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ASTHMA—SELF-MANAGEMENT AND SELF-DELUSION

GEORGE SANTAYANA wrote that patients who cannot remember whether they took their medicines and whether they worked are condemned to get sick again.* This insight is perhaps no more apt than in the management of asthma. This *CD Summary* describes findings from the Oregon Survey of Adult Asthma (OSAA), a survey of more than 600 Oregonians with asthma conducted in 2002, with implications for taking a history from patients with asthma and helping them manage their illness between visits to your office.

I'M DOING JUST GREAT, DOC

Many patients with asthma tend to minimize the burden that asthma imposes on their lives. Among the one-third of OSAA respondents who reported missing one or more days of work, school or other daily activity due to asthma in the three months prior to the survey, the average number of days missed due to asthma was more than eleven; yet these respondents rated the degree to which asthma caused difficulty in conducting their regular daily activities as merely "moderate"—3 on a 5-point scale. So when a patient tells you that they are doing fine with their asthma, suspect a little sugar coating: a more detailed inquiry may reveal substantial room for improvement.

One place where there is likely to be room for improvement is in adherence to taking inhaled corticosteroids. These safe and effective long-term controller medications for asthma have been available in the U.S. for more than 20 years. Detailed clinical guidelines for the diagnosis and management of asthma have been in place since 1991 and were

* Or something like that.

† It is important to note that the pharmacy data used in the comparison covered the period from September 2000 to August 2001, while the OSAA data on those individuals still enrolled in the Oregon Health Plan is from mid-2002. While this may explain some of the variation, it is probably not the whole story. Most insured individuals are unlikely to change their asthma medication purchasing habits drastically from one year to the next.

most recently updated in 2002. Yet despite the growing evidence for the efficacy of long-term controller medications, many patients still experience largely avoidable exacerbations of their asthma.

Most OSAA respondents—83%—reported using a controller medicine (inhaled corticosteroids or ICS). Of those, 87% reported having been instructed by their doctor to use their ICS every day; and of this group, 84% reported that they do actually use their ICS every day or most days. These numbers sound pretty good, don't they? Well, they are indeed too good to be true, according to health plan billing data on pharmaceutical use for these same patients. These data reveal that 30% of respondents who reported frequent use of an ICS had not filled even one prescription for an ICS during the year's period. Even more revealing, the correlation coefficient, which measures the degree of the linear relationship between billing data and respondents' answers, is a mere 16% [95% CI .05, .24], indicating no or negligible correlation between the data sources.†

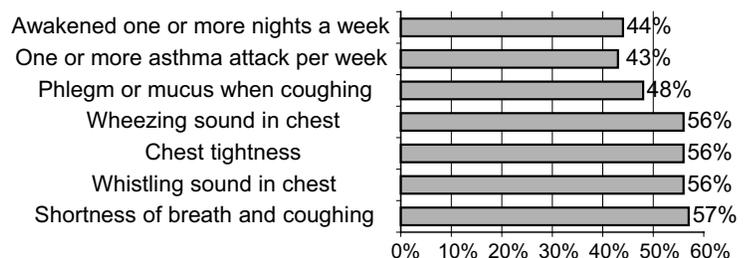
While you may not be able to verify your patients' pharmaceutical use independently, it appears that you should view their self-reported accounts of inhaled corticosteroid use with a healthy dose of skepticism. This also points out the need for systems that can provide objective information on pharma-

ceutical use by patients with asthma. Such a system would allow providers to differentiate whether or not poorly controlled asthma is due to an inadequate regimen, or due to lack of patient adherence to that regimen.

UNDERSTANDING WHAT TO DO IS NOT ENOUGH

OSAA data reveal that patients think that they understand how to manage their asthma completely. But, at the same time, they report having symptoms at a frequency that the National Heart, Lung, and Blood Institute considers an indicator of poor control. When OSAA respondents were asked whether they had been given written directions by a healthcare provider about how to take asthma medicine, and what to do in the case of a severe asthma attack, 48% of respondents checked "Yes, and I understand completely." However, the majority of these same individuals also reported enduring frequent asthma symptoms (see figure below) and one-third reported missing one or more days of work, school or other daily activities in the past three months due to their asthma. There appears to be a large gap between knowing what to do when asthma attacks and actually doing it. Encouraging data from the seven-year-old Asthma Disease Management Program run by Dr. Craig Jones within Los Angeles schools indicate that better

Frequency of Symptoms for OSAA Participants (48%) Who Reported Receiving and Understanding Written Instructions from Their Doctor





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asthma control can be attained and maintained when asthma care is well-designed. In that program, an average of 83% of patients achieved clinical control of their asthma within an average of two visits.¹

For some patients, lack of understanding or even frank denial may be at work. In a recent focus group study commissioned by the Asthma Program, twelve female smokers who are on the Oregon Health Plan and who have asthma or live with a family member who has asthma were interviewed. Most of the focus group participants were unwilling to believe that cigarette smoke could significantly exacerbate their own or their family member's asthma. Several argued that smoking decreased stress, which they reported to be a strong trigger for asthma. These same women highlighted the importance of their children's learning how to manage their own asthma at a very young age, disregarding the fact that exposure to second-hand smoke is likely to undermine even the most vigilant self-management regimen.

TOOLS TO HELP

A number of tools are available to help providers ensure that patients with asthma understand how to best manage their disease. The literature indicates that education on key aspects of asthma management does improve one's overall understanding of asthma.² Teaching patients by the traditional means of merely handing them information, however, does not seem to translate into effective prevention of asthma exacerbations. Patients need opportunities to

learn self-management skills that help them to become informed, involved patients.³ Providing this level of support can be difficult in the time available in a typical office visit. Fortunately, there are some new resources that are based on an interactive, skill building approach to self-management.

- The Oregon Asthma Resource Bank was developed by a collaboration of healthcare providers throughout the state. The web-based resource bank contains free, ready-to-print, clinically accurate, low-literacy asthma education handouts and provider tools based on the National Heart, Lung, and Blood Institute's *Guidelines for the Diagnosis and Management of Asthma* and the *Guide to Improving Asthma Care in Oregon*. Patients and health care professionals who reviewed the materials found them to be appealing and easy to read. The materials are intended to support your opportunity at the point of contact to help patients learn to self-manage their asthma. These materials will also help you to determine whether the questions you are asking are eliciting enough information about their true level of control. The Oregon Asthma Resource Bank is available online at <http://www.healthoregon.org/asthma/resourcebank>.
- *Living Well with Chronic Conditions* (Chronic Disease Self-Management Program) is a 6-week self-management class developed by Stanford University to help persons with asthma and other chronic diseases live healthier, more active lives. Participants, including people with asthma, have experienced

significant improvement in their health behaviors and health status as a result of this program.⁴ Study participants experienced a decrease in the number of hospitalizations, the number of days spent in hospital,⁴ and the number of visits to the emergency department.⁵ For more information about instructor training or the availability of patient classes in your community, contact the Oregon Asthma Program at 503/731-4273.

- For your patients who smoke, the toll-free Oregon Tobacco Quitline (1-877/270-STOP or 1-877/2NO-FUME) is a free telephone-counseling service available seven days a week. The Quitline offers motivational interviewing and evidence-based, individually tailored interventions for tobacco cessation. All calls to the Quitline are confidential. For more information, contact the Tobacco Prevention and Education Program at 503/731-4273.

REFERENCES

1. Jones C. What does good asthma care look like? Salem, OR: Oregon Health Plan Statewide Quality Improvement Workshop, September 14, 2004 (keynote address).
2. Baudinette L. Factors influencing compliance with asthma medication regimens. *Contemporary Nurse* 2000;9:71-9.
3. Bodenheimer T, Lorig K, Holman H, Grumbach, K. Patient self-management of chronic disease in primary care. *JAMA* 2002;288:2469-75.
4. Lorig KR, Sobel DS, Stewart AL, Brown BW, et al. Evidence suggesting that a chronic disease self-management program can improve health status while reducing hospitalization: a randomized trial. *Med Care* 1999;37:5-14.
5. Lorig KR, Ritter P, Stewart AL, Sobel DS, et al. Chronic disease self management program: 2-year health status and health care utilization outcomes. *Medical Care* 2001;39:1217-23.