FALL 2022 · VOL. 7 NO. 4

AASM American Academy of SLEEP MEDICINE™

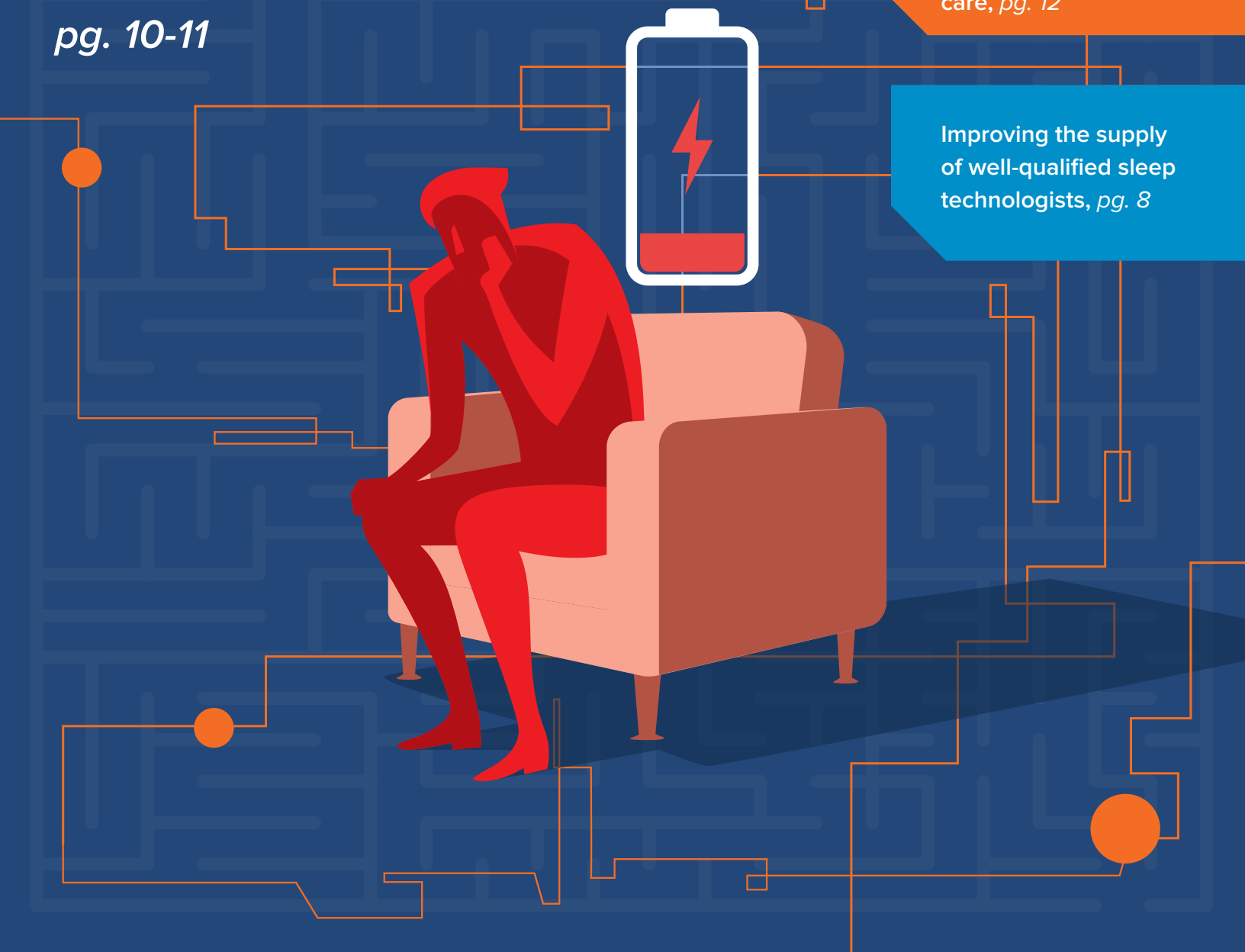
MONTAGE

A quarterly magazine published by the American Academy of Sleep Medicine

Puzzling over central disorders of hypersomnolence: the challenges faced by patients and clinicians, *pg. 10-11*

AASM Insomnia Summit explores how to improve patient care, *pg. 12*

Improving the supply of well-qualified sleep technologists, *pg. 8*

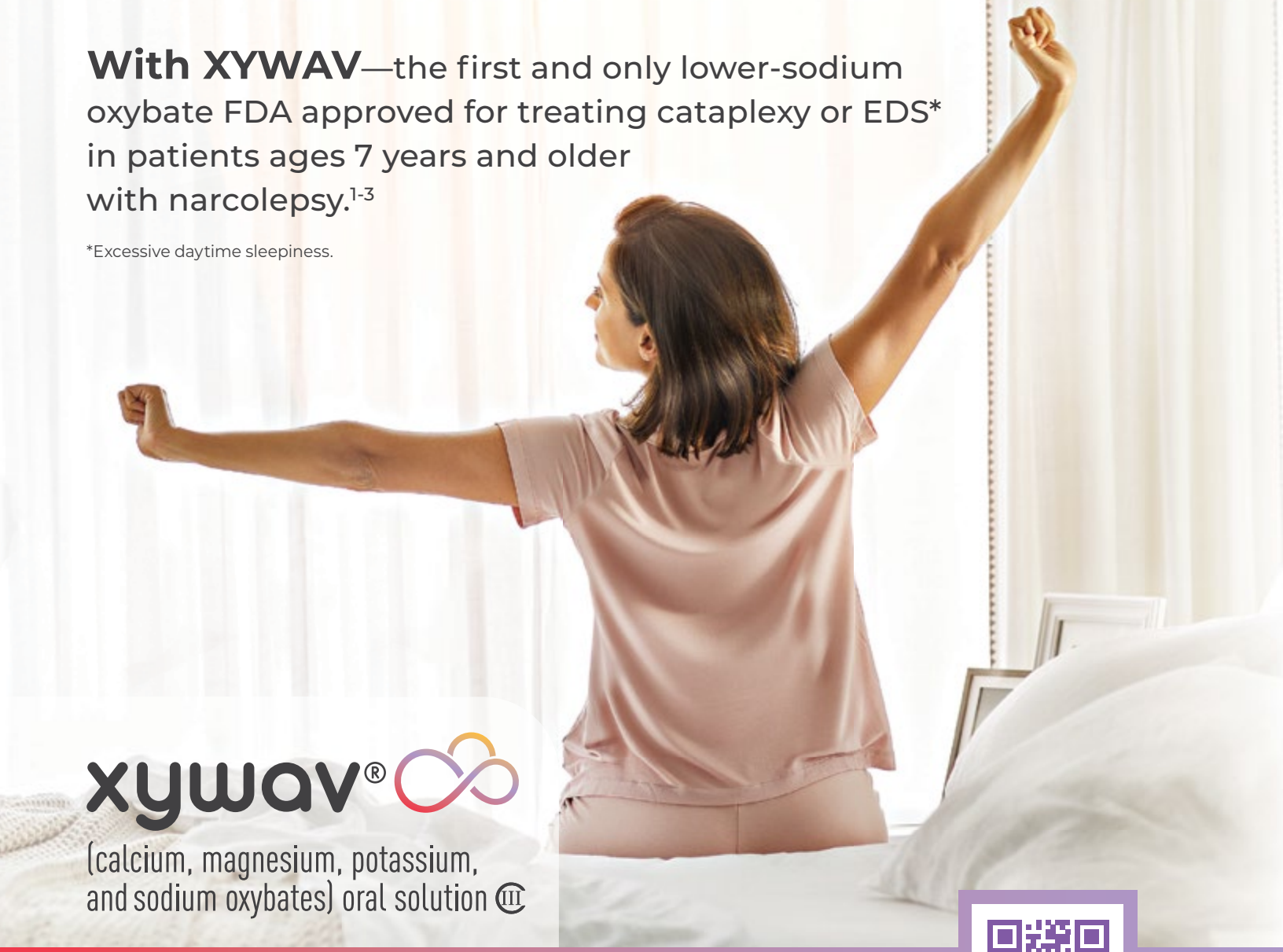


Help your patients living with narcolepsy

SEIZE THE DAY

With XYWAV—the first and only lower-sodium oxybate FDA approved for treating cataplexy or EDS* in patients ages 7 years and older with narcolepsy.[1-3]

*Excessive daytime sleepiness.



xywav®

(calcium, magnesium, potassium, and sodium oxybates) oral solution

C-III

AVAILABLE FOR PRESCRIPTION!

Consider XYWAV

Whether a patient is taking XYREM® (sodium oxybate) oral solution now or is new to oxybate treatment.

Learn more at XywavHCP.com

92% less sodium than sodium oxybate[3]

XYWAV contains the same active moiety at the same concentration as XYREM® (sodium oxybate) oral solution.[1,4,5] Both contain 0.413 g/mL of oxybate in solution.[1,4,5]

Visit **XywavHCP.com** to sign up for information and learn more about how to start or transition appropriate patients.

INDICATIONS AND USAGE

XYWAV® (calcium, magnesium, potassium, and sodium oxybates) oral solution, 0.5 g/mL total salts (equivalent to 0.413 g/mL of oxybate) is indicated for the treatment of cataplexy or excessive daytime sleepiness (EDS) in patients 7 years of age and older with narcolepsy.

Important Safety Information

WARNING: CENTRAL NERVOUS SYSTEM DEPRESSION and ABUSE AND MISUSE.

- **Central Nervous System Depression**
  XYWAV is a CNS depressant. Clinically significant respiratory depression and obtundation may occur in patients treated with XYWAV at recommended doses. Many patients who received XYWAV during clinical trials in narcolepsy were receiving CNS stimulants.
- **Abuse and Misuse**
  The active moiety of XYWAV is oxybate or gamma-hydroxybutyrate (GHB). Abuse or misuse of illicit GHB, either alone or in combination with other CNS depressants, is associated with CNS adverse reactions, including seizure, respiratory depression, decreases in the level of consciousness, coma, and death.

Because of the risks of CNS depression and abuse and misuse, XYWAV is available only through a restricted program under a Risk Evaluation and Mitigation Strategy (REMS) called the XYWAV and XYREM REMS.

Please see additional Important Safety Information on the following pages and Brief Summary of full Prescribing Information, including BOXED Warning.

xywav®
(calcium, magnesium, potassium, and sodium oxybates) oral solution

Important Safety Information (continued)

Contraindications

XYWAV is contraindicated in combination with sedative hypnotics or alcohol and in patients with succinic semialdehyde dehydrogenase deficiency.

Warnings and Precautions

- CNS Depression: Use caution when considering the concurrent use with other CNS depressants. If concurrent use is required, consider dose reduction or discontinuation of one or more CNS depressants (including XYWAV). Consider interrupting XYWAV treatment if short-term opioid use is required. After first initiating treatment and until certain that XYWAV does not affect them adversely, caution patients against hazardous activities requiring complete mental alertness or motor coordination such as operating hazardous machinery, including automobiles or airplanes. Also caution patients against these hazardous activities for at least 6 hours after taking XYWAV. Patients should be queried about CNS depression-related events upon initiation of XYWAV therapy and periodically thereafter.
- Abuse and Misuse: XYWAV is a Schedule III controlled substance. The rapid onset of sedation, coupled with the amnestic features of GHB, particularly when combined with alcohol, has proven to be dangerous for the voluntary and involuntary user (eg, assault victim).
- Respiratory Depression and Sleep-Disordered Breathing: XYWAV may impair respiratory drive, especially in patients with compromised respiratory function. In overdoses of oxybate and with illicit use of GHB, life-threatening respiratory depression has been reported. Increased apnea and reduced oxygenation may occur with XYWAV administration in adult and pediatric patients. A significant increase in the number of central apneas and clinically significant oxygen desaturation may occur in patients with obstructive sleep apnea treated with XYWAV. Prescribers should be aware that sleep-related breathing disorders tend to be more prevalent in obese patients, in men, in postmenopausal women not on hormone replacement therapy, and among patients with narcolepsy.
- Depression and Suicidality: In Study 1, the pivotal clinical trial in adult patients with narcolepsy (n=201), depression and depressed mood were reported in patients treated with XYWAV. In most cases, no change in XYWAV treatment was required. Two suicides and two attempted suicides occurred in adult clinical trials with oxybate (same active moiety as XYWAV). One patient experienced suicidal ideation and two patients reported depression in a pediatric clinical trial with oxybate. Monitor patients for the emergence of increased depressive symptoms and/or suicidality while taking XYWAV, which require careful and immediate evaluation.
- Other Behavioral or Psychiatric Adverse Reactions: Monitor patients for impaired motor/cognitive function or the emergence of or increase in anxiety and/or confusion. The emergence or increase in the occurrence of behavioral or psychiatric events in patients taking XYWAV should be carefully monitored.
- Parasomnias: In pivotal clinical trials, parasomnias including sleepwalking were reported in adult patients treated with XYWAV. Parasomnias, including sleepwalking, also have been reported in a pediatric clinical trial with sodium oxybate (same active moiety as XYWAV) and in postmarketing experience with sodium oxybate. Episodes of sleepwalking should be fully evaluated and appropriate interventions considered.

Most Common Adverse Reactions

In Study 1, the most common adverse reactions (incidence ≥5% of XYWAV-treated patients) were headache, nausea, dizziness, decreased appetite, parasomnia, diarrhea, hyperhidrosis, anxiety, and vomiting.

In the pediatric clinical trial with XYREM (same active moiety as XYWAV) in patients 7 years of age and older with narcolepsy, the most common adverse reactions (≥5%) were nausea (20%), enuresis (19%), vomiting (18%), headache (17%), weight decreased (13%), decreased appetite (9%), dizziness (8%), and sleepwalking (6%). The safety profile in pediatric patients with XYWAV is expected to be similar to that of adult patients treated with XYWAV and to that of pediatric patients treated with XYREM.

Please see additional Important Safety Information on previous page and Brief Summary of full Prescribing Information, including BOXED Warning, on following pages.

References: 1. XYWAV® (calcium, magnesium, potassium, and sodium oxybates). Prescribing Information. Palo Alto, CA: Jazz Pharmaceuticals, Inc. **2.** Thorpy MJ. Recently approved and upcoming treatments for narcolepsy. *CNS Drugs*. 2020;34(1):9-27. **3.** Bogan RK, Thorpy MJ, Dauvilliers Y, et al. Efficacy and safety of calcium, magnesium, potassium, and sodium oxybates (lower-sodium oxybate [LXB]; JZP-258) in a placebo-controlled, double-blind, randomized withdrawal study in adults with narcolepsy with cataplexy. *Sleep*. 2021;44(3):zsaa206. **4.** Data on File (JZP258-2020-013). Jazz Pharmaceuticals, Inc. **5.** XYREM® (sodium oxybate). Prescribing Information. Palo Alto, CA: Jazz Pharmaceuticals, Inc.

xywav®

(calcium, magnesium, potassium, and sodium oxybates) oral solution

Jazz Pharmaceuticals

XYWAV® (calcium, magnesium, potassium, and sodium oxybates) oral solution, CIII
BRIEF SUMMARY OF PRESCRIBING INFORMATION: Consult the full Prescribing Information for complete product information.

Initial U.S. Approval: 2002

WARNING: CENTRAL NERVOUS SYSTEM DEPRESSION and ABUSE AND MISUSE.

- **Central Nervous System Depression**
  XYWAV is a CNS depressant, and respiratory depression can occur with XYWAV use [see Warnings and Precautions (5.1)(5.4)]. Many patients who received XYWAV during clinical trials in narcolepsy were receiving central nervous system stimulants [see Clinical Studies (14)].
- **Abuse and Misuse**
  The active moiety of XYWAV is oxybate or gamma-hydroxybutyrate (GHB). Abuse or misuse of illicit GHB is associated with CNS adverse reactions, including seizure, respiratory depression, decreased consciousness, coma, and death *[see Warnings and Precautions (5.2)]*.
  Because of the risks of CNS depression and abuse and misuse, XYWAV is available only through a restricted program called the XYWAV and XYREM REMS *[see Warnings and Precautions (5.3)]*.

1 INDICATIONS AND USAGE

XYWAV is indicated for the treatment of cataplexy or excessive daytime sleepiness (EDS) in patients 7 years of age and older with narcolepsy.

4 CONTRAINDICATIONS

XYWAV is contraindicated for use in:

- combination with sedative hypnotics *[see Warnings and Precautions (5.1)]*.
- combination with alcohol *[see Warnings and Precautions (5.1, 5.2)]*.
- patients with succinic semialdehyde dehydrogenase deficiency *[see Clinical Pharmacology (12.3)]*.

5 WARNINGS AND PRECAUTIONS

5.1 Central Nervous System Depression

XYWAV is a central nervous system (CNS) depressant. Clinically significant respiratory depression and obtundation has occurred in adult patients taking sodium oxybate (same active moiety as XYWAV) at recommended doses in clinical trials and may occur in patients treated with XYWAV at recommended doses. XYWAV is contraindicated in combination with alcohol and sedative hypnotics. The concurrent use of XYWAV with other CNS depressants, including but not limited to opioid analgesics, benzodiazepines, sedating antidepressants or antipsychotics, sedating anti-epileptic drugs, general anesthetics, muscle relaxants, and/or illicit CNS depressants, may increase the risk of respiratory depression, hypotension, profound sedation, syncope, and death.

If use of these CNS depressants in combination with XYWAV is required, dose reduction or discontinuation of one or more CNS depressants (including XYWAV) should be considered. In addition, if short-term use of an opioid (e.g., post- or perioperative) is required, interruption of treatment with XYWAV should be considered.

Healthcare providers should caution patients about operating hazardous machinery, including automobiles or airplanes, until they are reasonably certain that XYWAV does not affect them adversely (e.g., impair judgment, thinking, or motor skills). Patients should not engage in hazardous occupations or activities requiring complete mental alertness or motor coordination, such as operating machinery or a motor vehicle or flying an airplane, for at least 6 hours after taking XYWAV. Patients should be queried about CNS depression-related events upon initiation of XYWAV therapy and periodically thereafter.

XYWAV is available only through a restricted program under a REMS *[see Warnings and Precautions (5.3)]*.

5.2 Abuse and Misuse

XYWAV is a Schedule III controlled substance. The active moiety of XYWAV is oxybate, also known as gamma-hydroxybutyrate (GHB), a Schedule I controlled substance. Abuse of illicit GHB, either alone or in combination with other CNS depressants, is associated with CNS adverse reactions, including seizure, respiratory depression, decreases in the level of consciousness, coma, and death. The rapid onset of sedation, coupled with the amnestic features of GHB, particularly when combined with alcohol, has proven to be dangerous for the voluntary and involuntary user (e.g., assault victim). Because illicit use and abuse of GHB have been reported, healthcare providers should carefully evaluate patients for a history of drug abuse and follow them closely, particularly for signs of misuse or abuse of GHB (including but not limited to increase in size or frequency of dosing, drug-seeking behavior, feigned cataplexy) *[see Drug Abuse and Dependence (9.2)]*. If abuse is suspected, treatment with XYWAV should be discontinued.

XYWAV is available only through a restricted program under a REMS *[see Warnings and Precautions (5.3)]*.

5.3 XYWAV and XYREM REMS

XYWAV is available only through a restricted distribution program called the XYWAV and XYREM REMS because of the risks of central nervous system depression and abuse and misuse *[see Warnings and Precautions (5.1, 5.2)]*.

Notable requirements of the XYWAV and XYREM REMS include the following:

- Healthcare Providers who prescribe XYWAV are specially certified
- XYWAV will be dispensed only by the central pharmacy that is specially certified
- XYWAV will be dispensed and shipped only to patients who are enrolled in the XYWAV and XYREM REMS with documentation of safe use.

Further information is available at www.XYWAVXYREMREMS.com or 1-866-997-3688.

5.4 Respiratory Depression and Sleep-Disordered Breathing

XYWAV may impair respiratory drive, especially in patients with compromised respiratory function. In overdoses of oxybate and with illicit use of GHB, life-threatening respiratory depression has been reported *[see Overdosage (10)]*.

Increased apnea and reduced oxygenation may occur with XYWAV administration in adult and pediatric patients. A significant increase in the number of central apneas and clinically significant oxygen desaturation may occur in patients with obstructive sleep apnea treated with XYWAV.

In a study assessing the respiratory-depressant effects of Xyrem (same active moiety as XYWAV) at doses up to 9 g per night in 21 adult patients with narcolepsy, no dose-related changes in oxygen saturation were demonstrated in the group as a whole. One of the four patients with preexisting moderate-to-severe sleep apnea had significant worsening of the apnea/hypopnea index during treatment.

In a study assessing the effects of Xyrem 9 g per night in 50 adult patients with obstructive sleep apnea, Xyrem did not increase the severity of sleep-disordered breathing and did not adversely affect the average duration and severity of oxygen desaturation overall. However, there was a significant increase in the number of central apneas in patients taking Xyrem, and clinically significant oxygen desaturation (≤55%) was measured in three patients (6%) after Xyrem administration, with one patient withdrawing from the study and two continuing after single brief instances of desaturation.

During polysomnographic evaluation (PSG), central sleep apnea and oxygen desaturation were observed in pediatric patients with narcolepsy treated with Xyrem.

Prescribers should be aware that increased central apneas and clinically relevant desaturation events have been observed with sodium oxybate administration in adult and pediatric patients.

In clinical trials of Xyrem in 128 adult patients with narcolepsy, two patients had profound CNS depression, which resolved after supportive respiratory intervention. Two other patients discontinued sodium oxybate because of severe difficulty breathing and an increase in obstructive sleep apnea. In two controlled trials assessing PSG measures in adult patients with narcolepsy, 40 of 477 patients were included with a baseline apnea/hypopnea index of 16 to 67 events per hour, indicative of mild to severe sleep-disordered breathing. None of the 40 patients had a clinically significant worsening of respiratory function, as measured by apnea/hypopnea index and pulse oximetry at doses of 4.5 g to 9 g per night.

Prescribers should be aware that sleep-related breathing disorders tend to be more prevalent in obese patients, in men, in postmenopausal women not on hormone replacement therapy, and among patients with narcolepsy.

5.5 Depression and Suicidality

Depression, and suicidal ideation and behavior can occur in patients treated with XYWAV.

In Study 1, depression and depressed mood were reported in 3% and 4%, respectively, of patients treated with XYWAV. Two patients (1%) discontinued XYWAV because of depression, but in most cases, no change in XYWAV treatment was required.

In clinical trials of Xyrem (same active moiety as XYWAV) in adult patients with narcolepsy (n=781), there were two suicides and two attempted suicides in patients treated with Xyrem, including three patients with a previous history of depressive psychiatric disorder. Of the two suicides, one patient used Xyrem in conjunction with other drugs. Xyrem was not involved in the second suicide. Adverse reactions of depression were reported by 7% of 781 patients treated with Xyrem, with four patients (<1%) discontinuing because of depression. In most cases, no change in Xyrem treatment was required. In a clinical trial with Xyrem in pediatric patients with narcolepsy (n=104), one patient experienced suicidal ideation and two patients reported depression while taking Xyrem.

The emergence of depression in patients treated with XYWAV requires careful and immediate evaluation. Patients with a previous history of a depressive illness and/or suicide attempt should be monitored carefully for the emergence of depressive symptoms while taking XYWAV.

5.6 Other Behavioral or Psychiatric Adverse Reactions

Other behavioral and psychiatric adverse reactions can occur in patients taking XYWAV. In Study 1, confusion occurred in 1% of patients treated with XYWAV and anxiety occurred in 5% of patients treated with XYWAV. One patient experienced visual hallucinations and confusion after ingesting approximately 9 grams of XYWAV.

Other neuropsychiatric reactions reported in clinical trials of Xyrem (same active moiety as XYWAV) in adult patients with narcolepsy and in the postmarketing setting included hallucinations, paranoia, psychosis, aggression, and agitation.

In a pediatric clinical trial with Xyrem in patients with narcolepsy, neuropsychiatric reactions, including acute psychosis, confusion, and anxiety, were reported while taking Xyrem.

The emergence or increase in the occurrence of behavioral or psychiatric events in patients taking XYWAV should be carefully monitored.

5.7 Parasomnias

Parasomnias can occur in patients taking XYWAV.

In Study 1, parasomnias, including sleepwalking, were reported in 6% of patients treated with XYWAV.

In a clinical trial of Xyrem (same active moiety as XYWAV) in adult patients with narcolepsy, five instances of sleepwalking with potential injury or significant injury were reported. Parasomnias, including sleepwalking, also have been reported in a pediatric clinical trial with sodium oxybate and in postmarketing experience with sodium oxybate.

Episodes of sleepwalking should be fully evaluated and appropriate interventions considered.

6 ADVERSE REACTIONS

The following clinically significant adverse reactions appear in other sections of the labeling:

- CNS depression *[see Warnings and Precautions (5.1)]*
- Abuse and Misuse *[see Warnings and Precautions (5.2)]*
- Respiratory Depression and Sleep-Disordered Breathing *[see Warnings and Precautions (5.4)]*
- Depression and Suicidality *[see Warnings and Precautions (5.5)]*
- Other Behavioral or Psychiatric Adverse Reactions *[see Warnings and Precautions (5.6)]*
- Parasomnias *[see Warnings and Precautions (5.7)]*

6.1 Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in clinical practice.

Adult Patients with Narcolepsy

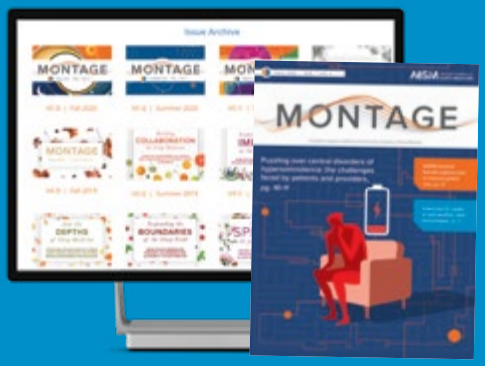
The safety of XYWAV was evaluated in a 16-week double-blind placebo-controlled randomized-withdrawal study in patients with narcolepsy with cataplexy (Study 1), which was followed by an open-label extension phase lasting 24 weeks *[see Clinical Studies (14.1)]*. Study 1 included an open-label titration period (OL OTTP), a stable-dose period (SDP), and a double-blind, placebo-controlled, randomized-withdrawal period (DB RWP). A total of 201 patients, ages 18 to 70 years, received XYWAV at individually titrated doses for 14 weeks, followed by randomization to XYWAV or matching placebo for 2 weeks of treatment. The mean exposure to XYWAV during this study, including titration, the randomized withdrawal period, and the open-label extension, was 151 days. In patients who remained on treatment, adverse reactions tended to occur early and diminish over time.

Adverse Reactions Leading to Treatment Discontinuation in Study 1

In Study 1, 9 of 201 patients (4%) reported adverse reactions that led to withdrawal from the study (anxiety, decreased appetite, depressed mood, depression, fatigue, headache, irritability, nausea, pain in extremity, parasomnia, somnolence, and vomiting). The most common adverse reaction leading to discontinuation was nausea (1.5%). The majority of adverse reactions leading to discontinuation began during the first few weeks of treatment.

Commonly Observed Adverse Reactions

The most common adverse reactions in Study 1 (incidence ≥5% of XYWAV-treated patients) were headache, nausea, dizziness, decreased appetite, parasomnia, diarrhea, hyperhidrosis, anxiety, and vomiting.



To see current and archived issues of Montage, visit **aasm.org/montage**.

AASM American Academy of SLEEP MEDICINE™

Montage is a quarterly magazine published by the American Academy of Sleep Medicine. It offers a unique opportunity to recognize our membership and highlight changes in the field by featuring member profiles, exclusive interviews, research advances, and the latest developments impacting patient care.

Welcome to the latest issue of the AASM member magazine, Montage. In this issue we look at disorders of hypersomnia and insomnia. Our cover story features the work of the Hypersomnia Foundation, the AASM Foundation's 2022 Sleep Champion Award recipient, and we share a personal story of a sleep physician living with narcolepsy. We also recap discussions from the AASM's recent Insomnia Summit, organized to identify strategies to improve access to care for insomnia disorder. We also share information from the AASM International Assembly on treatments for insomnia disorder using traditional methods in India.

This issue also highlights tools to ease the burden of running a sleep practice. The AASM Medicare Audit Toolkit is a comprehensive resource to help members be confident and prepared for a Medicare audit. An update from the Artificial Intelligence in Sleep Medicine Committee shows that AASM members are optimistic about the potential value of AI as a tool to enhance patient care.

We'll also explore the challenges of training and hiring sleep technologists with members of the Committee on Accreditation for Polysomnographic Technologist Education, and we'll introduce you to a sleep physician who started his medical career as a cruise ship doctor.

We hope you enjoy reading this issue of Montage.

- The Montage Team

We want to hear from you!

Share your experience in sleep medicine with your fellow members. Submit content to **montage@aasm.org** for it to be considered for publication in an upcoming issue of Montage!

Living my best life as a sleep physician with narcolepsy

Lindsay McCullough, MD

Most people are surprised to hear that I have narcolepsy. An invisible diagnosis, narcolepsy causes many to struggle to cope with the symptoms without knowing they have the condition. Others walk in silence for fear of being judged. In hindsight, I can identify symptoms starting as early as 2004, 10 years before I was diagnosed. My determination to succeed helped me overcome my sleepiness until September 2013, soon after I began my clinical rotations. I would come home and take two-hour naps, only to eat dinner and go back to bed for another eight hours. I remember struggling to stay awake while driving, rolling the windows down, blaring Mumford and Sons and pinching myself to stay alert. My eyes fluttered as I presented my patients on rounds, and I was dozing off mid-conversation with patients. I knew I needed help.

Initially diagnosed with depression, I tried multiple medications and therapy without improvement. I asked my PCP for a trial of a stimulant medication to see if this would help. She agreed, with the condition that I would see psychiatry or sleep medicine for evaluation.

My sleep physician, Dr. Rich Berry, was incredibly kind and supportive from our first meeting. On Nov. 20, 2014, I was diagnosed with narcolepsy type 2. After delivering my diagnosis, Dr. Berry discussed the importance of adequate sleep, resumed my stimulant medication, and gave me information about the Narcolepsy Network.

My initial relief upon learning there was a reason for my symptoms was immediately followed by loneliness, shame, and sadness. I was a fourth-year medical student, wrapping up interviews for residency, and questioning my ability to continue a career in medicine. My fear of potentially harming patients was overwhelming. I feared being seen differently and incapable of being a physician despite everything I had accomplished so far.

Over the past eight years, I have tried multiple medications with varying success. With lots of trial and error, I've learned there is no one-size-fits-all approach to managing narcolepsy symptoms, and treatment response can change over time and varies from person to person. I believe there are four essential components to narcolepsy treatment: medications, lifestyle adjustments, naps, and social support.

Throughout my training, I was in survival mode. I stayed in close contact with my sleep specialist, adjusting my stimulant medications and trying to get as much sleep as possible. Despite this, I was still a zombie, getting on the wrong train for work and dozing in the middle of conversations.

Though daytime medications were helpful, my whole world changed when I started sodium oxybate in 2018, four years after my diagnosis. I felt like my eyes were opened for the first time. My physicians and I were hesitant to start such a powerful medication with significant side effects. I was also afraid of how it would impact my social life and my relationships. I can attest that the benefits have strongly outweighed the side effects I experience. My family could not believe my transformation and told me they thought I was just withdrawn and depressed before. They now saw that I was just extremely sleepy.

One of the hardest parts of being diagnosed with narcolepsy is feeling isolated and alone. Connections came in bits and pieces. I met one narcolepsy patient during a sleep medicine rotation nearly three years after my diagnosis. I eventually stumbled upon Julie Flygare's memoir, "Wide Awake and Dreaming." Reading Julie's book, I felt understood for the first time. Julie was diagnosed with narcolepsy while in law school; her experiences seemed to parallel mine and opened my eyes to symptoms that I did not recognize for years. Five years after my diagnosis, I bumped into Julie while presenting my poster at SLEEP 2019. Completely in shock, I burst into tears. I told her how much her book meant to me and how it let me know I was not alone.

I currently practice and teach sleep medicine in Chicago at Rush University Medical Center. I am lucky to be surrounded by supportive colleagues who encourage me to take breaks when needed. I enjoy teaching, with hopes that trainees may identify sleep disorders in their patients or have the courage to speak up if they are having sleep issues themselves. For all of my patients with hypersomnia, I prescribe social support at the same time as medications. Organizations such as Project Sleep, the Hypersomnia Foundation, Narcolepsy Network, and Wake Up Narcolepsy help patients find community and resources, even if they do not meet anyone in person with their condition for years. I am grateful for my family, my doctors, my colleagues, my narcolepsy community, and the researchers who make it possible for me to live my best life and embrace my career in sleep medicine.

Dr. Lindsay McCullough is an assistant professor of sleep medicine and associate program director of the sleep medicine fellowship at Rush University Medical Center in Chicago.

Improving the supply of well-qualified sleep technologists

Debbie Guerrero, MS, RPSGT, CCSH, RRT, Chair, CoA PSG

Bradley V. Vaughn, MD, D.ABSM, Medical Director, CoA PSG

Karen Rowe, Executive Director, CoA PSG

Do you feel like sleep technologists are in short supply, and well-trained techs are becoming harder to find? Well, your feelings are probably correct. According to the American Association of Sleep Technologists (AAST) 2021 Workforce Survey, 43% of respondents reported significant staffing problems. The growing demand for sleep technologists is well recognized by the Committee on Accreditation for Polysomnographic Technologist Education (CoA PSG), the organization that recommends sleep technology programmatic accreditation actions to the Commission on Accreditation of Allied Health Education Programs (CAAHEP). The growth in formal education programs has not kept pace with the national need for credentialled sleep technologists, and this gap only continues to grow as more patients are recognized to have sleep disorders.

Who is the CoA PSG?

We are a committee that promotes quality, formal sleep technology education by confirming educational programs meet or exceed professional standards and guidelines. The CoA PSG, which is a committee within CAAHEP, reviews programs' self-studies, coordinates site visits, serves as each program's main contact throughout the review process, and formulates accreditation recommendations to be considered by the CAAHEP board of directors.

CAAHEP is the overall governing body that awards programmatic accreditation to formal education programs in sleep technology and many other health professions. CAAHEP has been awarding accreditation of sleep technology programs since 2006. As identified in the AAST Workforce Survey, sleep technologists will need higher level technical skills and knowledge, critical thinking, and problem-solving skills to be successful in the next three to five years. Formal education programs prepare future technologists by incorporating these skill sets into their curricula. Formally trained sleep technologists obtain the knowledge, skills and behaviors to care for the most complex sleep patients, providing services such as patient education, complex diagnostic and therapeutic procedures, and long-term follow-up care.

The CoA PSG has grown through the years, and now oversees 42 programs in 30 states. These offerings include certificate, associate degree, and bachelor's degree programs. However, there is a lot of opportunity to offer more programs, as 20 states have no CAAHEP-accredited sleep technology education programs. Some areas of the country are completely without any educational programs, which hurts the educational needs of future sleep technologists, and impairs the recruitment of new people into the field. Many students may find out about the field as they are attending general health courses at a community college. The CoA PSG can help guide programs to make sure they are delivering a quality education.

How can you help?

We need AASM members to get involved to help CoA PSG increase the number of sleep technologist training programs in all 50 states. Local sleep medicine professionals can make a big difference by investing in the education of sleep technologists. No one knows better than sleep clinicians that well-trained technologists are essential to providing high-quality care. This gap presents an opportunity for sleep physicians and senior technologists to help influence and train the next generation. Something as simple as contacting a community college to see if it is interested in starting a program or hosting an evening job fair for people who are potentially interested in becoming a sleep technologist goes a long way to bolstering the education supply line. For those from larger labs, consider teaming up with a community college to offer a course or sponsor a scholarship. Clinicians should get involved promoting the field and the future of sleep.

Here are some things you can do to promote sleep technologist education:

1. Contact your community college to see if it has a program or is interested in starting one.
2. Check the CAAHEP website at caahep.org to see the closest accredited program to your area.
3. Work with the AASM to determine the need for new sleep technologists in your area.
4. Offer to have an open house for prospective students.
5. Provide educators for local programs, offer to give lectures, or develop a course in sleep technology.
6. Offer to be a clinical site for programs that are in your region and support the education of these students.
7. Sponsor a scholarship for students to attend an accredited school.
8. Propose to start a program in conjunction with your community college.

While starting and maintaining a program does require some sustained effort, the payoff for the clinical centers is great. If you are interested in getting involved in starting a program, the CoA PSG serves as a resource to help you. A complete directory of accredited sleep technology programs and the CoA PSG webpage can be found by visiting www.caahep.org.

From the high seas to promoting zzz's: Meet a former cruise ship doctor turned sleep physician

Aristotle Asis, MD, is a sleep physician at Community Health Network in Indianapolis. His career has taken him to fascinating offshore locations around the world, from cruise ships to seismic exploration vessels. Now, Dr. Asis brings a globally minded perspective to delivering patient care stateside.

Tell us about your medical background.
I attended medical school in Manila, Philippines. Initially, I worked as a general practitioner until I got an offer to work as a cruise ship doctor for two years. Then, I transitioned to work as a remote site physician for the oil and gas industry through a company in Gloucestershire in the United Kingdom. After a while, our baby was born, and I decided that I could not be working far away from our kid all the time. I had my internal medicine residency training with the University of Alabama at Birmingham and then went into a sleep medicine fellowship at Baylor College of Medicine. I have been practicing sleep medicine full-time for two years now with a large health care network in Indianapolis.

What led to your interest in sleep medicine?
During my stint as a remote site physician on a seismic oil exploration ship, there was a near-miss accident that could have led to multiple fatalities. During the investigation, it was evident that the personnel on duty should have been fast asleep, and a new set of well-rested people should have been performing the dangerous task. The oil and gas industry values sleep, rest, and stress management.

Also, six years ago, I had an ablation for atrial fibrillation. I was a healthy, young internal medicine resident with normal weight, an active lifestyle, and no comorbidities. I had an in-lab sleep study and after two hours, I was started on CPAP and have been using one since. It was very surprising that so little time is allotted, and very little knowledge is known to med students, residents, and even fellows about sleep medicine. I knew what I was going to be during the second year of my internal medicine residency. Fast forward, here I am, helping people like me understand more about their sleep issues and how to deal with them.

You've worked as a cruise ship doctor. Do you have any interesting anecdotes about your experience that you can share?
I worked as a ship doctor for a private cruise line exclusive to members and VIP charterers. It was known to provide unprecedented luxury and services. The highlight of my career was meeting famous people such as astronauts, pop stars, politicians, sports personalities, musicians, and billionaires, to name a few. My experience elevated the way that I provided medical care. It is the only job that I performed as a doctor in which I received monetary compensation – known more popularly as "tips" – for exemplary services.

Once, the ship responded to a distress call from a small yacht out in the sea. I had to come onboard the yacht by myself and help a young boy. The story did end well, and it was the highlight of my trip.

Your career has taken you around the world. Tell us about your work as a site physician in the oil and gas industry.
I was assigned to seismic exploration ships deployed to various places offshore around the globe. I oversaw everybody's health, attended medical emergencies, provided first aid care in traumatic accidents, and also served as a safety officer at the same time. Seismic exploration ships survey the seabed for the presence of oil.

Now, you're located in Indianapolis. What brought you there? Do you have intentions of working internationally in the future?
I fell in love with Indianapolis during my interview. It is a big city with a small-town feel. I have been blessed to be a part of a large network that understands providers' needs, meets their expectations, avoids overburdening their staff, and values patients' feedback. I am still in contact with my previous employers in the U.K. and sometimes get job offers, which I decline.

Currently, I do not have plans of working internationally again. However, it would be interesting if the job entails something that I could do remotely, such as consultancy work, and it would be great if I could do it while keeping my current position, which I enjoy so much.

How has your background influenced your approach to patient care?
I believe that my previous work experiences have prepared me well for life ahead. I have learned to work with people from various backgrounds, nationalities, and cultures. My exposure to different organizational structures and operations, and delivering customer-oriented services, contributed to the way I perform my responsibilities now. I have come to realize that the job is to discuss the patient's condition in a manner that they'll understand and offer diagnostic and treatment options based on good evidence so that at the end of the day, the patient is able to make a well-informed decision.

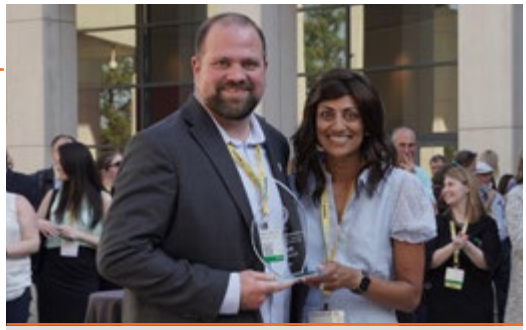
What do you like most about your work?
Positively affecting patients with similar sleep issues like mine is an immensely satisfying experience. Having a meaningful impact on a patient's quality of life provides a rewarding feeling, and at the end of the day, I can rest knowing I contributed something to society.

Puzzling over central disorders of hypersomnolence: the challenges faced by patients and clinicians

By Jennifer Gibson,
AASM Communications Manager

Central disorders of hypersomnolence are among the most difficult sleep conditions to diagnose. Many patients struggle for years before getting an accurate diagnosis, and they often feel alone in their battle. Patients report undergoing numerous sleep studies and other tests, experiencing misdiagnoses and incorrect treatments, many with intolerable side effects, before finally learning they have a sleep disorder, but often still not understanding why. It is a frustrating process for patients and their families. The Hypersomnia Foundation (hypersomniafoundation.org) is a non-profit organization committed to improving the lives of people living with idiopathic hypersomnia and related disorders, supporting science and research to uncover new treatments, and offering resources for providers to help them accurately diagnose and treat their patients.

The AASM Foundation's 2022 Sleep Champion Award recipient, the Hypersomnia Foundation's vision is to "fulfill the dream of restorative nighttime sleep and wide-awake days." While the Hypersomnia Foundation supports several sleep disorders, its main focus is on idiopathic hypersomnia, a chronic neurological sleep disorder that causes extreme daytime sleepiness and severely impacts quality of life. Often, those who have idiopathic hypersomnia do not receive a correct diagnosis for extended periods of time, leaving them increasingly vulnerable to poor sleep health.



AASM Foundation President Dr. Anita Shelgikar presents the 2022 Sleep Champion Award to Hypersomnia Foundation Chair David Burley during the AASM Foundation Reception at SLEEP 2022.

"This small foundation, founded in 2014 with a board made up entirely of volunteers, has taken on the herculean task of raising awareness, providing reliable resources and education, and encouraging research for a sleep disorder that is still largely unknown by the public and very likely underdiagnosed and misdiagnosed by medical professionals," said Dr. David Plante, chair of the Hypersomnia Foundation's Medical Advisory Board and associate professor of psychiatry at the University of Wisconsin-Madison and medical director of the Wisconsin Institute for Sleep and Consciousness.

"They're very patient-centered," said Dr. Plante. "A lot of the work they're doing is highlighting the importance of identification and treatment of hypersomnia disorders, and they've done a fantastic job with that."

A community of support

A diagnosis of a central disorder of hypersomnolence can be overwhelming. Because it is rare, many patients have never encountered someone with a similar condition. The Hypersomnia Foundation provides support to patients and their families, offering a wealth of educational information to help people adjust to living with hypersomnia.

"The need for connection in this community is huge," said Hypersomnia Foundation CEO Claire Crisp, who moved her family from England to California to find treatment for her 3-year-old daughter, who at the time was the youngest patient ever diagnosed with narcolepsy type 1. "Patients want to connect; people need to be seen and feel heard and not feel alone."

The Hypersomnia Foundation offers patients access to the international patient registry of rare diseases, so they can share details of their experiences and treatment, and information about research studies and clinical trials. Since March 2015, more than 2,300 people have joined the Hypersomnia Foundation patient registry, providing researchers with a valuable dataset to further support research into central disorders of hypersomnolence.

Claire Crisp joined the Hypersomnia Foundation as its CEO in September. She previously led Wake Up Narcolepsy.

Additional resources can help patients find appropriate providers; understand the impact of their sleep disorder on other medications, pregnancy, hospitalization and anesthesia; advocate with insurance companies; and understand disability options available.

"The Hypersomnia Foundation is a great resource providers can give patients that has a lot of great information, and it's a large community that may help them quite a bit," said Dr. Plante. "A lot of patients find that it's a great resource to learn more about their disorder, to access a community of folks who have the same types of problems, and get some practical advice and information to help them manage their disease."

Symptoms of hypersomnia

Common symptoms across people with central disorders of hypersomnolence include excessive sleepiness and cognitive challenges such as problems with memory and concentration. Cataplexy, a sudden onset of muscle weakness, also is common, but only in patients with narcolepsy type 1. Other symptoms of narcolepsy type 1, narcolepsy type 2, and idiopathic hypersomnia may include sleep inertia, sleep paralysis, and sleep-related hallucinations. Sleep inertia, sometimes called sleep drunkenness, is a feeling of heavy grogginess or sleepiness upon waking up, even from a nap. People who experience sleep paralysis are unable to talk or move when transitioning between sleep and wake. It can be

associated with hallucinations, which also occur during the sleep-wake transition. Both can cause fear and panic in people who experience these symptoms.

Excessive daytime sleepiness, which patients may describe as fatigue, tiredness, or lack of energy, often is the primary symptom signaling a sleep disorder; however, this can indicate sleep-disordered breathing or other sleep disorders. People with idiopathic hypersomnia typically sleep more than 10 hours per night, have difficulty waking from sleep, and may want to return to sleep. This excessive sleepiness can make it challenging to hold down a job, stay in school, and interact with others.

Diagnostic challenges

Because central disorders of hypersomnolence are rare, estimated to be present in 4-6% of the population, they are difficult to accurately diagnose. Idiopathic hypersomnia is even less common, seen in less than 1% of the population. They may be mistaken for other sleep disorders, depression, or chronic fatigue, or symptoms may not be taken seriously because the disorder can be "invisible."

"Unlike type 1 narcolepsy, we don't know what's causing the symptoms in idiopathic hypersomnia," said Dr. Plante. "The diagnostic criteria have changed over time as well, making it difficult to diagnose the disorder, and also there are limitations in the technologies we have to identify idiopathic hypersomnia."

People experiencing hypersomnia will undergo a sleep study to measure sleep quality and duration and determine if sleep apnea could be contributing to their daytime sleepiness. They then will have a multiple sleep latency test (MSLT) to measure daytime sleepiness. Over the course of several nap trials, the lab will measure how quickly a patient falls asleep. Most patients with narcolepsy fall asleep in an average of three minutes during the MSLT, and many enter REM sleep. Patients with idiopathic hypersomnia fall asleep quickly but usually do not enter REM sleep during the test.

Diagnosis also includes ruling out other sleep disorders such as circadian sleep disturbances, and medications must be eliminated as a cause of daytime sleepiness. According to Dr. Plante, some sleep labs are developing different protocols to measure extended sleep duration experienced by patients with hypersomnia who may have a normal MSLT but otherwise be impaired and meet the diagnostic criteria.

Because central disorders of hypersomnolence are rarely diagnosed, the Hypersomnia Foundation has developed a series of resources to help health care professionals better recognize and adapt to the unique needs of people with these disorders. They offer several recommendations to improve patient communication and engagement.

"The Hypersomnia Foundation is a great resource for sleep medicine providers," said Crisp, who recently joined the organization. "We are patient-focused, but we engage with researchers and clinicians, and our website is a very detailed resource for them."

Treatment challenges

Once correctly diagnosed, individuals with central disorders of hypersomnolence often face treatment challenges. There is only one medication approved by the U.S. Food and Drug Administration (FDA) for the treatment of idiopathic hypersomnia, and it was approved just over one year ago. The FDA has approved several medications for the treatment of narcolepsy type 1, some of which are used "off-label" to treat narcolepsy type 2. However, that doesn't mean access to treatment is easy, said Dr. Plante.

"Oftentimes insurance companies don't understand idiopathic hypersomnia, and they will not approve any medications for its treatment," he said. "Even generic medications are often turned down like generic stimulants like modafinil that are well within the scope of clinical practice."

"This is a huge source of frustration to our patients and the most important and most pressing issue that we face," added Crisp.

Dr. Plante said providers need to be persistent advocates for their patients, writing letters of appeal to insurance companies, offering comparisons they may be more familiar with, and removing as many barriers as possible. Developing new medications will help as well, and the Hypersomnia Foundation supports researchers and pharmaceutical companies working to better understand these disorders and develop new treatments.

"The Hypersomnia Foundation is very robustly poised to accelerate research," said Crisp. "There are very few organizations that manage to couple that approach of commitment to research and the patient community. So we're at a very specific intersection of research and community."

The Hypersomnia Foundation's Research Award Program offers funding to medical students, physician residents and fellows, postdoctoral fellows, and other researchers studying non-cataplectic hypersomnias. Research priorities include improving understanding, identifying the etiology, uncovering biomarkers and developing precision medicine for non-cataplectic hypersomnias. In 2022, the Hypersomnia Foundation partnered with the AASM Foundation on a strategic research grant, awarded to Dr. Margaret Blattner of Beth Israel Deaconess Medical Center for her research developing a novel protocol for understanding and diagnosing idiopathic hypersomnia. Aligning with the Hypersomnia Foundation's patient-centered approach, patients were included in the process of reviewing and evaluating grant applications. In 2023, Wake Up Narcolepsy will be included in the partnership.

"When we combine our efforts, the funds are greater, the opportunities are greater, we share the responsibility and the workload, it's a triple win, really," said Crisp. "We're seeing a real commitment from the organizations, our donors and researchers to really engage and be very specific about what they want to study and move forward in terms of disease understanding, access to treatments, and the relationship with other sleep disorders."

For more information, visit **hypersomniafoundation.org**.

AASM Insomnia Summit explores how to improve patient care

Sydney Preston, AASM Public Relations Coordinator

The AASM organized and hosted a virtual Insomnia Summit on Friday, Sept. 23. There were more than 60 participants representing medical, psychological and nursing associations; patient advocacy organizations; federal institutions; and other stakeholders. The summit was developed by the AASM Insomnia Summit Task Force, which comprised representatives from the AASM, American Academy of Neurology (AAN), American College of Physicians (ACP), American Psychiatric Association (APA), Illinois Academy of Family Physicians (IAFP), and Society of Behavioral Sleep Medicine (SBSM). The event was hosted by task force co-chairs Helena Schotland, MD, FAASM, and Emerson Wickwire, PhD, FAASM, along with AASM President Jennifer L. Martin, PhD, FAASM.

The goal of the summit was to identify and prioritize strategies to increase access to high-quality care for insomnia disorder. Discussions focused on identifying barriers and facilitators of insomnia disorder recognition and treatment.

The summit began with a 10-minute video featuring the personal perspectives of four patients who have chronic insomnia. They described how insomnia has had a negative impact on their lives, how they searched for a variety of solutions, and how they eventually found help. Their stories highlighted the diversity of patient experiences and the challenges of treating chronic insomnia. The video resonated with attendees and set the stage for the discussions that would take place during the summit.

Following the patient video, Jack Edinger, PhD, gave a presentation describing current recommendations for the treatment of chronic insomnia. His presentation focused on the AASM's clinical practice guidelines for behavioral and psychological treatments in adults published in 2021 and pharmacologic treatment in adults published in 2017.

The rest of the summit was structured around three thematic sessions focusing on barriers, facilitators, and future directions. Each session began with three or four brief, topical, five-minute presentations by content experts. Then participants split up in breakout rooms for about 30 minutes to discuss the ideas that were presented and to brainstorm ways in which the AASM, partnering organizations, and the sleep field should respond. Before the next session, the participants reconvened in a large group to share high-priority "next steps" identified during their breakout discussions.

Dr. Martin will share perspectives from the summit during her keynote lecture, "Improving Care for Patients with Chronic Insomnia Disorder," at Sleep Medicine Trends in February. A writing group comprising a subset of participants is being formed to draft a summit report for publication in the Journal of Clinical Sleep Medicine. The task force also is planning to compile content for an online "toolbox" that will have resources on the AASM website for clinicians and partnering organizations.

AASM Insomnia Summit

PATIENT PERSPECTIVE
Video Presentation

CURRENT GUIDELINES
Jack Edinger, PhD

SESSION 1: BARRIERS

Provider Knowledge and Attitudes
David Neubauer, MD, FAASM

Patient Awareness & Expectations
Eric Zhou, PhD

Perceived Importance/Value (Health System Barriers)
Michelle Drerup, PsyD

Pediatric Barriers
Roberta Leu, MD

SESSION 2: FACILITATORS

Practice Models that Work
Kristin Daley, PhD

Workforce Development
Loretta Colvin, NP, FAASM

Technology & Telehealth
Jason Ong, PhD

SESSION 3: WHAT'S NEXT?

How to Influence Payer Policies
Fariha Abbasi-Feinberg, MD, FAASM

Public Health Principles
Natasha Williams, EdD, MPH

Implementation Science
Sairam Parthasarathy, MD, FAASM

Treatment of insomnia using traditional methods in India

Maya Ramagopal, MD, AASM International Assembly member

Chronic insomnia is a universal condition, with different causes and treatments. Various studies have reported the worldwide prevalence of insomnia to be 10%-30% of the population, in some instances even as high as 50%-60%.

Current approaches to the treatment of insomnia in the U.S. and Western countries include prescription medications like hypnotics, which can have adverse effects such as overdosing, an increase in traffic accidents, and worsening of other sleep disorders. Cognitive behavioral therapy for insomnia (CBT-I) is the gold standard for the treatment of insomnia, but it continues to be difficult to access despite improvements in the availability of telemedicine, CBT-I digital applications, and brief behavioral treatment of insomnia (BBT-I).

In a WHO-SAGE study of six middle-income countries, 80% of the world's population, largely in Asian and African countries, were found to use traditional medicine for their primary health care needs. The term "traditional" implies a historical/cultural/folk system of medicine, frequently referred to as "complementary medicine" in the West. There is increasing awareness of traditional medicine in the U.S.; however, it is not mainstream. The National Center for Complementary and Integrative Health branch of the National Institutes of Health was established in 1991 for just this purpose. It is tasked with funding research into complementary and alternative medicine (CAM), including support for clinical trials of CAM techniques.

In the Indian subcontinent, several other traditions are practiced alongside or instead of allopathy. These include Ayurveda, Unani, Siddha, homeopathy and yoga.

Ayurveda in Sanskrit translates to "knowledge of life," ayur (life), veda (knowledge), and it was first described in India more than 3,000 years ago. It is the oldest of the traditional systems of medicine, though all aspects of this therapy have not been thoroughly explored.

Ayurvedic therapies are based on complex herbal compounds, minerals and metals. Natural substances like ashwagandha root, which is believed to work via GABA receptors, have been the best studied. In a double-blind, randomized, placebo-controlled study conducted in Maharashtra, India, subjects who received ashwagandha had significant improvement in sleep efficiency, sleep latency onset, and wake after sleep onset after 10 weeks compared with the placebo group.

The herb fenugreek improved symptoms of insomnia in women experiencing menopausal symptoms. Turmeric, saffron and anise have also been used to alleviate symptoms of insomnia.

The roots of Unani medicine lie in ancient Greece and Babylon, and it is thought to have been established by Hippocrates with contributions from Galen and Aristotle. It was adopted and further refined by the Arabs and brought to India in the 13th century where it was practiced in Mughal India and Muslim cultures in South Asia. The philosophy of this school is based on the principle that the body is made up of four elements, earth, air, water, and fire, that have different temperaments, described as cold, hot, wet, or dry. Health is a balance of four humors, phlegm, blood, and yellow and black bile. Insomnia and other conditions are believed to arise from an imbalance of these elements, temperaments and bodily humors. Restoring the balance through dietary modification, plant-based pharmacotherapy and sleep hygiene form the basis of insomnia treatment.

Siddha medicine is very similar to Ayurveda and traces its origin to Southern India. Its guiding principle is balancing the "three doshas," air, bile, fire and water, which are believed to be critical to maintaining good health.

Homeopathy was developed by the German physician Samuel Hahnemann in the late 18th century and was introduced in India by the early 19th century. The first principle of homeopathic treatment is that 'like cures like," a substance that causes certain symptoms can also be used to remove the symptom. The second principle is the "law of infinitesimals," which states that the more dilute a substance is, the more potent it is. The best example of this is coffea cruda, a homeopathic remedy made from unroasted coffee beans. It is diluted many times with water, and the final product contains an "infinitesimal" amount of caffeine, which "calms the mind" and treats insomnia. We know the effects of full strength caffeine!

Yoga is an ancient practice that has its roots in Indian philosophy. What started as a spiritual practice is now a popular way of promoting physical health, including sleep and mental well-being. Yoga, as practiced in the U.S. today, emphasizes physical postures (asanas), breathing techniques (pranayamas) and meditation (dhyana). Certain yoga postures, when carried out prior to bedtime, are believed to promote sleep. Yoga nidra or yogic sleep, which usually occurs in conjunction with guided meditation, is a practice that produces a hypnogogic state, indicated by the presence of alpha and delta waves.

There are traditional treatments for sleep disorders that are practiced in different parts of the world. Being aware of and working with patients who have access to such traditional therapies will only improve their care.

The American Academy of Sleep Medicine International Assembly aims to bring awareness of systems from different ethnic origins for an exchange of ideas that will benefit all those taking care of patients with this common sleep problem.

Medicare audits: prepare with confidence

Steve McEllin, AASM Health Policy Project Manager

Recent discussions about Medicare audits in the American Academy of Sleep Medicine online community, coupled with recent audits of sleep practices, have members concerned that the Centers for Medicare and Medicaid Services (CMS) is targeting sleep practices and facilities, focusing on polysomnography (PSG) services. To better prepare our members for Medicare compliance audits, the AASM developed a Medicare Audit Toolkit (https://aasm.org/clinical-resources/coding-reimbursement/medicare-audit-tookit/). The toolkit, a free, members-only resource, contains resources, tips, and information that will answer your questions. The toolkit addresses topics such as audit preparation and response, the different types and focus of audits, audit triggers, internal audit procedures, and the benefits of a compliance program. The AASM Medicare Audit Toolkit offers guidance on preparing for and responding to audits, navigating the audit process, and increasing member knowledge of the overall audit process.

The AASM Medicare Audit Toolkit includes:

- Medicare audit preparation checklist
- Medicare audit FAQ
- What sleep practices and facilities need to know about Medicare audits
- Medicare audit PowerPoint presentation
- "Talking Sleep" podcast featuring Dr. Gabriela De Bruin

Historically, the sleep medicine specialty has been the target of reports, audits, and investigations by CMS and the Office of Inspector General (OIG). The focus of these agency reviews has been on the billing practices and patterns for PSG and other sleep study services provided to Medicare beneficiaries. Not only are sleep practices and facilities the target of investigations, but hospitals and health care systems rendering PSG services have also been targeted.

Importance of audit preparation and voluntary compliance programs

No one looks forward to an audit. Pulling together evidence of compliance, medical records documentation, and understanding your office systems, security requirements, and information flow is arduous, and it interrupts everyday business and patient care functions. By proactively implementing compliance measures or establishing a voluntary compliance program into your operations prior to an audit occurring, audits can be completed quickly, successfully, and without any additional cost to your practice. Medicare is required to make random audits of 10% of all of its providers on an ongoing basis. The audit toolkit will help members better understand the process and be confident and comfortable that they're prepared to successfully navigate Medicare compliance audits.

Mistakes in medical documentation, coding, and billing practices can rouse Medicare's suspicion, which can lead to claim denials and audits. Therefore, you need to know how to prepare and respond to audits. The primary aim of the audit is to check whether a particular service was provided; whether the provider, patient and service were eligible for benefits; and whether the service provided met Medicare requirements. Sleep practices and facilities should have compliance measures or a program in place to prepare for and respond to an audit.

The value of building a voluntary compliance program into your operations cannot be overstated. Since medical documentation reviews are an integral part of the claims and payment process, auditors will review your claims data and medical documentation. So, as part of a comprehensive compliance program, sleep medicine practices and facilities should conduct regular, internal, prospective and retrospective audits to ensure that their processes, procedures, and medical record documentation meet or exceed Medicare coding, billing, and compliance standards. The goal of a prospective (pre-claims submission) audit is to catch any billing or coding errors before the claim is submitted. The aim of a retrospective (post-claims submission) audit is to do a deep dive into your internal claims process and identify underlying problems or high-risk areas based on the adjudication results. Clean coding and billing produces quicker payments and demonstrates to CMS and other payers that you are proactive in coding and billing processes. If you have the time and resources, implement both prospective and retrospective audits into your practice to maximize the benefits of both types of audits. Integrating internal audit processes into your operations also gives you the opportunity to find and return improper payments before an external audit happens.

There are several advantages of a comprehensive and well-designed compliance program, including:

- Speeding up and optimizing the proper payment of claims
- Mitigating billing errors
- Reducing chances of a CMS audit or OIG investigation
- Saving money
- Demonstrating "good faith" efforts to submit accurate claims
- Informing employees that they have an affirmative and ethical duty to come forward and report erroneous or fraudulent conduct, so that it may be corrected.

Knowledge is power

A commitment to compliance can best be assessed by the active application of compliance principles in day-to-day operations. By integrating the compliance program into your operations, you are establishing a "culture of compliance" — making audit preparation a routine part of your procedures and quality controls.

A compliance program should be thought of as "preventive medicine" for sleep practices and facilities.

The keys to success in Medicare compliance audits are:

- Remaining calm
- Having your policies and procedures up to date
- Making sure your medical record documentation is consistent with coverage determination criteria
- Following guidelines in your Medicare Administrative Contractor's local coverage determination (LCD) manual.

Lastly, the scope of a Medicare audit can be opened to all provider records for potential review, so only answer the questions the auditors ask. Do not volunteer any information that is not requested or is not the focus of the audit. Volunteering unsolicited information could widen the scope of the audit of your sleep practice and extend the audit timeline.

Knowledge of the Medicare audit process will assist sleep practices and facilities to successfully navigate compliance audits and become comfortable with audit expectations. The Medicare Audit Toolkit will help AASM members to prepare with confidence and be in the know when an audit occurs.

Questions about the Medicare Audit Toolkit can be sent to the AASM health policy team at coding@aasm.org.

Artificial intelligence in sleep medicine: a pulse survey of the AASM membership

Felicia Jefferson, PhD, CSSBB, Anuja Bandyopadhyay, MD, and Azizi Seixas, PhD, on behalf of the AASM Artificial Intelligence in Sleep Medicine Committee

AASM's Artificial Intelligence (AI) in Sleep Medicine Committee surveyed AASM members about their knowledge, beliefs, and attitudes about the use of AI in sleep medicine and research. Specifically, the committee aimed to capture: 1) whether/how AASM members are using AI applications in their practice and research, 2) AASM members' knowledge, beliefs and attitudes about the application of AI in clinical practice and research, and 3) AASM members' attitudes about the future use of AI in sleep medicine. The survey is part of a larger initiative by the AASM board of directors to create educational programming for members about emerging technologies and AI. To accomplish this goal, the AI in Sleep Medicine Committee is implementing several gap analysis surveys like the AASM AI Survey, developing new programs like the Current Applications of AI in Sleep Medicine webinar series, and preparing to launch an AI Pilot Certification Program to vet and standardize sleep scoring algorithms.

A total of 90 participants completed the AASM AI Survey. Approximately two-thirds (66%) of the sample identified as physicians, the majority of whom had more than 15 years of experience. The ages of participants mostly range from 41-60 years. Regarding AI knowledge, 50% of the respondents reported being "vaguely familiar" with basic AI concepts, and about a third (34%) were "somewhat familiar" with complex and technical AI terms like "supervised learning." Regarding attitudes about AI, 28% were "neither comfortable nor uncomfortable" in adapting. Lastly, regarding current use of AI, 25% stated they use AI-assisted polysomnogram scoring in their sleep laboratories. Those who reported using AI were asked to provide additional comments about the frequency of use, and benefits and limitations of the technologies. Some benefits of AI included increased efficiency in clinical care delivery, particularly in inpatient screening and patient education. It was apparent that a majority of respondents preferred the augmented versus autonomous value of AI, as many believed that it could assist with sleep scoring (81%) and with follow-up management, like PAP adherence (77%). Conversely, some participants reported concerns and reticence about using AI, citing lack of transparency, accuracy, and normative standards of algorithms as barriers.

Regarding current use of AI,
25%
stated they use AI-assisted polysomnogram scoring in their sleep laboratories.

Despite these concerns, there is general optimism about the value of AI as a tool to increase access to care, optimize the delivery of care, make the patient journey more precise and personalized, streamline provider decision making, and reduce health care costs. These sentiments reflect the general thrust of AI in medicine and are not specific to sleep medicine. However, unlike other medical specialties, sleep medicine is well-suited for a more integrated adoption of AI in everyday practice because of its reliance on data for diagnosis and treatment of sleep disorders. Results from our survey indicate that sleep medicine is at a crossroads between preserving traditional practices and embracing novel and emerging technologies. In order to pivot to more innovative models of sleep care, the AASM needs to increase AI awareness, literacy, and competency among its membership. If we do not seize this inflexion moment, our field may not actualize our public health value and prominence as trailblazers in the care of patients. The AASM's AI in Sleep Medicine Committee is striving to support and shepherd our membership into this new era of AI in sleep medicine.

AASM FOUNDATION

Evaluation and management of sleep and circadian rhythm disturbances to improve symptoms of Alzheimer's disease and other dementias

AASM Foundation and Alzheimer's Association collaborate on SLEEP 2022 symposium

More than six million people in the United States are living with Alzheimer's disease, and that number continues to grow. In order to more effectively treat this disease, scientists and physicians need to gather a more holistic understanding of how Alzheimer's develops and progresses, its effects, and more. As sleep problems are commonly associated with Alzheimer's, it is essential for research in this area to be expanded upon so that sleep medicine clinicians can effectively evaluate and treat patients.

This past June, the AASM Foundation and the Alzheimer's Association collaborated on a special symposium at SLEEP 2022 in Charlotte, highlighting different aspects of the intersection of sleep disorders and Alzheimer's. The speakers were Drs. Adam Spira, Omonigho "Michael" Bubu, Ruth Benca, and Glenna Brewster, all of whom presented unique findings from their research.

"Consistent, high-quality sleep is essential for overall health, and we're learning that it may also significantly affect our cognitive health as we age," said Percy Griffin, PhD, director of scientific engagement at the Alzheimer's Association. "The Alzheimer's Association is committed to accelerating research investigating sleep and other modifiable risk factors for cognitive decline. We do this through our grant funding, which includes more than 60 sleep-related research awards since 2008, and collaborations such as the one between AASM and the Sleep and Circadian Rhythms professional interest area of our ISTAART professional society."

"The purpose of this symposium was to update sleep medicine physicians and other providers caring for older adults, with and without cognitive impairment, on the evidence linking Alzheimer's disease to sleep and circadian rhythm disturbance, the role of other factors such as vascular disease and health disparities, and best strategies to implement sleep therapies," said Dr. Brendan Lucey, chair of the symposium.

Adam Spira, PhD

Sleep and circadian rhythms: an update on links to Alzheimer's disease and related dementias

Sleep problems are common ailments of older adults with Alzheimer's. Dr. Spira's presentation built off this knowledge, discussing the phenomenon of sleep disorders as potential contributors to cognitive impairment and decline, and the development of Alzheimer's pathology among cognitively healthy populations.

Omonigho "Michael" Bubu, MD, PhD, MPH

Impact of obstructive sleep apnea on Alzheimer's disease risk: examining physiologic, race, and sex specific mechanisms

In his presentation, Dr. Bubu explained his findings that implicate obstructive sleep apnea as a risk factor for Alzheimer's, a physiological marker associated with Alzheimer's pathology, and a modifier of Alzheimer's risk.

Ruth Benca, MD, PhD

Impact and management of sleep problems in Alzheimer's disease patients and caregivers

Sleep disorders among those with Alzheimer's cause an overall decreased health status and quality of life. Dr. Benca chose to look further into the treatments of various sleep disorders such as obstructive sleep apnea and insomnia in order to ease the clinical burden of these sleep problems in people with Alzheimer's.

Glenna Brewster, PhD, RN, FNP-BC

Conducting a dyadic intervention for persons living with cognitive impairment and their care partners: preliminary findings and lessons learned

People with cognitive impairment, as well as their caretakers, often suffer from some form of sleep impairment as well. Dr. Brewster presented her research on potential treatment methods that target both parties in a dyadic cognitive behavioral therapy for insomnia study.

The four presentations provided a holistic insight into the many connections between sleep problems and different facets of Alzheimer's.

"Sleep and circadian rhythm disturbances are increasingly recognized in pre-symptomatic and early Alzheimer's disease," said Lucey. "Since there are many effective therapies for sleep and circadian rhythm disturbances, this presents a great opportunity for the field to improve the sleep health of individuals with Alzheimer's."

The AASM Foundation's vision is healthier lives through better sleep. The symposium shed light on the fact that sleep medicine is more interdisciplinary than many realize, emphasizing the need for further sleep research and increasing healthy sleep patterns for all. Sleep problems not only affect people at night, but they have an impact on every facet of their life and health.

Building healthy sleep habits in students

The start of the new school year is the perfect time to renew habits that keep students happy and healthy – including sleep. The AASM hosted the third annual Student Sleep Health Week Sept. 12-18, 2022, to educate students, parents and educators about the importance of sleep for success, well-being and overall health.

"Sufficient, healthy sleep is critical for students to excel in schoolwork, sports and extracurricular activities," said AASM President Jennifer Martin, PhD. "When students get proper sleep, they are more optimistic, feel their best, and are better able to concentrate on their studies, while insufficient sleep can leave students exhausted and unprepared for school, making it harder to learn and pay attention."

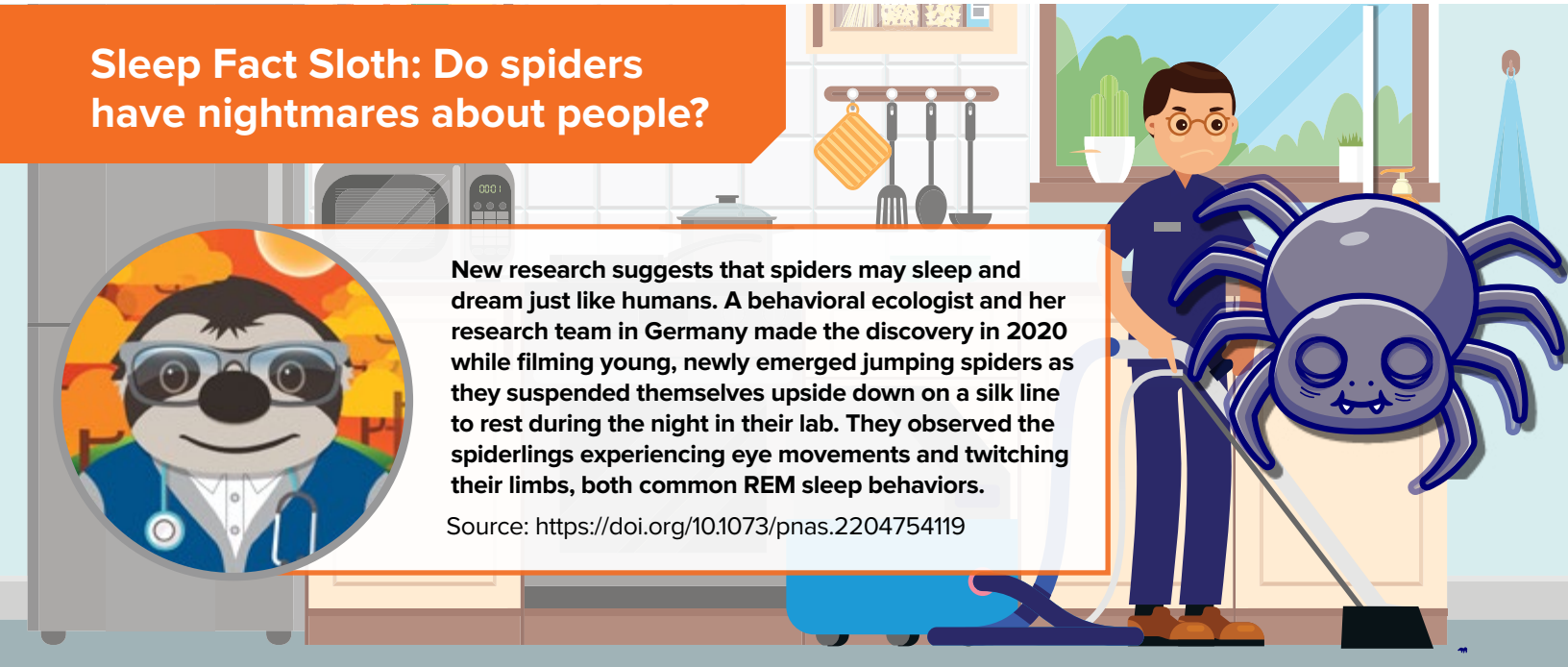
Leading up to Student Sleep Health Week, the AASM issued a press release showing that the majority of U.S. adults admit they've lost sleep due to spending time on social media. The "TikTok Tired" story earned exclusive coverage on the Today Show along with a live online interview broadcast on NBC News Now. Additional press release coverage resulted in a total of more than 539 million impressions.

The AASM also leveraged Student Sleep Health Week to release a new patient education video that will help children become more comfortable using CPAP therapy. CPAP Tips for Kids, available on the Sleep Education YouTube channel, walks children and their parents or caregivers through easy steps to desensitize them to CPAP use and describes the positive benefits of treating sleep apnea.

Additional activities and engagement took place on a variety of social media channels, including a Reddit "Ask Me Anything" with members of the AASM's Public Awareness Advisory Committee, a partnership with TikTok influencer Tanu Tripathi (@yourstudentsupport), and a sweepstakes on TikTok and Instagram. Student Sleep Health Week also was used to launch the @aasm_sleeped TikTok account, which will feature AASM members and others providing healthy sleep tips and other sleep-related advice.

The AASM's supporting partners for Student Sleep Health Week included the American School Counselor Association, National Association of School Nurses, Project Sleep, Sleep Research Society, Society of Health and Physical Educators, and Start School Later. Student Sleep Health Week was created with a resolution by the U.S. House of Representatives in 2020.

Sleep Fact Sloth: Do spiders have nightmares about people?



New research suggests that spiders may sleep and dream just like humans. A behavioral ecologist and her research team in Germany made the discovery in 2020 while filming young, newly emerged jumping spiders as they suspended themselves upside down on a silk line to rest during the night in their lab. They observed the spiderlings experiencing eye movements and twitching their limbs, both common REM sleep behaviors.

Source: https://doi.org/10.1073/pnas.2204754119

AASM in the news

The AASM's robust media relations program allows us to educate the public about important issues surrounding sleep and sleep health. Through AASM subject matter experts and supported by evidence-based guidelines and recommendations, we can leverage the media to reinforce the message that sleep is essential to health. Here is a sampling of recent coverage.

CNN

8 reasons why you wake up tired, and how to fix it

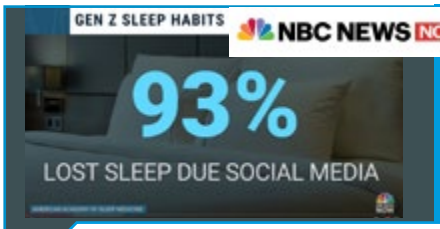
"The most important thing – if your bed partner snores – is to get them to see a sleep specialist and have them evaluated for sleep apnea," [AASM President Dr. Jennifer] Martin said. Sleep apnea – a condition wherein breathing stops and restarts while someone's sleeping – is common in people who snore, she added.

The New York Times

Why Do I Sweat So Much in My Sleep?

"You can narrow things down pretty quickly with a few lab tests and a few detective-like questions," said Dr. Andrea Matsumura, a sleep medicine physician at The Oregon Clinic in Portland and spokeswoman for the American Academy of Sleep Medicine.

Among her sleep medicine patients, excessive nighttime sweating occurs "typically because they're having some sort of abnormal breathing in their sleep, and that's a sign of sleep apnea."



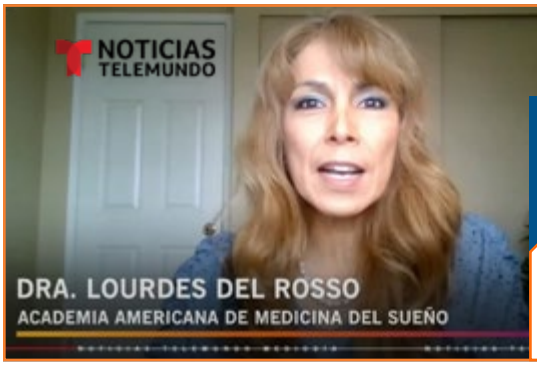
Social Media's Impact on Sleep

"I think what we're seeing with this phenomenon of 'TikTok Tired' people are tending to stay up much longer connecting to social media than they would when doing something like reading a book," said Dr. Anne Marie Morse, a pediatric sleep specialist and member of the AASM Public Awareness Advisory Committee.

POPULAR SCIENCE

Yes, you can overdose on melatonin. Here's how to use the sleep supplements safely.

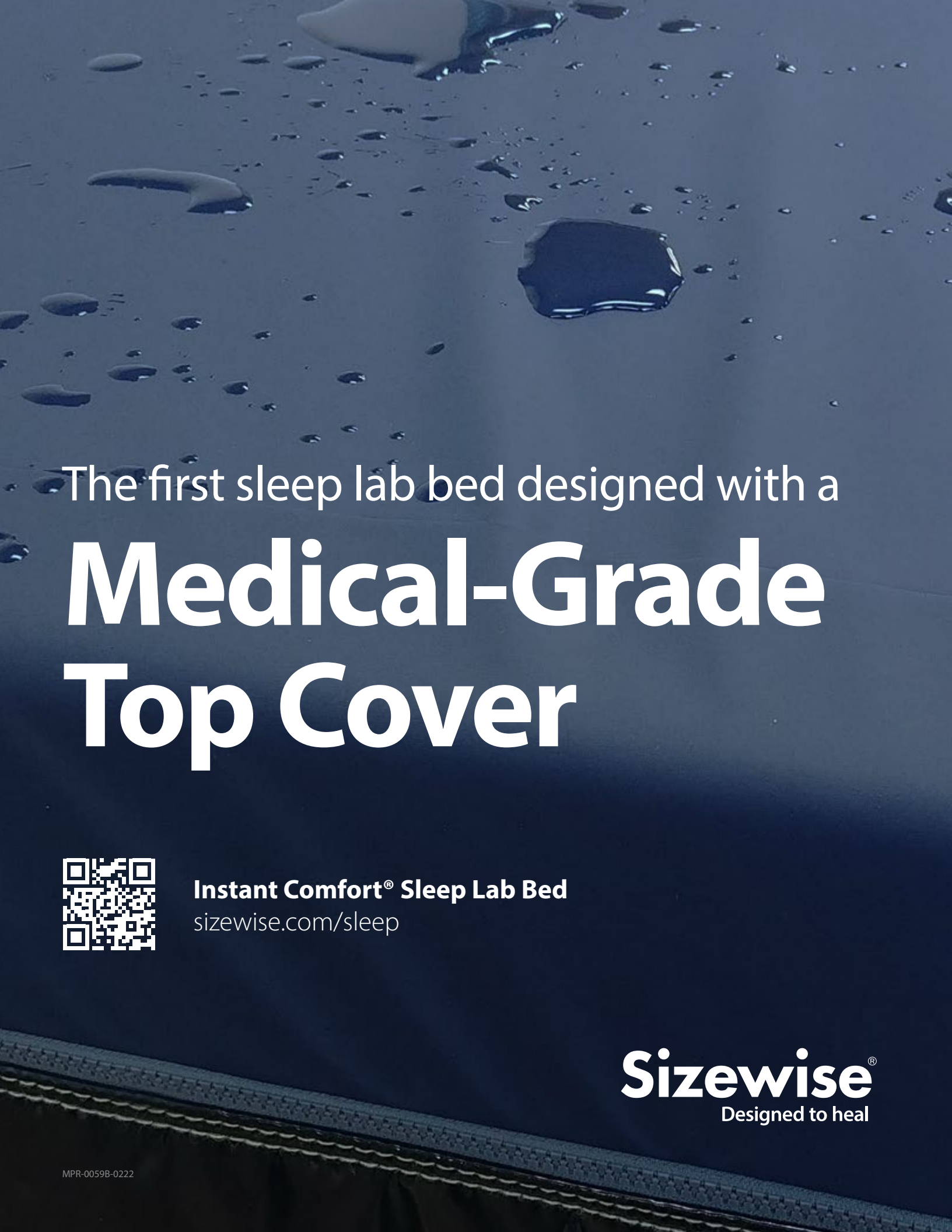
"It's important, especially in kids, not to use melatonin until you've spoken with your pediatrician or your sleep doctor," says M. Adeel Rishi, a pulmonology, sleep medicine, and critical care specialist in Indiana and vice chair of the American Academy of Sleep Medicine Public Safety Committee.



Ver el celular antes de dormir afecta la salud de millones

(Looking at cellphone before bed affecting health of millions)

Dr. Lourdes Del Rosso, an AASM member in Seattle, did this interview about social media use interfering with sleep, especially in children and teens, for Telemundo News.


The first sleep lab bed designed with a
Medical-Grade
Top Cover
Instant Comfort® Sleep Lab Bed
sizewise.com/sleep
Sizewise®
Designed to heal
MPR-0059B-0222