

record of this to any medical appointments for health care providers to review trends. Each child needs to establish his or her personal best value during a 2- to 3-week period when the child's asthma is stable. After the personal best value has been established, the child's current PEFr on any occasion can be compared with the personal best value. In some cases, a low PEFr may not truly mean that the child's asthma is poorly controlled. Each individual child's PEFr varies according to age, height, sex, and race.

Nursing Care Guidelines

Interpreting Peak Expiratory Flow Rates*

- **Green (80% to 100% of personal best)** signals all clear. Asthma is under reasonably good control. No symptoms are present, and the routine treatment plan for maintaining control can be followed.
- **Yellow (50% to 79% of personal best)** signals caution. Asthma is not well controlled. An acute exacerbation may be present. Maintenance therapy may need to be increased. Call the practitioner if the child stays in this zone.
- **Red (<50% of personal best)** signals a medical alert. Severe airway narrowing may be occurring. A short-acting bronchodilator should be administered. Notify the practitioner if the peak expiratory flow rate (PEFR) does not return immediately and stay in yellow or green zones.

*These zones are guidelines only. Specific zones and management should be individualized for each child.

Bronchoprovocation testing, direct exposure of the mucous membranes to a suspected antigen in increasing concentrations helps to identify inhaled allergens. Exposure to methacholine (methacholine challenge), histamine, or cold or dry air may be performed to assess airway responsiveness or reactivity. Exercise challenges may be used to identify children with exercise-induced