

GUIDELINES FOR THE DIAGNOSIS AND MANAGEMENT OF ASTHMA¹

CLASSIFYING ASTHMA SEVERITY AND INITIATING THERAPY IN CHILDREN

AGES 0-4

Components of Severity		Intermittent	Persistent		
			Mild	Moderate	Severe
Impairment	Symptoms	≤ 2 days/week	> 2 days/week but not daily	Daily	Throughout the day
	Nighttime awakenings	0	1-2x/month	3-4x/month	>1x/week
	Short-acting beta ₂ -agonist use for symptom control	≤ 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 (consider severity and interval since last exacerbation)	0-1/year (see notes)	≥ 2 exacerbations in 6 months requiring oral systemic corticosteroids, or ≥ 4 wheezing episodes/1 year lasting >1 day AND risk factors for persistent asthma		
Recommended Step for Initiating Therapy (See "Stepwise Approach for Managing Asthma" for treatment steps)		Step 1	Step 2	Step 3 and consider short course of oral systemic corticosteroids	
The stepwise approach is meant to assist, not replace, the clinical decision-making required to meet individual patient needs.		In 2-6 weeks, depending on severity, evaluate level of asthma control that is achieved. If no clear benefit is observed in 4-6 weeks, stop treatment and consider alternative diagnoses or adjusting therapy.			

Notes:

Level of severity is determined by both impairment and risk. Assess impairment domain by caregiver's recall of previous 2-4 weeks.

Assign severity to the most severe category in which any feature occurs.

For treatment purposes, patients with ≥ 2 exacerbations (e.g. requiring urgent, unscheduled care, hospitalization or ICU admission) may be considered the same as patients who have persistent asthma, even in the absence of impairment levels consistent with persistent asthma.

ASSESSING ASTHMA CONTROL AND ADJUSTING THERAPY IN CHILDREN

AGES 0-4

Components of Control		Well Controlled	Not Well Controlled	Very Poorly Controlled
Impairment	Symptoms	≤ 2 days/week but not more than once on each day	> 2 days/week or multiple times on ≤ 2 days/week	Throughout the day
	Nighttime awakenings	≤ 1x/month	> 1x/month	> 1x/week
	Interference with normal activity	None	Some limitation	Extremely limited
	Short-acting beta 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	0-1x/year	2-3x/year	> 3x/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 (See "Stepwise Approach for Managing Asthma" for treatment steps) .		<ul style="list-style-type: none"> • Maintain current step. • Regular follow-up every 1-6 months • Consider step down if well controlled for at least 3 months. 	Step up 1 step	<ul style="list-style-type: none"> • Consider short course of oral systemic corticosteroids • Step up 1-2 steps
The stepwise approach is meant to assist, not replace, the clinical decision-making required to meet individual patient needs.		<ul style="list-style-type: none"> • Before step up: Review adherence to medication, inhaler technique, and environmental control. If alternative treatment was used, discontinue it and use preferred treatment for that step. • Re-evaluate the level of asthma control in 2-6 weeks to achieve control; every 1-6 months to maintain control. If no clear benefit is observed in 4-6 weeks, consider alternative diagnoses or adjusting therapy. • For side effects, consider alternative treatment options. 		

The level of control is based on the most severe impairment or risk category. Assess impairment domain by patient's or caregiver's recall of previous 2-4 weeks. Symptom assessment for longer periods should reflect a global assessment, such as whether the patient's asthma is better or worse since the last visit.

*EIB (Exercise-Induced Bronchospasm)

GUIDELINES FOR THE DIAGNOSIS AND MANAGEMENT OF ASTHMA¹

STEPWISE APPROACH FOR MANAGING ASTHMA LONG TERM IN CHILDREN

AGES 0-4

	Step up if needed (first check inhaler technique, adherence, environmental control, and comorbid conditions)					
	Assess control					
	Step down if possible (and asthma is well controlled at least 3 months)					
	STEP 1	STEP 2	STEP 3	STEP 4	STEP 5	STEP 6
	Intermittent Asthma	Persistent Asthma: Daily Medication Consult with asthma specialist if step 3 care or higher is required. Consider consultation at step 2				
Preferred	SABA PRN	Low-dose ICS	Medium-dose ICS	Medium-dose ICS + LABA or Montelukast	High-dose ICS + LABA or Montelukast	High-dose ICS + Oral corticosteroids ICS + LABA or Montelukast
Alternative		Cromolyn, or Montelukast				
	Each Step: Patient Education and Environmental Control					
Quick-Relief Medication	<ul style="list-style-type: none"> SABA as needed for symptoms. Intensity of treatment depends on severity of symptoms. With viral respiratory symptoms: SABA q 4-6 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. 					

Before step up in therapy:

- If an alternative treatment is used and response is inadequate, discontinue it and use the preferred treatment before stepping up.
- If clear benefit is not observed within 4-6 weeks, and patient's/family's medication technique and adherence are satisfactory, consider adjusting therapy or an alternative diagnosis.
- Clinicians who administer immunotherapy should be prepared and equipped to identify and treat anaphylaxis that may occur.

Key clinical activities for the diagnosis and management of asthma in ages 0-4 years¹:

Young children may be at high risk for severe exacerbations, yet have low levels of impairment between exacerbations. Initiate daily long-term control therapy for:

- Children who had ≥ 4 episodes of wheezing the past year that lasted > 1 day and affected sleep AND who have a positive asthma risk profile, either (1) one of the following: parental history of asthma, physician diagnosis of atopic dermatitis, or evidence of sensitization to aeroallergens OR (2) two of the following: sensitization to foods, $\geq 4\%$ blood eosinophilia, or wheezing apart from colds.

Consider initiating daily long-term control therapy for:

- Children who consistently require SABA treatment > 2 days per week for > 4 weeks.
- Children who have two exacerbations requiring oral systemic corticosteroids within 6 months.
- Use only during periods, or seasons, of previously documented risk (e.g. during seasons of viral respiratory infections).

Monitor response closely, and adjust treatment:

- If no clear and positive response occurs within 4-6 weeks and the patient's/caregiver's medication technique and adherence are satisfactory, stop the treatment and consider alternative therapies or diagnoses.
- If clear benefit is sustained for at least 3 months, consider step down to evaluate the continued need for daily therapy. Children this age have high rates of spontaneous remission of symptoms.

*BREATHE-Asthma is a Health Management Program available to ConnectiCare members with asthma. Enrolled members may receive educational materials and individualized case management services from a Respiratory RN Case Manager. To enroll a member in BREATHE-Asthma, call **1-800-390-3522**. To find out more information about ConnectiCare's Health Management Programs, refer to ConnectiCare's Physician & Provider Manual or to www.connecticare.com.*



Key to chart: Alphabetical listing is used when more than one treatment option is listed within either preferred or alternative therapy. ICS, inhaled corticosteroid, LABA, inhaled long-acting beta₂-agonist. LTRA, leukotriene receptor antagonist, SABA, inhaled short-acting beta₂-agonist.

¹ National Asthma Education and Prevention Program Expert Panel Report 3, Guidelines for the Diagnosis and Management of Asthma, National Heart, Lung, and Blood Institute, Summary Report 2007.