

Classifying Asthma Severity and Initiating Treatment in Children 0 to 4 Years of Age

Assessing severity and initiating therapy in children who are not currently taking long-term control medication

Components of Severity		Classification of Asthma Severity (0 to 4 Years of Age)			
		Intermittent	Persistent		
			Mild	Moderate	Severe
Impairment	Symptoms	≤2 days/week	>2 days/week but not daily	Daily	Throughout the day
	Nighttime awakenings	0	1–2×/month	3–4×/month	>1 ×/week
	Short-acting β ₂ -agonist use for symptom control (not prevention of EIB)	≤2 days/week	>2 days/week but not daily	Daily	Several times per day
	Interference with normal activity	None	Minor limitation	Some limitation	Extremely limited
Risk	Exacerbations requiring oral systemic corticosteroids	0–1/year	≥2 exacerbations in 6 months requiring oral systemic corticosteroids, or ≥4 wheezing episodes/1 year lasting >1 day AND risk factors for persistent asthma		
		Consider severity and interval since last exacerbation ← Frequency and severity may fluctuate over time → Exacerbations of any severity may occur in patients in any severity category			
Recommended Step for Initiating Treatment		Step 1	Step 2	Step 3 and consider short course of oral systemic corticosteroids	
		In 2 to 6 weeks, depending on severity, evaluate level of asthma control that is achieved. If no clear benefit is observed in 4 to 6 weeks, consider adjusting therapy or alternative diagnoses.			

EIB = exercise-induced bronchospasm.

Adapted from National Asthma Education and Prevention Program. *Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma* 2007. U.S. Department of Health and Human Services. Available at: <http://www.nhlbi.nih.gov/guidelines/asthma/asthgdln.pdf>. Accessed on: November 26, 2012.

Stepwise Approach for Managing Asthma in Children 0 to 4 Years of Age

Intermittent Asthma	Persistent Asthma: Daily Medication Consult with asthma specialist if Step 3 care or higher is required. Consider consultation at Step 2.					↑ Step up if needed (first, check adherence, inhaler technique, and environmental control) Assess control Step down if possible (and asthma is well controlled at least 3 months) ↓
	Step 1 Preferred: SABA PRN*	Step 2 Preferred: Low-dose ICS Alternative: Cromolyn or Montelukast	Step 3 Preferred: Medium-dose ICS	Step 4 Preferred: Medium-dose ICS + either LABA or Montelukast	Step 5 Preferred: High-dose ICS + either LABA or Montelukast	
Patient Education and Environmental Control at Each Step						
Quick-Relief Medication for All Patients <ul style="list-style-type: none"> SABA as needed for symptoms. Intensity of treatment depends on severity of symptoms With viral respiratory infection: SABA every 4 to 6 hours up to 24 hours (longer with physician consult). Consider short course of oral systemic corticosteroids if exacerbation is severe or patient has history of previous severe exacerbations Caution: Frequent use of SABA may indicate the need to step up treatment. See text for recommendations on initiating daily long-term-control therapy 						

ICS = inhaled corticosteroid; LABA = inhaled long-acting β₂-agonist; SABA = inhaled short-acting β₂-agonist.

* Preferred therapy is based on *Expert Panel Report 2* from 1997.

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Assessing Asthma Control and Adjusting Therapy in Children 0 to 4 Years of Age

Components of Control		Classification of Asthma Control (0 to 4 Years of Age)		
		Well Controlled	Not Well Controlled	Very Poorly Controlled
Impairment	Symptoms	≤2 days/week	>2 days/week	Throughout the day
	Nighttime awakenings	≤1×/month	>1×/month	>1×/week
	Interference with normal activity	None	Some limitation	Extremely limited
	Short-acting β_2 -agonist use for symptom control (not prevention of EIB)	≤2 days/week	>2 days/week	Several times per day
Risk	Exacerbations requiring oral systemic corticosteroids	0–1/year	2–3/year	>3/year
	Treatment-related adverse effects	Medication side effects can vary in intensity from none to very troublesome and worrisome. The level of intensity does not correlate to specific levels of control but should be considered in the overall assessment of risk.		
Recommended Action for Treatment		<ul style="list-style-type: none"> • Maintain current treatment • Regular follow-up every 1 to 6 months • Consider step down if well controlled for at least 3 months 	<ul style="list-style-type: none"> • Step up (1 step) and • Reevaluate in 2 to 6 weeks • If no clear benefit in 4 to 6 weeks, consider alternative diagnoses or adjusting therapy • For side effects, consider alternative treatment options 	<ul style="list-style-type: none"> • Consider short course of oral systemic corticosteroids • Step up (1–2 steps) and • Reevaluate in 2 weeks • If no clear benefit in 4 to 6 weeks, consider alternative diagnoses or adjusting therapy • For side effects, consider alternative treatment options

EIB = exercise-induced bronchospasm.

Adapted from National Asthma Education and Prevention Program. *Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma 2007*. U.S. Department of Health and Human Services. Available at: <http://www.nhlbi.nih.gov/guidelines/asthma/asthgdln.pdf>. Accessed on: November 26, 2012.

This Asthma Management Chart is also available at www.eMPR.com.

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