

## Editorials

Staff can also mail or call needed reminders to patients who do not come in to the office.

If your practice group is interested in implementing evidence-based guideline care and in showing the world that there does not need to be a "quality chasm," you can do it. All you have to do is discard outmoded ideas about how to change your practice and build your own office systems. You too can be an "insightful implementer."

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## Obstructive Sleep Apnea and Essential Hypertension—Is There a Link?

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Obstructive sleep apnea (OSA) occurs in 2 percent of women and 4 percent of men between 30 and 60 years of age.<sup>1</sup> (This compares with an incidence of 4.5 percent for asthma in this age category.)<sup>2</sup> OSA is infrequently diagnosed. The National Center on Sleep Disorders Research found that in 1989 and 1990, 99 percent of patients with OSA were not diagnosed.<sup>3</sup> Data from 1997 suggest that 95 percent of patients with OSA were not diagnosed.<sup>4</sup> In this issue of *American Family Physician*, Silverberg and associates<sup>5</sup> note that the diagnosis of OSA is delayed an average of seven years.

OSA occurs frequently in patients with hypertension. As many as one third of essential hypertension cases may be caused by OSA.<sup>6,7</sup> OSA can cause detrimental effects, including a sevenfold increase in motor vehicle crashes caused by somnolence at the wheel.<sup>8</sup> Persons with OSA experience a higher incidence of work-related accidents, poor job performance, depression, family discord, and decreased quality of life than do persons without the sleep disorder.<sup>9</sup>

What role do primary care physicians have in the prevention, diagnosis, and treatment of OSA? First, an awareness of the problem is essential. Primary care physicians can ap- ▶

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proach OSA by identifying risk factors, focusing on prevention, providing anticipatory guidance, treating comorbidities, and mitigating long-term consequences.

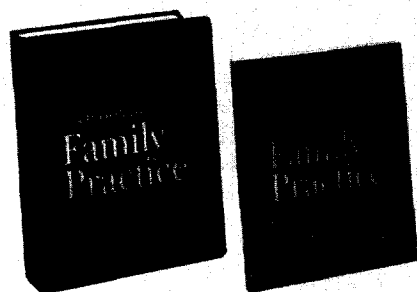
Physicians should systematically include sleep evaluations as part of a complete medical history and physical examination. Risk factors for OSA include obesity, family history of the disorder, smoking, large neck size, recessed chin, a narrowed airway, and male gender. Physicians should be aware that some patients with OSA do not have any of these risk factors.

Patients with OSA may present with excessive daytime sleepiness, loud snoring, dry mouth on waking, chronic nasal obstruction, intellectual dysfunction, social dysfunction,

irritability, depression, impotence, or morning headaches.<sup>8-10</sup> The Epworth Sleepiness Scale,<sup>11</sup> a simple screening tool for sleep disorders, may help identify symptoms.

On physical examination, findings may include truncal obesity, recessed chin, oropharyngeal obstruction or narrowing, large neck size (greater than 17 inches in men and 16 inches in women),<sup>10</sup> hypertension, depression, and cardiovascular disease.

Laboratory full-night polysomnography is the gold standard for diagnosing OSA. Geographic unavailability, patient inconvenience, and high cost limit its usefulness.<sup>9</sup> At-home overnight oximetry is used as an alternative to full-night polysomnography. Its advantages include wide availability, in-home use, and ▶



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relative low cost. However, it has poor sensitivity and specificity.<sup>10</sup>

The goals for treatment of OSA are to reduce morbidity and mortality and to improve quality of life. These goals can be accomplished by preventing the cardiovascular consequences of sleep apnea and by reducing daytime sleepiness, serious unintended injury, stroke, divorce, and occupational dysfunction.<sup>9</sup> Treatment of OSA, which is simple and readily available, can dramatically improve patients' quality of life and prevent many cardiovascular complications such as hypertension and congestive heart failure.

Patients with OSA should be counseled about the potential for motor vehicle crashes, job-related hazards, and impaired judgment. They should be encouraged to lose weight, avoid use of alcohol and sedatives, stop smoking, sleep in the lateral position, and get adequate amounts of sleep.<sup>9</sup>

Continuous positive airway pressure during sleep is often required. Medication and oxygen therapy usually are not beneficial. Dental appliances may be helpful in some patients. In severe cases, surgical intervention may be necessary. The overall success rate for surgery including uvulopalatopharyngoplasty and laser-assisted uvulopalatoplasty is about 40 percent. If present, comorbid conditions such as obesity, hypertension, hypothyroidism, and cardiovascular disease also need to be treated.

Family physicians see patients who are impacted by OSA in their offices daily. Most patients with OSA are not aware that they have this disorder, and it often goes undiagnosed. Results from studies show that educating primary care physicians about OSA results in an eightfold increase in the recognition and treatment of OSA.<sup>4</sup> By educating ourselves and our patients about OSA, we can significantly improve our patients' lives.

For more information, contact the National Center on Sleep Disorders Research at the National Heart, Lung, and Blood Institute

Information Center, National Institutes of Health, 6701 Rockledge Dr., MSC 7920, Bethesda, MD 20892-7920, telephone: 301-435-0199 or visit their Web site at <http://www.nhlbi.nih.gov/health/prof/sleep/index.htm>; the American Academy of Sleep Medicine, 6301 Bandel Rd. NW, Rochester, MN 55901, telephone: 507-287-6006 or visit their Web site at <http://www.aasmnet.org>; or the American Sleep Apnea Association, 1424 K Street NW, Suite 302, Washington, D.C. 20005, telephone: 202-293-3650 or visit their Web site at <http://www.sleepapnea.org>.

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