₂-agonists >2 times a week in intermittent asthma (daily, or increasing use in persistent asthma) may indicate the need to initiate (increase) long-term-control therapy. 			

Estimated Comparative Daily Dosages for Inhaled Corticosteroids

Drug	Adult	Low Daily Dose Child*	Adult	Medium Daily Dose Child*	Adult	High Daily Dose Child*
Beclomethasone CFC 42 or 84 mcg/puff	168-504 mcg	84-336 mcg	504-840 mcg	336-672 mcg	> 840 mcg	> 672 mcg
Beclomethasone HFA 40 or 80 mcg/puff	80-240 mcg	80-160 mcg	240-480 mcg	160-320 mcg	> 480 mcg	> 320 mcg
Budesonide DPI 200 mcg/inhalation	200-600 mcg	200-400 mcg	600-1,200 mcg	400-800 mcg	> 1,200 mcg	> 800 mcg
Inhalation suspension for nebulization (child dose)	0.5 mg	1.0 mg	2.0 mg			
Flunisolide 250 mcg/puff	500-1,000 mcg	500-750 mcg	1,000-2,000 mcg	1,000-1,250 mcg	> 2,000 mcg	> 1,250 mcg
Fluticasone MDI: 44, 110, or 220 mcg/puff DPI: 50, 100, or 250 mcg/inhalation	88-264 mcg	88-176 mcg	264-660 mcg	176-440 mcg	> 660 mcg	> 440 mcg
Triamcinolone acetonide 100 mcg/puff	400-1,000 mcg	400-800 mcg	1,000-2,000 mcg	800-1,200 mcg	> 2,000 mcg	> 1,200 mcg

* Children ≤ 12 years of age
Above list of medications is not all inclusive.