

## Eliminating Variation in Asthma Management

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For many years the actual management of asthma has fallen far short of the potential to control this very important disease. Even before physicians understood that asthma was essentially a disease of airway inflammation requiring long-term anti-inflammatory therapy, patients did not do as well as most of us who regularly treated asthma felt was possible. In the days when bronchodilators were the primary asthma medication, it was common to hospitalize a patient whose asthma was very poorly controlled as an outpatient; with very little modification of what was thought to be the outpatient regimen, the asthma would come almost magically under control. This suggested that either the outpatient treatment was not optimal or the patient was nonadherent, or both. Now, with our new understanding of the pathogenesis of asthma, we are in a position to successfully treat 90% to 95% of our asthma patients. Yet the problem of suboptimal asthma management persists.

Patients whose asthma is difficult to control may have many coexisting conditions causing the problem, including gastroesophageal reflux, rhino sinusitis, and the like, which frequently require thoughtful evaluation to identify and correct. Sometimes patients whose asthma fails to respond to treatment actually have some disorder other than asthma causing airflow obstruction, or what appears to be airflow obstruction. The vast majority of treatment failures, however, are related to patients not properly taking medication appropriately. This may be because the physician does not prescribe

it, or because the patient is not adequately educated or provided the skills necessary to respond appropriately.

Experts in the field of asthma have long known how to control this disease. Part of the problem is merely the slow process of diffusion of knowledge and skills to everyone that needs them. Diffusion research has shown that even when the benefits of an alternative course of action are clear, the alternative may not be readily adopted.<sup>1</sup> We have had excellent guidelines since 1991 that have been updated to reflect the shift in management toward inhaled steroid therapy.<sup>2</sup> While progress has been made, it is very discouraging to see just how much variation in managing asthma exists. The evaluation by Legorreta and colleagues of 47 group practices in California provides an excellent demonstration of where we are today.<sup>3</sup> The very low rate of steroid inhaler use, which ranges from 10% to 45% across these practices, epitomizes this problem.

A recent analysis of outcomes from the patient education program in our specialty practice found very little difference when usual care was compared with specific educational programs.<sup>4</sup> This failure to show better outcomes with more intensive education has not been our experience in the past and is not the experience reported throughout the literature. We attributed this lack of difference among types of education programs to the improvement of usual care in our specialty asthma practice where the standard of care is the guidelines of the National Heart, Lung, and Blood Institute. In our study, more than 60% of the patients reported regular use of inhaled steroids as preventive therapy and all of them received training in inhaler use skills and compliance enhancement techniques. Although not all patients need to see specialists, all patients need to receive the proper therapy and, in some cases, this therapy may be available only from asthma care specialists, as suggested by the report of Legorreta and colleagues.<sup>3</sup>

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When examining the issue of utilization of specialists in managed care practices, Legorreta and colleagues found that only 18% of the patients with moderate or severe asthma had regularly seen an asthma specialist. Furthermore, this varied significantly across the practice groups, ranging from 8% or fewer patients treated by a specialist in the lowest quartile to 38.7% in the highest quartile. This led the authors to conclude that none of the groups relied primarily on asthma specialists to deliver asthma care.

The use of peak flow meters ranged from zero to 13%, which is quite amazing in light of the recommendations for their use with patients with moderate-to-severe persistent asthma in the asthma guidelines.<sup>2</sup> While it could be argued that peak flow meters are not an essential component to every asthma care program, the striking lack of use here is a good marker of either lack of awareness or lack of serious attention to the guidelines. The percentage of patients reporting absenteeism resulting from their asthma in the past month ranged from 32% to 61% across the practices, which shows a remarkable lack of asthma control. The very high rate of lost school or work days, along with the very low use of inhaled steroids, shows substantial deficiency in medical care. Yet, when asked about satisfaction about the quality of care, the patients were quite satisfied. This may indicate that the patients themselves have no idea how much better they could do with proper treatment.

Such a deficiency of care is certainly not isolated to the practice groups studied by Legorreta and his colleagues. In our own experience, patients who are not taking inhaled steroids are commonly admitted to our hospital or referred to our clinic with moderate-to-severe asthma. Recently, we were asked to give a series of asthma self-management workshops for an employee group. The request was based on employer data that asthma-related physician visits and absences were high among the employees. The workshops were attended by a relatively small number of employees, and attendees were probably those most vigilant about asthma care. Yet, the majority of attendees reported they were not under specialty care, many had not been prescribed inhaled steroids, and the few that had were unable

to differentiate them from their bronchodilator inhalers. Few had ever used a peak flow meter, and several had never seen one.

From these experiences, we feel that physician education is not sufficient. Many means are available for educating healthcare providers and diffusing guidelines among physicians.<sup>5-7</sup> One approach is a "direct-to-consumer" campaign that informs patients about treatment needs, such as that suggested by Legorreta and colleagues. We need to get the word out to the patients that their asthma can be well controlled and, if they are not doing well, they can advocate for better treatment with their providers or seek care elsewhere. This has seemed to work with both hypertension and cholesterol screening. Patients now know what their blood pressure and cholesterol levels should be and make a point to discuss them with their physicians. When patients start asking for and expecting specific elements of medical care that are agreed on by the scientific community at large to be appropriate, it won't take us physicians long to be prepared to provide that care. At least that is our hope.

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