Emerging Technologies and Themes in Sleep Medicine

Luke Roling
American Academy of Sleep Medicine, Communications Specialist; Darien, Illinois

Objectives:
- Recognize emerging trends and technologies in sleep medicine
- Define normal circumstances as a sleep professional
- Develop a basic understanding to further investigate on their own
Emerging Technologies and Themes in Sleep Medicine

Presented By: Luke Roling

Communications Specialist
American Academy of Sleep Medicine
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CONFLICT OF INTEREST DISCLOSURES

SPEAKER:

1. I do not have any potential conflicts of interest to disclose, OR

2. I wish to disclose the following potential conflicts of interest:

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<tr>
<th>Type of Potential Conflict</th>
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<td>Grant/Research Support</td>
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3. The material presented in this lecture has no relationship with any of these potential conflicts, OR

4. This talk presents material that is related to one or more of these potential conflicts, and the following objective references are provided as support for this lecture:

1. 
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## Officers

<table>
<thead>
<tr>
<th>Officers</th>
<th>Email Address</th>
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<tbody>
<tr>
<td>Nathaniel F. Watson, MD</td>
<td><a href="mailto:nwatson@aasmnet.org">nwatson@aasmnet.org</a></td>
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<tr>
<td>Timothy I. Morgenthaler, MD</td>
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<td>Ronald D. Chervin, MD, MS</td>
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<td>Kelly Carden, MD, MBA</td>
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### Directors

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<td>Douglas Kirsch, MD</td>
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<td>Karman Ramar, MD</td>
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<td>David Kristo, MD</td>
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<td>Ilene Rosen, MD</td>
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<td>Raman Malhotra, MD</td>
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<td>Terri Weaver, PhD, RN</td>
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Calculations assume that 3% of physicians retire and 100 new specialists join the field each year.
DISCOVER SLEEP MEDICINE
An Integrative Subspecialty
Alternative Payment Models

AASM Alternative Payment Models Task Force

• Bundled Payment for OSA management?
• Goals
  • To establish a payment model that uses physician time more strategically.
  • To allow physician discretion for testing mechanisms.
Electronic Health Records

Electronic Health Records Task Force

• Advancing the Use of Electronic Health Records for Sleep Medicine (Part 1): Integration
  • To be published in 2016
American Academy of Sleep Medicine (AASM) Position Paper for the Use of Telemedicine for the Diagnosis and Treatment of Sleep Disorders

An American Academy of Sleep Medicine Position Paper

Jaspal Singh, MD, MHA, MHS; M. Safwan Badr, MD; Wendy Diebert, RN; Lawrence Epstein, MD; Dennis Hwang, MD; Valerie Karres, BS, RPSGT; Seema Khosla, MD; K. Nicole Mims, MD; Affifa Shamim-Uzzaman, MD; Douglas Kirsch, MD; Jonathan L. Heald, MA; Kathleen McCann

1Carolinas HealthCare System, Charlotte, NC; 2Wayne State University, Detroit, MI; 3The VirtualEngine, LLC, St. Louis, MO; 4Welltrinsic, Darien, IL; 5Kaiser Permanente, Fontana, CA; 6North Dakota Center for Sleep, Fargo, ND; 7University of Michigan, Ann Arbor, MI; 8American Academy of Sleep Medicine, Darien, IL
AASM TASKFORCE RECOMMENDATIONS

The AASM Taskforce developed 12 recommendations for sleep physicians participating in sleep medicine. Some of the recommendations include:

**Clinical care standards:** States how telemedicine services should mirror those of live office visits, including all aspects of diagnosis and treatment decisions as would be reasonably expected in traditional office-based encounters.

**Clinical judgment:** Recommends that judgment should be exercised when determining the scope and extent of telemedicine applications in the diagnosis and treatment of specific patients and sleep disorders.

**Live Interactive Telemedicine** for sleep disorders, if utilized in a manner consistent with the principles, should be recognized and reimbursed in a manner competitive or comparable with traditional in-person visits.
SYNCHRONOUS LIVE INTERACTIONS

• Visits in which patients and providers are separated by distance, but interact in real-time utilizing videoconferencing as the core technology.

• The encounter is meant to function as a live office visit. Participants interact simultaneously with the provider performing sleep medicine interviews of the patient.

• Diagnostic and treatment options are addressed through live video interaction between the patient and the provider.
REIMBURSEMENT

Reimbursement for synchronous interactions should be clarified with payors prior to providing telemedicine services.
REIMBURSEMENT FOR MEDICARE

- Delivered by real-time, interactive, system.
- The originating site is an approved site located in a health professional shortage area (HPSA) or outside of a metropolitan statistical area.
- The provider is a physician, nurse practitioner, physician assistant, nurse midwife, clinical nurse specialist, clinical psychologist, or registered dietician
- Billing is performed using the appropriate CPT and/or HCPCS code plus the GT telehealth modifier.
ASYNCHRONOUS LIVE INTERACTIONS

• Asynchronous interactions via telemedicine refer to those encounters in which the patient and the provider are not only separated by distance, but also by time.

• Key aspects of the clinical encounter were performed at separate times.
There are several types of asynchronous interactions including:

• Remote Interpretation with Store-and-Forward Systems;
• E-messaging; and
• Self-care models of care delivery.
KEY ASPECTS REGARDING THE USE OF ASYNCHRONOUS CARE

• Clearly define the patient-provider relationship

• Ability to arrange a patient presenter, live-interactive telemedicine visits, or even face-to-face office visits when needed.

• Reimbursement models for this form of care delivery are currently not provided

• Special consent may be required when physical examination is not performed

• Technical infrastructure
Telemedicine care should reflect the same standards as face-to-face care
QUALITY ASSURANCE IN SLEEP TELEMEDICINE

• Process measures

• Patient-Centered Outcomes

• Overall Provider Experience

• Technical ease, reliability, and safety

• HIPAA Compliance
ROLES AND RESPONSIBILITIES OF OTHER HEALTHCARE MEMBERS – NURSE PRACTITIONERS & PHYSICIAN ASSISTANTS
ROLES AND RESPONSIBILITIES OF OTHER HEALTHCARE MEMBERS

Supervision includes, but is not limited to:

1. The continuous availability of direct communication either in person or by electronic communications between the non-physician practitioner (NPP) and supervising physician

2. Personal review of the NPP’s practice at regular intervals including an assessment of referrals made or consultations requested by the NPP with other health professionals

3. Regular chart review

4. The delineation of a plan for emergencies

5. The designation of an alternate physician in the absence of the supervisor

6. A review plan for narcotic/controlled substance prescribing and formulary compliance
WHAT IS AASM SLEEPTM?

AASM SleepTM – developed by the American Academy of Sleep Medicine (AASM), the leading voice in sleep care – provides patients, sleep medicine practices and providers with a state-of-the-art, sleep-specific telemedicine platform. We are breaking down the geographical barriers of health care by delivering sleep expertise directly to patients from accredited sleep medicine practices and sleep doctors.
VIDEO CONFERENCE
• Advanced sleep diary/sleep tracking
• Wearable device integration
Integrated Sleep Questionnaires

Epworth Sleepiness Scale Questionnaire

The Epworth Sleepiness Scale is used to determine the level of daytime sleepiness. A score of 10 or more is considered sleepy. A score of 18 or more is very sleepy. If you score 10 or more on this test, you should consider whether you are obtaining adequate sleep, need to improve your sleep hygiene and/or need to see a sleep specialist. These issues should be discussed with your personal physician.


For each of the given situations, what is the likelihood you would fall asleep?
- 0 = would never fall asleep
- 1 = slight chance of dozing
- 2 = moderate chance of dozing
- 3 = high chance of dozing

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<thead>
<tr>
<th>Situation</th>
<th>0</th>
<th>1</th>
<th>2</th>
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<tbody>
<tr>
<td>Sitting and reading</td>
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<td>Watching television</td>
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<td>Sitting inactive in a public place (e.g. a theater or a meeting)</td>
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<td>As a passenger in a car for an hour without a break</td>
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<td>Lying down to rest in the afternoon when circumstances permit</td>
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<tr>
<td>Sitting and talking to someone</td>
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<td>Sitting quietly after a lunch without alcohol</td>
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<tr>
<td>In a car, while stopped for a few minutes in traffic</td>
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Are you ready to EVOLVE?
PRACTICE STANDARDS

- Practice Guidelines
- Quality Measures
- Accreditation
- Board Certification
- Clinical Research
QUALITY MESAURES

AASM Quality Measures

In June 2013 the AASM established five task forces to develop quality measures for the diagnosis and treatment of five sleep disorders. Quality measures were developed for adult obstructive sleep apnea, insomnia, narcolepsy, pediatric obstructive sleep apnea and restless legs syndrome. Papers describing these quality measures were published in the Journal of Clinical Sleep Medicine in March 2015 and are available for download on the AASM website. The AASM recognizes that implementing quality measurement programs in a sleep center is a challenge.

To facilitate this process, download the measure driver diagrams to better understand what is required to meet each process measure and how the process measures will impact your patients’ outcomes.

Physician Quality Reporting System

The Centers for Medicare & Medicaid (CMS) has been encouraging providers to measure the quality of the care they provide for years. In 2007 CMS established the Physician Quality Reporting System (PQRS) to encourage quality reporting. The program includes hundreds of measures for physicians to report, including a group of measures for sleep apnea. Reporting PQRS is more important than ever – providers who don’t report PQRS in 2015 will receive a 2% penalty to their 2017 Medicare Part B payment. There are a number of ways to participate in PQRS. Many providers use electronic health record systems designed to report PQRS data to CMS. For providers who don’t have that resource, PQRSwizard is a low-cost registry alternative.
Evolve Sleep’s Practice Management resources usher sleep medicine into the digital age.
The Affordable Care Act

Explore Evolve Sleep's physician handouts to help you and your patients navigate the ACA. Today's healthcare is certainly not what you saw when you entered the sleep field. As the country prepares for publicly subsidized healthcare, will you and your practice be prepared? As healthcare evolves, how will you evolve?

- King v. Burwell
- Medical Device Tax
- High Deductible
- Medicaid
- Market Premiums
EHR INTEGRATION

- Dr. Schutte-Rodin “Leveraging Your EHR to Monitor and Improve Center Performance”
- Dr. Conrad Iber, “Using EHR to Optimize Care in Sleep Medicine”
PATIENT OUTREACH

- Patient Safety Initiatives
- Healthy Sleep Project
- Patient Education
- AASM PAC
The Reading Room

Don't lose sleep looking for the latest resources for your evolving sleep practice—Evolve Sleep's Reading Room has you covered. From sleep apps on your smartphone to navigating the Affordable Care Act, the Reading Room is your one-stop-shop allowing you to browse the most up-to-date and impactful works in healthcare and sleep medicine. The articles are frequently updated and hand-selected by the AASM, so be sure to visit the reading room regularly.

Hot Topics in Sleep Medicine

- SMART DOCS: a new patient-centered outcomes and coordinated-care management approach for the future practice of sleep medicine
- Dealing with a Paradigm Shift
- The future is here
- A warning shot across the bow: the changing face of sleep medicine
- Obstructive sleep apnea and health benefits purchasing: an employer perspective
- Sleep: a health imperative
- Evolve Sleep: Optimized Solutions To Help Your Sleep Medicine Practice Thrive
- Ensuring Patient Access to Sleep Specialty Care in the Evolving U.S. Healthcare System: Introducing the Welltronic Sleep Network

Quality Measures

- Measurement of quality to improve care in sleep medicine
- From triple to quadruple aim: care of the patient requires care of the provider

Telemedicine & Mobile Technology

- Sleep apps and the quantified self: blessing or curse?
## AASM FEDERAL INITIATIVES

<table>
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<th>Advocating</th>
<th>Lobbying</th>
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<tr>
<td>Identifying, embracing, and promoting a cause</td>
<td>Direct: Requesting legislators to take action on specific legislation</td>
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Sample: Arkansas

“When you are tired, you cannot drive as safely as when you are rested and you do not see as well nor are you as alert as when you are rested. It takes you more time to make decisions and you do not always make good decisions. You can be more irritable and can get upset more easily. Lastly, when you are tired, you could fall asleep behind the wheel and crash.”

Source: Arkansas Driver License Study Guide, April 2012
STAYING AWAKE / NO DROWSY DRIVING (Pg. 33 of licensing manual)

• When you are tired, your ability to drive is affected. You will probably not be able to make decisions as quickly, the time it takes for you to react will be increased and you may become upset more easily. You may even fall asleep at the wheel. The following are some tips that may help you drive more safely at night:

• Get a good night’s sleep before you start a trip at least seven (7) to nine (9) hours.

• Do not take any medications that can make you sleepy. Medications taken the night before a trip can remain in your body and cause you to be less alert the next day.

• Do not drive for long hours or distances - 300 to 400 miles a day is plenty. The time you save is not worth the risk of driving when your reaction time is slower and your power of concentration is less.

• Try not to drive late at night. Your body is probably used to going to sleep at that time and your reaction time will become slower. Travel at times you are normally awake.

• Take rest breaks regularly, even if you don’t feel tired. Let someone else drive part of the time. Stop for a bit of refreshment every 100 miles or every two hours of driving time.

• Plan for stops in cities where you may stay for the night.

• Shift your eyes from one part of the road to another. Try to enjoy the scenery without neglecting your driving. Look at objects near and far, left and right.
Some warning signs you may experience that signify drowsiness while driving are:

- You can't remember the last few miles driven.
- You hit a rumble strip or drift from your lane.
- You keep pulling your vehicle back into the lane.
- Your thoughts are wandering and disconnected.
- You yawn repeatedly.
- You have difficulty focusing or keeping your eyes open and your head up.
- You tailgate or miss traffic signs.
- You have narrowly missed crashing.

**NOTE:** If you feel tired the best decision is to find a safe place to stop and get some sleep for at least twenty (20) minutes, no matter the time of day especially if all passengers in the vehicle are sleeping.
CONTINUED...

http://ut.zerofatalities.com/drowsy-driving/
Module 6.3 – Drowsy Driving - Lesson Plan

Student Objectives:

The student examines the effect of fatigue on the physical and mental condition of drivers; describes behaviors indicating driver fatigue; explores the hazards associated with driving while fatigued; and explains methods to delay or avoid driving while fatigued and drowsy.

The student is expected to describe:

a) the physical and mental effect of fatigue on driver behavior;
b) the importance of sleep and its effect on performance;
c) the physical and mental symptoms of fatigue on the driving task;
d) methods to prevent driving while fatigued and drowsy.
On long trips you can prevent drowsiness by:

- Turning on your car radio.
- Slowing down so you can react better.
- Stopping at regular intervals for a rest.
- Moving your eyes from side to side.
STARK LAW EXCEPTION
Objective

Allow sleep medicine physicians to provide the diagnostic test and the therapeutic durable medical equipment to Medicare patients with sleep apnea.
Coordinated Care

**Patient Health Benefits**
- Risk of stroke is decreased by 31%
- 52% reduction in the risk of motor vehicle collisions
- Increased daytime alertness and energy to complete daily tasks
- Risk of heart attack is decreased by 49%

**Clinical Practice Benefits**
- Thorough patient education
- Efficient medical record keeping and fewer documentation errors
- Increased treatment compliance
- Long-term savings on healthcare and hospitalization costs
Reduce Fraud, Waste and Abuse

- DME MACs - PAP error rates as high as 80%.
- Many claims denials are a result of a lack of documentation.
- Errors will be minimized.
AASM PAC
HOW TO DONATE

The AASM PAC can accept donations made by AASM members; however, contributions **cannot** be accepted from an institution or corporate account.

http://aasmnet.org/pac.aspx
Transportation Safety

Video message from AASM president describes sleep and transportation safety initiative

In a video message on the new Evolve Sleep web portal, AASM President Dr. Nathaniel Watson describes how the AASM’s Sleep and Transportation Safety Awareness Task Force is engaging federal and state agencies to develop educational tools about the dangers of drowsy driving, which is common on U.S. roads and represents a pervasive threat.

AASM members can view the video when you log in to the new Evolve Sleep web portal using your AASM log in information and access the Patient Safety Initiatives webpage. Informative videos are just one type of tool that Evolve Sleep offers to help you optimize your sleep medicine practice for the changing healthcare landscape. Log in and access Evolve Sleep today!

Slide Sets

NEW! 2015 educational slide sets
The AASM has newly updated educational slide sets and has made them easily accessible by putting all 11 sleep topics on individual flash drives. These slide sets are designed to serve as the foundation for a teaching curriculum on recognizing and treating sleep disorders. With topics including insomnia, Sleep in Women, Pediatrics, Narcolepsy and more, these pre-loaded presentations are the perfect resource for busy lectures planning for a presentation. Visit the AASM online store to learn more and for worry-free, online ordering.

Trending Research

Read the five JCMS articles that received the most pageviews during the summer of 2015

As the official publication of the AASM, the Journal of Clinical Sleep Medicine continues to gain a larger audience among both the general public and medical professionals by publishing high quality original articles. These articles from both the JCMS archives and current issues received the most pageviews on the JCMS website from June through August.

1. Caffeine Effects on Sleep Taken 0, 3, or 6 Hours before Going to Bed
2. Retrospective Assessment of Home Ventilation to Reduce Rehospitalization in Chronic Obstructive Pulmonary Disease
3. The Efficacy of a Chinstrap in Treating Sleep Disordered Breathing and Snoring

Featured Product

Upcoming Events

2015 Board Review Course
September 11-13
Hilton Riverside New Orleans
New Orleans, LA

Sleep Medicine Final Board Prep Course
October 3
AASM National Office
2510 North Frontage Road
Darien, IL 60561

Sleep Medicine Trends 2015
February 13-14
Pointe Hilton Squaw Peak Resort
Phoenix, Arizona

Academy of Sleep Med

The American Academy of Sleep Medicine is the professional society and the leading voice in sleep medicine.

facebook.com/americanacadem...
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- Health policy issues: policy@aasmnet.org