

National Asthma Education & Prevention Program – Expert Panel Report 3 2007 - Guidelines for the Diagnosis and Management of Asthma

Highlights of Major Changes in the EPR-3

The following are highlights of major changes in the EPR-3. Many recommendations were updated or expanded based on new evidence. See EPR—3: Full Report 2007 for key differences at the beginning of each section and for a full discussion.

New focus on monitoring asthma control as the goal for asthma therapy and distinguishing between classifying asthma severity and monitoring asthma control.

- **Severity:** the intrinsic intensity of the disease process. Assess asthma severity to initiate therapy.
- **Control:** the degree to which the manifestations of asthma are minimized by therapeutic interventions and the goals of therapy are met. Assess and monitor asthma control to adjust therapy.

New focus on impairment and risk as the two key domains of severity and control, and multiple measures for assessment. The domains represent different manifestations of asthma, they may not correlate with each other, and they may respond differentially to treatment.

- **Impairment:** frequency and intensity of symptoms and functional limitations the patient is experiencing currently or has recently experienced.
- **Risk:** the likelihood of either asthma exacerbations, progressive decline in lung function (or, for children, lung growth), or risk of adverse effects from medication.

Modifications in the stepwise approach to managing asthma long term.

- Treatment recommendations are presented for **three age groups** (0–4 years of age, 5–11 years of age, and youths 12 years of age and adults). The course of the disease may change over time; the relevance of different measures of impairment or risk and the potential short- and long-term impact of medications may be age related; and varied levels of scientific evidence are available for these three age groups.
- The stepwise approach expands to **six steps** to simplify the actions within each step. Previous guidelines had several progressive actions within different steps; these are now separated into different steps.
- Medications have been repositioned within the **six steps** of care.
 - Inhaled corticosteroids (ICSs) continue as preferred long-term control therapy for all ages.
 - Combination of long-acting beta2-agonist (LABA) and ICS is presented as an equally preferred option, with increasing the dose of ICS in step 3 care, in patients 5 years of age or older. This approach balances the established beneficial effects of combination therapy in older children and adults with the increased risk for severe exacerbations, although uncommon, associated with daily use of LABA.
 - Omalizumab is recommended for consideration for youths 12 years of age who have allergies or for adults who require step 5 or 6 care (severe asthma). Clinicians who administer Omalizumab should be prepared and equipped to identify and treat anaphylaxis that may occur.

New emphasis on multifaceted approaches to patient education and to the control of environmental factors or comorbid conditions that affect asthma.

- Patient education for a partnership is encouraged in expanded settings.
 - Patient education should occur at all points of care: clinic settings (offering separate self-management programs as well as integrating education into every patient visit), emergency

- Provider education should encourage clinician and health care systems support of the partnership (e.g., through interactive continuing medical education, communication skills training, clinical pathways, and information system supports for clinical decision-making).
- Environmental control includes several strategies:
 - Multifaceted approaches to reduce exposures are necessary; single interventions are generally ineffective.
 - Consideration of subcutaneous immunotherapy for patients who have allergies at steps 2–4 of care (mild or moderate persistent asthma) when there is a clear relationship between symptoms and exposure to an allergen to which the patient is sensitive.
 - Potential benefits to asthma control by treating comorbid conditions that affect asthma.

Modifications to treatment strategies for managing asthma exacerbations. These changes:

- Simplify the classification of severity of exacerbations. For the urgent or emergency care setting: <40 percent predicted forced expiratory volume in 1 second (FEV1) or peak expiratory flow (PEF) indicates severe exacerbation and potential benefit from use of adjunctive therapies; 70 percent predicted FEV1 or PEF is a goal for discharge from the emergency care setting.
- Encourage development of prehospital protocols for emergency medical services to allow administration of albuterol, oxygen, and, with medical oversight, anticholinergics and oral systemic corticosteroids.
- Modify recommendations on medications:
 - Add levalbuterol.
 - Add magnesium sulfate or heliox for severe exacerbations unresponsive to initial treatments.
 - Emphasize use of oral corticosteroids. Doubling the dose of ICS for home management is not effective.
 - Emphasize that anticholinergics are used in emergency care, not hospital care.
 - Add consideration of initiating ICS at discharge.