Asthma

Summary of the 2007 NHLBI Guidelines for the Diagnosis and Management of Asthma

Summary Report

Causes of Asthma (pg. 39): A definitive cause of the inflammatory process leading to asthma has not yet been established.

- Innate immunity
- Genetics
- Environmental factors
  - Airborne allergens and viral respiratory infections
  - Other: tobacco smoke, air pollution, and diet

Implications for Treatment: Knowledge of the importance of inflammation to the central features of asthma continues to expand and underscores inflammation as a primary target of treatment.

Establishing Diagnosis (pg. 63, 65)

- Detailed Medical History
- Physical Examination (symptoms of wheezing, cough, difficulty breathing, chest tightness that worsen with exercise, weather changes, infection, stress and at night)
- Spirometry, an essential objective measure to establish the diagnosis of asthma

Management of Asthma long term (pg. 75, 300)

- Reduce Impairment:
  - Prevent chronic and troublesome symptoms (e.g., coughing or breathlessness in the daytime, in the night, or after exertion).
  - Require infrequent use (≤2 days a week) of inhaled SABA for quick relief of symptoms (not including prevention of exercise-induced bronchospasm).
  - Maintain (near) normal pulmonary function.
  - Maintain normal activity levels (including exercise and other physical activity and attendance at school or work).
  - Meet patients’ and families’ expectations of and satisfaction with asthma care.
- Reduce Risk:
  - Prevent recurrent exacerbations of asthma and minimize the need for ED visits or hospitalizations.
  - Prevent loss of lung function; for children, prevent reduced lung growth.
  - Provide optimal pharmacotherapy with minimal or no adverse effects of therapy.
- Patient education-Asthma Action Plan in place for adult and child
- A Stepwise Approach (tables on pg. 328, 329, 366) to managing asthma is recommended to gain and maintain control of asthma in both the impairment and risk domains.
The stepwise approach incorporates all four components of care: assessment of severity to initiate therapy or assessment of control to monitor and adjust therapy; patient education; environmental control measures, and management of comorbid conditions at every step; and selection of medication.

Therapy is increased (stepped up) as necessary and decreased (stepped down) when possible.

Once asthma control is achieved, monitoring and follow-up are essential, because asthma often varies over time. A step up in therapy may be needed, or a step down may be possible, to identify the minimum medication necessary to maintain control.

This guideline summary is not all-inclusive of available guideline content. Please reference the full guideline for comprehensive content.