

# Few Kids Achieve Asthma Control, Despite Tx

BY JANE SALODOF MACNEIL  
Southwest Bureau

SAN FRANCISCO — A study of 975 asthmatic children in four states found only one child in five achieved optimal symptom control through use of preventive medication.

While 37% of the symptomatic children did not use any preventive medications, 43% had persistent symptoms despite parent reports that these children used their prescribed therapies, according to data Dr. Jill S. Halterman presented at the annual meeting of the Pediatric Academic Societies.



"We still have a lot of work to do to identify children with persistent asthma, and to ensure that they use effective preventive therapy," said Dr. Halterman of the University of Rochester (N.Y.) and its Golisano Children's Hospital at Strong, also in Rochester.

She called the substantial number of children with poor asthma symptom control

despite reported use of preventive medications "a newly highlighted concern."

Dr. Halterman and her coinvestigators based their findings on parent responses to the Asthma Survey Form included in the 2003 State and Local Area Integrated Telephone Survey (SLAITS), a random-digital survey. The sample covered Alabama, California, Illinois, and Texas.

For the analysis, the researchers selected parents of children aged 17 years and younger who had persistent symptoms according to national asthma guidelines and/or used preventive asthma medications (defined as inhaled corticosteroids, mast cell stabilizers, theophylline derivatives, leukotriene modifiers, and combined corticosteroids and long-acting  $\beta_2$ -agonists).

Poor children were at the highest risk of receiving inadequate therapy, according to Dr. Halterman's poster and a talk she gave at the meeting, which was sponsored by the American Pediatric Society, Society

**More than half of children from families with incomes less than \$15,000 used no medication.**

DR. HALTERMAN

for Pediatric Research, Ambulatory Pediatric Association, and American Academy of Pediatrics.

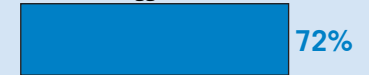
More than half (53%) of children from families with incomes less than \$15,000 a year did not use any medication and had persistent symptoms during the month before their parents were surveyed. Another 35% of poor children had suboptimal control, which the researchers defined as persistent symptoms or more than one acute episode within the past 3 months despite reported use of medication.

Higher income did not guarantee optimal control. Most children from families with incomes in the \$15,000-\$44,999 range had inadequate therapy (42%) or suboptimal control (40%). Nearly a quarter of the children from families earning upward of \$45,000 received inadequate therapy. About half had suboptimal control.

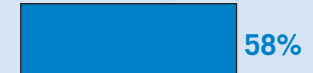
Listing factors that might lead to poor asthma control in the study population as a whole, Dr. Halterman reported 72% of the children lived with household triggers, 58% did not have an asthma management plan, and 16% had someone smoke in their homes during the week before a parent answered the survey.

## Factors That May Lead to Poor Asthma Control in Children

### Household triggers



### No asthma management plan



### Smoker in the house



Note: Based on a study of 975 children.  
Source: Dr. Halterman

In addition, 35% of all children with suboptimal control had poor medication adherence.

Discontinuous insurance coverage was the leading demographic factor associated with inadequate therapy for asthma (odds ratio 2.4), according to Dr. Halterman. Of the total study population, only 15% had discontinued insurance coverage, but 56% of the poorest children did. ■

## Cochrane Panel: Corticosteroids Achieve Best Asthma Control

BY DOUG BRUNK  
San Diego Bureau

Inhaled corticosteroids are better than sodium cromoglycate in measures of lung function and asthma control in children and adults with chronic asthma, the first-ever systematic review of its kind has concluded.

"The results suggest that the superiority of ICS over SCG may be independent of asthma severity, since results were generally similar among those with milder and more severe asthma," wrote the researchers, who were led by Dr. James P. Guevara of the department of pediatrics at the University of Pennsylvania, Philadelphia. The superiority of ICS over SCG may depend on the dosage of inhaled steroid, since results in favor of ICS were generally stronger among studies with moderate doses than among those with low doses.

However, no conclusions could be made about possible differences in adverse events between ICS and SCG because adverse events in the trials chosen for analysis "were reported inconsistently, and most trials were short-term," they noted.

The researchers reviewed 25 randomized, controlled trials that compared the effects of ICS with those of SCG in children and adults with chronic asthma. Of

the 25 trials, 17 included 1,279 children and 8 included 321 adults (Cochrane Database System. Rev. 2006; DOI:10.1002/14651858.CD003558.pub2).

In the trials of children, use of ICS was associated with a higher mean forced expiratory volume in 1 second (FEV<sub>1</sub>) (a mean weighted difference of 0.07 L) and a higher final end-point peak expiratory flow (PEF) rate (a mean weighted difference of 17.3 L/minute), compared with use of SCG. Use of ICS was also associated with fewer exacerbations (a mean weighted difference of -1.18 per patient year), lower asthma symptom scores, and less bronchodilator use, compared with use of SCG.

In the trials of adults, use of ICS was associated with a higher mean FEV<sub>1</sub> (a mean weighted difference of 0.21 L) and a higher final end-point PEF rate (a mean weighted difference of 28.2 L/minute), compared with use of SCG. Use of ICS also was associated with fewer exacerbations (a mean weighted difference of -3.30 per patient year) and less bronchodilator use, compared with use of SCG. Use of ICS was associated with lower asthma symptom scores than was SCG in the three crossover trials reviewed as part of the analysis, but not in the one parallel group trial reviewed. ■

## Chart Stickers Prompt Asthma Severity Assessment, Better Care

BY JANE SALODOF MACNEIL  
Southwest Bureau

SAN FRANCISCO — A small intervention had a sizable impact on documentation of asthma severity and appropriate treatment of children at an inner-city health center, according to results of a randomized controlled trial reported in a poster at the annual meeting of the Pediatric Academic Societies.

Every other week for 6 weeks, Dr. Sandra F. Braganza and her colleagues affixed 2-by-3-inch stickers to the charts of children scheduled for health center visits who had previously been diagnosed with asthma.

The stickers listed the National Asthma Education and Prevention Program (NAEPP) criteria for asthma severity classification. Highlighted in red were the criteria for prescribing inhaled steroids.

"It prompts the physicians to classify asthma severity, and by physicians classifying asthma severity we hope they are properly treating the child's asthma," said Dr. Braganza of Albert Einstein College of Medicine and Montefiore Medical Center, New York.

The children's appointments were not necessarily for asthma, she noted in an interview at the meeting, which was sponsored by the American Pediatric Society, Society for Pediatric Research, Ambulatory Pediatric Association, and American Academy of Pediatrics.

After each visit—during weeks when the stickers were used and the alternate weeks when they were not—a research assistant interviewed the

children's parents about the severity of each child's asthma and each child's use of medications. The assistant was blinded to what the physicians had written and prescribed.

Analysis of charts and parent interviews showed significant differences in asthma care between the intervention group and the control group of children who visited the clinic when stickers were not used.

The clinicians documented asthma severity for 135 (98%) of 138 children who had stickers on their charts but only 128 (73%) of 175 children in the control group who did not.

Moreover, review of 263 charts with notations for asthma severity revealed that physicians were

**A little sticker increased the odds of a child receiving appropriate therapy (OR 1.77).**

DR. BRAGANZA

significantly more likely to classify severity correctly when they had information on the classification criteria in front of them. They did so on 46% of charts with stickers but only 28% of charts for children in the control group.

The charts with the stickers affixed also were more likely to contain records of appropriate therapy, as defined by use of inhaled corticosteroids in children whose symptoms were consistent with persistent asthma. Appropriate therapy was recorded on 64% of charts with stickers but only 50% of charts for the control group.

Dr. Braganza and her colleagues calculated that the little sticker more than doubled the odds of a child having a correct asthma severity classification (adjusted odds ratio, 2.58) and significantly increased the odds of a child receiving appropriate therapy according to NAEPP criteria (adjusted odds ratio, 1.77). ■

