STUDY POPULATION. Children (aged 6–15 years) with asthma and >1 asthma-related encounter with a general practitioner (GP) during a 12-month follow-up period were included from the United Kingdom medical plus general-practice database, including 2 million office patient visits per year to >500 GPs.

METHODS. This was a population-based historical cohort investigation. Asthma and allergic rhinitis were determined by diagnosis codes and drug codes for appropriate medications.

RESULTS. Of 9522 children with asthma, 1879 (19.7%) had allergic rhinitis recorded in the GP medical charts. Compared with children with asthma alone, children with comorbid allergic rhinitis experienced more GP visits (4.4 vs 3.4) and more of them were hospitalized for asthma (1.4% vs 0.5%) during the 12-month follow-up period. In multivariable regression analyses, comorbid allergic rhinitis was an independent predictor of hospitalization for asthma (odds ratio: 2.34; 95% confidence interval [CI]: 1.41–3.91) and was associated with increases in the number of asthma-related GP visits (mean increase: 0.53; 95% CI: 0.52–0.54) and asthma drug costs (mean increase [British pounds]: £6.7; 95% CI: £6.5–£7.0). The association between allergic rhinitis and higher costs of prescriptions for asthma drugs was independent of asthma severity, measured indirectly by the intensity of use of asthma drugs.

CONCLUSIONS. Children with comorbid allergic rhinitis incurred greater prescription drug costs and experienced more physician visits and hospitalizations for asthma than did children with asthma alone. A unified treatment strategy for asthma and allergic rhinitis, as recommended by the Allergic Rhinitis and Its Impact on Asthma initiative, might reduce the costs of treating these conditions.

REVIEWER COMMENTS. This is a useful study emphasizing the importance of understanding the impact of allergic rhinitis on asthma, with implications for better therapeutic approaches. The study may have actually underestimated the impact of allergic rhinitis, because the data are retrospective and diagnosed allergic rhinitis was estimated at only 19.7%, compared with rates as high as 50% among children with asthma in other studies.

Learning Preferences of Caregivers of Asthmatic Children

PURPOSE OF THE STUDY. To determine the learning styles of the caregivers of asthmatic children seen in a pediatric allergy and immunology clinic.
Screening for Children’s Exposure to Environmental Tobacco Smoke in a Pediatric Primary Care Setting


PURPOSE OF THE STUDY. To develop a brief screening tool to accurately predict environmental tobacco smoke (ETS) exposure.

METHODS. The results for children aged 3 to 17 years in the 1999 National Health Interview Survey were analyzed for those with reported wheezing. Asthma diagnosis was evaluated for racial and ethnic differences while controlling for age, gender, parental education, single-parent household, residence, insurance, health care, and parent-reported severity of symptoms.

RESULTS. Among those reported to have wheezed in the past year (n = 946), 83% of Puerto Rican, 71% of non-Hispanic black, and 65% of Mexican children were diagnosed with asthma compared with 57% of non-Hispanic white children. Using non-Hispanic white children as the reference group, the approximate adjusted relative risk for physician diagnosis of asthma given wheezing in the past year was 1.43 (95% confidence interval [CI]: 1.04–1.63) for Puerto Rican, 1.22 (95% CI: 1.03–1.37) for non-Hispanic black, and 1.19 (95% CI: 0.94–1.39) for Mexican children. Minority children were more likely to be diagnosed with asthma compared with non-Hispanic white children. These findings do not support the hypothesis that symptomatic minority children are underdiagnosed with asthma compared with non-Hispanic white children. To the contrary, among currently symptomatic children, minority children were more likely to be diagnosed than non-Hispanic white children even after accounting for the higher wheezing severity among minority children.

CONCLUSIONS. These findings do not support the hypothesis that symptomatic minority children are underdiagnosed with asthma compared with non-Hispanic white children. To the contrary, among currently symptomatic children, minority children were more likely to be diagnosed than non-Hispanic white children even after accounting for the higher wheezing severity among minority children.

REVIEWER COMMENTS. This study suggests that minority children with wheezing severity measured by National Health Interview Survey guidelines are not underdiagnosed. These results suggest that public health endeavors should be directed toward better management and control.

STUDY POPULATION. A total of 291 healthy children aged 2 weeks to 3 years. These children were recruited from a primary care center that provides care to a low-income population. Exclusion criteria included history of birth at <36 weeks’ gestation, asthma, other chronic pulmonary disease, or cardiac disease.

METHODS. The primary caregivers of the children in the study filled out a questionnaire that included items on demographics, smoking status of individuals living in the children’s homes, number of cigarettes smoked per day, and the locations in which individuals smoked. Primary caregivers also gave samples of their own and their children’s hair for measurement of levels of cotinine.

RESULTS. A total of 7 subjects (2%) had hair cotinine levels of <0.01 mg/mg, 99 subjects (34%) had levels of <0.3 mg/mg, 68 (23%) had midrange levels of 0.3–0.7 mg/mg, and 124 (43%) had levels of >0.7 mg/mg. Factors associated with higher cotinine levels included maternal smoking, the presence of other smokers in the home, and where persons other than the mothers smoke (ie, in the home or outside the home). Interestingly, the reported location of mothers’ smoking (indoors versus outdoors) was not associated with cotinine levels in the hair. The investigators used this information to create a model questionnaire to predict ETS exposure. Three questions were selected: does the mother smoke, do others in the home smoke, do others who smoke remain inside the home or go outside. Using this model, children of mothers who smoke and are also exposed to others who smoke inside the home have an 81% chance of having high exposure to ETS. In contrast, children of mothers who do not smoke and are not exposed to others who smoke have a 64% chance of low exposure to ETS.

CONCLUSIONS. It was possible to derive a simple and valid screening tool to identify children at risk for ETS exposure, but this tool still needs to be tested prospectively.

REVIEWER COMMENTS. We all struggle with our patients’ exposure to ETS in the home. Part of the struggle has to do with obtaining accurate information about exposures. The screening tool described in this study needs to be tested prospectively, but it may prove to be highly useful. Of interest is the finding that it did not matter, in terms of levels of cotinine in children’s hair, whether their mothers smoked indoors or reported that they limited themselves to outdoor smoking. We may speculate that this finding has to do with inaccurate reporting (shame about smoking indoors) or to the large amount of particulate residue that remains on smokers after they smoke.
Racial and Ethnic Differences in Asthma Diagnosis Among Children Who Wheeze

Christopher Randolph

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