DIAGNOSIS AND MANAGEMENT

PILOT STUDY OF A SCREENING QUESTIONNAIRE FOR ASTHMA


Purpose of the Study. To determine the specificity, sensitivity, and feasibility of using a 2-part (child + parent questionnaire) case finding tool (Video-guided Asthma Screening for Children-School Age, VASC-SA) to identify elementary school children with asthma.

Study Population. A total of 350 matched parent-child pairs

Methods. As part of the VASC-SA, children and parents were both queried. The child checklist included 2 practice items and 9 items asking about asthma symptoms and diagnosis. The items were visually cued using a 10-minute videotape using split-screen vignettes, one corresponding to a no response (most children do not...) and one to a yes response (some children...). Three case definition algorithms were examined (all included inhaled medication, or current diagnosis, or wheeze with 0, 1, or 2 other symptoms). The VASC-SA was administered to English-speaking children in grades 1 to 4 from one school. All parents were sent a written asthma questionnaire. Positive screens were compared with diagnosis obtained from physician report or parent interview.

Results. Asthma prevalence in this sample ranged from 14% to 14.9% using VASC-SA case definitions. Sensitivity for the 3 definitions ranged from 79% to 81% and specificity ranged from 94.5% to 95%. The predictive value positive ranged from 66% to 69% and predictive value negative was 97%. Concordance of child and parent reports was highest for previous asthma diagnosis and use of inhaled medication.

Conclusions. The VASC-SA appears to be a promising new epidemiologic tool to facilitate asthma screening in elementary schools. Prescreening children before parents may offer a practical approach in a large, community-based population.

Reviewer’s Comments. The authors observed that even more restrictive definitions of asthma eg, wheeze plus 1 or 2 other symptoms, or medications, or current diagnosis did not significantly alter the sensitivity or specificity of results (beyond simply wheezing alone, or medications, or current diagnosis). They also point out that the sensitivity and specificity of child-reported symptoms alone were low and thus inadequate without parental verification. Surprisingly, 30% of children with a parent diagnosis of asthma were unknown to the school nurse before the study. In addition, eight children (2.2%) received a new diagnosis of asthma as a result of the screening. Future longitudinal studies should include assessment of asthma severity and follow-up for those with a positive screen (to get a sense of the clinical impact of using the VASC-SA).

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CONSISTENCY OF CARE WITH NATIONAL GUIDELINES FOR CHILDREN WITH ASTHMA IN MANAGED CARE


Objective. To determine the consistency of care for pediatric asthma with the National Asthma Education and Prevention Program guidelines.

Study Population. The study included 318 children 5 to 17 years old with asthma.

Methods. A cross-sectional survey at 2 managed care organizations in the United States was conducted in 1997–1998. The participants were actually the parents of the 318 children with asthma. The outcome measures were an evaluation of the care provided in 4 domains: 1) periodic physiologic assessment, 2) appropriate use of medications, 3) patient education, and 4) control of factors contributing to asthma severity.

Results. A total of 533 patients were eligible for the study and 318 (60%) participated. A total of 59% were male, 76% were white, and 60% were 5 to 10 years of age. Deficiencies in care were identified in all domains, including 45% of children with moderate and severe asthma on no daily long-term controllers, 49% having written instructions for managing asthma episodes, 44% having instructions for the appropriate use of medication before exposures, and 56% having been evaluated by allergy testing, and 54% having been evaluated by pulmonary function tests.

Conclusion. The care of children with asthma is deficient in many areas, particularly including the use of controller medications and asthma education.

Reviewer’s Comments. This study clearly indicates the need for a comprehensive approach to asthma management in managed care settings. These results, however, are almost certainly applicable to most primary care settings, where time constraints make it difficult for even the best-educated practitioner to implement all of the necessary components of asthma care. For most patients with moderate and severe asthma, care will be most effectively delivered in a collaborative effort between the primary caretaker and an asthma consultant.

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USE OF INHALED ANTIINFLAMMATORY MEDICATION IN CHILDREN WITH ASTHMA IN MANAGED CARE SETTINGS


Purpose of Study. To study the factors associated with dispensing of antiinflammatory (controller) asthma medication to children in 3 managed care organizations (MCOs).

Study Population. A total of 13 352 children aged 3 to 15 years with at least 1 diagnosis of asthma.

Methods. Using automated databases, a 1-year cross-sectional study of children with asthma aged 3 to 15 years, cared for in 3 MCOs was used to evaluate the association of age and other factors with controller medication use.

Results. A total of 13 352 children were studied. Significantly fewer children aged 3 to 5 years were dispensed any (≥1) controller medication than older children (P < .001). Among children dispensed 6 or more β-agonists, only 39% also received 5 or more controller dispensings, with adolescents significantly less likely than younger children to receive 5 or more controllers (33%; P < .001). Significant differences were observed among MCOs in proportions of patients dispensed controller medication. In a multiple logistic regression model, controlling for frequency of β-agonist-dispensing and MCOs, significantly lower dispensing of any controller medication was seen for those aged 3 to 5 years (odds ratio [OR]: 0.8; 95% confidence interval [CI]: 0.7–0.9) and for girls (OR: 0.9; 95% CI: 0.8–0.96). In contrast, for repeated (≥5) controller dispens-
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Christopher Randolph
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Pediatrics 2002;110;450

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