

Rethinking Access to Care



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In this issue of *JACI-in-Practice*, Butz et al¹ report on predictors of regaining asthma control 6 months after an exacerbation among children living in the inner city. As part of a clinical trial (NCT01981564), to evaluate the impact of an emergency department (ED)-based intervention that included follow-up care, asthma education, and a targeted environmental intervention, the authors enrolled 222 children 3 to 12 years of age during an asthma ED visit who had a history of persistent, uncontrolled asthma and during the previous 12 months either 2 or more ED visits or 1 or more hospitalizations for asthma. The participants were predominately African American (93%) and low income (94% Medicaid). At the time of the ED visit, asthma control was judged as not well controlled (NWC) for 47% and very poorly controlled (VPC) for 53%. Six months later, only 12.7% of the participants were well controlled, whereas 41.1% were NWC and 46.2% were VPC. Four factors associated with VPC were allergic rhinitis, increased number of routine visits to primary care physician, caretaker worried about medication side effects, and evaluation during fall or spring season.

The failure to achieve acceptable control is surprising given that even the control group in most clinical trials of asthma achieve a measure of clinical improvement. A number of different reasons could explain this inability to regain asthma control. Did the authors inadvertently recruit relatively treatment nonresponsive children despite the finding that the majority of the children were atopic, a usual indicator of responsiveness to corticosteroids? The Asthma Phenotypes in the Inner City (APIC) from the Inner City Asthma Consortium (ICAC) enrolled more than 700 children living in the urban poverty areas who were 6 to 17 years old with no restriction on asthma severity. The children were aggressively treated and closely followed over a 1-year period. Five clusters were identified in the analyses, 2 of which continued to have a high level of morbidity despite the aggressive treatment. One of the groups had a high level of atopy, whereas the other was relatively nonatopic. Because of the oversampling strategy used in the design of APIC,

it is impossible to determine what proportion of asthma in the population fall into these 2 subgroups.²

Other studies that have provided comprehensive guidelines for appropriate care with access to the medications have found that the vast majority of inner city children and adolescents receiving treatment achieve acceptable levels of control.^{3,4} Thus, the treatment-resistant phenotypes found in APIC probably reflect a small portion of the inner city asthma population.

To try to understand the failure to achieve control, we next need to look at what factors were associated with this outcome. Two of 4 factors found to be associated with bad asthma control allergic rhinitis and evaluation during the fall or spring season have been reported in other studies.^{2,5-7}

One factor identified in this study, ≥ 2 primary care provider (PCP) visits, seems counterintuitive. By design of the study, the participants had multiple contacts including a visit in the ED, another 7 days out, and several during the study. An important goal in the ongoing effort to reduce asthma morbidity is increasing access to both primary and, if needed, specialty care. A number of reports lend support to this concept. A study looking at the characteristics (continuity, access, contextual knowledge, communications comprehensiveness, coordination of care) of a medical home in preventing readmissions among children with asthma exacerbations found an increase in access to be the only characteristic associated with a reduction in asthma readmissions.⁸ A study of the Tennessee Medicaid population between 2004 and 2010 found a decrease in asthma hospitalizations that was accompanied by an increase in outpatient visits and a stable rate of ED visits.⁹ One interpretation is that the better disease management in the outpatient visit was impacting the disease by reducing exacerbations but was not changing the habits of seeking acute care in the ED.

Yet despite this early and frequent contact through PCP visits, only 49.5% filled the oral corticosteroid prescription from the ED and 24.5% of the VPC at 6 months had not used any inhaled corticosteroids in the last 2 weeks. This finding probably is a result of another factor identified, the parents concern about the medication's side effects. Also, at 6 months 62% of the VPC and 79% of the NWC children were described as well controlled in the last 4 weeks by their mother despite their high level of asthma morbidity. Thus, it appears that the contact with the PCP had little influence on behavior or beliefs. The reason may be the family's lack of receptiveness to the need for care.

We need to conceptualize our approach to families with asthma away for the classic medical model of improved access to care with better treatment to one that includes the patient's receptiveness to the care we are offering. We need to better understand what the family and patient beliefs and desire for change are. One possible way is to conceptualize this in regard to asthma in terms of the stages of change model

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(precontemplation, contemplation, preparation, action, maintenance) that have been so successful in smoking cessation.¹⁰ Asthma clinical interventions need to be presented differently depending on when in the continuum the family and patient are. As we better refine our approach to the patient and family, the community and environment in which they live must not be forgotten. Classically, the asthma relevant environment has been defined as allergens, pollution, and environmental tobacco smoke. Our view needs to be expanded to include a more comprehensive understanding of the environment in which our patients live, as instability of housing, access to transportation, or family functioning affects the lives of inner city families that prevent focusing on asthma.^{11,12} A previous ICAC study showed that an asthma counselor intervention that in addition to asthma education taught communication skill to enhance the doctor patient discussion and provided referrals to appropriate community resources for psychological and social issues resulted in improved asthma control.¹³

Although this recent report was based on inner city children, the problems with asthma control are not limited to the inner city. Among participants 6 to 17 years of age with asthma who participated in the 2007-2013 Medical Expenditure Panel Survey, 58.7% reported an exacerbation in the past 12 months, whereas only 19.2% reported daily controller use.¹⁴ Another study of children 4 to 18 years old and their families found that they perceived a higher level of control than that determined by questions focusing on the specifics of disease burden.¹⁵ Therefore, the approaches suggested above have the potential for a much wider use as many of the issues seen in this study are true across the entire population. It is becoming increasingly apparent that the lessons from inner city studies have important applications in the wider population.

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