

# National Asthma Guidelines Updated

August 29, 2007 -- Bethesda, MD -- The National Asthma Education and Prevention Program (NAEPP) today issued the first comprehensive update in a decade of clinical guidelines for the diagnosis and management of asthma. The guidelines emphasize the importance of asthma control and introduce new approaches for monitoring asthma. Updated recommendations for managing asthma include an expanded section on childhood asthma (with an additional age group), new guidance on medications, new recommendations on patient education in settings beyond the physician's office, and new advice for controlling environmental factors that can cause asthma symptoms.

Coordinated by the National Heart, Lung, and Blood Institute (NHLBI) of the National Institutes of Health, NAEPP convenes an expert panel when there is sufficient science to warrant a rigorous, systematic review of the published medical literature to ensure that the asthma guidelines reflect the latest scientific advances.

"Asthma is one of the most common health problems in the United States - and it can significantly affect patients' lives - at school, at work, at play, and at home," said NHLBI Director Elizabeth G. Nabel, M.D. "It is essential that asthma patients benefit from the best available scientific evidence, and these guidelines bring such evidence to clinical practice."

Asthma is a chronic, treatable disease that causes narrowing of the airways, making breathing difficult at times. More than 22 million people in the United States have asthma, including 6.5 million children under age 18, according to the Centers for Disease Control and Prevention (CDC). Without appropriate treatment, asthma can significantly limit individuals' activities and result in asthma exacerbations, which can lead to hospitalization and even death. The CDC estimates that 4,000 Americans die from asthma exacerbations each year.

"The goal of asthma therapy is to control asthma so that patients can live active, full lives while minimizing their risk of asthma exacerbations and other problems," notes William W. Busse, M.D., chairman of the Expert Panel, and chairman of the University of Wisconsin Department of Medicine.

Expert Panel Report 3 (EPR-3): Guidelines for the Diagnosis and Management of Asthma - Full Report, 2007 provides new guidance for selecting treatment based on a patient's individual needs and level of asthma control. The guidelines emphasize that while asthma can be controlled, the condition can change over time and differs among individuals and by age groups. Thus, it is important to monitor regularly the patient's level of asthma control so that treatment can be adjusted as needed.

EPR-3 builds upon complete asthma guidelines issued in 1991 and 1997 and an update on selected topics released in 2002. The guidelines focus on four components of asthma care: measures to assess and monitor asthma, patient education, control of environmental factors and other conditions that can worsen asthma, and medications.

"Overall, these components have stood the test of time, and many of the earlier recommendations have been solidly confirmed by additional research throughout the years," says Busse. "For instance, inhaled corticosteroids are still the best long-term control treatment for asthma patients of all ages because we have even stronger evidence that they are generally safe and are the most effective medication at reducing inflammation, a key component of asthma. Our review of the recent scientific evidence helps us incorporate these four components even more effectively to provide quality asthma care."

Key features and changes to these four components of asthma care include:

- **Assessment and monitoring.** EPR-3 takes a new approach to assessing and monitoring asthma by using multiple measures of the patient's level of current impairment (frequency and intensity of symptoms, low lung function, and limitations of daily activities) and future risk (risk of exacerbations, progressive loss of lung function, or adverse side effects from medications). The guidelines stress that some patients can still be at high risk for frequent exacerbations even if they have few day-to-day effects of asthma.
- **Patient education.** EPR-3 confirms the importance of teaching patients skills to self-monitor and manage asthma and to use a written asthma action plan, which should include instructions for daily treatment and ways to recognize and handle worsening asthma. New recommendations encourage expanding educational opportunities to reach patients in a variety of settings, such as pharmacies, schools, community centers, and patients' homes. A new section addresses the need for clinician education programs to improve communications with patients

and to use system-wide approaches to integrate the guidelines into health care practice.

- **Control of environmental factors and other conditions that can affect asthma.** EPR-3 describes new evidence for using multiple approaches to limit exposure to allergens and other substances that can worsen asthma; research shows that single steps are rarely sufficient. EPR-3 also expands the section on other common conditions that asthma patients can have and notes that treating chronic problems such as rhinitis and sinusitis, gastroesophageal reflux, overweight or obesity, obstructive sleep apnea, stress, and depression may help improve asthma control.
- **Medications.** EPR-3 continues the use of a stepwise approach to control asthma, in which medication doses or types are stepped up as needed and stepped down when possible. Treatment is adjusted based on the level of asthma control.

The stepwise asthma management charts are revised and expanded to specify treatment for three age groups: 0-4 years, 5-11 years, and 12 years and older. The 5-11 age group was added (earlier guidelines combined this group with adults) as a result of new evidence on medications for this age group and emerging evidence that suggests that children may respond differently than adults to asthma medications.

Recommendations on medications are updated to reflect the latest evidence on effectiveness and safety. EPR-3 reaffirms that patients with persistent asthma (e.g., patients who have symptoms more than twice a week during the day or more than twice a month at night) need both long-term control medications to control asthma and prevent exacerbations, as well as quick relief medications for symptoms as needed. EPR-3 also reaffirms that inhaled corticosteroids are the most effective long-term control medication across all age groups. EPR-3 includes new recommendations on treatment options such as leukotriene receptor antagonists and cromolyn for long term control; long acting beta agonists as adjunct therapy with inhaled corticosteroids; omalizumab for severe asthma; and albuterol, levalbuterol, and corticosteroids for acute exacerbations.

EPR-3 also describes areas of current research to improve asthma management, such as new ways for monitoring asthma control (for example, tests using a patient's sputum and exhaled air), and tailoring treatment based on the particular characteristics of a patient's asthma and the patient's genetic makeup.

"Research is beginning to help us identify genes that influence how well certain patients respond to certain asthma medications," says James Kiley, Ph.D., director of the NHLBI Division of Lung Diseases. "This information is helping us move toward providing personalized treatment for asthma based on a patient's individual characteristics."

NAEPP is developing tools and partnerships to improve adoption of the guidelines, including a Summary Report of EPR-3 to be released October 17. An NAEPP-appointed independent panel of experts and guideline end-users is developing an action plan to improve guidelines implementation.

EPR-3 was prepared by a committee of 18 unpaid experts chosen for their scientific and clinical knowledge and experience. The report was reviewed by the NAEPP Coordinating Committee, composed of representatives from 39 medical associations, voluntary health organizations, and federal agencies. A draft was posted on the NHLBI Website for public comment in February to March 2007.

Source: National Heart, Lung, and Blood Institute