CONCLUSIONS. A single follow-up visit to an emergency department–based asthma clinic resulted in significant improvements in care and outcomes for a high-morbidity pediatric population.

REVIEWER COMMENTS. This study was unique in that the emphasis was on follow-up in a clinic in the emergency department where care was first given, rather than a primary care office. This intervention seems to have been more successful than previously published emergency department–based studies that focused on improving rates of follow-up with primary care providers. There are a number of possible explanations for these findings, including the fact that many families use the emergency department as a de facto primary care office and the comprehensive nature of the emergency department–clinic visit. Costs were not analyzed, and there may be other barriers to other emergency departments adopting an intervention of this type, but these results are promising.

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Brian A. Smart, MD
Glen Ellyn, IL

MEDICAL THERAPIES

Early Intervention of Recent Onset Mild Persistent Asthma in Children Aged Under 11 yrs: The Steroid Treatment As Regular Therapy in Early Asthma (START) Trial

PURPOSE OF THE STUDY. To determine the long-term efficacy of regular inhaled low-dose budesonide in children aged <11 years with recent-onset mild-persistent asthma.

STUDY POPULATION. Children aged 5 to 10 years with current symptoms of mild-persistent asthma during the 3 months preceding trial entry. Patients had no symptoms for >2 years before study entry and had received neither inhaled corticosteroids (ICSs) for ≥30 days nor depot corticosteroid injection in the previous year.

METHODS. Patients were randomly assigned to receive once-daily budesonide 200 µg (1000 children) or placebo (974 children). Patients were followed at weeks 6 and 12 and then subsequently every 3 months for a 3-year period. Patients and their caregivers kept a record of asthma symptoms between visits. At each visit, spirometry was performed, and data were collected on medication compliance and asthma control. The primary end point was the time to the first severe asthma-related event (SARE) or introduction of corticosteroid treatment other than the study medication.

RESULTS. There was a 40% relative-risk reduction of SAREs in the treatment group over the 3-year study visit. Fewer children in the budesonide group required treatment with other corticosteroids as compared with those in the placebo group (12.3% vs 22.7%). There was a trend toward decreased β2-agonist use, decreased systemic corticosteroid use, and improved lung function in the children in the treatment arm.

CONCLUSIONS. The early addition of once-daily budesonide treatment in young children with mild-persistent asthma improves asthma control and lung function and decreases the risk of SAREs.

REVIEWER COMMENTS. Early asthma intervention in children is a topic of much debate, particularly in the very young with mild symptoms. Oftentimes, caregivers are faced with the difficult task of deciding on the right time to initiate an ICS, and the decision may be delayed until a serious event such as hospitalization occurs. This study demonstrates the benefits of using an ICS as early intervention in children <11 years of age to improve lung function and decrease the risks of serious and potentially life-threatening asthma exacerbations. Unlike previous studies in pediatric populations with mild asthma, researchers with this study enrolled patients with relatively newly diagnosed asthma, perhaps before the onset of chronic irreversible inflammatory changes such as basement-membrane thickening. These findings support early intervention to improve lung function and to potentially prevent loss of lung function in hopes of improving long-term outcomes.

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Amy Bailey, MD
Tamara T. Perry, MD
Little Rock, AR

Intermittent Inhaled Corticosteroids in Infants With Episodic Wheezing

PURPOSE OF THE STUDY. To determine the effectiveness of inhaled corticosteroid (ICS) in the treatment of wheezing in infants and if early ICS treatment will delay or prevent progression to persistent asthma.

STUDY POPULATION. Pregnant women (N = 798) with the diagnosis of asthma were enrolled onto a cohort study in Denmark. There were 411 newborns enrolled by 1 month of age.

METHODS. The patients were randomly assigned to ICS or placebo with their first episode of wheezing at a median of 10.7 months. Treatment with budesonide 400 µg per day with a spacer or placebo with spacer was begun after

(43.8% vs 34.4%; relative risk: 1.36); and reported “no functional limitations in quality of life” significantly more often (49.8% vs 40.8%; relative risk: 1.33).

RESULTS. There was a 40% relative-risk reduction of SAREs in the treatment group over the 3-year study visit. Fewer children in the budesonide group required treatment with other corticosteroids as compared with those in the placebo group (12.3% vs 22.7%). There was a trend toward decreased β2-agonist use, decreased systemic corticosteroid use, and improved lung function in the children in the treatment arm.

CONCLUSIONS. The early addition of once-daily budesonide treatment in young children with mild-persistent asthma improves asthma control and lung function and decreases the risk of SAREs.

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Amy Bailey and Tamara T. Perry

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