diary symptoms and β2-adrenergic receptor agonist use increased significantly, but at different rates, before an exacerbation. Only the combination of wheeze, daytime cough, and β2-adrenergic receptor agonist use were predictive of an exacerbation. Overall, 149 (66.8%) of 223 exacerbations were predicted correctly 1 day before the exacerbation. The false-positive rate was 14.2%.

CONCLUSIONS. An imminent asthma exacerbation was predicted by a combination of increased cough, wheeze, and β2-adrenergic receptor agonist use at night, although individual symptoms were not predictive.

REVIEWER COMMENTS. If earlier prediction of asthma exacerbations were possible, then earlier treatment and decreased severity and utilization of health care resources might result. This study provides some evidence that early prediction is possible. However, the study is limited by the lack of a standard definition for an asthma exacerbation in young children and the lack of access to some outcome measures, such as unscheduled visits and hospitalization exacerbation. The ability to predict exacerbations remains to be proved. Parental education is imperative in predicting exacerbations in young children.

URL: www.pediatrics.org/cgi/doi/10.1542/peds.2009-1870FFF

Theresa A. Bingemann, MD
Rochester, NY

Evaluation of Chronic Cough in Children

PURPOSE OF THE STUDY. To evaluate chronic cough in children in accordance with the 2006 American College of Chest Physicians (ACCP) guidelines.

STUDY POPULATION. The study included 108 children between 6 and 14 years of age who presented with a cough lasting >4 weeks.

METHODS. Using the algorithm suggested by the ACCP guidelines for chronic cough in children, a detailed history was obtained and a physical examination was completed. Patients were reevaluated at 2- to 4-week intervals. All patients underwent pulmonary function testing and chest radiography. Additional testing was performed as clinically indicated. Patients were classified into the following diagnostic categories: (1) asthma and asthma-like symptoms, (2) protracted bronchitis, (3) gastroesophageal reflux disease (GERD), (4) upper airway cough syndrome (UACS), (5) natural recovery, (6) bronchiectasis, (7) tuberculosis, and (8) Mycoplasma pneumoniae infection.

RESULTS. The most common causes of chronic cough in this age group were asthma plus asthma-like symptoms (25%), protracted bronchitis (23.4%), and UACS (formerly postnasal drip) (20.3%). GERD accounted for <5% of cases.

CONCLUSIONS. The authors concluded that ACCP guidelines for the management of chronic cough in children were effective. This study demonstrated the importance of the "watch, wait, and review" step. When therapy is initiated, the response to treatment should be evaluated at 2- to 4-week intervals, to prevent unnecessary evaluation of chronic cough. The causes of cough in children differ from the causes in adults. The evaluation of cough in children should include asthma, bronchitis, and UACS in the differential diagnosis. When treatment is initiated, a detailed investigation should be made for patients who do not respond to the treatment.

REVIEWERS COMMENTS. Chronic cough in children is a common problem, and the most common causes are slightly different from those in adults, for whom GERD is listed in the top 3 causes. In this study, the authors concluded that GERD could be the result of cough and not just the cause. In this study, asthma and asthma-like symptoms were the most common cause. This may be attributable to the age of the participants. Previous studies in children included participants <2 years of age, for whom the diagnosis of asthma is more difficult. Observing and reevaluating children every 2 to 4 weeks when they present with chronic cough may decrease the need for extensive testing.

URL: www.pediatrics.org/cgi/doi/10.1542/peds.2009-1870GGG

Diana Hess, ANP
Melinda M. Rathkopf, MD
Anchorage, AK

Severe Exacerbations in Children With Mild Asthma: Characterizing a Pediatric Phenotype

PURPOSE OF THE STUDY. To describe a population of children with mild baseline asthma who were admitted to the ICU with severe exacerbations.

STUDY POPULATION. A retrospective cohort study of 298 children with asthma (age: 2–18 years) who were admitted to the Connecticut Children’s Medical Center ICU with a severe asthma exacerbation between April 1997 and December 2006 was performed.

METHODS. Children were identified as having mild asthma if their disease was classified as intermittent or mild persistent according to current National Heart, Lung, and Blood Institute (NHLBI) guidelines; classifications of
Evaluation of Chronic Cough in Children
Diana Hess and Melinda M. Rathkopf

Pediatrics 2009;124;S142
DOI: 10.1542/peds.2009-1870GGG

Updated Information & Services
including high resolution figures, can be found at:
/content/124/Supplement_2/S142.1.full.html

Subspecialty Collections
This article, along with others on similar topics, appears in the following collection(s):
Allergy/Immunology
/cgi/collection/allergy:immunology_sub

Permissions & Licensing
Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
/site/misc/Permissions.xhtml

Reprints
Information about ordering reprints can be found online:
/site/misc/reprints.xhtml
Evaluation of Chronic Cough in Children
Diana Hess and Melinda M. Rathkopf
Pediatrics 2009;124;S142
DOI: 10.1542/peds.2009-1870GGG

The online version of this article, along with updated information and services, is located on the World Wide Web at:
/content/124/Supplement_2/S142.1.full.html