DOES INFLUENZA VACCINATION PREVENT ASThma EXACERBATIONS IN CHILDREN?


Objective. Influenza is known to aggravate asthma; however, the effectiveness of the influenza vaccine in preventing influenza-related asthma is not known.

Study Population. Children 1 through 6 years old with asthma from 4 large health maintenance organizations.

Methods. This was a population-based, retrospective cohort study that used medical and vaccination records from 4 large health maintenance organizations within the United States during the 1993–1994, 1994–1995, and mid-1995–1996 influenza seasons. Children with asthma were identified by searching computerized databases of medical encounters and pharmacy records. The main outcome measures were exacerbations of asthma that were treated in the emergency room or hospital.

Results. Unadjusted rates of asthma episodes were higher after influenza vaccination than before vaccination. However, after adjusting for asthma severity, the incidence rate ratios of asthma exacerbations after vaccination were 0.78, 0.59, and 0.65 compared with the period before vaccination during the 3 respective influenza seasons.

Conclusion. After controlling for asthma severity, the authors found that influenza vaccination protects against acute asthma exacerbations in children.

Reviewer’s Comments. This is a useful study in that it supports the recommendation to provide influenza vaccinations to children with asthma, especially for those children with more severe asthma. Although other viruses clearly cause more asthma exacerbations than influenza, at least this one can be prevented. Additional prospective studies in larger populations to confirm these results would be very helpful.

Christopher Randolph, MD
Waterbury, CT

INSIGHT INTO PATIENT DISSATISFACTION WITH ASThma TREATMENT


Purpose. Measures of patient satisfaction or dissatisfaction with treatment are increasingly being used as indicators of quality of care. As these measures become more widely used, it is important to know if patient dissatisfaction is associated with important processes or outcomes of medical care.

Patient Population and Methods. Survey of patient-reported asthma management issues using the Asthma Therapy Assessment Questionnaire in a Kaiser health maintenance organization in the Pacific Northwest. Associations between patient dissatisfaction with asthma treatment and patient-reported measures of asthma control, patient-provider communication, and belief in asthma medications (self-efficacy) were examined.
Results. Of the 5181 adult members with asthma enrolled in the health maintenance organization, 30% indicated dissatisfaction with current treatment. Dissatisfaction was higher among patients with a higher number of asthma control problems, patient-provider communication problems, or belief in medication problems (eg, failure to believe their medications are useful and inability to take asthma medications as directed). The odds of dissatisfaction with treatment were 2.8 (95% confidence interval [CI]: 2.4–3.3; P < .001) for asthma control problems, 2.0 (95% CI: 1.6–2.6; P < .001) for communication problems, and 8.0 (95% CI: 6.7–9.5; P < .001) for belief in medication problems compared with patients without these perceived problems.

Conclusion. Patient dissatisfaction with treatment may be related to important asthma disease management issues.

Reviewer’s Comments. The study did not distinguish those patients treated by specialists or primary care physicians. Nonetheless, the results also suggest that patients with more severe asthma are least satisfied with their care. However, most patients did not have basic treatment information, overused rescue medications, had regular nocturnal symptoms, and limitations in their activities. Sounds like they weren’t being well-managed.

Allen Adinoff, MD
Aurora, CO

QUALITY OF CARE AND OUTCOMES OF ADULTS WITH ASTHMA TREATED BY SPECIALISTS AND GENERALISTS IN MANAGED CARE


Purpose of the Study. The growth of managed health care in the United States has been accompanied by controls on access to specialty physician services. We examined the relationship of physician specialty to treatment and outcomes of patients with asthma in managed care plans.

Study Population and Methods. We conducted a mail survey of adult asthma patients who were enrolled in 12 managed care organizations and had at least 2 contacts for asthma (International Classification of Diseases, Ninth Revision, Clinical Modification code 493.x) during the previous 24 months; we also surveyed their treating physicians. This report concerns 1954 patients and their 1078 corresponding physicians. Treatment indicators included use of corticosteroid inhalers, use of peak flow meters, allergy evaluation, discussion of triggers, and patient self-management knowledge. Outcome measures included canceled activities, hospitalization or emergency department visits, asthma attacks, work days lost, asthma symptoms, physical and mental health, overall satisfaction with asthma care, and satisfaction with communication with physicians and nurses.

Results. Significant differences were noted for patients of specialists and experienced generalists compared with those of generalist physicians. Peak flow meter possession was reported by 41.9% of patients of generalists, 51.7% of patients of experienced generalists, and 53.8% of patients of pulmonologists or allergists. Compared with patients of generalists, outcomes were significantly better for patients of allergists with regard to canceled activities, hospitalizations and emergency department visits for asthma, quality of care ratings, and physical functioning. Patients of pulmonologists were more likely to rate improvement in symptoms as very good or excellent.

Conclusion. In a managed health care setting, physicians’ specialty training and self-reported expertise in treating asthma were related to better patient-reported care and outcomes.

Reviewer’s Comments. We’ve seen this sort of stuff before. The twist here is the asthma care provided by physicians with “self-reported expertise” in addition to specialists. This suggests that primary care physicians who are willing to gain knowledge in asthma care and devoted the necessary time required, can achieve outcomes similar to specialists.

Allen Adinoff, MD
Aurora, CO

MATERNAL DEPRESSIVE SYMPTOMS AND EMERGENCY DEPARTMENT USE AMONG INNER-CITY CHILDREN WITH ASTHMA


Purpose of the Study. Inner-city minority children with asthma use emergency departments (EDs) frequently. This study examines whether maternal depressive symptoms are associated with this increased ED use.

Study Population. Children in kindergarten to fifth grade from inner-city schools in Baltimore and Washington, DC, were eligible for enrollment in the study. Children from these schools were eligible if they had an asthma diagnosis listed on their health records and their mothers reported that they had 1) asthma diagnosed by a physician, 2) day or night asthma symptoms, including wheezing, shortness of breath, and/or a cough at least once a week during the past 2 weeks, and/or 3) at least 1 visit for asthma to the ED in the previous 6 months or 1 overnight hospitalization for asthma in the previous year. Ninety-eight percent of the children were African American. One hundred fifty-eight of 338 respondents participated in both the baseline and follow-up surveys.

Methods. Telephone surveys were conducted at baseline and 6 months to evaluate ED use relative to child and maternal measures. The primary outcome measure was the number of ED visits (that did not result in hospitalization) reported by the mother between the baseline and 6-month follow-up interview. Independent variables evaluated included asthma morbidity, maternal age, maternal depressive symptoms (as measured by the Center for Epidemiologic Studies–Depression Scale), and other psychosocial data.

Results. Among mothers, nearly half reported significant levels of depressive symptoms. There were no demographic or asthma-related differences between the children of mothers with high and low depressive symptoms. However, in bivariate analyses, mothers with high depressive symptoms were 40% (prevalence ratio [PR]: 1.4; 95% confidence interval [CI]: 1.0–3.6; P = .04) more likely to report taking their child to the ED. Mothers aged 30 to 35 years were more than twice as likely (PR: 2.2; 95% CI: 1.9–9.3; P = .001) to report ED use, as were children with high morbidity (PR: 1.9; 95% CI: 1.4–7.1; P = .006). Child age and family income were not predictive of ED use. After controlling for asthma symptoms and mother’s age, mothers with depressive symptoms were still 30% more likely to report ED use.

Conclusions. Depression is common among inner-city mothers of children with asthma. Beyond asthma morbidity, maternal age and depressive symptoms are strong predictors of reports of ED visits. Identifying and addressing poor psychological adjustment in mothers may reduce
Insight Into Patient Dissatisfaction with Asthma Treatment
Allen Adinoff
*Pediatrics* 2002;110;453

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