

AN EPIDEMIOLOGY PUBLICATION OF THE OREGON DEPARTMENT OF HUMAN SERVICES

ASTHMA—IT'S NOTHING TO WHEEZE AT

HOW—cough—ARE—wheeze
 wheeze—WE — cough —
 DOING?—gasp...

Asthma is a common chronic disease that causes a great deal of mucus, misery and morbidity. The Oregon Asthma Program was started in 1999, with the goal of reducing the toll that asthma exacts from Oregonians. To accomplish this, the Asthma Program has undertaken two activities: the creation of a network of people interested in improving asthma care, and the development of a surveillance system to track indicators of the quality of asthma care. This issue of the *CD Summary* reviews some of the first surveillance data on asthma treatment in Oregon, and demonstrates that we have plenty of room to improve in our efforts to keep people with asthma out of the emergency department, hospital and coughin'.

HOW DO WE MEASURE ASTHMA CARE?

Informed by the National Asthma Education and Prevention Program's (NAEPP) *Guidelines for the Diagnosis and Management of Asthma*¹, the Asthma Program convened representatives of Oregon's primary care and specialty physicians, insurers, and patients in order to identify nine priority indicators that could be used for improving asthma care in Oregon. These indicators are described in a document (conveniently available on our website) called the *Guide to Improving Asthma Care in Oregon*.² The data presented here measure two important indicators in the *Guide*: pharmacologic management, and coordination of care between emergency departments and primary care.

To measure the indicators in the *Guide*, the Asthma Program assembled representatives of most of the major health systems in Oregon, including the Oregon Health Plan. Each representative reported aggregate diagnostic and claims data from their health plan. All told, these data represent nearly 600,000 commercial and Medicaid-insured Oregonians in five health plans,

aged 4–55 years, measured between 9/1/2000 and 8/31/2001. In these plans 2.8% of the commercial members and 5.4% of the Medicaid members have asthma.

PHARMACOLOGIC MANAGEMENT

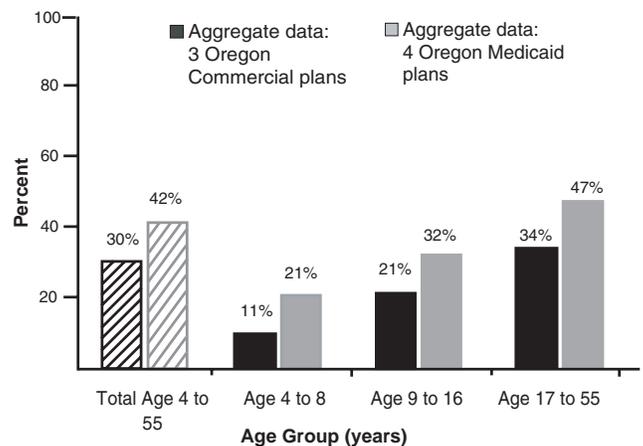
The NAEPP Guidelines strongly recommend that all patients with persistent asthma be treated with "controller" medication (primarily inhaled corticosteroids) to reduce inflammation. Emerging evidence suggests that early treatment with controller meds may prevent some of the long-term lung damage associated with asthma. Data from health plans in Oregon indicate that only 63–74% of patients aged 4 to 55 years old with persistent asthma filled one or more prescription for a controller medication within a year. This finding is consistent across age groups, and fairly similar between those with commercial and Medicaid insurance.

When controller medications are used appropriately, acute airflow obstruction and bronchoconstriction should occur rarely, and short-acting beta₂-agonists and other rescue meds should only be needed intermittently. Excessive beta₂-agonist use is therefore a sign that a patient's asthma is not well managed with controller medications. In some cases, overfilling of prescriptions for rescue medications may indicate that a patient has duplicate inhalers at work, school, and at grandma's house. Nevertheless, research data show that patients who use one or more beta₂-agonist inhalers per month have an increased risk of death or near-fatal asthma, even among those who appear to have less severe asthma. This suggests that overfill-

ing of rescue meds is a good marker for poorly controlled asthma³, and ought to be closely monitored. Data from Oregon's health plans show that on average, 30–42% of those patients aged 4 to 55 years old with persistent asthma receive six or more canisters or nebulizer treatment prescriptions of beta₂-agonists in a year. As shown in Figure 1 (below), use of beta₂-agonists increases with age, and is consistently higher among those with Medicaid than those with commercial insurance.

What impedes patients with persistent asthma from filling prescriptions for controller medications? One factor is that health care providers are not prescribing controller medications for all these patients. Another factor is that even among patients who are prescribed controller meds, the prescriptions may not get filled often enough, or at all. Patients may be concerned about potential adverse effects of long-term use of inhaled corticosteroids, such as reduced linear growth or bone density loss. These fears continue, despite evidence that when taken at the recommended dosages, these controller medications are well-tolerated and safe. The potential risks of adverse effects are small and must be weighed against the

Percent of health plan members with persistent asthma who received an average of six beta2-agonist canisters or nebulizer prescriptions, 9/2000 – 8/2001





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real, and significant, risks associated with uncontrolled asthma.¹ Other reasons may include the cost of the medication or lack of insurance coverage (beta₂-agonist inhalers are much less expensive than inhaled corticosteroids), the immediate gratification of using rescue inhalers, the long-term commitment needed to take daily inhaled corticosteroids, the perception that asthma is acute, not chronic, and denial of having the disease.

COORDINATION OF CARE

Another sign that a patient has poorly controlled asthma is a visit to the emergency department. Research shows that many ED visits can be prevented if patients receive optimal management for their asthma. In Oregon, health plans report that 8–16% of the plans' members with asthma aged 4 to 55 had one or more ED visits for asthma during the measurement year. This varied by age with a greater percentage of the youngest age group of asthmatics experiencing one or more ED visits (14% commercial, 20% Medicaid).

Timely follow up after an ED visit is also important. If a visit to the ED is a sign that the patient's asthma is not optimally controlled, then an adjustment of the patient's treatment regimen is usually indicated. Only 42–48% of Oregon's health plan members with asthma aged 4 to 55 years old who visited the ED had a follow-up outpatient visit within 30 days. As shown in Figure 2 (above), follow-up patterns varied considerably. Among young children, more of those with Medicaid received timely follow up. Yet among adults, more of those with commercial insurance received timely follow-up.

The data presented here are derived from records of those patients with insurance. The barriers to appropriate medication use and to follow up among the uninsured or underinsured are likely to be even greater.

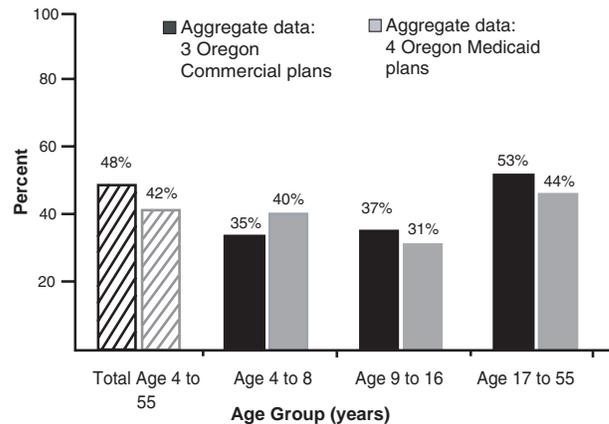
BOTTOM LINE

We still have a long way to go. So how does your practice stack up?

- Do you make sure that all your patients with persistent asthma are on controller medications?
 - Do you educate patients on the difference between controller and rescue medications, and allay fears about inhaled corticosteroids when needed?
 - Do you assure prompt follow up for patients who have been to the ED for asthma?
- And while you're at it (and as a segue to the next item in this issue of the CD Summary),
- Do you encourage patients with asthma to get a flu shot — preferably in October or November?

For more information about asthma in Oregon, contact the Oregon Asthma Program at 503/731-4025, or visit our website at <http://www.oshd.org/asthma>. The Asthma Program's *Guide to Improving Asthma Care in Oregon* is available from that website. The NAEPP's *Guidelines for the Diagnosis and Management of Asthma* is also available from the web at <http://www.nhlbi.nih.gov/guidelines/asthma/asthgdln.htm>.

Percent of ED visits for asthma that were followed by an outpatient respiratory visit within 30 days, 9/2000 — 8/2001



REFERENCES

- 1 National Asthma Education and Prevention Program. Expert Panel Report 2: Guidelines for the Diagnosis and Management of Asthma. National Institutes of Health pub. no. 98-4051. Bethesda, MD, 1997.
- 2 Improving Asthma Care in Oregon Workgroup. Guide to Improving Asthma Care in Oregon: Indicators for Quality Care in Health Systems. September 2001. At www.oshd.org/asthma/guideor.htm.
- 3 Spitzer WO, Suissa S, Ernst P, Horwitz RI, et al. The use of β -agonists and the risk of death and near death from asthma. *NEJM* 1992; 326(8): 501–6

Missed Flu Shots — A Big Problem!

PEOPLE WITH ASTHMA should receive a flu shot every year, yet according to the 2001 Oregon BRFSS*, only 44% of people with asthma report receiving one. Among those 65 years and older, 84% got their flu shots. The numbers drop precipitously for younger respondents, ending with 27% of 18 to 34 year olds.

* Oregon Department of Human Services, Health Services, Center for Health Statistics. Behavioral Risk Factor Surveillance System, 2001.