

# Management of Asthma in Children 5 to 11 Years

Key Components		Recommendation and Level of Evidence			
First, assess severity to decide initial therapy		Classification of Asthma Severity			
		Intermittent	Persistent (Mild)	Persistent (Moderate)	Persistent (Severe)
<b>Components of Severity</b>					
<b>Impairment</b>	Symptoms	≤ 2 days/week	> 2 days/week not daily	Daily	Throughout day
	Nighttime awakenings	≤ 2x/month	3-4x/month	> 1x/week, not nightly	Often, 7x/week
	Short-acting beta <sub>2</sub> -agonist use for symptoms	≤ 2 days/week	> 2 days/week, not daily	Daily	Several times daily
	Interference with normal activity	None	Minor limitation	Some limitation	Extremely limited
	Lung function: FEV <sub>1</sub> or peak flow FEV <sub>1</sub> /FVC	Normal FEV <sub>1</sub> between exacerbations > 80% > 85%	> 80% > 80%	60% - 80% 75% - 80%	< 60% < 75%
<b>Risk</b>	Exacerbations requiring oral steroids	0-1/year	≥ 2/year		
		<ul style="list-style-type: none"> <li>Consider severity &amp; interval since last exacerbation. Frequency &amp; severity may fluctuate over time for patient of any severity class.</li> <li>Relative annual risk of exacerbations maybe related to FEV<sub>1</sub>.</li> </ul>			
Recommended step for initiating treatment		<b>Step 1</b>	<b>Step 2</b>	<b>Step 3</b>	
		Re-evaluate control in 2-6 weeks and adjust therapy accordingly.			

On follow-up, assess control and step therapy up or down		Classification of Asthma Control		
		Well-Controlled	Not Well-Controlled	Very Poorly Controlled
<b>Components of Control</b>				
<b>Impairment</b>	Symptoms	≤ 2 days/week, but not > 1/day	> 2 days/week or many times on ≤ 2 days/week	Throughout day
	Nighttime awakenings	≤ 1x/month	≥ 2x/month	≥ 2x/week
	Short-acting beta <sub>2</sub> -agonist use for symptoms	≤ 2 days/week	> 2 days/week	Several times/day
	Interference with normal activity	None	Some limitation	Extremely limited
	FEV <sub>1</sub> or Peak Flow FEV <sub>1</sub> /FVC	> 80% > 80%	60% - 80% 75% - 80%	< 60% < 75%
<b>Risk</b>	Exacerbations requiring oral steroids	0-1x/year	≥ 2x/year	
Treatment-related adverse effects		Intensity of medication-related side effects does not correlate to specific levels of control, but should be considered in overall assessment of risk.		
Recommended action for treatment		<ul style="list-style-type: none"> <li>Maintain current step</li> <li>Regular follow-up every 1-6 months</li> <li>Consider step down if well-controlled ≥ 3 months</li> </ul>	Step up 1 step  <ul style="list-style-type: none"> <li>Re-evaluate in 2-6 weeks</li> <li>Adjust therapy accordingly</li> </ul>	<ul style="list-style-type: none"> <li>Consider oral steroids</li> <li>Step up 1-2 steps</li> </ul>

Step approach for asthma management (Use lowest treatment level required to maintain control.)	<ul style="list-style-type: none"> <li>Quick relief medication for all patients: Inhaled short-acting beta<sub>2</sub>-agonist (SABA) as needed for symptoms [A]. Intensity of treatment depends on severity of symptoms; up to 3 treatments at 20-minute intervals as needed. Short course of systemic oral corticosteroids may be needed. Use of SABA &gt; 2 days a week for symptom control (not prevention of exercise-induced bronchospasm) indicates inadequate control and the need to step up treatment.</li> <li>Patient education and environmental control at each step</li> <li>Persistent asthma: Daily long-term control therapy [A]; consult with asthma specialist step 4 or higher [D]; consider consultation at step 3 [D]</li> </ul>				
	Intermittent Step 1	Mild Persistent Step 2	Moderate Persistent Step 3	Severe Persistent Step 4	Severe Persistent Step 5
	Preferred Short-acting beta <sub>2</sub> agonist as required	<b>Preferred</b> Low-dose inhaled corticosteroid [A]  <b>Alternative</b> Cromolyn or Leukotriene receptor antagonist; or Nedocromil; or Theophylline [B]	<b>Preferred</b> Low-dose inhaled corticosteroid + either a long-acting beta <sub>2</sub> -agonist, a leukotriene receptor antagonist, or theophylline  <b>Alternative</b> Or Medium-dose inhaled corticosteroid [B]	<b>Preferred</b> Medium-dose inhaled corticosteroid + long-acting beta <sub>2</sub> -agonist [B]  <b>Alternative</b> Medium-dose inhaled corticosteroid + either a leukotriene receptor antagonist or theophylline [B]	<b>Preferred</b> High-dose inhaled corticosteroid + long-acting beta <sub>2</sub> -agonist [B]  <b>Alternative</b> High-dose inhaled corticosteroid + either a leukotriene receptor antagonist or theophylline [B]

Levels of Evidence for the most significant recommendations: A = randomized controlled trials; B = controlled trials, no randomization; C = observational studies; D = opinion of expert panel  
 This guideline lists core management steps. It is based on the 2007 National Asthma Education and Prevention Program Expert Panel Report 3, Guidelines for the Diagnosis and Management of Asthma, National Heart, Lung and Blood Institute (www.nhlbi.nih.gov). Individual patient considerations and advances in medical science may supersede or modify these recommendations.