

Severe Exacerbations Seen in Mild Pediatric Asthma

BY KATE JOHNSON
Montreal Bureau

TORONTO — Current classifications of pediatric asthma fail to capture the potential for severe exacerbations in patients with mild disease, according to Dr. Christopher Carroll of Connecticut Children's Medical Center in Hartford.

In a study of nearly 300 asthmatic children, which Dr. Carroll presented in a poster at the annual meeting of the Pedi-

atric Academic Societies, more than half of those admitted to the intensive care unit with severe exacerbations were classified as having "mild" asthma.

National Heart, Lung, and Blood Institute (NHLBI) guidelines classify pediatric asthma as either mild intermittent, mild persistent, moderate persistent, or severe persistent, based on the frequency of baseline symptoms, Dr. Carroll said in an interview. But this classification system fails to account for children in whom mild base-

line disease can progress to severe exacerbations. "These kids with mild asthma can have severe life-threatening exacerbations where they need to be put on a ventilator or admitted to the ICU—and they can stay in the ICU for 8 days, some of them."

Dr. Carroll and his associates reviewed the charts of 298 children aged 2 years or older who were admitted to the ICU with asthma exacerbation over a 9-year period. More than half (55%) of the children were classified as having mild asthma (defined

as mild intermittent or mild persistent). A comparison of children with mild asthma with those who had more severe disease showed no differences in the severity of their exacerbations at admission, their hospital or ICU length of stay, or the therapies they received.

Compared with children who had more severe baseline disease, those with mild asthma were younger (7.6 vs. 9.8 years), less likely to have been admitted to hospital previously for asthma (42% vs. 77%), less likely to have been admitted to the ICU previously for asthma (11% vs. 41%), and less likely to have public insurance (46% vs. 65%). There also were ethnic differences: equal percentages of African Americans but fewer Hispanics in the milder group (30% vs. 47%) and more whites (42% vs. 24%).

"Even kids with mild asthma are susceptible to severe exacerbations," said Dr. Carroll. "[Some] of my adult critical care colleagues [said] only severe asthmatics end up in the ICU. I said that's not true in kids. We see kids with 'mild asthma' who are in our ICU all the time." ■

Asthma Combo As Needed Cuts Steroid Exposure

Symptom-driven "rescue" use of a single inhaler containing beclomethasone plus albuterol was as effective at controlling mild persistent asthma as was regular twice-daily use of inhaled beclomethasone alone in a prospective, randomized study.

As-needed use of the combination inhaler led to significantly lower cumulative exposure to corticosteroids. In addition, "symptom-driven use of inhaled beclomethasone and albuterol may overcome one of the major problems in the treatment of chronic diseases such as asthma: poor compliance," the investigators wrote.

Dr. Alberto Papi of the University of Ferrara (Italy) and colleagues compared outcomes with four different inhaler treatments in a 6-month study of 393 adults with mild persistent asthma who were treated at 25 centers in Europe in 2002-2004. The participants were randomly assigned to one of four treatment groups: as-needed combination therapy (250 mcg beclomethasone and 100 mcg albuterol in a single inhaler), regular twice daily combination therapy plus albuterol as needed, regular beclomethasone therapy (250 mcg twice daily) and albuterol as needed, or placebo twice daily plus albuterol as needed.

After 6 months, morning peak expiratory flow rate (primary outcome measure) did not differ significantly between the as-needed combination therapy group and the regular twice-daily beclomethasone or regular combination therapy groups, suggesting "mild persistent asthma may not require regular treatment with inhaled corticosteroids, but rather only as-needed use of an inhaled corticosteroid and an inhaled bronchodilator" (N. Engl. J. Med. 2007;356:2040-52). Chiesi Farmaceutici funded the study.

—Mary Ann Moon

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