

AASM Scoring Manual Version 2.2 Updates: New Chapters for Scoring Infant Sleep Staging and Home Sleep Apnea Testing

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Version 2.2 of the American Academy of Sleep Medicine (AASM) Manual for the Scoring of Sleep and Associated Events was released on July 1, 2015. The Scoring Manual Editorial Board (previously the Scoring Manual Committee) would like to call attention to the most important changes. As discussed below, there are two new major chapters providing rules for the staging of infant sleep and scoring respiratory events in home sleep apnea testing (HSAT) studies. The new chapters were approved by the AASM Board of Directors to fill two obvious gaps in the Scoring Manual. The Scoring Manual Editorial Board would like to emphasize that any changes in the manual are instituted after long deliberation and consultation with area content experts.

Version 2.2 of the Scoring Manual, for the first time, includes rules for scoring sleep studies in term infants less than two months of age. This milestone acknowledges the importance of studying sleep across the lifespan, beginning with our youngest patients. The new scoring rules address sleep staging in infants and are based on the classic infant scoring rules of Anders et al.¹ Development of these new rules benefitted from expert consultation from Madeleine Grigg-Damberger, MD, and Mark Scher, MD. One important difference between the current manual and Anders is that sleep is now classified into three stages: REM, NREM and transitional, as compared to the Anders classification of active, quiet and indeterminate sleep. This new classification was based on the physiologic similarities between active and REM sleep, and quiet and NREM sleep. Further, it was realized that young infants have stages of sleep that manifest elements of both REM and NREM sleep; hence, the term “transitional” rather than “indeterminate.” Note that respiratory events in infants should be scored using the standard AASM pediatric scoring criteria.

Version 2.2 of the AASM Scoring Manual now also includes scoring rules for adult Home Sleep Apnea Testing (HSAT; chapter IX). The foundation for the development of these rules includes the work of the 2010 AASM Out-of-Center Task Force who developed the SCOPER (Sleep, Cardiovascular, Oximetry, Position, Effort, Respiratory) classification system.² This classification system systematically evaluated available technology and evidence for diagnosing obstructive sleep apnea using portable devices. These new HSAT scoring rules allow for standardization of scoring and reporting data generated from HSAT

devices and are consistent with AASM accreditation standards for HSAT. Incorporating these rules not only standardizes reporting from sleep center to sleep center, but also provides a foundation for monitoring quality metrics and patient outcomes. This chapter includes specific reporting parameters for newer monitoring technology such as peripheral arterial tonometry (PAT). As the number and types of HSAT devices evolve, and new technology and evidence emerge, these scoring rules will also evolve to keep pace with the dynamic HSAT landscape.

Going forward, our major goals are to clarify scoring rules (by providing additional examples) and address areas of ambiguity or controversy. To this end, the Editorial Board will begin an ongoing dialog with the panel of “gold standard” reviewers of the AASM Inter-scorer Reliability (ISR) program. This will provide important feedback concerning difficulties that arise when participants apply the scoring rules to “real life” sleep studies. Each month, we also receive thoughtful inquiries about interpretation of the current rules. Many of these questions raise interesting points or reveal areas of confusion. As we know, the rules may not provide answers for all situations, nor satisfactorily anticipate the variety of pathological issues that may be seen. Because some of these issues have little data, these scenarios will require the use of the scorer’s clinical judgment. However, we will continue to strive to improve the Scoring Manual as a living document. By utilizing the data and feedback from both the ISR program and members, we can identify and investigate areas that require further clarification and apply evidence-based decision making to guide the development of new rules or clarifications of existing rules in future versions. And, as always, we are open to and appreciative of your questions and comments.

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