Why Don't Pediatricians Follow Asthma Guidelines?

Cabana MD, Rand CS, Becher OJ, Rubin HR. Reasons for pediatrician nonadherence to asthma guidelines. Arch Pediatr Adolesc Med 2001;155:1057–62.

Study Overview

Objective. To identify barriers to physician adherence to the National Heart, Lung, and Blood Institute (NHLBI) asthma guidelines.

Design. Cross-sectional survey using a mailed questionnaire.

Setting and participants. A random sample of 829 primary care pediatricians selected from the American Medical Association master file. Pediatricians in training, pediatricians who worked more than 50% of the time outside of clinical practice (eg, administration, research), and pediatric specialists were excluded. Honoraria were not offered, and nonrespondents received up to 3 reminder surveys and a telephone call.

Main outcome measures. Self-reported adherence to 4 components of the NHLBI guidelines (steroid prescription, instructing peak flow meter use, screening and counseling patients with asthma for smoking, and screening and counseling patients' parents for smoking) and possible barriers to adherence were measured. Adherence was defined as following a guideline component more than 90% of the time.

Main results. The response rate was 55% (456/829). Most responding pediatricians were aware of the guidelines (88%) and reported having access to a copy of the guidelines (81%). Self-reported rates of adherence were between 39% and 53% for the guideline components. After controlling for demographics and other barriers, nonadherence was associated with specific barriers for each guideline component: for corticosteroid prescription, lack of agreement (odds ratio [OR], 6.8 [95% confidence interval {CI}, 3.2 to 14.4]); for peak flow meter use, lack of self-efficacy (OR, 3.4 [95% CI, 1.9 to 6.1]) and lack of outcome expectancy (OR, 4.7 [95% CI, 2.5 to 8.9]); and for screening and counseling of patients and parents for smoking, lack of self-efficacy (OR, 3.8 [95% CI, 1.7 to 6.2] and 2.8 [95% CI, 1.3 to 5.9], respectively).

Conclusion. Although pediatricians in this sample were aware of the NHLBI guidelines, a variety of barriers precluded their use of the guidelines.

Commentary

This study provides results that are similar to the findings of other authors who used different databases to assess pediatricians' awareness of asthma guidelines [1]. Awareness seems to be between 88% and 91%. It is unclear whether we should celebrate the 90% success rate or worry about the 10% deficit considering the high prevalence of asthma and its impact on the pediatric population. The health care system should seek every means to assure wide distribution of the guidelines and appropriate instruction for practicing physicians. The poor adherence to the different components, 39% to 53%, is worrisome and represents a challenge to the health care system, which needs to develop novel approaches to overcome existing barriers. Improving adherence is particularly important when it comes to the use of asthma guidelines, which have been shown to decrease the cost of hospitalization and the number of visits to the emergency room and the physician [2].

The design of this study has inherent limitations. A cross-sectional survey provides relatively weak evidence; however, it explores a large sample at multiple locations for a reasonably low cost. Nevertheless, this study had a low response rate (55%), and the comparison between responders and nonresponders is limited to 3 variables: age, sex, and board certification (the latter achieving a statistically significant difference). With this limited evaluation, it is very difficult to explore bias, and generalizations should be made cautiously.

Applications for Clinical Practice

Clinical practice guidelines are important tools for improving outcomes. It is important to identify and overcome barriers that prevent their implementation. These barriers exist at many levels of the health care system and the solutions, although

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complex, are achievable. Dissemination and teaching of the guidelines should be done by major health organizations and should target 100% of potential users. The patients should also be involved and educated so that they may act as a driving force behind the change from empirical to evidence-based medical practice.

–Review by Pedro J. Caraballo, MD

References

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2. Suh DC, Shin SK, Okpara I, et al. Impact of a targeted asthma intervention program on treatment costs in patients with asthma. Am J Manag Care 2001;7:897–906.