Evaluation and Treatment of Children's Sleep Disorders: A Healthy Debate

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In this issue, Drs. Owens, Kothare, and Sheldon with Dr. Gozal engage in a healthy debate regarding the necessity of accreditation standards for centers that diagnose and treat pediatric sleep disorders.^{1,2} In their editorial, Drs. Owens, Kothare, and Sheldon express concern that my editorial on the Future of Sleep Medicine³ did not specifically mention pediatric sleep medicine. The conclusion that the American Academy of Sleep Medicine (AASM) is therefore ignoring our youngest patients could not be farther from the truth. Pediatric sleep medicine is included at all levels in the activities of the AASM: education of sleep specialists is a high priority and insuring the best possible care for children with sleep disorders is of utmost concern.

In just the past year the AASM undertook the following initiatives related to pediatric sleep medicine:

- Achieved acceptance of a two separate pediatric Polysomnography CPT codes that recognize and reimburse the additional effort needed to obtain high quality sleep studies in children.
- Developed a pediatric sleep medicine course, which be held in Fall 2012 in conjunction with a pediatric sleep research course sponsored by the Sleep Research Society.
- Invested in the development of standards of practice documents for respiratory and non-respiratory pediatric sleep disorders.

Further, the AASM has supported pediatric sleep medicine more broadly. For example, pediatric sleep specialists, including authors on both sides of this debate, are integral members of task forces that drafted practice parameters related to pediatric sleep medicine and are involved in updates to critical sleep medicine texts such as the *International Classification of Sleep Disorders 3rd Edition* and the upcoming revision of *The AASM Manual for the Scoring of Sleep and Associated Events*. In addition, the AASM Board has physicians with specific expertise in pediatric sleep medicine as Directors and there is a dedicated section for pediatrics where ideas and thoughts are shared among colleagues. Further, the AASM has always supported the inclusion of pediatric training for sleep specialists; in fact, the Accreditation Council for Graduate Medical Education (ACGME) syllabus requires exposure to pediatric sleep medicine in its curriculum and the American Board of Medical Specialties (ABMS) includes pediatric sleep medicine questions in its examination. Several lectures on pediatric sleep medicine are included in the AASM's Board Review for the Sleep Specialist course. Also, the Education Committee has produced

several excellent products focused on pediatrics, including a 3-CD set of informative slides and accompanying text.

In his editorial,² Dr. Gozal makes a salient point that is the crux of this debate: there is a dearth of appropriately trained specialists to treat pediatric patients with sleep disorders. According to the American Board of Pediatrics (ABP) website, there are 216 physicians certified in sleep medicine by the ABP through December 2011. With more than 2,600 sleep disorders centers accredited by the AASM, there is an obvious need for additional fellowship programs and physicians trained in pediatric sleep medicine to meet the present reality and future demands. As the AASM continues to support efforts related to pediatric sleep, it is incumbent on us as individual clinicians to serve as advocates for sleep medicine and promote pediatric sleep medicine opportunities to medical students and our colleagues.

Building on the consideration of an inadequate number of pediatric-trained sleep physicians, another astute point Dr. Gozal articulates is the inability of accredited sleep disorders centers to fully and fairly implement standards specific to pediatric patients. In assessing this debate, it is important to remember that the AASM Standards for Accreditation of Sleep Disorders Centers presently include provisions for pediatric sleep medicine.

The AASM Standards for the Accreditation of Sleep Disorders Centers are not simply a checklist of requirements—the standards require compliance with published AASM practice parameters and guidelines. The introduction states that “Accredited sleep facilities must adopt and follow the standards in all active AASM Practice Parameter papers...In addition, it is recommended that accredited sleep facilities adopt and follow all active AASM Clinical Guidelines.” The inclusion of this language insures that evidenced-based standards of care, as they evolve and are included in AASM publications, are always a part of the requirements for accreditation. Further, these policies insure that accreditation encourages compliance with the most up-to-date evidence available and assures consistency among the publications of the AASM and in clinical practice. As evidence for pediatric diagnoses and treatments coalesce, practice parameters and guideline papers published by the AASM automatically update accreditation standards.

The standards require that “the signals collected and the equipment used for comprehensive polysomnography must be in compliance with *The AASM Manual for the Scoring of Sleep and Associated Events*.”⁴ For pediatric patients, this means that sleep studies must include transcutaneous or end-tidal CO₂

monitoring. In addition, *The AASM Manual for the Scoring of Sleep and Associated Events* requires that pediatric sleep studies provide the data necessary to diagnose hypoventilation, and this requires CO₂ monitoring. Further, the manual requires the use of this rule with patients less than 13 years of age. Accreditation standards require that centers have written protocols for patient acceptance, which must include the ages of patients seen in the center. When site visitors encounter sleep centers that study children, appropriate equipment for CO₂ monitoring is required. Site visitors review protocols for pediatric sleep studies and insure that the environment is appropriate for the ages studied.

Accreditation standards also require that pediatric sleep studies are interpreted using the separate rules for pediatric sleep staging and respiratory events scoring in *The AASM Manual for the Scoring of Sleep and Associated Events*. Gaining experience with these rules and evaluating competence in the scoring of pediatric sleep studies may be difficult to obtain. In response, the AASM is in the early stages of developing a pediatric section for the Inter-scorer Reliability Program, currently used by more than 2,800 scorers. The program provides standard sample recordings that are scored by a committee of expert “gold standard” scorers and provides immediate feedback to users. Users are able to compare their scores to the scores of all users. An instructive monthly video review of contentious epochs provides an enriched learning experience. This will certainly be a valuable educational resource on the scoring of pediatric sleep studies.

An area of complete agreement with Dr. Owens and colleagues is that pediatric sleep studies require a family oriented approach. Input from a spouse or a bed partner is helpful in adult sleep medicine; input from parents or caregivers is critical in pediatric sleep medicine. The article by Zaremba⁵ has been incorporated into many AASM courses and forms the basis for the popular “Making Sleep Studies Child Friendly” DVD. This resource is highly recommended viewing for center physicians and technical staff when pediatric patients are studied. Accreditation standards also require a quality improvement plan. This often includes assessment of patient (or parental) satisfaction and is intended to form the basis for a feedback loop leading to optimization of pediatric sleep study procedures and environment. Appropriate patient follow-up is also a key element of accreditation standards.

The AASM is highly sensitive to access to care issues. Accreditation standards are carefully weighed to determine the burden they place on community sleep specialists. The balance is to require a standard of care without placing excessively harsh restrictions that might lead a specialist to turn patients

away. Because an increasing number of pediatric sleep patients will present with symptoms consistent with obstructive sleep apnea, recognition, correct diagnosis, and appropriate treatment of these patients should be a standard part of every sleep specialist’s training. Recognition of less common pediatric sleep disorders and, at a minimum, a plan for referral for treatment is also expected. Within this framework, the AASM leadership welcomes evidence-based recommendations for additional standards of care.

Finally, recognition of the field of sleep medicine was a hard-fought battle that required demonstrating that a unique body of knowledge and training existed that was not present in any other medical specialty. The American Medical Association, AC-GME, and the ABMS came to support this proposition and our field is stronger with this recognition. Fragmentation of sleep medicine into sub-disciplines runs the risk of eroding this support. A focus of the AASM has always been inclusion of the pediatric expertise in standards of care, publications, courses, and educational products. Our goal is to educate sleep specialists in the care of pediatric sleep disorders patients, thereby making integrated sleep medicine programs truly comprehensive.

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