

SNIPPETS FROM THE JOURNALS

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The November 2007 edition of the *Journal of Allergy and Clinical Immunology* contains the long-awaited report of the National Asthma Education and Prevention Program – Expert Panel Report 3.

This report entitled *Guidelines for the Diagnosis and Management of Asthma* is also supported by the USA Department of Health and Human Science National Institutes of Health and the National Heart, Lung and Blood Institute.

This is one of the most comprehensive guidelines on asthma management currently published. The guidelines open with a detailed disclosure of financial interests by all participants. The guidelines define asthma, explore the diagnosis and expand on long-term management.

Management consists of four components including:

- assessing and monitoring asthma severity and control
- education for a partnership of care
- control of environment and comorbid conditions
- medication.

The panel emphasises the importance of control but takes into account both the degree that manifestations of asthma are minimised by therapeutic intervention (control) as well as the intrinsic intensity (severity) of the disease process in a particular patient. The panel recommends that for managing asthma, one should **'assess severity to initiate therapy and assess control to adjust therapy'**.

New concepts introduced include *'Current impairment'* which refers to frequency and intensity of symptoms, low lung function and limitations of daily function. Further *'Future risk'* refers to a likelihood of exacerbations, progressive loss of lung function and adverse effects of medication. The guidelines stress that some patients may be at high risk for exacerbations even though they have few day-to-day symptoms.

The educational aspect confirms the importance of teaching patients skills to self-monitor and manage asthma. A written asthma action plan is key. New recommendations encourage expanding education into schools and also deal with clinician education.

The stepwise approach is emphasised with the increase to 6 steps from the original 4. I have taken the liberty of reproducing Figure 13 'Stepwise approach for managing asthma long-term in children 0 to 4 and 5 to 11', firstly, to show how this guideline is both comprehensive yet simple, and secondly because it covers the age group that is often the most problematic.

This guideline supplement is a timely addition as it may provide the answer to a pertinent question asked by Hans Bisgaard in the Letters to the Editor section of the *JACI* October 2007 edition, namely 'What drives prescription patterns in pediatric asthma management?'

He has analysed data from the *Danish Asthma Register of Medicinal Products Statistics* which contains records from all prescriptions for medicinal products prescribed in Denmark. His analysis shows an increased prescription in children of combination ICS/LABA products as well as an increased use of these products as first-line treatment in previously steroid-naïve children. Both trends are contrary to Danish guidelines. His discussion includes possible reasons, such as real-life experience may be better than clinical trials, and disease severity may be increasing. Pharmaceutical industry pressure and inefficient guideline dissemination are also mentioned.

The answer to Bisgaard's question may lie in a very simple line that is repeated often in the new American guidelines. **'The stepwise approach is meant to assist, not replace, the clinical decision-making required to meet individual patient needs.'**

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		Step up if needed (first check inhaler technique, adherence, environmental control, and comorbid conditions)					Assist 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	Notes		
Children 0-4 Years of Age	Preferred	Intermittent Asthma SABA PRN	Persistent Asthma: Daily Medication Consult with asthma specialist if step 3 care or higher is required. Consider consultation at step 2.							<ul style="list-style-type: none"> The stepwise approach is meant to assist, not replace, the clinical decision-making required to meet individual patient needs. 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. Studies on children 0-4 years of age are limited. Step 2 preferred therapy is based on Evidence A.* All other recommendations are based on expert opinion and extrapolation from studies in older children. Clinicians who administer immunotherapy should be prepared and equipped to identify and treat anaphylaxis that may occur. <p>Key: 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 β_2-agonist; LTRA, leukotriene receptor antagonist; oral corticosteroids, oral systemic corticosteroids; SABA, inhaled short-acting β_2-agonist.</p>
	Alternative	Cromolyn or montelukast	Low-dose ICS	Medium-dose ICS	Medium-dose ICS + LABA or montelukast	High-dose ICS + LABA or montelukast	High-dose ICS + LABA or montelukast + oral corticosteroids			
	Quick-Relief Medication	<p>Each Step: Patient Education and Environment Control</p> <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 (longer with physician consult). Consider short course of oral systemic corticosteroids if exacerbation is severe or patient has history of previous severe exacerbations. <p>Caution: Frequent use of SABA may indicate the need to step up treatment. See text* for recommendations on initiating daily long-term-control therapy.</p>								
Children 5-11 Years of Age	Preferred	Intermittent Asthma SABA PRN	Persistent Asthma: Daily Medication Consult with asthma specialist if step 4 care or higher is required. Consider consultation at step 3.							<ul style="list-style-type: none"> The stepwise approach is meant to assist, not replace, the clinical decision-making required to meet individual patient needs. If an alternative treatment is used and response is inadequate, discontinue it and use the preferred treatment before stepping up. Theophylline is a less desirable alternative due to the need to monitor serum concentration levels. Step 1 and step 2 medications are based on Evidence A.* Step 3 ICS and ICS plus adjunctive therapy are based on Evidence B* for efficacy of each treatment and extrapolation from comparator trials in older children and adults – comparator trials are not available for this age group; steps 4-6 are based on expert opinion and extrapolation from studies in older children and adults. Immunotherapy for steps 2-4 is based on Evidence B* for house-dust mites, animal danders, and pollens; evidence is weak or lacking for moulds and cockroaches. Evidence is strongest for immunotherapy with single allergens. The role of allergy in asthma is greater in children than adults. Clinicians who administer immunotherapy should be prepared and equipped to identify and treat anaphylaxis that may occur. <p>Key: Alphabetical listing is used when more than one treatment option is listed within either preferred or alternative therapy. EIB, exercise-induced bronchospasm; ICS, inhaled corticosteroid; LABA, inhaled long-acting β_2-agonist; LTRA, leukotriene receptor antagonist; SABA, inhaled short-acting β_2-agonist.</p>
	Alternative	Cromolyn, LTRA, nedocromil or theophylline	Low-dose ICS	Low-dose ICS + LABA, LTRA or theophylline	Medium-dose ICS + LABA	High-dose ICS + LABA	High-dose ICS + LABA + oral corticosteroids			
	Quick-Relief Medication	<p>Each Step: Patient Education, Environment Control, and Management of Comorbidities</p> <p>Steps 2-4: Consider subcutaneous allergen immunotherapy for patients who have persistent, allergic asthma</p> <ul style="list-style-type: none"> SABA as needed for symptoms: Intensity of treatment depends on severity of symptoms up to 3 treatments at 20-minute intervals as needed. Short course of oral systemic corticosteroids may be needed. <p>Caution: Increasing use of SABA or use >2 days a week for symptom relief (not prevention of EIB) generally indicates inadequate control and the need to step up treatment.</p>								

*See original article for details