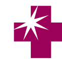
SleepSheet


Sequoia Hospital
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News from the Sequoia Sleep Disorders Center

PREMIER ISSUE WINTER 2010

Welcome to the inaugural issue of the SleepSheet, the new quarterly newsletter from the Sequoia Sleep Disorders Center for physicians and other healthcare providers. We look forward to bringing you summaries of current peer-reviewed articles in sleep medicine, as well as announcements about events at the sleep center, local news, and national policies that may affect your sleep patients. We will do our best to cull the medical literature for timely and clinically relevant articles.

We welcome your feedback and ideas for future issues of the SleepSheet.

Warm regards,

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Medical Director

Bernhard A. Votteri, M.D., FAASM
Founder

Clinical Guideline for Obstructive Sleep Apnea Provides Strategy for Evaluation, Management and Long-term Care

Summary discussion of the guideline published by the *American Academy of Sleep Medicine*

MELISSA S. LIM, M.D., FAASM

Obstructive sleep apnea (OSA) affects 2% to 4% of the adult population. This chronic disorder often requires lifelong care and is being increasingly recognized by the public. However, OSA is often overlooked because it is not routinely screened for, and when it is, the screening threshold for recognizing symptoms is generally set too high. The Adult Obstructive Sleep Apnea Task Force of the American Academy of Sleep Medicine has published a clinical guideline designed to assist primary care providers as well as sleep medicine specialists, surgeons, and dentists by providing a comprehensive strategy for evaluation, management and long-term care for patients with OSA.

Diagnosing OSA The signs, symptoms and consequences of OSA are a result of the derangements that occur due to repetitive collapse of the upper airway: sleep fragmentation, hypoxemia, hypercapnia, marked swings in intrathoracic pressure, and increased sympathetic activity. The clinical definition of OSA is the occurrence of: daytime sleepiness, witnessed breathing interruptions, loud snoring, awakenings due to gasping or choking in the presence of at least 5 obstructive respiratory events (apneas, hypopneas or respiratory effort related arousals) per hour of sleep, and/or the presence of 15 or more obstructive respiratory events per hour of sleep in the absence of sleep related symptoms due to increased cardiovascular risk.

Patients at High Risk for OSA

- Obesity (BMI > 35)
- Congestive heart failure
- Atrial fibrillation
- Treatment refractory hypertension
- Type 2 diabetes
- Nocturnal dysrhythmias
- Stroke
- Pulmonary hypertension
- High-risk driving populations
- Preoperative for bariatric surgery

OSA diagnosis starts with a sleep history, which can begin during a routine health maintenance evaluation, as part of an evaluation of symptoms of obstructive sleep apnea, or as part of a comprehensive evaluation of patients at high risk for OSA.

A comprehensive sleep history includes an evaluation for snoring, gasping/choking episodes, witnessed apneas, excessive sleepiness not explained by other factors, including assessment of sleepiness severity by the Epworth Sleepiness Scale, total sleep amount, nocturia, CONTINUES ON BACK

Take Home Points

- Sleep disorders represent a common problem often overlooked because the screening threshold for recognizing symptoms is generally set too high.
- Simple screening questions and exam findings in the office may reveal a patient at increased risk for OSA.
- Because there is no clinical model that can accurately predict the severity of obstructive sleep apnea, objective testing is required to determine the course of therapy.
- OSA should be approached as a chronic disease requiring long-term, multidisciplinary management.
- Do not let the objection to CPAP be an obstacle to obtaining the diagnosis of OSA, as multiple treatment modalities are available to the patient.

To read the full guideline see the *Journal of Clinical Sleep Medicine*, Vol. 5, No. 3, 2009, pgs 263-276, or **click here**.

Watch Dr. Lim's 2-minute video clip on how sleep affects your health: **www.blueshieldca.com/bsc/video/goodtoknow/sleep.html**

morning headaches, sleep fragmentation/sleep maintenance insomnia, and decreased concentration and memory. The physical exam should include respiratory, cardiovascular, and neurologic systems. Particular attention should be paid to the presence of obesity and signs of upper airway narrowing.

Screening Questions to Ask During Routine Health Check

- Is the patient obese?
- Is the patient retrognathic?
- Does the patient complain of daytime sleepiness?
- Does the patient snore?
- Does the patient have hypertension?

Objective Testing Because there is no clinical model recommended to predict severity of obstructive sleep apnea, objective testing is required to determine the best course of therapy. Patients who should undergo sleep testing include: high-risk patients with nocturnal symptoms of OSA; patients with congestive heart failure who continue to have nocturnal symptoms of sleep-related breathing disorders; and patients with hypertension if they have nocturnal symptoms (disturbed sleep, nocturnal dyspnea, or snoring).

The Sleep Study can be conducted using in-laboratory polysomnography (PSG) or home testing with portable monitors (PM). Full-night PSG is recommended for the diagnosis of a sleep-related breathing disorder but a split-night study (initial diagnostic PSG followed by continuous positive airway pressure titration on the same night) is an alternative. PMs may be used for the diagnosis of OSA in patients with a high pretest probability of moderate to severe OSA and no comorbid sleep disorder or major comorbid medical disorders.

Discussing Treatment Options with Your Patients Positive airway pressure (PAP) is the treatment of choice for OSA and should be offered to all patients. Applied through a nasal, oral, or oro-nasal interface during sleep, PAP provides pneumatic splinting of the upper airway and is effective in reducing the AHI and may be delivered in continuous (CPAP), bilevel (BPAP), or autotitrating (APAP) modes.

Alternative or Adjunctive Therapies

Behavioral Strategies—options include weight loss, ideally to a BMI of 25 kg/m2 or less; exercise; positional therapy; and avoidance of alcohol and sedatives before bedtime.

Oral Appliances (OA)—Custom-made oral appliances may improve upper airway patency during sleep by enlarging the upper airway and/or by decreasing upper airway collapsibility (e.g., improving upper airway muscle tone). OAs are indicated for use in patients with mild to moderate OSA who prefer OAs to CPAP, who do not respond or are not appropriate candidates for CPAP, or who fail CPAP or behavioral measures such as weight loss or sleep position change. Patients should undergo a thorough dental examination to assess candidacy for an OA.

Surgical Treatment—Surgical treatment include A variety of upper airway reconstructive or bypass procedures, and can be considered as a primary treatment in patients with mild OSA who have severe obstructing anatomy that is surgically correctible.

Additional Adjunctive Therapies can be used to supplement primary treatment and include: bariatric surgery, pharmacotherapies for individuals with hypothyroidism or acromegaly, oxygen supplementation, and modafinil for the treatment of residual excessive daytime sleepiness.

Patient Education and Long-term Management The patient should be an active participant in the treatment decision, and accompanying patient education should optimally be delivered as part of a multidisciplinary chronic disease management team including the sleep physician, the referring provider, and allied health care providers.

Treatment options should be discussed in the context of the severity of the patient's OSA, risk factors, any associated conditions, and the patient's expectations. General education on the impact of weight loss, sleep position, alcohol avoidance, risk factor modifi-cation, and medication effects should be provided. All patients with OSA should have ongoing, long-term management for their chronic disorder.

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IN THE NEXT ISSUE:

Grelin, leptin, and all that jazz: what you should know about the fastest growing epidemic in sleep medicine —Insufficient sleep—

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This newsletter is a publication of this department. The information is intended solely for physicians and other healthcare providers. It is not intended for use as a replacement for medical advice. For individual situations or conditions, appropriate dental/medical consultation should be obtained.

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Calendar

A.W.A.K.E. Meetings for patients with obstructive sleep apnea take place the second Wednesday of every month in the Sequoia Room (at the rear of the Sequoia Hospital cafeteria).
RSVP: Please call Al Reichert at 650-367-5137 to confirm, as the location may vary.

Wednesday March 10, 6:30–8pm

Open House Celebrate the refinishing of the Sequoia Sleep Disorders Center. Meet the sleep center staff and doctors. See (and try) new CPAP equipment!
Light refreshments will be served.

Thursday March 11, 5:30–7pm