INCORPORATING THE TREATMENT OF SLEEP APNEA INTO AN ORTHODONTIC PRACTICE

SYLVAN MINTZ, DDS, MScD
Board Orofacial Pain
Board Dental Sleep Medicine
BETHESDA MARYLAND

ROLE OF DENTISTRY IN OBSTRUCTIVE SLEEP APNEA

• Sleep apnea is a major contributor to health related problems and safety issues with great social and economic consequences.
• Dentists see patients on a more frequent basis than any other health provider.
• OSA is primarily an anatomic phenomenon of the relation of mandible to maxilla and anatomy of the pharynx. Dentists are more familiar with this area than most physicians.
• Dental appliances for mild to moderate apnea are just as effective in the treatment of OSA with better compliance than CPAP.

WHY SHOULD I BE TREATING A MEDICAL PROBLEM?

There is an unmet need in the population that has been usurped by MD’s.
Orthodontists can expand their practice base and referral base.
Orthodontic treatment can save a child from adenotonsillectomy that is not always so benign.
Another critical reason to give the parent for orthodontic treatment.
Relieve the burden of an older teen of having to use a CPAP at college.
Renew your interest in what you are doing in your practice.
Maybe a transition to a “retirement practice” rather than retiring.

Orthodontists are specifically suited to treat sleep apnea
The same examination for orthodontic therapy can be used to screen for potential sleep apnea patients.
The oral devices for managing obstructive sleep apnea are repurposed orthodontic appliances
Orthodontic therapy in the child and adolescent can in many patients cure sleep apnea.
The practice management of cases is virtually the same.

Prevalence of OSA in the U.S.A.

Asthma 26 million
Sleep Apnea 31 million
Diabetes 30 million

More common in males than females
Ratio almost the same for menopausal women
Progressively worsens with age
Progressively worsens with increasing weight

Percent of adults aged 20 and over with obesity: 37.9%
Percent of adults aged 20 and over with overweight, including obesity: 70.7%
Percent of adolescents aged 12-19 years with obesity: 20.6%
Percent of children aged 6-11 years with obesity: 17.4%
Percent of children aged 2-5 years with obesity: 9.4%

Am J Epidemiol 2013 May 1;177(9):1006-14.

Prevalence of probable OSA risk and severity in dental patients

2 dental practices retrospective study using a questionnaire:
• 175 males 156 females mean age 55(45-80)
• 33% of males 6% of females high risk of moderate to severe apnea
• 70% of these on home sleep study had AHI >20

“30 years ago, approximately 90% of tonsillectomies in children were done for recurrent infection; now it is about 20% for infection and 80% for obstructive sleep problems (OSA).” More than 530,000 procedures are performed annually in children younger than 15 years in the United States. Baugh RF, et al (2011). “Clinical practice guideline: tonsillectomy in children”. Otolaryngology – Head and Neck Surgery. 144

“The “gold standard” for the diagnosis and quantification of OSA is full-night polysomnography, or sleep study. However, polysomnography is expensive, time-consuming, and often unavailable. Consequently, most otolaryngologists will perform an adenotonsillectomy (T&A) based on a strong clinical history and parental observation in a child with chronically enlarged adenoids and tonsils.”

Dr. David Goodman, professor of pediatrics at Dartmouth’s school of medicine, is a leading critic of tonsillectomies and points to Jahi’s case as an illustration of the problem.

“It’s worth noting there are virtually no tonsillectomies done for sleep apnea in England,” he said.

“Normalization of polysomnographic findings in a large number of children in the WW group and an absence of significant cognitive decline in this group indicate that medical management and reassessment after a period of observation may be a valid therapeutic option.”
A case report on the efficacy of transverse expansion in severe OSA syndrome.


Miniscrew-assisted rapid palatal expander (MARPE): the quest for pure orthopedic movement.


She is sitting in your chair!

WHAT YOU CAN ADD TO FORMS

GENERAL INFORMATION:
DOES YOUR CHILD SNORE?

HEALTH HISTORY:
ADD/ADHD
BEDWETTING
BEHAVIOR PROBLEMS
FALLS ASLEEP WATCHING TV / READING / VIDEO GAMES

Epworth Sleepiness Scale

ALL STAFF WEAR AN ADVERTISING PIN/ STICKER /NAME TAG

ASK ME ABOUT SNORING
Dear Dr. Smith,

I want to introduce myself as an orthodontist with a special interest in sleep breathing disorders. I have taken over ## hours in continuing education in this field and have been designated as a Qualified (or Board Certified) by The American Academy of Dental Sleep Medicine. I also teach, consult at Dental School / Hospital.

We treat patients from childhood through adulthood either with orthodontic therapies or oral devices specifically designed for managing obstructive sleep apnea or obstructive breathing. This is particularly helpful for young patients. Oral devices help the young patient to avoid snoring and keep their mouth open during sleep.

All patients are offered back for your evaluation with post treatment sleep studies.

Our staff is well-versed in submitting Medical claims for reimbursement for adult patients using oral devices to manage obstructive sleep apnea. Most medical insurance companies will have some reimbursement, if not full coverage, for this type of treatment. We participate with Medicare, Blue Cross and the military Tricare program.

With over X years as an orthodontist, my practice is particularly suited to help your patients.

Should you need further information, you can contact me at the above phone number or email address. My website orthodontist@aol.com has information not only about my practice, but examples of oral devices used in children and adults.

I look forward to working with you.

Sincerely,

Sylvan Mintz, DDS. MSD

Wildwood Medical Center
10401 Old Georgetown Rd., Suite 106
Bethesda, Maryland 20814

301-530-8570  Fax: 301-539-8572

IT MAY BE SCARY BUT YOU HAVE TO KNOCK ON SOME DOORS
Why Sleep Physicians Need Dentists

Dentists see patients on a more frequent basis than any other health provider. Can be a great source of referrals.

Dental devices need to be verified and titrated during an overnight study by the sleep physician. Another study.

CPAP have compliance and evaluation monitors. CPAP users do not need follow up studies. EX: Elderly or disabled can’t titrate a dental device and may need multiple home sleep studies.

Sleep dental devices can be used along with CPAP for difficult cases.

Orthodontic therapy maybe able to cure many children with SDB.

SleepOptima Dental Sleep Network

“Dental sleep medicine provides higher profits. The average out of pocket cost for an oral appliance can range from $150-$650. We assist in selecting the appropriate dental appliance and fee structure based on geographic, and patient demographics. Our dentists typically charge between $1,000-$5,000 for an appliance, providing for very favorable profit margins.”

Last Chance to Hear Dr Barry Glassman, Dr Kent Smith and DSM March 14-16

“Everything you Need to Know to Succeed in the World of Sleep.”

12/31/2014: “Your total will be under four thousand dollars”

2/26/2015: “cost of the Three day course (which has been extended so you will now receive 21 CE credits) is less than one thousand dollars.”

“Come hear from all the masters as we talk about one thing. How to improve your bottom line in 2015”

“Worried about the cost, well don't be as you are guaranteed to make 5X what you spend or you will get your tuition back.”

“For those of you who have already decided to join the Elite there are two financing options. One would be paying $30,000 down and financing the rest (I cost is $100,000). ”

PHARYNGOMETRY AND ORAL-APPLIANCE SUCCESS

SLEEP GROUP SOLUTIONS: “After diagnosis the pharyngometer helps to show us how the airway changes in response to mandibular advancement. In this manner we are able to “pre-titrate or pre-adjust” the oral appliance so that it can be fabricated in such a way as to optimize our chances of a successful outcome.”

DOES IT ACTUALLY DO THAT?

Predictive Value of Pharyngometry Derived Measurements for Oral Appliance Treatment of Obstructive Sleep Apnea Syndrome

75 patients mean AHI 30 using pharyngometry to predict success: “Success with oral appliance therapy is 75 potential by identification of the region of maximal upper airway collapse as measured by acoustic pharyngometry.”

Acoustic reflectance of pharyngeal structures in children
International Journal of Pediatric Otorhinolaryngology. April 2003, pp. 373 –381

40 children pre and post T&A:
“pharyngometry does not reliably access pharyngeal volumes”

PHARYNGOMETRY NOT A COVERED EXPENSE

AETNA: “Aetna considers acoustic pharyngometry …. experimental and investigational for screening, diagnosis or treatment planning....”

Capital Blue Cross: “Pharyngometry and Rhinometry are considered investigational…insufficient evidence to support a conclusion...”
Dr. Mintz statement: “The great thing about the practice of dentistry is you can’t get it off the internet”

Add Sylvan S. Mintz, DDS, MScD to the Luddites

Will Sleep Physicians Refer to Dentists?

“On average, 4.9% of patients start their obstructive sleep apnea treatment with an oral appliance, which is flat with our prior survey results.”

277 responses

First quarter 2015 sleep center survey results. Sleep Review. March 2015. 16(3); pp. 18-20

Obstacles for Patients

Dentists are reluctant to treat due to:
1. Afraid of malocclusion
2. Do not want to be “married to the patient”
3. Not familiar with medical insurance
4. Confused as to device selection
5. To be a Medicare provider need to be a medical provider and DME provider

Physicians are reluctant to refer for oral devices due to:
1. Education / treatment bias / economics?
2. Unaware that dental devices for OSA are a covered medical service
3. Don’t know which dentist are knowledgeable/capable
4. Dentists do not refer back for follow up verification

Role of the Dentist in Diagnosing and Treating Sleep Disorders

Breathing is a Partnership with Physicians

Obstructive Sleep Apnea (OSA) is a life-threatening medical disorder. Dentists are not medically qualified nor legally permitted to diagnose sleep disorders. Diagnosis must be made by a physician. Success is verified by the physician.

Somnoguard AP

Catering to your needs as a Sleep-focused physician.

Oral Appliance Therapy with the Somnoguard is an effective adjunct to your comprehensive Sleep Practice

Custom-fitted, prefabricated device is covered by most Insurers and easily fitted by your physician.

Somnoguard AP

David Bianchi, MD Silver Spring MD
Asefa Mekonnen MD Potomac MD
Kahn Patel MD Rockville MD
Drs. Heesan and Schneyer Baltimore and Columbia MD
Stacy Ishman MD JHU Baltimore MD and Annapolis MD
Siegel & Bosworth ENT Salisbury MD
Mehlitz & Associates ENT Rockville MD
They are basically repurposed orthodontic devices / mechanics.

Patient History in Relation to Dental Treatment of OSA

- Dental History
  - Dental sensitivity
  - Difficulty chewing
  - Gag reflex to toothbrushing or dental treatment
  - Last dental examination
  - Future dental or orthodontic treatment

Patient Examination

- TMJ Evaluation
  - Palpation
  - Auscultation

- Muscle Palpation (Masseter / Temporalis / Pterygoid / Tendon)
- Resist protrusion

- Jaw Range of Motion
  - Maximum opening (40-50 mm)
  - Lateral and protrusive movement (> 8mm)

Condition of Hard and Soft Tissue

At least 4 teeth in each arch are required for most mandibular repositioning appliances.

Perio issues.

Bruxism

UNDERSELL

Do not promise success

10% to 15% will get a bite change that can be permanent

Teeth will be sore for a few mornings

Facial muscles may be fatigued in AM

You will salivate like Niagara Falls for awhile
Like Orthodontic Treatment, the treatment of Obstructive Sleep Apnea as far as fee arrangement is the same. Only quicker.

Just change some of the verbiage on the contract:

Contract for Snoring and/or Obstructive Sleep Apnea

Fee Schedule to:
1/3 at impression visit
1/3 at appliance placement
1/3 at follow-up visit

“What this does not cover” is in my consent form.

Dental treatment as a result (restorations dislodged)

May want to put a time limit of 6 months before other office visit fees are incurred.

Who is most successful?

**MOTIVATED PATIENT**
(Failed CPAP and/or surgery, health problems)
BMI < 30
Mild to moderate diagnosis
At least 4 sound teeth in each arch
Non gagger
None or minor jaw joint or dental problems
Less than 4mm overjet
Women
Younger Age

Goals for Success

1. Wearing the oral device through the night with no dental, periodontal, TMJ, or muscular complaints.
2. Snoring stopped or greatly reduced.
3. Dreaming / Reduced Nocturia / Less headaches.
4. Feeling more awake or refreshed during day.
5. Verification apnea eliminated by sleep MD.

Medical Insurance Reimbursement

What is needed:
1. Polysomnogram of condition
2. HCFA form with appropriate codes
3. Referral from primary care if needed

What maybe helpful:
1. Dentist’s pretreatment letter of need
2. Physician letter or notes supporting need
3. Research articles supporting treatment?
4. Protocols of AASM for oral appliance use?

Patient Records in Relation to Treatment of OSA

- Study Casts
- Radiographs
- Panoramic
- Cephalometric (?)
- Supplemental radiographs, e.g. FMX/BWX

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Medical Codes Commonly Used
Diagnosis Code: ICD G47.33 = obstructive sleep apnea
Initial examination:
  CPT 99203 = history, exam, consult 30 minutes
  CPT 99204 = history, exam, consult 45 minutes
  CPT 70320 = Full mouth series
  CPT 70355 = Panoramic X-ray

Oral appliance for sleep apnea:
  CPT E0485 = airway dilator non-adjustable
  CPT E0486 = airway dilator adjustable

Office visit = CPT 99214(25min)/99215(45min)

MORE INFORMATION
American Academy of Dental Sleep Medicine
www.aadsm.org  708-273-9366

Dr. Mintz’ website  www.sleep-tmj.com
Dr. Mintz’ email  drsmintz@gmail.com