Improving Asthma Care by Building Bridges Across Inpatient, Outpatient, and Community Settings

Sean M. Frey, MD, MPH; Jill S. Halterman, MD, MPH

Pediatric asthma continues to pose a significant challenge to population health. Despite more than 25 years of management guidelines1 from the National Heart, Lung, and Blood Institute and the wide availability of effective controller medications, asthma morbidity rates in the United States have stagnated.2 In this issue of JAMA Pediatrics, Kercsmar et al3 detail the influence of a triphasic quality improvement initiative on asthma outcomes in a population of Medicaid-insured children and adolescents (aged 2-17 years) in Hamilton County, Ohio. The 3 domains of bundled quality improvement (QI) interventions (inpatient, outpatient, and community) were sequentially implemented during a 5-year period and engaged a multidisciplinary team grounded in the chronic care model.

Compared with a 2-year baseline period, this approach to asthma care yielded impressive outcomes, including a 36% relative reduction in asthma-related hospitalizations and a 42% relative reduction in asthma-related emergency department (ED) visits.3 A persistent effect was observed for at least 12 months after the completion of phase 3. The number of patients with oral corticosteroids and inhaled controller medications in hand at the time of hospital discharge increased, and the authors speculate that morbidity results were at least partly driven by these efforts. Although providing access to controller medications does not ensure adherence, it is a critical step toward reducing barriers to routine inhaled corticosteroid use, which has been repeatedly associated with decreased hospitalizations and ED visits.4-6

A few comments on methods are warranted. The lack of Medicaid enrollment data before 2007 only permitted a 2-year baseline period, which may not be sufficiently long term to reflect local or regional trends in asthma morbidity. Despite the stable background rates of asthma-related hospitalization and ED use described, morbidity increased in Hamilton County during the baseline period.7 It is unclear whether the observed increases represent a true surge in use or whether a wider range of baseline data would have better approximated the steady rates in greater Ohio and the United States, an important consideration when differentiating the influence from regression to the mean. The limited baseline data available for process measures (eg, medications in hand at discharge) prevented meaningful comparison with postintervention rates. In addition, the lack of process-related outcome measures for some of the costliest interventions (eg, home visitation, care coordination, and school screening and referral) impedes understanding of the value of these specific components and the potential generalizability to other communities.

Although the large number of interventions precludes determination of which individual components were most influential, the multifaceted approach should be considered to be a strength of the program. Enhancing care delivery within a tiered theoretical framework such as the chronic care model necessitates actions in multiple domains, and improved outcomes are likely attributable to the synergistic influence on patients and processes. The children and adolescents at highest risk face many social, economic, and environmental challenges in addition to their chronic illness. After years of elevated morbidity, the work of Kercsmar et al3 is a demonstration of how interdisciplinary care focused within a biopsychosocial model can improve outcomes for vulnerable children. Future efforts to replicate these results in other communities should continue to emphasize this patient-centered, biopsychosocial philosophy, with heightened attention to the challenges that remain for children and families.

Racial and ethnic disparities in pediatric asthma are well documented in the United States. Black and Hispanic children and adolescents have higher background rates of asthma prevalence and morbidity than do white children and adolescents.2 This morbidity gap is driven in part by access to effective controller medications: minority pediatric patients are less likely to be prescribed or adhere to controller medications.7-8 Although a recent at-risk analysis indicates that racial disparities in pediatric asthma morbidity may be shrinking,9 much work remains. Future analyses from this Cincinnati data set might examine whether the observed influences are distributed equitably among children and adolescents from different racial/ethnic backgrounds. If so, this would represent a significant step forward in asthma care for pediatric patients at highest risk that would be worthy of broad replication.

Different communities will determine how best to leverage their unique strengths and available resources to implement similar initiatives, and including patients as stakeholders will be key to success in any setting. Whether by inclusion on multidisciplinary care teams or through community-based participatory research, patients are best situated to identify their own needs, cultural frameworks, and barriers to care. If this is not feasible, examples in the literature of how to deliver high-quality, patient-centered asthma care that bridges health care and community settings are increasing. Kercsmar et al3 describe the use of care coordination and home visits; expanding these efforts by using community health workers to deliver community-based, culturally appropriate outreach care can help reduce asthma symptoms and acute health care utilization.10 Partnering with schools to conduct school-based asthma screening is described in the article3; coupling this with the supervised administration of controller medications in schools can help improve symptoms and reduce school absenteeism.11 Finally, use of emerging technologies, such as telemedicine, to ensure access to preventive asthma visits offers the potential to improve care and reduce health disparities.

Of importance, any future efforts to replicate this work in a patient-centered way should include consideration of how
Navigating Nondisclosure Requests in Pediatrics
Honesty and Sensitivity Are Transcultural Practices

Deena R. Levine, MD; Liza-Marie Johnson, MD, MPH, MSB; Justin N. Baker, MD

In a world rich with diversity, practicing culturally sensitive medicine is a unique challenge. Western medical ethical principles do not always translate well to other cultures. This is especially the case with regard to disclosure of prognosis in patients with terminal illness, particularly pediatric patients.

In the review by Rosenberg and colleagues,1 the authors discuss the issue of request for nondisclosure of terminal prognosis using a hypothetical case example of Sara, a 15-year-old girl from the Middle East. A review of Western and Middle Eastern literature reveals great variability by country, medical specialty, and individual preference.2 The diversity of preferences underscores the importance of not making assumptions regarding patient and family values and beliefs and stresses the importance of individual assessments by the health care professional.

Further, the authors1 discuss the limitation of cultural relativism in that deference on the basis of cultural sensitivity must have reasonable limits to respect universal values.3 There must also be reciprocity in which the health care professional must not be forced to violate his or her own morals to respect another’s cultural preference.4

REFERENCES