

**Michigan Quality Improvement Consortium Guideline
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											
	Components of Severity		Intermittent	Persistent (Mild)	Persistent (Moderate)	Persistent (Severe)						
	Impairment	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 ₂ -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 ₁ FEV ₁ /FVC	Normal FEV ₁ between exacerbations	> 80%	> 80%	60%-80%	< 60%						
		> 85%	> 80%	75%-80%	< 75%							
Risk	Exacerbations requiring oral steroids	0-1/year	> 2/year									
Recommended step for initiating treatment		Step 1	Step 2	Step 3								
		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											
	Components of Control		Well-Controlled	Not Well-Controlled	Very Poorly Controlled							
	Impairment	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/week	> 2x/week							
		Short-acting beta ₂ -agonist use for symptoms	< 2 days/week	> 2 days/week	Several times/day							
		Interference with normal activity	None	Some limitation	Extremely limited							
	FEV ₁ or Peak Flow FEV ₁ /FLC	> 80%	60%-80%	< 60%								
> 80%		75%-80%	< 75%									
Risk	Exacerbations requiring oral steroids	0-1 x/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"> Maintain current step Regular follow-up every 1-6 months Consider step down if well-controlled >3months 	Step up 1 step	<ul style="list-style-type: none"> Consider oral steroids Step up 1-2 steps 								
			<ul style="list-style-type: none"> Re-evaluate in 2-6 weeks Adjust therapy accordingly 									
Step approach for asthma management (Use lowest treatment level required to maintain control.)	<ul style="list-style-type: none"> Quick relief medication for all patients: Inhaled short-acting beta₂-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 > 2 days a week for symptom control (not prevention of exercise-induced bronchospasm) Patient education and environmental control at each step Persistent asthma: Daily long-term control therapy [A]; consult with asthma specialist if step 4 or higher [D]; consider consultation at step 3 [D] 											
	Intermittent		Mild Persistent		Moderate Persistent		Severe Persistent					
	Step 1		Step 2		Step 3		Step 4		Step 5		Step 6	
	Preferred Short-acting beta ₂ -agonist as required		Preferred Low-dose inhaled corticosteroid [A]		Preferred Low-dose inhaled corticosteroid + either a long-acting beta ₂ -agonist, a leukotriene receptor antagonist, or theophylline		Preferred Medium-dose inhaled corticosteroid + long-acting beta ₂ -agonist [B]		Preferred High-dose inhaled corticosteroid + long-acting beta ₂ -agonist [B]		Preferred High-dose inhaled corticosteroid + oral systemic corticosteroid [D]	
			Alternative Cromolyn Or Leukotriene receptor antagonist; or Nedocromil; or Theophylline [B]		Or Medium-dose inhaled corticosteroid [B]		Alternative Medium-dose inhaled corticosteroid + either a leukotriene receptor antagonist or theophylline [B]		Alternative High-dose inhaled corticosteroid + either a leukotriene receptor antagonist or theophylline [B]		Alternative High-dose inhaled corticosteroid + oral systemic corticosteroid + either a leukotriene receptor antagonist or theophylline [D]	

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 Asthmas, National Heart, Lung and Blood Institute (www.nhlbi.nih.gov). Individual patient considerations and advances in medical science may supersede or modify these recommendations.

