Snoring and sleep apnea: Are they a nuisance or disease continuum?

The hygienist and dental team play a huge role in screening and identifying patients at risk

By Ashley Truitt, RDA, BBA

Two-thirds of partnered adults say their other half snores, while six out of 10 of all adults (59 percent) say they snore. Sleep apnea may be present in 20 to 40 percent of the adult population that experience snoring.

According to the U.S. Department of Health and Human Services, more than 45 million Americans suffer from sleep apnea, a disorder that causes a person to briefly, and repeatedly, stop breathing during sleep.

Obstructive sleep apnea (OSA) is a debilitating and often life-threatening sleep disorder and an estimated 800,000 patients are being diagnosed with OSA per year in the United States while approximately only 10 percent are being treated.

Primary care practices are not actively screening patients for OSA, which leaves a large void in the number of patients being identified with this killer disease. OSA has directly been linked through numerous research papers to co-morbidities such as stroke, heart disease, hypertension, impotence and diabetes.

For those patients who have been diagnosed and have had continuous positive airway pressure (CPAP) recommended, some may be intolerant of the therapy and are currently going untreated. There are millions of patients who need treatment, including those who cannot tolerate their CPAP machines and are looking for alternatives.

The dental practice is a prime portal to not only screen and identify patients at risk, but also to offer clinically proven therapy with oral appliances.

How to implement oral appliance therapy

It starts with education for the dentist and the dental team. Currently there are many continuing education courses available on the topic of dental sleep medicine and oral appliance therapy, and these are usually two- to three-day courses with subsequent workshops and follow up that is essential. I must emphasize, in order to be successful with implementation, the entire team needs to be involved — dentist, hygienist, assistants and front desk staff.

Following the education, the implementation process begins, which involves asking questions, observing, communicating, initiating.

The ‘Pros in the Profession’ winners

The 2010-2011 Pros in the Profession award program has come to a successful conclusion with Crest Oral-B recognizing five deserving dental hygienists who go beyond the call of duty. These five outstanding professionals were nominated by their peers and selected from an overwhelming pool of qualified candidates for truly making an impact.

Ann Benson was selected for following her dream to start Mobile Dentistry of Arizona, a practice that brings comprehensive dental care to those with limited transportation.

Mobile Dentistry of Arizona offers on-site dental care to the residents and staff members of assisted living homes, skilled nursing, long-term care communities and other age- qualifying communities.

Trudy Meinberg has distinguished herself for more than 30 years as a registered dental hygienist in both private and collegiate practice settings. In addition to teaching clinical periodontics to undergraduate dental students at the University of Nebraska Medical Center (UNMC) College of Dentistry, she has also contributed to several research studies and has been published in a number of scholarly journals.

Mary Lynne Murray-Rider has improved the lives of others both inside and outside the office. In addition to her 31 years of experience as a registered dental hygienist, Murray-Rider has served as an ADHA Delegate, the Maine Dental Hygienists Association (MDHA) president and on several MDHA councils and is currently serving as immediate past president and continuing education council liaison.

Linda Maciel has established a screening protocol to detect early signs of oral cancer and has caught basal-cell carcinoma and detected early signs of thyroid cancer through-out her 11 years of practice. Maciel also volunteers with her office at community events and works to promote having a healthy mouth by discussing the links between periodontal health and systemic concerns.

Sharon Shull is an advocate for both education and community service. She is dedicated to increasing care for segments of society that are unable to receive basic oral health-care services and encourages dental hygiene students to have a greater awareness of the true oral health needs of society. Shull is the community health coordinator and program director for both the bachelor of science in dental hygiene online degree completion program and study abroad at Old Dominion University School of Dental Hygiene.

Crest Oral-B is honoring these five Pros in the Profession winners with a VIP, all-expense-paid trip to the American Dental Hygienists’ Association’s 88th Annual Session in Nashville, Tenn., where they will be presented with awards to celebrate their achievements.

For more information about the Pros in the Profession award program, please visit facebook.com/professionalrestorab.
Flying with Hilda

Flying can be a wonderful or stressful situation, and more often than not I find it brings stress. On a recent trip, I found myself on the edge. The first leg of my flight was delayed due to issues with the plane, which then cut into my layover time, which was only 45 minutes to begin with. When my first flight landed, there was no one available to drive the jet bridge next to the plane, so another 15 minutes ticked off my connection time. Once I deplaned, I had exactly 10 minutes to get to another terminal and, of course, the gate was the last gate in the corridor.

I walked as fast as I could, pulling my wheeled bag behind me. I was not about to run (what a sight that would be). Images of O.J. Simpson running through the airport for a commercial some 35 years ago sped through my head. I knew I would never be able to pull off what O.J. had. As I got to the gate and the attendant scanned my boarding pass she said, “Run, we are closing the door to the plane.” This comment struck what might have been my last nerve, and I was upset.

I reached my seat with a second to spare. Of course, I always want the window seat so I can sleep by propping my head against the wall of the plane, so I disrupted the two women who were all buckled in and ready to go. “Uh oh, I thought to myself as I climbed in, this is going to prompt a conversation.” I like to use my air travel as down time, but it was soon obvious that was not going to be the case this time.

The woman next to me said hello, I responded, and before I knew it, I was telling her my travel woes of the day. The conversation continued and I enjoyed every minute of it. As we talked freely, I realized this woman was amazing. She was talking about traveling, buying her tickets on line, printing off boarding passes, e-mailing with her friends, using her cell phone and many other technically savvy pursuits.

She also shared some of her life story which was no less amazing to me than her technical abilities. I couldn’t help it, I wanted to know her age. I thought she was probably in her late 60s and to hear her speak of all the modern technological she used in her daily life was astounding. Finally, I mustered up the courage to ask her age and proudly announced, “I am 84 years old.” I could not believe it.

I have given lectures to dental hygienists who do not even have a cell phone. I have been in dental offices that still do not have a computer. And here I was sitting next to a woman that has embraced progress to the fullest extent at age 84.

When we landed, I thanked Hilda for the conversation we had. I also told her she had inspired me to keep educating people about progress in technology. As dental professionals, we are being asked and we are asking others to take advantage of technological progress every day. Even though we may be resistant to change, we can do it. If a woman who is 84 years old can do it, so can we. We have no excuse. We need to get with the program or we will be left behind wondering where everyone else went.

I guess there was a reason my flights were delayed after all.

Best Regards,

Angie Stone, RDH, BS

When a patient is finally able to get a good night’s sleep, oral appliance therapy can be truly life changing.

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Have you been diagnosed with sleep apnea?

Do you wear a CPAP?

If a patient answers yes to any of these questions, the conversation should be picked up by the hygienist. There are also some tell-tale clinical signs to look for in these patients such as wear facets (bruxing), periodontal disease, a large neck, obesity, scalloped large tongue, red and inflamed uvula and enlarged tonsils.

On identifying any of these clinical signs, the patient should be directed to fill in a questionnaire called the Epworth Sleepiness Scale. This will identify how “sleepy” the patient is in his or her regular daily routine.

It is likely that patients will tell you “Oh, I just sleep when I am tired, I do not have sleep apnea.” However, how would the patient know this if he or she hasn’t been tested? Snoring is the beginning of a disease continuum that will develop into sleep-disordered breathing if therapy is not initiated. Apnea will get worse with age, bad diet, weight gain and an unhealthy stressful lifestyle, which these days can be so common. Unfortunately, many people do not realize that they suffer from sleep apnea unless someone else brings it to their attention.

Following the screening process, a dentist cannot diagnose OSA. The gold standard in care is to refer your patient to a sleep laboratory for a diagnostic sleep study known as a polysomnogram (PSG). This is where you will start to build a mutual referral relationship with your local laboratory and reporting sleep physician.

The multidisciplinary referral pathway should be that you refer your patients for a diagnosis and — providing the results fall within the American Academy of Sleep Medicine (AASM) guidelines for oral appliance therapy, mild to moderate apnea with no co-morbidity — the patient should be referred back to you with a prescription for an oral appliance. This is important for reimbursement too. Oral appliances are also recommended for severe OSA patients if they cannot tolerate their CPAP, although they should always try CPAP first.

Home sleep testing (HST) is becoming more popular and there are companies that offer an interpretation service for patients who will or cannot go to a sleep laboratory. There are a wide range of HST devices available to the dental market that can be used for screening, diagnosis (providing they have a certified physician interpret the report and sign off and be truly life changing. It is likely that patients will tell you "Oh, I just sleep when I am tired, I do not have sleep apnea." However, how would the patient know this if he or she hasn't been tested? Snoring is the beginning of a disease continuum that will develop into sleep-disordered breathing if therapy is not initiated. Apnea will get worse with age, bad diet, weight gain and an unhealthy stressful lifestyle, which these days can be so common. Unfortunately, many people do not realize that they suffer from sleep apnea unless someone else brings it to their attention.

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on the treatment recommendation) and the main function in the dental office where it is used to check the effectiveness of the oral appliance therapy and ongoing efficacy.

Once you have a diagnosed patient who is dentally appropriate for oral appliance therapy, you are ready to do a full patient examination, evaluation and work up, including impressions and a bite registration incorporating protractive and vertical dimension. It would be at this stage that you check their medical insurance and benefits to see if they are covered for this type of treatment.

There are numerous custom fitted oral appliances available on the market, all with varying degrees of efficacy, patient comfort and cost. Consider fabricating and dispensing only FDA-cleared devices when treating OSA in order to secure insurance reimbursement because oral appliance therapy is covered by medical insurance not dental insurance.

Medical billing is becoming a more common necessity in the dental practice for a variety of treatments and procedures. The learning curve and process of medical billing and cross coding can be somewhat consuming, however, there are software solutions available and also companies that will handle the entire process for you which is very helpful, especially for those just getting started.

Once a patient is fitted with an oral appliance, a follow-up protocol is essential in order to ensure that the appliance is adjusted to the optimum position whereby snoring is eliminated and the apnea is reduced significantly. Initially this is done with an HST device and ultimately, when efficacy has been achieved, refer the patient back to the sleep laboratory for a sleep study (PSG).

The HST and PSG results should correlate well, which gives the sleep physician confidence that oral appliances are proving effective, and in some cases a good alternative, to CPAP.

Oral appliance therapy can be truly life changing for these patients and being able to change the quality of someone’s life is extremely powerful and rewarding. I have seen many tears and hugs from grateful patients who didn’t even realize how bad they felt until they started to feel the benefits of their treatment.

In summary, a large part of this treatment can be performed by the hygienist working closely with the dentist and incorporating a multi-disciplinary approach. Dental sleep medicine is a substantially rewarding practice and our country is in desperate need of more awareness and treatment options.

References
4. The Epworth Sleepiness Scale,Key 1997 ESS Dr. Murray Johns.
6. The American Academy of Dental Sleep Medicine, The Ins and Outs of Oral Appliance Therapy.