

STANDARDS FOR ACCREDITATION OF A SLEEP DISORDERS CENTER

Prepared for:

**PROGRAM DIRECTORS
INSTITUTIONAL ADMINISTRATORS
SITE VISIT COMMITTEE MEMBERS**

Prepared by:

**AMERICAN ACADEMY OF SLEEP MEDICINE
ACCREDITATION COMMITTEE**

The information in this manual explains the system used in accrediting a program and is designed to prepare your program for accreditation. It is the policy of the American Academy of Sleep Medicine that accreditation status cannot be used to permit or condone conduct, at any time or in any setting, that is not consistent with, or not in conformity with state, federal, or institutional regulations or policies. Further, it should be expressly understood that accreditation status does not allow a program to act in contravention to standards for human studies or generally accepted standards of care.

American Academy of Sleep Medicine
One Westbrook Corporate Center, Suite 920
Westchester, IL 60154

Phone: (708) 492-0930 FAX: (708) 492-0943 EMAIL: aasm@aasmnet.org

**March 2002
Revised Edition**

Copyright ©2001 American Academy of Sleep Medicine

This document contains information that is privileged and is intended solely for the use of the individual or entity by which it was purchased. You are hereby notified that any disclosure, copying or distribution of the contents of this document is prohibited.

TABLE OF CONTENTS

STARTING A SLEEP DISORDERS PROGRAM

WHAT IS A SLEEP DISORDERS PROGRAM?.....	5
GROWTH.....	6
STRATEGIES FOR ESTABLISHMENT OF A SLEEP DISORDERS PROGRAM	6
Sleeping Rooms.....	6
Procedures and Interaction.....	6-7
Equipment.....	7
PERSONNEL.....	8
Professional Staff.....	8
Medical Director	8
Diplomate of the American Board of Sleep Medicine	8
Technicians.....	8
Training	8-9
Responsibilities	9
Other Paramedical Personnel.....	9
BILLING AND FEE STRUCTURE.....	9
Billing and CPT Codes.....	9-10
Fees and Collection Rates.....	11
REFERENCES.....	11-12
CLINICAL PRACTICE PARAMETERS AND REVIEWS	12-13
GENERAL ORIENTATION GUIDE FOR THE ACCREDITATION OF A SLEEP DISORDERS PROGRAM	
GUIDE TO THE AASM ACCREDITATION PROGRAM	14-15
THE ACCREDITATION PROCESS.....	15-16
CATEGORIES OF ACCREDITATION.....	16-18
PROCEDURES TO BE FOLLOWED WITH PROVISOS.....	18
ACCREDITED MEMBER STATUS.....	18-19
THE SITE VISIT PROCEDURE	19-23
STANDARDS FOR ACCREDITATION OF A SLEEP DISORDERS CENTER	
ABOUT THE STANDARDS FOR ACCREDITATION	23
STANDARDS FOR SLEEP DISORDERS CENTERS	

PF. Minimum Requirements

PF.1. Personnel	24-25
PF.2. Services Necessary for the Diagnosis and Treatment of Sleep Disorders.....	25-26
PF.3. AASM Code of Ethics.....	26
PF.4. Fees and Billing Procedures	26

FA. Facility

FA.1. Identification as a Sleep Disorders Center	27
FA.2. Patient Testing Rooms.....	28-29
FA.3. Control Room	30
FA.4. Policies and Procedures Manual	31-32

AD. General Administration

AD.1. Mission Statement	32
AD.2. Written Objectives.....	33
AD.3. History of Experience.....	33

ED. Education

ED.1. Participation of Professional and Technical Staff in Activities Keeping them Current In Sleep Medicine	34
ED.2. Participation of Center Staff in Educating Professionals in other Medical Specialties and the Patients Regarding the Diagnosis, Treatment and Care of Patient with Sleep Disorders.....	35

RX. Treatment of Disorders

RX.1. Sleep-related Breathing Disorders	35-36
RX.2. Insomnia.....	36-37
RX.3. Narcolepsy.....	37-38
RX.4. Restless Legs Syndrome and Periodic Limb Movement Disorder	38-39
RX.5. Sleep-wake Rhythm Disorders.....	39
RX.6. Other Sleep Disorders	40

EQ. Equipment

EQ.1. Equipment for the Performance of Overnight Polysomnography	40-42
EQ.2. Equipment for the Treatment of Sleep-Related Breathing Disorders.....	42
EQ.3. Routine Maintenance of Equipment.....	43
EQ.4. Replacement or Repair of Capital Investments	43

EM. Emergency Procedures

EM.1. Emergency Plan	44-45
----------------------------	-------

PR. Procedures

PR.1. Comprehensive Laboratory Polysomnogram.....	46-47
PR.2. Perform Multiple Sleep Latency Testing	47-48
PR.3. Polysomnography with Titration of Positive Airway Pressure.....	48-49

PR.4. Attended Portable Studies	49-50
PR.5. Related Procedures	51-52

SC. Scoring and Interpretation of Polysomnographic Data

SC.1. Scoring of Polysomnograms in Accordance with Rechtschaffen and Kales	52-53
SC.2. Calculation of Sleep-related Breathing Index.....	53-54
SC.3. Number of Limb Movements	54
SC.4. Review of Raw Data from Each Polysomnogram by Interpreting Staff Member	55
SC.5. Verification of Accuracy of Interpretation of Polysomnograms by ABSM Diplomate	55-56

PT. Patient Referral, Management and Follow-up

PT.1. Written Criteria for Patient Acceptance	56-58
PT.2. Complete Medical Records for Patients	58-59

QA. Quality Assurance

QA.1. Written, Ongoing Quality Assurance Program.....	60
---	----

PE. Personnel

PE.1. Written Duties and Responsibilities for all Center Staff Positions	61
PE.2. Number of Trained and Supervised Technicians	61-62
PE.3. Administrative, Clerical and Maintenance Staff.....	63
PE.4. Qualifications and Requirements of all Sleep Staff Professionals	63

References.....	64
------------------------	-----------

APPLICATION PREAMBLE AND INSTRUCTIONS.....	65
---	-----------

FORM I (Signature Page).....	66
-------------------------------------	-----------

FORM II (Biosketch of Professional Staff Members).....	67
---	-----------

FORM III (Equipment List).....	68
---------------------------------------	-----------

FORM IV (Personnel).....	69
---------------------------------	-----------

FORM V (Patient Volume)	70
--------------------------------------	-----------

FORM VI (Policies and Procedures)	71-72
--	--------------

APPLICATION FOR ACCREDITATION OF A SLEEP DISORDERS CENTER.....	73-86
---	--------------

STARTING A SLEEP DISORDERS PROGRAM

WHAT IS A SLEEP DISORDERS PROGRAM?

Sleep disorders encompass difficulties with sleep and with staying awake, and include behaviors that cause difficulties with sleep in all age groups from neonatal to the elderly. Sleep-related breathing disorders, particularly obstructive sleep apnea syndrome, are relatively common. The diagnostic evaluation of sleep disorders often requires overnight examination of the sleeping patient by means of polysomnography to assess severity, effect on sleep architecture and continuity, and the effects on gas exchange, cardiac function, etc. Polysomnography is used in conjunction with the patient's history, other laboratory tests and observations, and the physician's knowledge of sleep disorders to reach a diagnosis and recommend appropriate treatment. A sleep disorders program functions as a diagnostic resource to evaluate patients with sleep disorders and to undertake treatment and follow-up.

An accredited *sleep disorders center* is a comprehensive or full-service sleep disorders program that must be prepared to provide adequate evaluation of patients with a variety of sleep disorders. Some sleep programs also provide polysomnographic evaluations of infant apnea and other pediatric sleep disorders, and REM-related nocturnal penile tumescence (NPT) studies, although these are not required for accreditation.

Because the American Academy of Sleep Medicine (AASM) recognizes that a sleep disorders center is not possible or cost-effective for every medical community, we have also designed *Standards for Accreditation* for laboratories evaluating only sleep-related breathing disorders. Although the services of an accredited *laboratory for sleep-related breathing disorders* are limited in scope, the specialized laboratory must meet many of the same high standards as a full-service center.

An accredited sleep disorders program will serve as a significant resource to its medical community and will be of academic and scientific value. Starting a program, however, can be expensive; it is a labor-intensive process requiring a highly trained staff and a substantial investment in equipment. Prior commitment on the part of a parent institution (or on the part of investors if the program is privately owned or freestanding) is essential. Access to adequate medical and technical expertise and consulting services and a realistic evaluation of the need for such service in the surrounding medical community are imperative. A sleep disorders program should not be established with the idea that it will guarantee revenue, but with the intention that it will provide a needed clinical patient service.

A sleep disorders program may generate requests for consultative tests from other clinical services within the parent institution, such as pulmonary consultation and function tests, radiology (cephalometrics), clinical EEGs, Holter (24-hour ECG) monitoring, clinical laboratory or hematological tests, otolaryngology consultations, surgery consultations (ENT procedures), psychiatric or psychology consultations, urological consultations, and others.

GROWTH

The growth and expansion of a sleep disorders program is certainly desirable, but is not guaranteed. Growth will be affected by many factors, including the surrounding population base, competition, the amount of time and energy invested by the medical director and other key personnel in the development of the program, and the level of interest and involvement of the local medical community.

Because patients referred to sleep disorders programs must be evaluated thoroughly, the participation of a physician in the program is required. After evaluation, diagnosis, and the development of a treatment plan, patients are usually returned to their referring physicians, but some patients will elect at least some treatment and follow-up with the sleep disorders program staff, particularly for prescription refills, the follow-up of nasal CPAP, etc. Growth in the follow-up patient population may necessitate the addition of sleep program personnel, some of whose services are not billable.

STRATEGIES FOR ESTABLISHMENT OF A SLEEP DISORDERS PROGRAM

Sleep disorders programs cannot function with space, equipment, and staffing that fall below critical levels. Several variations on the mode of operation outlined below are possible, but must be consistent with the *Standards for Accreditation*.

Sleeping Rooms

To be cost-effective, most programs have two sleeping rooms dedicated to sleep disorders evaluation operating at least three nights a week. The rooms must be equipped with two-way intercom, low light or infrared video monitoring, and recording instruments; recording equipment, however, should be well separated from the sleeping rooms. Wiring should be within walls or ceilings, and hanging tubes, hanging wires, bedside monitors, etc., should be avoided. Washroom facilities for patients must be conveniently located. Please refer to the *Standards* for more specific requirements.

The sleeping rooms should be comfortable and provide basic amenities such as a bed, a chair, a place to hang clothes, and a small table. The goal is to make the recording room as appealing as a pleasant hotel room or bedroom in a private home. Patients should not share sleeping quarters. Even with these provisions, a night's sleep in the laboratory is not strictly comparable to a night's sleep at home.

Procedures and Interaction

Having one technician record one patient per night is not cost-effective. Whenever possible, one technician should record two patients per night. Depending on the complexity of the studies and the severity of the patients' clinical conditions, however, one technician per patient may be required in some cases. More than two patients per technician generally result in poor data quality or patient care and should be avoided. Hospital-like emergency code coverage is essential at all times during patient monitoring.

Programs should have the capacity to operate on consecutive nights if clinically indicated for certain sleep disorders procedures. For example, the evaluation of impotence often requires two or more consecutive nocturnal recordings. Provisions must be made to allow for consecutive follow-up nights of monitoring in such cases.

Processing and scoring of polysomnographic records is usually done during the day by the daytime technician, who can interact with available medical personnel in identifying pathology and artifact in the polysomnographic recordings.

A sleep disorders program needs to have good working relations with services as needed to expedite work-up and consultations, including cardiology, neurology, psychiatry, pulmonology, ENT, as well as pediatrics and urology (when applicable).

Equipment

Each room should have one dedicated polysomnographic machine with 12 or more channel capabilities (including EEG, EOG, and EMG), such as those for monitoring airflow, respiratory effort, oxygen saturation, heart rate and rhythm, snoring sound, position indicator, etc.

The equipment must be capable of reliable and continuous recordings of sleep in hard copy or another easily retrievable medium. Computerized data acquisition is commonly used for polysomnographic recordings. New programs considering the use of such equipment should review relevant sections of the *Standards for Accreditation* pertaining to computerized scoring and quality assurance. All such equipment must have full data disclosure so that a study can be reviewed on the computer screen epoch-by-epoch. Retrieval of only processed data is not acceptable.

All data from an overnight study should be collected on a single recorder, although in some cases channels may be split off to other devices for special analysis. Polysomnograph splitting between two patients, however, reduces quality of service because diagnostic polysomnography requires at least 10 channels per patient. In addition, splitting between patients complicates data reduction and compromises the privacy of medical records. See the *Standards for Accreditation* for more detailed information on recording and scoring devices.

Ambulatory sleep recording equipment is becoming increasingly available, although indications for its use are subject to debate among sleep clinicians. New programs considering including such equipment in their diagnostic armamentarium should carefully review relevant sections of the *Standards for Accreditation* and the AASM position papers on portable recording and indications for polysomnography.

As mentioned under *Sleeping Rooms*, audio and visual monitoring and recording equipment in each bedroom is necessary. Other equipment essential in a sleep disorders program includes a device to record nasal CPAP pressure, cardiorespiratory resuscitation equipment, and security devices for fire, etc.

PERSONNEL

Salaries for sleep disorders program professionals will vary according to the comparable compensation for other health care professionals with similar education, experience, responsibility, and seniority in the same geographic location.

Professional Staff

Medical Director

Every program will appoint a medical director, who is licensed in the state, who is responsible for the overall patient care provided by the program. This individual must have demonstrated expertise in sleep disorders medicine, and must be able to assure continuity of medical care throughout the evaluation of sleep disorders patients. Ideally, the medical director should be a Diplomate of the American Board of Sleep Medicine.*

The program may have a separate director (who may be a PhD), who is responsible for the management of the program, technical personnel, quality control, and similar issues. This individual should ideally be a Diplomate of the American Board of Sleep Medicine. One staff person must be responsible for the overall budget of the program, for representation of the program internally within the hospital or medical institution (where applicable), and for the program's public visibility.

Diplomate of the American Board of Sleep Medicine

A board-certified sleep specialist or Diplomate of the American Board of Sleep Medicine (ABSM) (formerly known as an Accredited Clinical Polysomnographer) may be an MD, DO, or PhD or other doctorate-level person as determined by the ABSM. This individual, whose responsibilities include certifying the results of all polysomnographic tests and training the technical staff, is integral to a well-developed sleep disorders program. An accredited *sleep disorders center* must have a sleep specialist on staff, or an individual who has been accepted to take the ABSM exam, when applying for accreditation and at all times afterwards. A *laboratory for sleep-related breathing disorders* must acquire the services of a board-certified sleep specialist within three years of the date of accreditation and must retain the services of such an individual from that time forward.

Technicians

Training

The training of a polysomnographic technician is of prime importance. A sleep disorders program with a board-certified sleep specialist on staff should look to that individual to train sleep technicians, with training periods lasting six months to one year.

Technical training should initially consist of teaching the technician how to gather artifact-free polysomnographic data. Technicians should be well versed in identifying artifact as it comes off the pens onto the paper or on screen, and taking appropriate

* Throughout these materials, any reference to a board-certified sleep specialist or sleep specialist refers to an individual who is certified by the American Board of Sleep Medicine, or an individual who has been accepted to sit for the ABSM certification examination. For more information on how to become certified write to The American Board of Sleep Medicine at 6301 Bandel Road, Suite 101, Rochester MN 55901 or call (507) 287-9819.

steps to correct the artifact. A technician must be thoroughly familiar with the operation of a polygraph. Previous training in EEG technology is often helpful in expediting the training of a polysomnographic technician. The technician must also learn to note and report all events, behaviors, and information that may be relevant to a patient's evaluation. The technician should not, however, give diagnostic or treatment information to patients other than that ordered by the medical director of the sleep disorders program. A technician should be aware that sleep disorders patients are often critically ill, and training in emergency procedures, including cardiopulmonary resuscitation, is essential.

Responsibilities

A division of labor between the nighttime and daytime technicians is critical. Nighttime technicians are responsible for obtaining artifact-free polysomnographic data on one or two patients throughout the night. Daytime technicians should be as proficient as the nighttime technicians in conducting nighttime recordings, and must also be experts at reducing polysomnographic data into standardized tabular form. This involves familiarity with software programs and computers that tabulate parametric sleep data generated by nocturnal polysomnography.

In addition, daytime technicians should be capable of summarizing respiratory, cardiac, and movement abnormalities that may have occurred during the recording. The technician's ability to recognize pathology and differentiate artifact from real physiological data is particularly important. Daytime technicians must also be able to conduct daytime procedures such as multiple sleep latency testing (MSLT) or maintenance of wakefulness testing (MWT) necessary for the evaluation of disorders of excessive somnolence.

Other Paramedical Personnel

A clinical coordinator, such as a nurse or secretary, is necessary for a busy program to facilitate patient flow in and out of the clinic and to coordinate visits to consulting laboratories (pulmonary function, EEG, Holter monitoring, etc.). This coordinator serves as the primary contact for patients who inquire about program services, and arranges preliminary visits, routine tests within the program, and the services of other departments, if required.

BILLING AND FEE STRUCTURE

Billing and CPT Codes

Most programs bill all of their services as outpatient procedures even though the patient remains overnight at the program. Polysomnography may also be required for some inpatients. However, as with other clinical services, the institutional component of charges for polysomnography performed on inpatients may not be recoverable because of limits in certain health insurance plans. Professional charges are usually submitted separately. However, combining the technical and professional components of polysomnography and billing them as a "global fee" is common.

Sleep medicine procedures, or sleep-testing procedures, as they are generically referred to in the *Physicians' Current Procedural Terminology (CPT)*, include

polysomnography, cardiopulmonary sleep studies, Multiple Sleep Latency Test, Maintenance of Wakefulness Test and CPAP testing. The preamble to the CPT sleep-testing subsection states:

Sleep studies and polysomnography refer to the continuous and simultaneous monitoring and recording of various physiological and pathophysiological parameters of sleep for 6 or more hours with physician review, interpretation and report. The studies are performed to diagnose a variety of sleep disorders and to evaluate a patient's response to therapies such as nasal continuous positive airway pressure (NCPAP). Polysomnography is distinguished from sleep studies by the inclusion of parameters for sleep staging which is defined to include a 1-4 lead electroencephalogram (EEG), an electro-oculogram (EOG), and a submental electromyogram (EMG). Additional parameters of sleep include: 1) ECG; 2) airflow; 3) ventilation and respiratory effort; 4) gas exchange by oximetry, transcutaneous monitoring, or end tidal gas analysis; 5) extremity muscle activity, motor activity-movement; 6) extended EEG monitoring; 7) penile tumescence; 8) gastroesophageal reflux; 9) continuous blood pressure monitoring; 10) snoring; 11) body positions; etc.

For a study to be reported as polysomnography, sleep must be recorded and staged.

(Report with a '-52' modifier if less than 6 hours of recording or in other case of reduced services as appropriate.

(For unattended sleep study/polysomnography, use 95806.)

- 95805 Multiple sleep latency or maintenance of wakefulness testing, recording, analysis and interpretation of physiologic measurements of sleep during multiple trials to assess sleepiness.
- 95806 Sleep study, simultaneous recording of ventilation, respiratory effort, ECG or heart rate, and oxygen saturation, unattended by a technician.
- 95807 Sleep study, simultaneous recording of ventilation, respiratory effort, ECG or heart rate, and oxygen saturation, attended by a technician.
- 95808 Polysomnography; sleep staging with 1-3 additional parameters of sleep, attended by a technician.
- 95810 Sleep staging with 4 or more additional parameters of sleep, attended by a technician.
- 95811 Polysomnography, sleep staging with 4 or more additional parameters of sleep, with initiation of continuous positive airway pressure therapy or bi-level ventilation, attended by a technician.

Fees and Collection Rates

The total fees charged for sleep disorders program procedures vary from program to program depending on the area of the country, cost of operation, overhead, collection rates, and whether or not professional fees are included. The apportionment of the fees for professional services and institutional costs varies greatly throughout the country. However, the apportionment should reflect which operating expenses of the program are absorbed by the professional and which are absorbed by the institutional side of the program (for example, which side pays the technician, and which side owns the recording equipment). Some sleep disorders programs revert all fees collected to the institution and contract with the clinicians for their services on a monthly or per-patient basis. Some programs have the reverse arrangement, with the institution receiving the contract fee. Others submit one bill and credit the professional and the institutional sides with a pre-determined portion of the total charge.

Recovery of fees is about 70% to 90% for patients who pay directly for their evaluations. Recovery of fees from health care insurance plans is about 50% to 70%. Increasingly third-party payers are requiring that a program be accredited by the AASM before they will reimburse for sleep services. Please contact the national office if you have questions on how to work with third-party payers. The AASM works with insurance providers to inform and educate them in matters relating to medical care for sleep disorders and helps them establish reimbursement policies for services provided by programs. As a general rule, if the patient's health care policy covers outpatient diagnostic tests such as x-ray, EEG, and pulmonary function studies, then polysomnography will be covered. Medicaid and Medicare may be somewhat more restrictive.

REFERENCES

1. American Medical Association. Physician's Current Procedural Terminology (CPT '01). 4th Edition. Chicago, Illinois: American Medical Association, 2000.
2. Anders T, Parmalee AH, Emde RN. *A Manual of Standardized Terminology. Technology and Criteria for Scoring of States of Sleep and Wakefulness in Newborn Infants*. Los Angeles: UCLA BIS/BRI Publications, 1971.
3. Chokroverty S. ed. *Sleep Disorders Medicine: Basic Science, Technical Considerations, and Clinical Aspects*. Boston: Butterworth-Heinemann, 1994.
4. Daly DD, Pedley TA, eds. *Current Practice of Clinical EEG*. 2nd ed. New York: Raven Press, 1990.
5. Diagnostic Classification Steering Committee, Thorpy MJ, Chairman. *International Classification of Sleep Disorders: Diagnostic and Coding Manual*. Rochester, Minnesota: American Academy of Sleep Medicine, 1990.
6. Ferber R, Kryger M. *Principles and Practice of Sleep Medicine in the Child*. Philadelphia: WB Saunders, 1995.
7. Hauri P. ed. *Case Studies in Insomnia*. New York: Plenum Press, 1991.
8. Horne JA. *Why We Sleep*. Oxford: Oxford University Press, 1988.
9. Kryger MH, Roth T, Dement WC, eds. *Principles and Practice of Sleep Medicine*. 2nd ed. Philadelphia: WB Saunders, 1994.
10. Lydic R, Biebuyck JF, eds. *Clinical Physiology of Sleep*. New York: Oxford University Press, 1988.

11. Morin CM. *Insomnia. Psychological Assessment and Management*. New York: The Guilford Press, 1993.
12. Phillipson EA, Remmers JE, et al. Indications and standards for cardiopulmonary sleep studies. *Am Rev Respir Dis* 1989;139:559-68.
13. Rechtschaffen A, Kales A. *A Manual of Standardized Terminology, Techniques, and Scoring System for the Sleep Stages of Human Subjects*. Los Angeles: UCLA BIS/BRI Publications, 1968.
14. Shepard JW, ed. *Atlas of Sleep Medicine*. Mount Kisco, New York: Futura Publishing Company, 1991.
15. Thorpy MJ, ed. *Handbook of Sleep Disorders*. New York: Marcel Dekker, Inc., 1990.
16. Tyner F, Knott JR, Mayer WB. *Fundamentals of EEG Technology, Volume 1: Basic Concepts and Methods*. New York: Raven Press, 1983.

CLINICAL PRACTICE PARAMETERS AND REVIEWS

Clinical practice parameters and reviews issued by the American Academy of Sleep Medicine, as published in the journal SLEEP.

1. Practice Parameters for the Treatment of Narcolepsy: An Update for 2000, published June 2001 in SLEEP.
2. Chesson Jr AL, et al. Practice Parameters for the Evaluation of Chronic Insomnia. *SLEEP* 2000;23:237-241.
3. Sateia MJ, et al. Evaluation of Chronic Insomnia. *SLEEP* 2000;23:243-308.
4. Chesson Jr AL, et al. Practice Parameters for the Nonpharmacologic Treatment of Chronic Insomnia. *SLEEP* 1999;22:1128-1133.
5. Morin CM, et al. Nonpharmacologic Treatment of Chronic Insomnia. *SLEEP* 1999;22:1134-1156.
6. Standards of Practice Committee of the American Sleep Disorders Association. Practice Parameters for the Treatment of Restless Legs Syndrome and Periodic Limb Movement Disorder. *SLEEP* 1999;22:961-968.
7. Hening W, et al. The Treatment of Restless Legs Syndrome and Periodic Limb Movement Disorder. *SLEEP* 1999;22:970-999.
8. Chesson Jr AL, et al. Practice parameters for the Use of Light Therapy in the Treatment of Sleep Disorders. *SLEEP* 1999;22:641-660.
9. Indications for Polysomnography Task Force, American Sleep Disorders Association Standards of Practice Committee. Practice Parameters for the Indications for Polysomnography and Related Procedures. *SLEEP* 1997;20:406-422.
10. Chesson Jr AL, Chairman of ASDA Polysomnography Task Force, et al. The Indications for Polysomnography and Related Procedures. *SLEEP* 1997;20:423-487.
11. Standards of Practice Committee of the American Sleep Disorders Association. Practice Parameters for the Treatment of Obstructive Sleep Apnea in Adults: The Efficacy of Surgical Modifications of the Upper Airway. *SLEEP* 1996;19:152-155.
12. Sher AE, Schechtman KB, Piccirillo JF. The Efficacy of Surgical Modifications of the Upper Airway in Adults with Obstructive Sleep Apnea Syndrome. *SLEEP* 1996;19:156-177.

13. Standards of Practice Committee of the American Sleep Disorders Association. Practice Parameters for the Treatment of Snoring and Obstructive Sleep Apnea with Oral Appliances. SLEEP 1995;18:511-513.
14. Schmidt-Nowara W, et al. Oral Appliances for the Treatment of Snoring and Obstructive Sleep Apnea: A Review. SLEEP 1995;18:501-510.
15. Standards of Practice Committee of the American Sleep Disorders Association. Practice Parameters for the Use of Actigraphy in the Clinical Assessment of Sleep Disorders. SLEEP 1995;18:285-287.
16. Sadeh A, Hauri P, Kripke DF, Lavie P. The Role of Actigraphy in the Evaluation of Sleep Disorders. SLEEP 1995;18:288-302.
17. Standards of Practice Committee of the American Sleep Disorders Association. Practice Parameters for the Use of Polysomnography in the Evaluation of Insomnia. SLEEP 1995;18:55-57.
18. Reite M, Buysse D, Reynolds C, Mendelson W. The Use of Polysomnography in the Evaluation of Insomnia. SLEEP 1995;18:58-70.
19. Standards of Practice Committee of the American Sleep Disorders Association. Practice Parameters for the Use of Laser-assisted Uvulopalatoplasty. SLEEP 1994;17:744-748.
20. Standards of Practice Committee of the American Sleep Disorders Association. Practice Parameters for the Use of Portable Recording in the Assessment of Obstructive Sleep Apnea. SLEEP 1994;17:372-377.
21. Ferber R, Chairman, et al. Portable Recording in the Assessment of Obstructive Sleep Apnea. SLEEP 1994;17:378-392.
22. Standards of Practice Committee of the American Sleep Disorders Association. Practice parameters for the Use of Stimulants in the Treatment of Narcolepsy. SLEEP 1994;17:348-351.
23. Mitler MM, Aldrich MS, Koob GF, Zarcone Jr VP. Narcolepsy and Its Treatment With Stimulants. SLEEP 1994;17:352-371.
24. Standards of Practice Committee of the American Sleep Disorders Association, Thorpy MJ, Chairman. The clinical use of the multiple sleep latency test. SLEEP 1992;15:268-76 [Erratum, Sleep 1992;15:381].

GENERAL ORIENTATION GUIDE FOR THE ACCREDITATION OF A SLEEP DISORDERS PROGRAM

GUIDE TO THE AASM ACCREDITATION PROGRAM

The Accreditation Committee of the American Academy of Sleep medicine (AASM) conducts center and laboratory accreditation. This voluntary organization represents sleep disorders programs accredited by the Academy and individuals practicing sleep disorders medicine throughout the world.

The AASM accredits two different types of sleep disorders facilities. They are *sleep disorders centers* and *laboratories for sleep-related breathing disorders*. A *sleep disorders center* is a medical facility providing clinical diagnostic services and treatment for patients who present with symptoms or features that suggest the presence of any sleep disorder. In contrast, a *laboratory for sleep-related breathing disorders* promotes diagnostic and treatment services related to sleep-related breathing disorders, such as obstructive sleep apnea syndrome.

The Accreditation Committee is comprised of the national chair and nine sleep specialists from throughout the United States. These specialists are responsible for the review of applications, rewriting of the Standards, volunteering for site visits, and assisting programs through the national office in attaining accreditation.

Experienced clinicians have been appointed as site visitors to assist the Accreditation Committee as members of site visit teams. All committee members and official site visitors are board-certified in sleep medicine. Their experience and training reflect the level of competence and professionalism that is expected from all accredited programs.

The AASM, through its Accreditation Committee, has undertaken the responsibility of assuring that all accredited sleep disorders centers and laboratories for sleep-related breathing disorders meet the *Standards for Accreditation*.

In addition to directing the accreditation procedures, which are more fully described later in this manual, the AASM Accreditation Committee has the following responsibilities:

1. To develop and recommend to the AASM Board of Directors all policies and procedures that relate to the accreditation of sleep disorders centers and laboratories for sleep-related breathing disorders.
2. To cooperate with emerging sleep disorders programs to help them develop a program that meets the *Standards for Accreditation*.
3. To monitor sleep disorders programs in all stages of accreditation. This function includes helping programs to attain and maintain accreditation.
4. To work with other AASM committees to coordinate policies. Such coordination includes standardizing procedures used in patient work-up and providing information to enhance education and opportunities in the field of sleep disorders medicine.

5. To coordinate efforts with the AASM national office which is responsible for the day-to-day management of the accreditation process.

THE ACCREDITATION PROCESS

The steps that lead to accreditation are as follows:

Centers and laboratories order an **accreditation manual** from the national office (which includes the application for accreditation) and pay a **non-refundable fee of \$300.00** for this manual. Application manuals are **valid for two years** from purchase. After two years, an **updated manual** must be purchased for **\$100.00**. Separate manuals must be purchased for each facility seeking accreditation.

Institution completes the application(s) and mails the original with three copies (two for reaccreditation) and the **non-refundable accreditation fee of \$3000** to the national office.

When an application is received, the AASM national office keeps the original application and sends the copies to one of the committee members for review. If the committee member has a conflict-of-interest in reviewing the application, another member of the committee will review the application.

At times, the member of the committee reviewing an application makes a request for additional information. Lack of response from programs applying for accreditation makes processing applications difficult. Therefore, **programs are asked to respond within 30 days to queries for information** necessary to complete the review. If an applicant does not respond within 30 days, they will receive a certified letter notifying them that the resulting consequences will be invoked. The effective dates of penalties or other consequences will commence on the deadline date.

Reaccreditation applications must be received at least 6 months prior to their expiration date. Centers and laboratories failing to do so will be assessed a **\$500 late fee**. The Accreditation Committee Chair may grant **submission extensions** for a period of **three months only**. Submission extensions **will not extend the accreditation expiration date**.

Reviewers are encouraged to discuss the material with other members of the Accreditation Committee, as well as the national office. Within approximately six weeks of receipt of the application, the applicant will be informed of the outcome of the initial review. Every effort is made to identify and recommend corrections for unacceptable conditions at a program before a site visit is scheduled, in order to increase the chances that the applicant will be accredited with just one visit.

If the application is acceptable, the status of *accreditation eligible* is granted until the outcome of the visit is communicated. When approved for *accreditation eligible* status, programs will be scheduled for a site visit, which normally takes place within 3 to 4 months after the notice of approval. The date will be arranged through the national office. The site visit itself is discussed in the Site Visit Procedures section of the accreditation application materials.

If the application is not deemed acceptable, applicants will have two options:

- a. To work with the Accreditation Committee to achieve the requirements for *accreditation eligible* status.
- b. To withdraw the application and apply again at a later date.

If approval is granted following the site visit, the program will be granted full accreditation status for a period of five years.

-OR-

If accreditation with provisos is granted following the site visit, those provisos must be met within 90 days from receipt of the site visit report unless an extension is granted by the Board of Directors. The chair of the site visit team or a member of the Accreditation Committee will determine compliance with the provisos.

If not approved for accreditation following a site visit, the program will lose its *accreditation eligible* status, but will have the option of reapplying for accreditation at a later date. Under certain circumstances, the site visit team may recommend that *accreditation eligible* status is continued for up to 12 months, by which time deficiencies must be corrected and another visit (one person) will be conducted at the applicant's expense.

Programs not approved have the right to appeal to the AASM Board of Directors.

CATEGORIES OF ACCREDITATION

Accreditation Eligible

Accreditation eligible status is granted after the program submits a completed application for accreditation and in the opinion of the reviewer, the application demonstrates substantial compliance with the *Standards for Accreditation*.

This status may be continued no longer than one year, by which time a site visit must be scheduled.

Full Accreditation

Full accreditation is granted after a site visit if the Accreditation Committee recommends and the Board of Directors determines that the program is in full compliance with the *Standards for Accreditation* for centers or laboratories. Full accreditation is granted for a five-year period.

Accreditation with Provisos

Accreditation with provisos is granted after a site visit if the program does not meet all of the *Standards for Accreditation*, but the Board of Directors believes that the program has the resources and ability to meet the *Standards* within a designated period, typically three months, and can operate safely in the meantime.

Compliance with the provisos must be communicated in writing to the AASM national office. The site visit chair will decide if on-site verification will be necessary. If on-site verification is required, the national office will bill the laboratory for the expense in sending a visitor(s). If a program then meets the *Standards for Accreditation*, it will be granted full accreditation for a period of five years from the date of the original site visit. (See also, *Procedures to Be Followed with Laboratories Failing to Meet Provisos*.)

Suspended Accreditation

Once accredited, a center or laboratory may, for many reasons, substantially change its practice to a point at which they no longer meet the *Standards* (i.e., loss of their medical director or Diplomate of the American Board of Sleep Medicine, moving to a new location, or other substantial changes). As these changes are communicated to the national office, the Accreditation Committee may recommend to the Board of Directors to put the center or laboratory on *suspended accreditation* status until such time as it again meets the *Standards*. This may occur only if it appears possible for the center or laboratory to operate safely while in the process of correcting the deficiencies.

Suspended accreditation status is defined as follows:

- The facility is temporarily not accredited, but it is not necessary to reapply for accreditation once the problem has been resolved. Suspension of a facility must be authorized by the AASM Board of Directors.
- The facility agrees not to use AASM letterhead, logo, or anything that infers accreditation by or relationship with the AASM.
- All references to AASM accreditation in advertisements must cease.

In order to obtain reinstatement of accreditation status, the facility must provide a formal letter denoting what changes have been made to the program that correct the deficiency which caused the suspended status.

This category of accreditation cannot be continued beyond one year without substantial evidence of accomplishment toward the correction of the deficiency, such as successful recruitment of a key staff member who is not yet on board, final stages of construction, etc. Any extension of the one-year deadline, therefore, must be made with a final date targeted to put the correction in place. The decision whether to extend the deadline is made by the Accreditation Committee. A site visit may be necessary, at the program's expense, to determine whether the program continues to meet minimum *Standards*.

Annually the AASM national office will send each accredited program a questionnaire on which to report their current status. Failure to submit the questionnaire by the deadline date also constitutes grounds for suspension.

Withdrawn Accreditation

Voluntary—a center or laboratory withdraws for any reason.

Involuntary—a center or laboratory fails to be in substantial compliance with the *Standards for Accreditation*. Once withdrawn, a program cannot be considered for *suspended accreditation* status, but may reapply for accreditation as a new applicant.

Revoked Accreditation

In the event that a center or laboratory fails to be in substantial compliance with the *Standards for Accreditation*, it is possible that the facility may have its accreditation revoked. This is a recommendation made by the Accreditation Committee and must be approved by the AASM Board of Directors.

Revocation of accreditation status requires the following:

- Facility is required to wait one full year prior to applying for initial accreditation.
- Facility agrees not to use AASM letterhead, logo, or anything that infers accreditation by or relationship with the AASM.
- All references to AASM accreditation in advertisements must cease.

PROCEDURES TO BE FOLLOWED WITH PROVISOS

1. A center or laboratory must notify the AASM national office as soon as it has met the provisos.
2. All **proviso deadlines** for centers and laboratories will be set **three months from receipt of the site visit report**. **If not met** by that date, the center or laboratory will be suspended for a three-month period during which a **\$500 fee** will be assessed for submission of proviso responses. If the provisos are not met within six months of receipt of the site visit report, the review process will be terminated and accreditation withdrawn. The center, or laboratory must submit a new application.
3. Based on the proviso information received from the program, the site visit chair will make a recommendation to the Accreditation Committee chair regarding the status of the center or laboratory.
4. The chair will communicate his/her decision regarding the status of the center or laboratory to the AASM Board of Directors for approval. The AASM National Office will communicate the Board's decision to the center or laboratory.
5. The program may appeal any withdrawal of accreditation to the AASM Board of Directors.

ACCREDITED MEMBER STATUS

Once a program is accredited, the AASM's Membership Committee invites the newly accredited program to become a facility branch member of the AASM. Membership is separate from accreditation and is also voluntary. The \$1000 annual dues include the following benefits.

- The program will be listed in the AASM's Roster of Accredited Member Facilities and distributed to those who request information from the AASM and the National Sleep Foundation. Accredited non-members are not listed in the roster.
- Subscriptions to the *AASM News* and the journal, *SLEEP*.
- Product discounts on brochures, slide sets, books, etc.

- Use of the AASM logo
- The program is listed on the Academy's web site.
- The Academy will produce a web page with information specific to the sleep program as a link from the AASM web site. This web page will contain information that potential patients can use to contact the facility, make appointments, and even provide for a printable map so they can drive to the facility.
- The program will be listed as an accredited member in a program that potential patients may reach through the toll-free number 888-41-AWAKE, increasing the number of referrals to the program.
- A member program has the opportunity to purchase AASM produced patient informational brochures with information specific to the program printed on the brochure. Offered throughout the year (and at special savings each November) personalization of these brochures is included at no additional cost.

THE SITE VISIT PROCEDURE

The AASM developed a pool of clinicians that have agreed to review applications and to perform site visits. Full time visitors and volunteers, known as official site visitors, must be Diplomates of the American Board of Sleep Medicine.

The procedures leading to a site visit are set in motion when the AASM national office receives the original and three copies (two copies for reaccreditation) of the completed application for accreditation and the non-refundable **\$3000 accreditation-processing fee**. When an application is received, the AASM national office keeps the original application and sends the copies to an Accreditation Committee member. If the committee member has a conflict-of-interest in reviewing the application, another committee member will review the application.

If the reviewer approves the application for accreditation, the AASM national office will coordinate the visit. A two-member team is usually appointed for accreditation site visits (one for reaccreditation visits in most cases). A third site visitor may also be present as a site visit trainee at the option of the Accreditation Committee. In some cases, only one visitor may be assigned to do a site visit. A visit will only be performed with one visitor if the program has been waiting for a longer than usual time for a site visit.

By submitting an application, the program acknowledges that they are ready for a site visit. The program will be offered one site visit date (generally four to six weeks in advance of the date). If the program responds negatively, they will then be offered one other date. If they again respond negatively to the date offered, the program will be moved to the end of the list of programs waiting for visits and the date offered to one of the other programs.

If the program is up for reaccreditation, the date offered will be within four to six weeks prior to their expiration date as long as the application was received at least six months prior to the expiration date. If they respond negatively to one more dates, the program will be moved to the end of the list of programs waiting for visits. If their expiration date occurs prior to the accepted site visit date, the program's accreditation status will be considered terminated.

Once a date has been confirmed, the National Office will send a preliminary schedule letter to the program that notes what needs to happen during the site visit. The applicant will be asked to create a final schedule and send it to the site visitor(s), at least two weeks prior to the site visit. Failure to do so could result in cancellation of the site visit. In addition, the applicant needs to make a guaranteed hotel reservation for each site visitor in a conveniently located, quality hotel. Site visitors will pay all of their own expenses, with subsequent reimbursement by the AASM. If the program has any special needs to be considered, the director of the program should discuss the details with the national office.

The site visitors do not expect to be met at the airport, nor do they expect the program to provide transportation from the airport to the hotel. Suggestions from the staff of the program concerning reasonable restaurant facilities in the host city are appreciated. However, the program must not host a dinner for the site visitors because a planning meeting of the site visit team must be held between arrival at the hotel and the beginning of the nighttime visit. The team will arrange for its own dinner, during which time this meeting is held. The site visit must be handled as a business procedure in a professional manner. Therefore, entertainment for the site visitors is neither expected nor appropriate.

Transportation for the site visitors from the hotel to the facility is expected. An 8:00 p.m. pick-up time for accreditation site visits is the norm. If the program is not able to provide transportation for the site visit team to and from the hotel and sleep program, the program may be billed for additional expenses.

On a first time visit, the site visitors will begin their inspection with a tour of the facility given by the director at approximately 8:30 p.m. The facility's professional staff and some of the technical staff should also be available for interviews. At least one patient must undergo polysomnography on the night of the visit. Lack of an available patient will abort the site visit and another date for a site visit must be arranged at the program's expense.

Patient charts and polysomnographic recordings must be available for review. The program may pre-select certain cases for the site visit team but should also have a majority of the most recent work-ups available for the team's review. The night's visit will end at about midnight and the visitors will expect transportation back to their hotel.

During breakfast on the next day, the team will meet privately to review the previous night's visit and plan the remainder of the site visit. The site visitors will expect to be picked up at approximately 8:00 a.m. at the hotel. At approximately 8:30 a.m. the morning session will begin with the visitors reviewing the raw data from the patient(s) from the night before and will review additional patient charts when time permits either prior to or after meetings with associated practitioners and administration. At approximately 9:00 a.m., the visit team will need to meet individually with each of the associated practitioners to the program for approximately 10 minutes each. A list of these individuals will be agreed upon prior to the visit between the applicant and the chair of the site visit team or the national office. Failure to have associated practitioners available for the site visit is cause to cancel the visit and reschedule later at the program's expense. Following the meeting with associated practitioners, the site

visitors must meet privately with a member of the administration of the host institution (if applicable) for 20 to 30 minutes to discuss the commitment of the host institution to the future of the program.

The site visitors should finish interviews by late morning. Review of program policies and procedures, patient charts, and review of the computerized systems will follow these meetings with all doctors who do interpretations. Once those things are completed, the visitors will hold a 30-minute private session to review their findings. Each member of the site visit team will keep notes of his or her observations and should provide the team chair with a brief outline of his or her findings and recommendations to allow for the preparation of the final report. Following that private meeting, the program will host an exit interview luncheon, during which a summary of the findings will be presented to the staff. The associated practitioners need not be present. The site visitors will not give a final decision of approval or disapproval at this point because the Accreditation Committee and Board of Directors make the final determination regarding accreditation.

Within 45 days, the chair of the site visit team will prepare the final report based on his or her conclusions and those of the other site visitors. This report is mailed to the AASM national office, which forwards it to the national chair for a recommendation concerning accreditation. The national chair notifies the national office of the decision, which then forwards a copy of the report and recommendations to the Board of Directors. The Board votes on whether to approve or deny the recommendations of the Accreditation Committee and sends the site visit report and a letter from the Board President to the applicant, the Accreditation Committee, and the site visitors. This final notification usually occurs within three months of the site visit date and accreditation is retroactive to the date of the site visit, if accreditation status is granted.

Programs accredited with provisos must meet the deadline for compliance with these provisos in order for the accreditation to be continued. Infrequently a second visit by one of the members of the site visit team is required to verify compliance with the provisos. The facility will be billed for the expenses incurred in conducting this additional visit.

Procedure for Reaccreditation of Centers and Laboratories

Programs applying for reaccreditation use the same set of materials to reapply. The review and processing of the application is handled the same as for new applicants (listed in above procedures).

Usually, only one site visitor is required for reaccreditation of a center or laboratory. However, under special circumstances an additional site visitor may be appointed. The reaccreditation site visit does not require observation of the program's function at night or the observation of a patient being prepared for night monitoring unless the procedure has substantially changed since the previous site visit.

A reaccreditation visit begins at 8:30 a.m. with a tour of the facility, meeting the staff, and reviewing anything that has changed since the last accreditation visit. Special emphasis will be put on a review of the recommendations outlined in the previous

accreditation report. If time permits, some policies and procedures or patient charts will be reviewed. If time does not permit review of those items, they will be reviewed later in the morning after meetings with associated practitioners and administration.

At approximately 9:00 a.m., the visit team will need to meet individually with each of the principal associated practitioners to the program for approximately 10 minutes each. A list of these individuals will be agreed upon prior to the visit between the applicant and the chair of the site visit team or the national office. Failure to have key associated practitioners available for the site visit is cause to cancel the visit and reschedule later at the program's expense. Following the meeting with associated practitioners, the site visitors must meet privately with a member of the administration of the host institution (if applicable) for 20 to 30 minutes to discuss the commitment of the host institution to the future of the program.

The site visitors should finish interviews by late morning. Review of program policies and procedures, patient charts, and review of the computerized systems will follow these meetings with all doctors who do interpretations. Once those things are completed, the visitors will hold a 30-minute private session to review their findings. Each member of the site visit team will keep notes of his or her observations and should provide the team chair with a brief outline of his or her findings and recommendations to allow for the preparation of the final report. Following that private meeting, the program will host an exit interview luncheon, during which a summary of the findings will be presented to the staff. The associated practitioners need not be present. The site visitors will not give a final decision of approval or disapproval at this point because the Accreditation Committee and Board of Directors make the final determination regarding accreditation.

Within 45 days, the chair of the site visit team will prepare the final report based on his or her conclusions and those of the other site visitors. This report is mailed to the AASM national office, which forwards it to the national chair for a recommendation concerning accreditation. The national chair notifies the national office of the decision, which then forwards a copy of the report and recommendations to the Board of Directors. The Board votes on whether to approve or deny the recommendations of the Accreditation Committee and sends the site visit report and a letter from the Board President to the applicant, the Accreditation Committee, and the site visitors. This final notification usually occurs within three months of the site visit date and accreditation is retroactive to the date of the site visit, if accreditation status is granted.

Programs accredited with provisos must meet the deadline for compliance with these provisos in order for the accreditation to be continued. Occasionally a second visit by one of the members of the site visit team is required to verify compliance with the provisos. The facility will be billed for the expenses incurred in conducting this additional visit.

Special Conditions for Site Visits

Site visits of programs headed by committee members must be performed by the national chair or past chair of the AASM Accreditation Committee.

The site visit for the program headed by the AASM national chair of the Accreditation Committee must be performed by a past Accreditation Committee Chair.

STANDARDS FOR ACCREDITATION OF A SLEEP DISORDERS CENTER

ABOUT THE STANDARDS

The requirements for accreditation of a sleep program are listed as “standards” at the beginning of each section of the *Standards for Accreditation* document, found on the following pages. An intent statement, which follows, explains the reasoning behind each of these standards. Each standard then has a scoring section immediately following.

The level of compliance with each standard can be scored on the associated scale. A few standards are essential and can only be scored “pass” or “fail.” Any program, which scores a “fail” on any of these standards, will not be accredited until it meets the standard(s). The remaining standards are scored by the site visitors on a scale ranging from 1 to 5. These scores represent the degree of compliance with the standard, with 1 indicating that the standard has been met or exceeded. Higher numbers indicate room for improvement with the outlined numbers indicating a deficiency, which reaches the level of a proviso. In this way, programs can objectively evaluate their level of compliance with the *Standards* prior to the site visit, using the same scoring system utilized by the site visitors.

AMERICAN ACADEMY OF SLEEP MEDICINE

STANDARDS FOR ACCREDITATION OF A SLEEP DISORDERS CENTER

Every accredited sleep disorders center has the responsibility to meet all federal, state and local regulations pertaining to operating a medical practice, regardless of setting, hospital based, freestanding or other. These include, but are not limited to, practice acts, medical waste management acts, infection control, etc. In addition all local building codes must be followed. All centers are encouraged to maintain copies of the state medical practice act, other licensing acts as they pertain to the licensed personnel employed or contracted by the center, hospital licensing act, local building codes and any other laws relevant to the center's operation.

All accredited sleep disorders centers are required to follow the "Code of Medical Ethics" of the American Medical Association. The AASM adopted such as official policy in 1998.

Minimum Requirements (Pass/Fail)

PF.1. Qualified clinical personnel must be available.

Standards

- (1) *Each center must have as medical director a physician with a license valid in the state of the center.*
- (2) *Each center must have a Diplomate of the American Board of Sleep Medicine (ABSM) on staff, or an individual who has been accepted by the American Board of Sleep Medicine (ABSM) to sit for its certification exam. This individual may fulfill all the responsibilities of the board-certified sleep specialist in a sleep disorders center.*
- (3) *Technicians must work under the direction of a licensed physician.*

Intent

An evaluation in a Sleep Disorders Center is a medical evaluation and must be supervised by a physician with a license valid in the state in which the evaluation occurs. The Diplomate of the ABSM has specialized training and has passed an examination requiring expertise in sleep disorders medicine. Together, the physician and Diplomate of the ABSM insure that patients seen and tested in the Sleep Disorders Center receive care that meets the Clinical Practice Parameters as defined by the American Academy of Sleep Medicine (AASM)¹. By virtue of being responsible for the safety and proper testing of patients, the sleep center technician is a critical member of the staff. Adequate medical supervision must be available for technicians.

Scoring of Section PF.1

PF.1.1. The center staff includes as medical director a physician with a license valid in the state of the center.	Pass	Fail
PF.1.2. The center staff includes a Diplomate of the ABSM, or an individual who has been accepted to sit for the ABSM certification examination, either of who performs duties onsite.	Pass	Fail
PF.1.3 Technicians work under the direction of a licensed physician.	Pass	Fail

PF.2. The center must provide services necessary for the diagnosis and treatment of sleep disorders.

Standards

- (1) *The center must provide polysomnography, positive airway pressure titration and Multiple Sleep Latency Testing in accordance with AASM guidelines.*
- (2) *The center must use the most recent Diagnostic and Classification manual of the AASM for terminology and diagnosis.*
- (3) *The center must demonstrate the capability to provide treatment for the full spectrum of sleep disorders. Treatment must be provided in accordance with the Clinical Practice Parameters of the AASM.*

Intent

The sleep disorders center provides a comprehensive program for the evaluation, testing and treatment of patients. Patients may require polysomnography for diagnosis; positive airway pressure titration for treatment of sleep disordered breathing; and Multiple Sleep Latency Testing for the evaluation of daytime sleepiness. Through clinical evaluation and testing, the center is able to provide a diagnosis for each patient. Each patient treated at the center is informed of the proposed treatment plan. The center has the resources to implement the treatment plan. Treatment plans follow the Clinical Practice Parameters of the AASM.

Scoring of Section PF.2

PF.2.1. The center documents routine performance of polysomnography, positive airway pressure titration and Multiple Sleep Latency Testing.	Pass	Fail
PF.2.2. Each patient has a final sleep diagnosis.	Pass	Fail
PF.2.3. The center or associated practitioners routinely provide necessary treatments in accordance with the AASM Clinical Practice Parameters.	Pass	Fail

PF.3. The center personnel must follow the AASM code of ethics.

Standard

- (1) *All center personnel comply with the AASM code of ethics.*

Intent

The AASM has adopted the American Medical Association Council on Ethical and Judicial affairs Code of Medical Ethics Current Opinions with Annotations, 1998-99.²

Scoring of Section PF.3

PF.3.1. All center personnel comply with the AASM code of ethics.	Pass	Fail
---	------	------

PF.4. Fees and billing procedures must be consistent with federal and state regulations.

Standard

- (1) *Centers must have fees and billing procedures consistent with federal and state regulations.*

Intent

Centers are aware of Medicare regulations, potential conflicts of interest and other ethical issues regarding fees and billing. Centers are encouraged to follow opinions on fees and charges as established by the Council on the Ethical and Judicial Affairs of the American Medical Association.²

Scoring of Section PF.4

PF.4.1. The center follows fee and billing procedures consistent with federal and state regulations.	Pass	Fail
--	------	------

Facility

FA.1. A center must be clearly identified as a Sleep Disorders Center.

Standards

- (1) *The center must have a sign identifying it as a Sleep Disorders Center.*
- (2) *The center must maintain an independent telephone line.*
- (3) *The center must have stationery clearly identifying the center.*

Intent

The identity of the Sleep Disorders Center is important for two reasons. 1) It indicates the presence of expertise, interest and programs for sleep disorders and, 2) With accreditation, it indicates compliance with national standards. Signs aid patients in locating the sleep disorders center. A single telephone line improves patient access to the variety of services within the sleep disorders center. Sleep center stationery identifies reports, correspondence and informational material as originating from the center.

Scoring of Section FA.1

FA.1.1. The center has a sign identifying it as a Sleep Disorders Center. 1. Score 1 if there are multiple signs in the facility with unambiguous directions to the facility. 2. Score 2 if there are multiple signs but unclear directions to the facility. 3. Score 3 if there is a single sign on the door of the facility. 4. Score 4 if there is only a listing in a directory. 5. Score 5 if there are no signs.	1 2 3 4 5
FA.1.2. The center maintains an independent telephone line. 1. Score 1 if there is an independent telephone line that can be used to facilitate all appointments in the center. 2. Score 3 if there is an independent telephone line but some appointments must be made by calling another line. 3. Score 5 if there is no independent telephone line.	1 3 5
FA.1.3. The center has stationery clearly identifying the center. 1. Score 1 if the center has stationery and it is used for all correspondence. 2. Score 3 if the center has stationery that is used either for clinic notes or for polysomnogram reports, but not both. 3. Score 5 if the center has no stationery or doesn't use it.	1 3 5

FA.2. The center must maintain patient testing rooms of a size adequate for patient privacy, comfort and security.

Standards

- (1) *All testing rooms must afford privacy, comfort and security.*
- (2) *Patient testing rooms should be a minimum of 140 square feet.*
- (3) *The facility must afford rapid access to the patient by emergency personnel.*
- (4) *The testing rooms must be on the same floor as the control room.*
- (5) *Clean bathrooms must be available for each patient.*
- (6) *At least one bedroom and bathroom must be handicap accessible.*
- (7) *All testing rooms must be light and sound insulated.*
- (8) *Accommodations must be made for individuals with special requirements.*

Intent

The standards for construction of the facility are intended to address patient security, ease of testing and patient comfort. The center should provide a secure sleeping environment. Emergency personnel must have access to the patient, with space around the bed and a route that facilitates access for carts and equipment. The technician must be able to respond quickly when called by the patient. Patients must have access to a bathroom during the night. Handicapped patients should have ready access to a sleep laboratory. The testing room should approximate the size of the patient's bedroom and contain amenities to make the stay in the laboratory more comfortable.

Scoring of Section FA.2

<p>FA.2.1. All patient testing rooms must afford privacy, comfort and security.</p> <ul style="list-style-type: none"> 1. Score 1 if each testing room affords privacy, comfort and security. 2. Score 3 if each room affords privacy and safety, but there are concerns about comfort. 3. Score 5 if there are privacy or security concerns. 	<p>1 3 5</p>
<p>FA.2.2. Patient testing rooms are a minimum of 140 square feet.</p> <ul style="list-style-type: none"> 1. Score 1 if the room exceeds 140 square feet and allows access to the patient from both sides of the bed. 2. Score 2 if the room is between 130 and 140 square feet. 3. Score 3 if the room is between 120 and 130 square feet. 4. Score 4 if the room is less than 120 square feet or if the room is less than 8 feet in either dimension. 5. Score 5 if the room is less than 100 square feet or if the room is less than 6 feet in either dimension. 	<p>1 2 3 4 5</p>

<p>FA.2.3. The facility affords rapid access to the patient by emergency personnel.</p> <ol style="list-style-type: none"> Score 1 if there is no impediment for direct access to the patient from the entrance of the center and the bedroom allows access of emergency equipment from either side of the bed. Score 3 if there are minor impediments to access to the patient. Score Fail if there is a significant impediment to access to the patient. 	<p>1 3 Fail</p>
<p>FA.2.4. The testing rooms are on the same floor as the control room.</p> <ol style="list-style-type: none"> Score 1 if the control room is adjacent to the testing rooms. Score 2 if the control room is within 25 feet of the testing rooms. Score 3 if the control room is between 25 and 50 feet of the testing rooms. Score 4 if the control room is more than 50 feet from the testing rooms but on the same floor. Score 5 if the control room is not on the same floor as the testing rooms. 	<p>1 2 3 4 5</p>
<p>FA.2.5. Clean bathrooms are available for each patient.</p> <ol style="list-style-type: none"> Score 1 if there are private, clean bathrooms with showers in each bedroom. Score 2 if there are private, clean bathrooms in each bedroom. Score 3 if there are private, clean bathrooms near each bedroom. Score 4 if there are clean bathrooms at a distance from the bedrooms. Score 5 if no patient bathrooms are available. 	<p>1 2 3 4 5</p>
<p>FA.2.6. At least one testing room and bathroom is handicap accessible.</p> <ol style="list-style-type: none"> Score 1 if all bedrooms and bathrooms are completely handicap accessible. Score 2 if several bedrooms and bathrooms are completely handicap accessible. Score 3 if one bedroom and bathroom is handicap accessible. Score 4 if one bedroom is handicap accessible. Score 5 if none of the bedrooms or bathrooms are handicap accessible. 	<p>1 2 3 4 5</p>
<p>FA.2.7. All testing rooms are light and sound insulated.</p> <ol style="list-style-type: none"> Score 1 if all bedrooms are light and sound insulated. Score 3 if bedrooms allow some light or sound transmission. Score 5 if some bedrooms are not adequately light or sound insulated. 	<p>1 3 5</p>
<p>FA.2.8. Accommodations are made for individuals with special requirements.</p> <ol style="list-style-type: none"> Score 1 if the center routinely makes accommodations for individuals with special requirements. Score 3 if the center occasionally makes accommodations for individuals with special requirements. Score 5 if the center does not make accommodations for individuals with special requirements. 	<p>1 3 5</p>

FA.3. The center must have a centralized control room to house equipment and staff to perform on-line monitoring of polysomnographic data.

Standards

- (1) *The design of the control room must reflect concern for the comfort and dignity of the technicians.*
- (2) *The control room should be at least 100 square feet plus 25 square feet per recording room.*

Intent

The control room must facilitate the technician's main task of monitoring the patient and polysomnographic recording; there should be a bathroom nearby and a mechanism for preparing meals during the night. The control room must be of a size adequate to house the recording equipment and the technicians.

Scoring of Section FA.3

<p>FA.3.1. The design of the control room must reflect concern for the comfort and dignity of the technicians.</p> <ul style="list-style-type: none"> 1. Score 1 if the control room contains comfortable chairs and well-placed monitoring equipment; the technician has access to a break area with a refrigerator, coffee machine and microwave oven; and there is an easily accessible staff bathroom. 2. Score 2 if the control room is moderately comfortable, a rudimentary break area is present, and there is an easily accessible staff bathroom. 3. Score 3 if the control room is functional and there is an easily accessible staff bathroom. 4. Score 4 if the control room requires additional furnishing and there is an easily accessible staff bathroom. 5. Score 5 if the control room is inadequate and no bathroom is available for the technicians. 	<p>1 2 3 4 5</p>
<p>FA.3.2. The control room must be at least 100 square feet plus 25 square feet per recording room.</p> <ul style="list-style-type: none"> 1. Score 1 if the control room exceeds the space requirement, is free of extraneous equipment and appears spacious. 2. Score 2 if the control room meets the space requirement. 3. Score 3 if the control room is at least 100 square feet. 4. Score 4 if the control room is less than 100 square feet or is not appropriately designed. 5. Score 5 if the control room is less than 100 square feet and is inappropriately designed. 	<p>1 2 3 4 5</p>

FA.4. The center must have a policies and procedures manual.

Standards

- (1) *A copy of the center’s policies and procedures manual must be easily accessible from the control room.*
- (2) *The center must have a written policy for emergencies.*
- (3) *The center must have a written policy for each procedure performed in the center.*
- (4) *The center must have a written policy for patient acceptance.*
- (5) *The center must have a written policy for quality assurance.*
- (6) *Copies of the current AASM Clinical Practice Parameters must accompany the policies and procedures manual.*

Intent

A written policies and procedures manual places responsibility for decision making on the medical director and Diplomate of the ABSM (or an individual who has been accepted by the American Board of Sleep Medicine (ABSM) to sit for its certification exam). The center leadership must author a policies and procedures manual to provide guidelines for day-to-day activities of the center. The manual is available to technicians for reference during recordings. Technicians know when to call, whom to call, and how to respond to all types of emergencies. Technicians have written guidelines for the performance of tests such as polysomnograms, Multiple Sleep Latency Tests, and “split night” studies. The secretarial staff is aware of patient acceptance policies. A quality-assurance program is documented in the policies and procedures manual—the center follows the guidelines of the AASM as detailed in the policies and procedures manual.

Scoring of Section FA.4

<p>FA.4.1. A copy of the center’s policies and procedures manual must be easily accessible from the control room.</p> <ol style="list-style-type: none"> 1. Score 1 if the center’s policies and procedures manual is present in the control room. 2. Score 2 if the manual is adjacent to the control room. 3. Score 3 if the manual is accessible from the control room. 4. Score 4 if the manual is in the sleep center building. 5. Score 5 if the manual is not in the sleep center building. 	<p>1 2 3 4 5</p>
<p>FA.4.2. The policies and procedures manual contains written policies for emergencies that meet the requirements of section EM.1.</p> <ol style="list-style-type: none"> 1. Score 1 if a detailed emergency procedure is described. 2. Score 3 if an adequate emergency procedure is described. 3. Score 5 if the emergency procedure is inadequate or absent. 	<p>1 3 5</p>

<p>FA.4.3. The policies and procedures manual contains written policies for each of the diagnostic and therapeutic procedures described in section PR.</p> <ol style="list-style-type: none"> Score 1 if there are detailed procedures for each of the procedures used in the center. Score 3 if there are minimal descriptions of procedures or if some procedures are not described. Score Fail if there are no written policies for any procedures. 	1 3 Fail
<p>FA.4.4. The center has a written policy for patient acceptance as described in section PT.1.</p> <ol style="list-style-type: none"> Score 1 if there is a detailed policy describing age range, intake procedures for new and "direct referral" patients, including sleep data base requirements. Score 3 if the policy includes minimal information. Score 5 if the policy is inadequate or missing. 	1 3 5
<p>FA.4.5. The center has a written policy for quality assurance as described in section QA.1.</p> <ol style="list-style-type: none"> Score 1 if a detailed quality assurance program is described in the policies and procedures manual. Score 3 if a minimal program is described. Score 5 if there is an inadequate description or the description is missing. 	1 3 5
<p>FA.4.6. The policies and procedures manual includes copies of the current AASM Clinical Practice Parameters, or the Parameters are in a separate binder.</p> <ol style="list-style-type: none"> Score 1 if the Clinical Practice Parameters are complete and up to date. Score 3 if the Clinical Practice Parameters are incomplete or out of date. Score 5 if the Clinical Practice Parameters are absent. 	1 3 5

General Administration

AD.1. The center must have a mission statement.

Standard

(1) *The center must have a mission statement.*

Intent

The center should understand the impact that it has on the medical care of the population it serves.

Scoring of Section AD.1

<p>AD.1.1. The center must have a mission statement.</p> <ol style="list-style-type: none"> Score 1 if the center has an appropriate mission statement. Score 3 if the center has a mission statement. Score 5 if the center does not have a mission statement. 	1 3 5
--	-------

AD.2. The center must have written objectives.

Standard

- (1) *The center must have written objectives.*

Intent

The center must have strategic goals.

Scoring of Section AD.2

AD.2.1. The center must have written objectives. 1. Score 1 if the center has appropriate written objectives. 2. Score 3 if the center has written objectives. 3. Score 5 if the center does not have written objectives.	1 3 5
--	-------

AD.3. The center must maintain a history of its experience.

Standards

- (1) *The center must maintain a cumulative record of the final ICSD diagnosis and procedures performed for each patient evaluated.*

Intent

Record of the patients evaluated and the procedures performed are essential for provision of quality follow-up care. Records of previous studies must be available when repeat testing is performed. Centers are often called upon to provide a record of services provided for patients transferring care to another center.

Scoring of Section AD.3

AD.3.1. The center must maintain a cumulative record of the final ICSD diagnosis and procedure performed for each patient evaluated. 1. Score 1 if the center has a complete record of the final ICSD diagnoses and procedures performed for each patient. 2. Score 3 if the center has a record of the final ICSD diagnosis and procedures performed for each patient. 3. Score 5 if the center does not have records of diagnoses and procedures performed.	1 3 5
--	-------

Education

ED.1. The professional and technical staff of the center must participate regularly in activities keeping them current in the field of sleep disorders medicine.

Standards

- (1) *The professional and technical staff must meet at least monthly to discuss the clinical experience of the center, and it is documented.*
- (2) *The center's professional and technical staff must each participate in 10 hours of CME or CME-equivalent sleep-related educational activities per year, and it is documented.*

Intent

The field of sleep disorders medicine is relatively new and developing. The standards are intended to encourage life-long learning and maintenance of a high level of expertise. Regular review of the experience of the center in a case conference, especially concerning follow-up data, increases the knowledge base of the staff. Attendance at professional society meetings, sleep-related courses and reading of professional journals serves to keep the staff current in the field. Diplomates of the ABSM with time-limited certificates must conform to all regulations required for maintenance of certification.

Scoring of Section ED.1

ED.1.1. The professional and technical staff meet in case conference at least monthly to discuss the clinical experience of the center. 1. Score 1 if the professional and technical staff meets weekly. 2. Score 3 if the professional and technical staff meets monthly. 3. Score 5 if the professional and technical staff does not meet regularly or it is not documented.	1 3 5
ED.1.2. Each member of the center's professional and technical staff participates in 10 hours of sleep-related CME or CME-equivalent educational activities per year. 1. Score 1 if the professional and technical staff exceeds the educational requirement. 2. Score 3 if the professional and technical staff meets the educational requirement. 3. Score 5 if the professional and technical staff does not meet the educational requirement or it is not documented.	1 3 5

ED.2. The center staff must educate professionals in other medical specialties and the public regarding the diagnosis, treatment and care of patients with sleep disorders.

Standard

- (1) *The center must participate quarterly in activities to educate professionals in other medical specialties and the public about sleep disorders.*

Intent

Education of others about sleep disorders increases delivery of care to patients. Education may take the form of community speaking, distribution of brochures, patient consultations and media events, and is documented.

Scoring of Section ED.2

<p>ED.2.1. The center staff participates in educational activities.</p> <ol style="list-style-type: none"> 1. Score 1 if the professional or technical staff averages one educational activity per month. 2. Score 3 if the professional or technical staff averages one educational activity per quarter. 3. Score 5 if the professional and technical staff does not provide educational activity for the community or it is not documented. 	<p>1 3 5</p>
---	--------------

Treatment of Disorders

RX.1. The center must have the capacity to provide a range of services for sleep-related breathing disorders.

Standard

- (1) *The center must have the capacity to provide a range of services for sleep-related breathing disorders.*

Intent

The center provides a range of diagnostic and therapeutic techniques for sleep-related breathing disorders to meet the needs of the community it serves. At a minimum, the center provides the diagnostic procedures described in section PR and the therapeutic techniques deemed “standard” in AASM Clinical Practice Parameters documents¹.

Scoring of Section RX.1

<p>RX.1.1. The center demonstrates, through appropriate policies and through activities documented in patient charts, a range of services for treatment of sleep-related breathing disorders.</p>	
---	--

<p>RX.1.a. The center provides PAP therapy.</p> <ol style="list-style-type: none"> Score 1 if the center demonstrates successful treatment of sleep-related breathing disorders with CPAP and bi-level PAP; has a formal follow-up program for patient compliance; participates in patient support groups; and has established relationships with home health care providers. Score 2 if the center demonstrates successful treatment of sleep-related breathing disorders with CPAP and has a formal follow-up program. Score 3 if the center demonstrates successful treatment of sleep-related breathing disorders with CPAP and responds appropriately to patient problems. Score 4 if the center demonstrates successful treatment of sleep-related breathing disorders with CPAP but fails to demonstrate long-term care of patients. Score 5 if the center fails to successfully treat sleep-related breathing disorders with CPAP. 	<p>1 2 3 4 5</p>
<p>RX.1.b. The center provides surgical services for sleep-related breathing disorders.</p> <ol style="list-style-type: none"> Score 1 if the center has established relationships with or has on its staff otolaryngologists and/or oral surgeons capable of providing a full range of surgical treatments for sleep-related breathing disorders. Score 3 if the center has an established relationship with an otolaryngologist capable of providing some form of uvuloplasty. Score 5 if the center does not offer surgical alternatives for treatment of sleep-related breathing disorders. 	<p>1 3 5</p>
<p>RX.1.c. The center provides non-surgical alternatives for treatment of sleep-related breathing disorders.</p> <ol style="list-style-type: none"> Score 1 if the center has a mechanism for providing oral appliances and/or other mechanical devices for the treatment of sleep-related breathing disorders. Score 3 if the center is aware of non-surgical treatment of sleep-related breathing disorders. Score 5 if there is no option for non-surgical treatment of sleep-related breathing disorders. 	<p>1 3 5</p>

RX.2. The center must have the capacity to provide a range of services for insomnia.

Standard

(1) *The center must provide a range of services for insomnia.*

Intent

The center provides a range of diagnostic and therapeutic techniques for insomnia sleep disorders to meet the needs of the community it serves. At a minimum, the center provides the diagnostic procedures described in section PR and the therapeutic

techniques deemed “standard” in AASM Clinical Practice Parameters documents¹. If a center does not have qualified medical personnel on staff to treat insomnia sleep disorders, there is an arrangement with an appropriate associated practitioner to provide services.

Scoring of Section RX.2

RX.2.1. The center demonstrates, through activities documented in patient charts, a functioning program for treatment of insomnia.	
RX.2.a. Pharmacological treatment of insomnia. 1. Score 1 if the center demonstrates familiarity with pharmacological treatments for insomnia. 2. Score 5 if the center fails to demonstrate familiarity with pharmacological treatments of insomnia.	1 5
RX.2.b. Non-pharmacological treatment of insomnia. 1. Score 1 if the center demonstrates familiarity with multiple non-pharmacological treatments of insomnia, including stimulus control. 2. Score 3 if the center demonstrates familiarity with stimulus control treatment of insomnia. 3. Score 5 if the center has no program for non-pharmacological treatment of insomnia.	1 3 5
RX.2.c. Long-term follow-up of insomnia patients. 1. Score 1 if the center has an established program for long-term follow-up of insomnia patients. 2. Score 3 if the center responds to patient requests for follow-up of treatment for patients with insomnia. 3. Score 5 if the center has no mechanism for long-term follow-up of patients with insomnia.	1 3 5

RX.3. The center must have the capacity to provide a range of services for narcolepsy.

Standard

(1) *The center must provide a range of services for narcolepsy.*

Intent

The center provides a range of diagnostic and therapeutic techniques for narcolepsy sleep disorders to meet the needs of the community it serves. At a minimum, the center provides the diagnostic procedures described in section PR and the therapeutic techniques deemed “standard” in AASM Clinical Practice Parameters documents¹. If a center does not have qualified medical personnel on staff to treat narcolepsy sleep disorders, there is an arrangement with an appropriate associated practitioner to provide services.

Scoring of Section RX.3

RX.3. The center demonstrates, through activities documented in patient charts, a functioning program for treatment of narcolepsy.	
RX.3.a Pharmacological treatment of narcolepsy. 1. Score 1 if the center has experience in the use of a variety of effective medications for treatment of narcolepsy. 2. Score 3 if the center has experience with the use of a single effective medication for the treatment of narcolepsy. 3. Score 5 if the center has no experience in the pharmacological treatment of narcolepsy.	1 3 5
RX.3.b. Long-term follow-up of narcolepsy patients. 1. Score 1 if the center has an established program for long-term follow-up of narcolepsy patients. 2. Score 3 if the center has a mechanism for responding to patient requests for follow-up treatment of narcolepsy. 3. Score 5 if the center has no program for long-term follow-up of narcolepsy patients.	1 3 5

RX.4. The center must have the capacity to provide a range of services for restless legs syndrome and periodic limb movement disorder.

Standard

- (1) *The center must provide a range of services for restless legs syndrome and periodic limb movement disorder.*

Intent

The center provides a range of diagnostic and therapeutic techniques for restless legs syndrome and periodic limb movement sleep disorders to meet the needs of the community it serves. At a minimum, the center provides the diagnostic procedures described in section PR and the therapeutic techniques deemed “standard” in AASM Clinical Practice Parameters documents¹. If a center does not have qualified medical personnel on staff to treat restless legs and periodic limb movement disorder, there is an arrangement with an appropriate associated practitioner to provide services.

Scoring of Section RX.4

RX.4. The center demonstrates, through activities documented in patient charts, a functioning program for treatment of restless legs syndrome and periodic limb movement disorder.	
--	--

<p>RX.4.a. Pharmacological treatment of restless legs syndrome and periodic limb movement disorder.</p> <ol style="list-style-type: none"> Score 1 if the center has experience in a variety of treatments of restless legs syndrome. Score 3 if the center has experience in the treatment of restless legs syndrome and periodic limb movement disorder. Score 5 if the center has no experience in the treatment of restless legs syndrome or periodic limb movement disorder. 	<p>1 3 5</p>
<p>RX.4.b. Long-term follow-up of restless legs syndrome and periodic limb movement disorder patients.</p> <ol style="list-style-type: none"> Score 1 if the center has an established mechanism for long-term follow-up of restless legs syndrome and periodic limb movement disorder patients. Score 3 if the center has a mechanism for responding to patient requests for follow-up treatment of restless legs syndrome and periodic limb movement disorder. Score 5 if the center has no mechanism for long-term follow-up of restless legs syndrome and periodic limb movement disorder patients. 	<p>1 3 5</p>

RX.5. The center must have the capacity to provide a range of services for sleep-wake rhythm disorders.

Standard

(1) *The center must provide a range of services for sleep-wake rhythm disorders.*

Intent

The center provides a range of diagnostic and therapeutic techniques for sleep-wake rhythm sleep disorders to meet the needs of the community it serves. At a minimum, the center provides the diagnostic procedures described in section PR and the therapeutic techniques deemed “standard” in AASM Clinical Practice Parameters documents¹. If a center does not have qualified medical personnel on staff to treat sleep-wake rhythm disorders, there is an arrangement with an appropriate associated practitioner to provide services.

Scoring of Section RX.5

<p>RX.5. The center demonstrates treatment of sleep-wake rhythm disorders through activities documented in patient charts.</p> <ol style="list-style-type: none"> Score 1 if the center has successfully provided bright light therapy and support for sleep-wake rhythm disorders. Score 3 if the center has a mechanism for providing treatment for sleep-wake rhythm disorders. Score 5 if the center has no treatment for sleep-wake rhythm disorders. 	<p>1 3 5</p>
---	--------------

RX.6. The center must have the capacity to provide a range of services for other sleep disorders, as appropriate.

Standard

- (1) *The center must recognize and provide a range of services for other sleep disorders, as appropriate.*

Intent

The center provides a range of diagnostic and therapeutic techniques for other sleep disorders, as appropriate, to meet the needs of the community it serves. If a center does not have qualified medical personnel on staff to treat other sleep disorders, there is an arrangement with an appropriate associated practitioner to provide services.

Scoring of Section RX.6

RX.6. The center demonstrates recognition and treatment of other sleep disorders through activities documented in patient charts.	
RX.6.a. Recognition and treatment of other sleep disorders. 1. Score 1 if the center recognizes and has experience in a variety of treatments of other sleep disorders. 2. Score 3 if the center recognizes and has experience in the treatment of other sleep disorders. 3. Score 5 if the center has no experience in the treatment of other sleep disorders or other diagnoses are sometimes missed.	1 3 5
RX.6.b. Long-term follow-up of other sleep disorders. 1. Score 1 if the center has an established program for long-term follow-up of patients with other sleep disorders. 2. Score 3 if the center has a mechanism for responding to patient requests for follow-up treatment of patients with other sleep disorders. 3. Score 5 if the center has no mechanism for long-term follow-up of patients with other sleep disorders.	1 3 5 NA

Equipment

EQ.1. The center must have equipment adequate for the performance of overnight polysomnography.

Standards

- (1) *All testing rooms must have a mechanism that allows communication between the patient and center personnel during testing.*
- (2) *The center must have equipment for visual monitoring and recording of patients during testing.*
- (3) *The center must have polygraphic equipment capable of recording and storing a minimum of 12 channels of data.*

- (4) *The center must have equipment capable of recording continuous oxygen saturation and EKG with sufficient sensitivity to be used in the diagnosis of sleep-related breathing disorders.*

Intent

The testing equipment must provide the technician with information to assess the health and safety of the patient during the test. The equipment must provide sufficient information for analysis of sleep disorders, if present. The patient and technician must be able to communicate easily with each other in the event of an emergency or at times when the patient requires attention for comfort. The technician must be able to view and document unusual behaviors during the night. A minimum of 12 channels of data is necessary to perform a comprehensive polysomnogram. Monitoring of oxygen saturation is critical for the assessment of sleep-related breathing disorders.

Scoring of Section EQ.1

<p>EQ.1.1. All patient testing rooms have a mechanism that allows the patient and center personnel to communicate easily with each other during testing.</p> <ol style="list-style-type: none"> 1. Score 1 if the center has conveniently placed functional two-way communication with all patient rooms. 2. Score 3 if the center has functional two-way communication with all patient rooms. 3. Score 5 if the center does not have functional two-way communication with all patient rooms. 	<p>1 3 5</p>
<p>EQ.1.2. The center has equipment for visual monitoring and recording of patients during testing.</p> <ol style="list-style-type: none"> 1. Score 1 if the center has low light or infrared cameras that allow visual monitoring of the entire bed and conveniently placed monitors in the control room. 2. Score 3 if the center has low light or infrared cameras and monitors in the control room. 3. Score 5 if the center does not have visual monitoring equipment. 	<p>1 3 5</p>
<p>EQ.1.3. The center has polygraphic equipment capable of recording and storing a minimum of 12 channels of data.</p> <ol style="list-style-type: none"> 1. Score 1 if the center has equipment capable of recording and storing 21 or more channels of data. 2. Score 2 if the center has equipment capable of recording and storing 16 to 20 channels of data. 3. Score 3 if the center has equipment capable of recording and storing 12 to 15 channels of data. 4. Score 4 if the center has equipment capable of recording and storing 8 to 11 channels of data. 5. Score 5 if the center has equipment capable of recording and storing less than 8 channels of data. 	<p>1 2 3 4 5</p>

EQ.1.4. The center has equipment capable of recording continuous oxygen saturation and EKG with sufficient sensitivity to be used in the diagnosis of sleep-related breathing disorders. 1. Score 1 if the center has oximetry and EKG monitoring equipment. 2. Score 5 if the center does not have oximetry or EKG monitoring equipment.	1 5
---	-----

EQ.2. The center must have adequate equipment for the treatment of sleep-related breathing disorders.

Standards

- (1) *The center must have equipment for the delivery of continuous positive airway pressure (CPAP) and bi-level positive airway pressure.*
- (2) *The center must be able to control and monitor airway pressure levels remotely.*

Intent

The center must be able to provide treatment for sleep-related breathing disorders. For most patients, positive airway pressure is the treatment of choice for sleep-related breathing disorders. Remote control of the pressure allows for adjustment without disturbing the patient during the titration study.

Scoring of Section EQ.2

EQ.2.1. The center has equipment for the delivery of continuous positive airway pressure (CPAP) and bi-level positive airway pressure. 1. Score 1 if the center has a variety of airway pressure treatments for sleep apnea. The center has available and demonstrates familiarity with a variety of masks and delivery systems. 2. Score 3 if the center has CPAP and bi-level positive airway pressure devices and a limited selection of masks. 3. Score 5 if the center does not have both CPAP and bi-level positive airway pressure devices.	1 3 5
EQ.2.2. The center can control and monitor airway pressure levels remotely. 1. Score 1 if the center has the capability to adjust and monitor airway pressure levels from the control room. 2. Score 3 if the center can control and monitor airway pressure levels without disrupting the patient. 3. Score 5 if the technician must enter the patient room to adjust airway pressure levels.	1 3 5

EQ.3. The center must have a schedule for the routine maintenance of equipment for electrical and mechanical safety.

Standard

- (1) *The center must have a written plan for periodic monitoring of all patient-related equipment for electrical and mechanical safety.*

Intent

Each center must have a written plan for periodic monitoring of all patient-related equipment for electrical and mechanical safety.

Scoring of Section EQ.3

EQ.3.1. The center has a written plan for periodic monitoring of patient-related equipment for electrical and mechanical safety. 1. Score 1 if the center performs electrical calibrations and safety tests annually. 2. Score 3 if the center performs electrical calibrations and safety tests. 3. Score 5 if the center does not perform electrical calibrations or safety tests or there is no written plan.	1 3 5
---	-------

EQ.4. Provisions must be made for replacement or repair of capital investments.

Standard

- (1) *The center must have a plan for regular repair or replacement of capital investments.*

Intent

Maintenance of the facility and replacement of equipment is essential for the long-term survival of the center.

Scoring of Section EQ.4

EQ.4.1. The center has a plan for regular repair or replacement of capital investments. 1. Score 1 if the center monitors equipment depreciation and repair, and has a plan for equipment replacement. 2. Score 3 if the center has a plan for regular repair or replacement of equipment. 3. Score 5 if the center has no plan for repair or replacement of equipment.	1 3 5
--	-------

Emergency Procedures

EM.1. All sleep centers must have a detailed emergency plan.

Standards

- (1) *The emergency plan must define specific circumstances when emergency procedures should be followed.*
- (2) *The emergency plan must delineate the personnel to be contacted when emergencies occur.*
- (3) *The mechanism for contacting emergency personnel must be part of the emergency plan.*
- (4) *The emergency plan must describe the specific responsibilities of the technical staff.*
- (5) *If pediatric and/or neonatal patients are studied in the center, specialized emergency equipment must be available.*
- (6) *A detailed plan for environmental disasters must be available.*

Intent

A well-reasoned, clearly written emergency plan is essential for patient safety. The center must define specific cardiac and respiratory abnormalities requiring emergency responses. Conditions resulting in fire or environmental emergencies must also be defined. Some emergencies may require intervention of the medical director, whereas others may require intervention by emergency medical personnel. The emergency plan must define which personnel are to be contacted in a specific situation. In some centers, the mechanism for contacting emergency personnel may require dialing "911," calling the hospital operator, or using a paging system. This mechanism must be defined in the emergency plan. Technical staff may be required to start cardiopulmonary resuscitation. The conditions in which this should be done must be defined in the emergency plan. If pediatric and/or neonatal patients are studied, the emergency equipment used by the center must include appropriate equipment and medication.

Scoring of Section EM.1

EM.1.1. The emergency plan defines circumstances, specific to the sleep center, when emergency procedures should be followed. 1. Score 1 if the policies and procedures manual includes a detailed description of events that trigger a medical emergency, including cardiac arrhythmia (type and duration), hypoxia (degree and duration) and alterations in consciousness. 2. Score 3 if the manual includes a description of events that trigger a medical emergency. 3. Score 5 if the manual does not include a description of events that trigger a medical emergency.	1 3 5
---	-------

<p>EM.1.2. The emergency plan delineates the personnel to be contacted when emergencies occur.</p> <ol style="list-style-type: none"> 1. Score 1 if the policies and procedures manual includes a description of conditions that require consultation with the technical director or medical director, as well as the personnel to be contacted in an emergency (“code” team, city emergency medical personnel, etc.). 2. Score 3 if the manual includes the personnel to be contacted in an emergency (“code” team, city emergency medical personnel, etc.). 3. Score 5 if the manual does not include the personnel to be contacted in an emergency. 	<p>1 3 5</p>
<p>EM.1.3. The mechanism for contacting emergency personnel is part of the emergency plan.</p> <ol style="list-style-type: none"> 1. Score 1 if the policies and procedures manual contains a specific reference to the mechanism for contacting emergency personnel (e.g., by telephone, paging system or “code blue” button). 2. Score 3 if the manual refers to a mechanism for contacting emergency personnel. 3. Score 5 if the manual has no reference to the method for contacting emergency personnel. 	<p>1 3 5</p>
<p>EM.1.4. The emergency plan describes the specific responsibilities of the technical staff.</p> <ol style="list-style-type: none"> 1. Score 1 if the policies and procedures manual defines in detail the specific responsibilities of the technical staff during a medical emergency (e.g., opening of locked doors to allow access, when to administer cardiopulmonary resuscitation). 2. Score 3 if the manual defines the responsibilities of the technical staff during an emergency. 3. Score 5 if the manual does not define the responsibilities of the technical staff during an emergency. 	<p>1 3 5</p>
<p>EM.1.5. If pediatric and/or neonatal patients are studied, appropriate emergency equipment must be available.</p> <ol style="list-style-type: none"> 1. Score 1 if the center has all appropriate emergency equipment for pediatric and/or neonatal patients available. 2. Score 3 if the center staff is aware of how to obtain emergency equipment for pediatric and/or neonatal patients. 3. Score 5 if the center does not have access to emergency equipment for pediatric and/or neonatal patients. 4. Score NA if the center does not study pediatric and/or neonatal patients. 	<p>1 3 5 NA</p>
<p>EM.1.6. A detailed plan for environmental disasters must be available.</p> <ol style="list-style-type: none"> 1. Score 1 if the policies and procedures manual contains a detailed description of specific responsibilities and actions of the sleep staff during all environmental emergencies to which the facility may be subject (e.g. tornado, fire, flood, etc.). 2. Score 3 if the manual addresses all relevant environmental disasters. 3. Score 5 if the manual does not address all relevant environmental emergencies. 	<p>1 3 5</p>

Procedures

PR.1. The center must demonstrate the ability to perform a comprehensive laboratory polysomnogram.

Standards

- (1) *The comprehensive polysomnogram must record sufficient data for sleep stage scoring.*
- (2) *The comprehensive polysomnogram must evaluate breathing during sleep and leg movements during sleep.*
- (3) *The technician must be able to monitor oxygen saturation and EKG changes during the comprehensive polysomnogram.*
- (4) *Technician logs, including body position and patient activity, must be part of the polysomnographic record.*
- (5) *Pre- and post-study calibrations must be performed and stored.*

Intent

The standards for comprehensive polysomnography insure that each accredited center is able to record and evaluate the physiological parameters used in accordance with the Clinical Practice Parameters documents to arrive at an appropriate diagnosis. This standardization allows for comparison of recordings obtained in different accredited centers. The Rechtschaffen and Kales manual³ remains the standard for sleep stage scoring, where age appropriate. Therefore, the comprehensive polysomnogram must include, at a minimum, an electroencephalogram (EEG), electro-oculogram (EOG) and chin electromyography (EMG). The comprehensive polysomnogram must include measures of airflow and effort to breathe. Changes in oxygen saturation or EKG may be used to define emergencies. It is therefore essential that on-line monitoring of oxygen saturation and heart rhythm be available for technician review. Visual observations by the technician are an essential adjunct to physiologic recordings, and must be part of the permanent polysomnographic record.

Scoring of Section PR.1

PR.1.1. The polysomnogram includes sufficient data for sleep stage scoring.	1 2 3 4 5
1. Score 1 if the center routinely records more than two channels of EEG, two EOG channels and chin EMG.	
2. Score 2 if the center records two channels of EEG, two EOG channels, and chin EMG.	
3. Score 3 if the center records one channel each of EEG, chin EMG, and EOG.	
4. Score 4 if the center records EEG, EMG or EOG.	
5. Score 5 if the center does not record data for sleep stage scoring.	

<p>PR.1.2. The polysomnogram includes measures of breathing during sleep and leg movements during sleep.</p> <ol style="list-style-type: none"> 1. Score 1 if the center records nasal and oral airflow using a pneumotachometer or nasal pressure monitor and inductive plethysmography; is capable of recording esophageal pressure; and records at least two channels of leg movements or EMG. 2. Score 3 if the center records nasal and oral airflow using a thermal sensor; respiratory effort using piezo sensors; and leg movements or EMG. 3. Score 5 if the center fails to record airflow, effort or leg movements. 	1 3 5
<p>PR.1.3. The technician monitors oxygen saturation and EKG changes during the polysomnogram.</p> <ol style="list-style-type: none"> 1. Score 1 if the technician is able to monitor “live” and “trend” plots of oxygen saturation and EKG during the polysomnogram 2. Score 3 if the technician is able to monitor oxygen saturation and EKG live during the polysomnogram. 3. Score 5 if the technician is unable to monitor oxygen saturation and EKG during the polysomnogram. 	1 3 5
<p>PR.1.4. Technician logs, including body position and patient activity, are part of the polysomnographic record.</p> <ol style="list-style-type: none"> 1. Score 1 if detailed technician logs are part of each polysomnographic record, and include body position, patient activity and level of snoring. 2. Score 3 if technician logs are present. 3. Score 5 if technician logs are absent. 	1 3 5
<p>PR.1.5. Pre- and post-study calibrations are performed and stored.</p> <ol style="list-style-type: none"> 1. Score 1 if pre- and post-study calibrations are performed and stored. 2. Score 5 if pre- and post-study calibrations are not performed or not stored. 	1 5

PR.2. The center must demonstrate the ability to perform Multiple Sleep Latency Testing.

Standard

- (1) *Multiple Sleep Latency Tests must be performed in accordance with recent published guidelines (Carskadon Guidelines for the Use of MSLT⁴ and AASM Clinical Practice Parameters documents¹).*

Intent

Clinical practice parameters require the use of the Multiple Sleep Latency Test in all patients suspected of narcolepsy and in some patients with complaints of excessive daytime sleepiness. Compliance with the standards insures that results from different centers are comparable.

Scoring of Section PR.2

<p>PR.2.1. The center demonstrates the ability to perform Multiple Sleep Latency Tests in accordance with published guidelines.</p> <ol style="list-style-type: none"> 1. Score 1 if the center performs Multiple Sleep Latency Tests, in accordance with published guidelines, using the following methods: a) the test is always performed after a nocturnal polysomnogram, and b) five naps studies are performed unless the test is used to evaluate daytime sleepiness or REM sleep occurs in two of the first four naps. 2. Score 3 if the test is occasionally performed without a nocturnal polysomnogram or four naps are performed routinely. 3. Score 5 if the test is often performed without a nocturnal polysomnogram or fewer than four naps are used. 	<p>1 3 5</p>
--	---------------------

PR.3. The center must demonstrate the ability to perform polysomnography with titration of positive airway pressure.

Standards

- (1) *The center must have written protocols for the titration of CPAP.*
- (2) *If used, the center must have written criteria for the titration of PAP during the course of diagnostic polysomnogram (“split night” studies).*
- (3) *The center must have written protocols for the use of bi-level positive airway pressure.*

Intent

The procedures and goals of PAP titration must be decided in advance by the medical director and Diplomate of the ABSM as they author the policies and procedures manual. The technician must be well versed in the goals and details of PAP therapy. Specific conditions leading to a “split night” study must be defined. Approval of such a study by the medical director must be part of the patient record. Conditions leading to the transition from CPAP to bi-level therapy must be clearly defined.

Scoring of Section PR.3

<p>PR.3.1. The center follows protocols for the titration of CPAP.</p> <ol style="list-style-type: none"> 1. Score 1 if the center has detailed protocols defining conditions when CPAP pressure is to be increased or decreased. 2. Score 3 if the center has guidelines for CPAP titration. 3. Score 5 if the center has no written protocols for CPAP titration. 	<p>1 3 5</p>
--	---------------------

<p>PR.3.2. If used, the center follows criteria for the titration of PAP during the course of diagnostic polysomnogram (“split night” studies).</p> <ol style="list-style-type: none"> 1. Score 1 if the center has detailed written criteria if PAP is to be started in the middle of the polysomnogram, including number or rate of apnea, oxygen desaturation or cardiac arrhythmia, as well as authorization from a physician for application of PAP if criteria are met. 2. Score 3 if the center has guidelines for starting PAP during a polysomnogram. 3. Score 5 if the center performs “split night” studies, but has no written protocol. 4. Score NA if the center does not perform “split night” studies. 	<p>1 3 5 NA</p>
<p>PR.3.3. The center follows protocols for the use of bi-level positive airway pressure.</p> <ol style="list-style-type: none"> 1. Score 1 if the center has written protocols defining when to use bi-level positive airway pressure and appropriate methods for increasing pressure. 2. Score 3 if the center has guidelines for use of bi-level positive airway pressure. 3. Score 5 if the center does not have a written protocol for the use of bi-level positive airway pressure. 	<p>1 3 5</p>

PR.4. Attended portable studies, if used as a substitute for comprehensive laboratory polysomnography, must conform to the standards for the latter.

Standards

- (1) *If used in place of comprehensive laboratory polysomnography, attended portable studies must provide data equivalent to that required in PR.1.*
- (2) *A written protocol must define the conditions in which attended portable polysomnography may replace comprehensive laboratory polysomnography.*

Intent

The authors of the policies and procedures manual must make the decisions of when and how to provide portable services. Attended portable monitoring may permit delivery of services to patients unable or unwilling to travel to the sleep laboratory. The rationale for use and recognition of the limitations of attended portable monitoring must be evident in written protocols.

Scoring of Section PR.4

<p>PR.4.1. The attended portable study includes sufficient data for sleep stage.</p> <ol style="list-style-type: none"> 1. Score 1 if the center routinely records more than two channels of EEG, two EOG channels and chin EMG. 2. Score 2 if the center records two channels of EEG, two EOG channels, and chin EMG. 3. Score 3 if the center records one channel each of EEG, chin EMG, and EOG. 4. Score 4 if the center records EEG, EMG or EOG. 5. Score 5 if the center does not record data for sleep stage scoring. 	<p>1 2 3 4 5 NA</p>
<p>PR.4.2. The attended portable study includes measures of breathing during sleep and leg movements during sleep.</p> <ol style="list-style-type: none"> 1. Score 1 if the center records nasal and oral airflow using a pneumotachometer, nasal pressure monitor and inductive plethysmography; is capable of recording esophageal pressure; and records at least two channels of leg movements or EMG. 2. Score 3 if the center records nasal and oral airflow, respiratory effort and leg movements. 3. Score 5 if the center fails to record airflow, effort and leg movements. 	<p>1 3 5 NA</p>
<p>PR.4.3. The technician monitors oxygen saturation and EKG changes during the attended portable study.</p> <ol style="list-style-type: none"> 1. Score 1 if the technician is able to monitor “live” and “trend” plots of oxygen saturation and EKG during the study. 2. Score 3 if the technician is able to monitor oxygen saturation and live EKG during the study. 3. Score 5 if the technician is unable to monitor oxygen saturation and EKG during the study. 	<p>1 3 5 NA</p>
<p>PR.4.4. Technician logs, including body position and patient activity, are part of the attended portable study.</p> <ol style="list-style-type: none"> 1. Score 1 if detailed technician logs are part of the study, and include body position, patient activity and level of snoring. 2. Score 3 if technician logs are present. 3. Score 5 if technician logs are absent. 	<p>1 3 5 NA</p>
<p>PR.4.5. A written protocol for portable monitoring is part of the policies and procedures manual.</p> <ol style="list-style-type: none"> 1. Score 1 if the center has a detailed protocol for attended portable recording, including a description of the patients appropriate for such studies, acceptable locations and technical requirements. 2. Score 3 if the center has guidelines for attended portable monitoring based on the protocol for in-laboratory studies. 3. Score 5 if the center performs but does not have a protocol for attended portable studies. 	<p>1 3 5 NA</p>

PR.5. Related procedures for the diagnosis of sleep-related breathing disorders, if used, must follow written protocols.

Standards

- (1) *If used for the diagnosis of sleep-related breathing disorders, unattended studies must follow the recommendations of the AASM position statement: “Indications for the Clinical Use of Unattended Portable Recording for the Diagnosis of Sleep-Related Breathing Disorders.”⁵*
- (2) *If used, written protocols must be available for actigraphy, maintenance of wakefulness testing, temperature monitoring or other related monitoring procedures.*

Intent

In some instances, limited, unattended studies may aid in the diagnosis and treatment of sleep disorders. The center must follow published indications for limited studies. The professional staff should be aware of the limitations of the equipment used and the relationship of the data provided to standard polysomnography. Limited studies may provide useful information in some circumstances. If used, centers must have explicit guidelines for the use of these studies.

Scoring of Section PR.5

<p>PR.5.1. The center follows the recommendations of the AASM position statement: “Indications for the Clinical Use of Unattended Portable Recording for the Diagnosis of Sleep-Related Breathing Disorders.”⁵</p> <ul style="list-style-type: none"> 1. Score 1 if the center performs unattended portable recording identical to full polysomnography with the exception that the technician does not observe the patient. 2. Score 3 if the center uses unattended portable recording: A) For patients with severe clinical symptoms that are indicative of a diagnosis of OSA and when initiation of treatment is urgent and standard polysomnography is not readily available. B) For patients unable to be studied in the laboratory. C) For follow-up studies when a diagnosis has been established by standard polysomnography. The center must provide level II or level III studies, with documented body position and recording of unprocessed data. 3. Score 5 if the center performs unattended portable studies on patients not appropriate for this level of study or without appropriate technology. 4. Score NA if the center does not perform unattended portable studies. 	<p>1 3 5 NA</p>
---	-----------------

<p>P.R.5.2. Written protocols for all related procedures including actigraphy, maintenance of wakefulness and temperature logs, etc. are part of the policies and procedures manual.</p> <ol style="list-style-type: none"> 1. Score 1 if the center has detailed written protocols for all related procedures including a description of patients appropriate for such tests and technical requirements. 2. Score 3 if the center has protocols for all related procedures. 3. Score 5 if the center does not have protocols for all related procedures performed. 	<p>1 3 5 NA</p>
--	-----------------

Scoring and Interpretation of Polysomnographic Data

SC.1. Polysomnograms must be scored for sleep stages on an epoch-by-epoch basis in accordance with the criteria of Rechtschaffen and Kales, or reasonable variances are documented.

Standards

- (1) *Each epoch of each polysomnogram must be assigned a sleep stage in accordance with the criteria of Rechtschaffen and Kales, when age appropriate.*
- (2) *If used, computer-assisted scoring must be reviewed on an epoch-by-epoch basis for accuracy.*
- (3) *A sample of recordings must be used to determine the inter-scorer reliability between all scorers and the board-certified sleep specialist.*

Intent

Sleep stage scoring in accordance with the criteria of Rechtschaffen and Kales is essential for communication of basic results of sleep studies between centers. Evaluation of sleep stages is critical in the diagnosis of sleep disorders. The accuracy of computer assisted scoring varies from patient to patient. Therefore, each study must be reviewed for scoring accuracy. A sample of recordings must be scored for sleep stages by more than one staff member (technical or professional) and be used to derive a measure of inter-scorer reliability between all scorers and the board-certified sleep specialist. A consistent bias or failure to reach reliability criteria should be discussed and resolved, with the criteria of Rechtschaffen and Kales as the gold standard.

Scoring of Section SC.1

<p>SC.1.1. Polysomnograms are scored for sleep stages on an epoch-by-epoch basis according to the criteria of Rechtschaffen and Kales.</p> <ol style="list-style-type: none"> 1. Score 1 if each epoch of each polysomnogram is assigned a sleep stage in accordance with the criteria of Rechtschaffen and Kales, when age appropriate. 2. Score 3 if some epochs of some polysomnograms are assigned a sleep stage with reasonable modifications from Rechtschaffen and Kales based on well-defined protocols for scoring and criteria for use, with modified sleep stage scoring identified in the study report. 3. Score 5 if scoring is not based on Rechtschaffen and Kales or deviations are unreasonable or are not well defined. 	<p>1 3 5</p>
<p>SC.1.2. If used, computer assisted scoring is reviewed for accuracy.</p> <ol style="list-style-type: none"> 1. Score 1 if computer assisted scoring is reviewed on an epoch-by-epoch basis and variations from the criteria of Rechtschaffen and Kales are corrected, when appropriate. 2. Score 5 if computer assisted scoring is used but not consistently reviewed for accuracy. 3. Score NA if computer assisted scoring is not used. 	<p>1 5 NA</p>
<p>SC.1.3. Inter-scorer reliability between all scorers and a board-certified sleep specialist is assessed and documented at regular intervals.</p> <ol style="list-style-type: none"> 1. Score 1 if the reliability of scoring of all scorers and a board-certified sleep specialist is assessed on a monthly basis. 2. Score 3 if the reliability of scoring of all scorers and a board-certified sleep specialist is assessed on a quarterly basis. 3. Score 5 if the reliability of scoring of all personnel in the center scoring polysomnograms is not assessed at least quarterly. 	<p>1 3 5</p>

SC.2. The number and type of sleep-related breathing events must be used to calculate an index.

Standards

- (1) *The number of sleep-related breathing events must be counted for each polysomnogram and used to derive an index.*
- (2) *Separate counts of obstructive, mixed and central apneas, as well as hypopneas, must be calculated.*

Intent

Counts of the number of sleep-related breathing events, normalized for the duration of sleep recorded, are essential for the diagnosis of sleep apnea. The type of sleep-related breathing events must be assessed.

Scoring of Section SC.2

<p>SC.2.1. A sleep-related breathing event index is calculated for each polysomnogram.</p> <ol style="list-style-type: none"> 1. Score 1 if each polysomnogram report contains separate indices for obstructive, mixed and central apneas, hypopneas, and an overall apnea/hypopnea index. 2. Score 3 if each polysomnogram report contains an overall apnea/hypopnea index. 3. Score 5 if some or all polysomnogram reports do not contain an apnea/hypopnea index. 	<p>1 3 5</p>
<p>SC.2.2. Obstructive, mixed and central apneas are counted, as well as hypopneas.</p> <ol style="list-style-type: none"> 1. Score 1 if respiratory events are described by type, duration, body position and sleep stage. 2. Score 3 if obstructive, mixed and central apneas are counted, as well as hypopneas. 3. Score 5 if sleep-related breathing events are not categorized. 	<p>1 3 5</p>

SC.3. The number of limb movements must be scored and used to derive an index.

Standard

- (1) *The number of limb movements must be counted for each polysomnogram and used to derive an index of periodic limb movement.*

Intent

Counts of the number of limb movement events, normalized for the duration of sleep recorded, are essential for the diagnosis of periodic limb movement disorder.

Scoring of Section SC.3

<p>SC.3.1. Each polysomnogram contains a periodic limb movement event index.</p> <ol style="list-style-type: none"> 1. Score 1 if each polysomnogram report describes the number and frequency, and counts the leg movements associated with EEG arousals in addition to those without EEG arousals, following published guidelines. 2. Score 3 if each polysomnogram report contains a periodic limb movement event index, following published guidelines. 3. Score 5 if some or none of the polysomnogram reports contain a periodic limb movement event index. 	<p>1 3 5</p>
--	--------------

SC.4. Raw data from each polysomnogram must be reviewed by the interpreting staff member in sufficient detail to insure that the stage scoring and event detection is correct.

Standards

- (1) *The staff member interpreting the study must document review of the raw data of the entire polysomnogram; review of processed data or summaries is not an adequate substitute.*

Intent

The interpreting staff member takes responsibility for insuring that the numerical data provided as part of the sleep study report is correct. "Spot-checks" of sleep stage may be performed, but the entire record must be reviewed by the interpreting staff member. Some computer systems allow compression of data (e.g., 60 seconds per computer screen), allowing for rapid review of the record. However, key elements (such as heart rhythm and EEG features) must be easily seen at the level of compression used.

Scoring of Section SC.4

<p>SC.4.1. The interpreting staff member reviews the entire record. 1. Score 1 if the interpreting staff member reviews the entire record. 2. Score 5 if the interpreting staff member fails to review the entire record.</p>	<p>1 5</p>
<p>SC.4.2. The interpreting staff member signs and dates each record, report or chart verifying review of the raw data. 1. Score 1 if the interpreting staff member signs and dates each record, report or chart verifying review of the raw data. 2. Score 5 if the interpreting staff member does not sign and date each record, report or chart verifying review of the raw data.</p>	<p>1 5</p>

SC.5. The Diplomate of the ABSM, or an individual who has been accepted by the American Board of Sleep Medicine (ABSM) to sit for its certification exam, must verify the accuracy of the interpretation of polysomnograms.

Standards

- (1) *A Diplomate of the ABSM, or an individual who has been accepted by the American Board of Sleep Medicine (ABSM) to sit for its certification exam, must sign and date each polysomnogram interpretation indicating quality assurance.*
- (2) *The Diplomate of the ABSM, or an individual who has been accepted by the American Board of Sleep Medicine (ABSM) to sit for its certification exam, must review each record in sufficient detail to assure the quality of the interpretation.*

Intent

The Diplomate of the ABSM, or an individual who has been accepted by the American Board of Sleep Medicine (ABSM) to sit for its certification exam, is responsible for quality control in the center. This includes interpretation of polysomnograms. The Diplomate of the ABSM, or an individual who has been accepted by the American Board of Sleep Medicine (ABSM) to sit for its certification exam, decides, based on the experience of the interpreting staff member, the level of review that is necessary to assure quality.

Scoring of Section SC.5

<p>SC.5.1. The Diplomate of the ABSM, or an individual who has been accepted by the American Board of Sleep Medicine (ABSM) to sit for its certification exam, reviews each record in sufficient detail to assure the quality of the interpretation.</p> <ol style="list-style-type: none">1. Score 1 if a Diplomate of the ABSM, or an individual who has been accepted by the American Board of Sleep Medicine (ABSM) to sit for its certification exam, reviews each record in sufficient detail to assure the quality of the interpretation.2. Score 5 if Diplomate of the ABSM, or an individual who has been accepted by the American Board of Sleep Medicine (ABSM) to sit for its certification exam, fails to review each record in sufficient detail to assure the quality of the interpretation.	1 5
<p>SC.5.2. A Diplomate of the ABSM, or an individual who has been accepted by the American Board of Sleep Medicine (ABSM) to sit for its certification exam, signs and dates each polysomnogram interpretation indicating quality assurance.</p> <ol style="list-style-type: none">1. Score 1 if a Diplomate of the ABSM. or an individual who has been accepted by the American Board of Sleep Medicine (ABSM) to sit for its certification exam, signs and dates each polysomnogram interpretation indicating quality assurance.2. Score 5 if a Diplomate of the ABSM, or an individual who has been accepted by the American Board of Sleep Medicine (ABSM) to sit for its certification exam, does not sign and date each polysomnogram interpretation indicating quality assurance.	1 5

Patient Referral, Management and Follow-up

PT.1. Each center must have written criteria for patient acceptance, which must include age, a referral mechanism, and exclusions.

Standards

- (1) *Written criteria for patient referral must be present, which must include age, a referral mechanism, and exclusions.*
- (2) *The information required from referral sources prior to polysomnography must be specified. For directly referred patients, this must include, at a minimum, the appropriate elements of the general evaluation specified in the AASM Practice*

Parameters for the Indications for Polysomnography and Related Procedures¹ as well as any other information that may be required for emergency medical personnel.

- (3) *For directly referred patients, the medical director or a designated center staff physician must review the information provided for each patient and determine if the proposed evaluation conforms to the AASM Practice Parameters for the Indications for Polysomnography and Related Procedures¹, or if not whether the evaluation is indicated for other reasons.*

Intent

It is strongly recommended that all patients be seen by a sleep staff physician prior to polysomnography. In some instances, centers may accept “direct referral” to the laboratory for testing from some sources (e.g., patients referred for polysomnography via established relationships with otolaryngologists). Decisions regarding acceptance of these patients should be made by the leadership of the center, and a written policy for these referrals must be maintained. The medical director or designee has responsibility for patients during the polysomnogram and that information necessary to provide an accurate interpretation of the study is available. In addition to the relevant clinical information, pertinent information regarding the patient's medical history must be present in the laboratory should an emergency arise. This must include medications, allergies to medications and significant medical conditions. The medical director or sleep staff physician must insure that each patient referred meets the minimum indications prior to polysomnography as specified in the AASM Clinical Practice Parameters¹ or indicate why there is a valid exception.

Scoring of Section PT.1

<p>PT.1.1. Written criteria including patient’s age, a referral mechanism and exclusions are part of the center’s policies and procedures manual and are followed.</p> <ol style="list-style-type: none"> 1. Score 1 if the policies and procedures manual contains a detailed description of the referral criteria, age and exclusions, and procedures to be followed for evaluation of the appropriateness of the referral. 2. Score 3 if written criteria for patient acceptance are part of the center’s policies and procedures manual but is not detailed. 3. Score 5 if the center fails to have written criteria or fails to follow criteria for patient acceptance. 	<p>1 3 5</p>
<p>PT.1.2. Each patient chart includes medications, allergies to medications and medical conditions.</p> <ol style="list-style-type: none"> 1. Score 1 if charts of all patients, including any “direct referrals,” have a complete list of medications, allergies to medications and medical conditions. 2. Score 5 if some or all patient charts do not include medications, allergies to medications or medical conditions. 	<p>1 5</p>

<p>PT.1.3. The medical director, sleep physician designee, or ABSM Diplomate reviews, signs and dates charts of “direct referral” patients, if any, indicating that the indications for polysomnography have been met prior to polysomnography.</p> <ol style="list-style-type: none"> Score 1 if the medical director or sleep physician designee reviews, signs and dates charts of “direct referral” patients, if any, indicating that the indications for polysomnography have been met. Score 5 if the medical director or sleep physician designee fails to sign and date some or all charts of “direct referral” patients, if any, indicating that the indications for polysomnography have been met. 	<p>1 5 NA</p>
<p>PT.1.4. Each patient chart includes a sleep history and medical history.</p> <ol style="list-style-type: none"> Score 1 if charts of all patients, including any “direct referrals,” have a detailed sleep history and medical history. Score 5 if some or all patient charts do not have a sleep history or medical history or it is inadequate. 	<p>1 5</p>
<p>PT.1.5. Each patient is seen by a sleep staff physician prior to polysomnography.</p> <ol style="list-style-type: none"> Score 1 if all patients are seen by a sleep staff physician prior to polysomnography. Score 3 if some patients are seen by a sleep staff physician prior to polysomnography. Score 5 if no patients are seen by a sleep staff physician prior to polysomnography. 	<p>1 3 5</p>

PT.2. Each patient seen at the center by a staff physician must have a complete medical record.

Standards

- Charts of sleep center patients must be identified as such.*
- Charts must reflect all of the patient’s interactions in the sleep center, including initial evaluation, testing (if any), diagnosis, treatment and follow up.*
- Reports from associated practitioners (if any) must be part of the patient chart.*
- Appropriate releases must be present if outside information is requested or if the sleep center records are sent out.*
- Charts of sleep center patients must have standard organization with tabs.*

Intent

A centralized chart is critical to follow the progress of the patient during evaluation in the Sleep Disorders Center. If not physically separate, a mechanism must be in place to allow rapid identification of charts by sleep center staff. A checklist or other method should be used to allow rapid assessment of the completeness of the sleep center

evaluation. The chart should contain all aspects of the sleep center evaluation, including the reports from associated practitioners. Narrative entries are a useful way to monitor the progress of the patient in diagnosis and treatment. The center evaluation is a medical evaluation and appropriate procedures regarding the acquisition of data from outside sources and the release of information to outside sources must be followed.

Scoring of Section PT.2

<p>PT.2.1. Charts of sleep center patients are identified as such.</p> <ol style="list-style-type: none"> 1. Score 1 if sleep center charts are stored separately and are easily accessible by all center staff, including polysomnographic technicians. 2. Score 3 if sleep center patient charts can be readily identified. 3. Score 5 if sleep center patient charts are intermingled with other patient charts. 	<p>1 3 5</p>
<p>PT.2.2. Charts reflect all of the patient's interactions in the sleep center, including initial evaluation, testing (if any), diagnosis, treatment and follow up.</p> <ol style="list-style-type: none"> 1. Score 1 if the chart contains all of the interactions with the patient and a mechanism exists for insuring that all patients receive appropriate and complete care. 2. Score 3 if the chart contains references to all patient contacts. 3. Score 5 if the chart fails to contain references to all patient contacts. 	<p>1 3 5</p>
<p>PT.2.3. Reports from associated practitioners are part of the patient chart.</p> <ol style="list-style-type: none"> 1. Score 1 if associated practitioner reports are part of the patient's chart. 2. Score 5 if associated practitioner reports are not part of the patient's chart. 	<p>1 5</p>
<p>PT.2.4. Appropriate releases are present if outside information is requested or if the sleep center records are sent out.</p> <ol style="list-style-type: none"> 1. Score 1 if appropriate releases are present if outside information is requested or if the sleep center records are sent out. 2. Score 5 if appropriate releases are not present if outside information is requested or if the sleep center records are sent out. 	<p>1 5</p>
<p>PT.2.5. Charts for sleep center patients are well organized with tabs.</p> <ol style="list-style-type: none"> 1. Score 1 if all charts are well organized by major sections with tabs. 2. Score 3 if charts are organized but not detailed. 3. Score 5 if charts are unorganized. 	<p>1 3 5</p>

Quality Assurance

QA.1. The center must have a written, ongoing quality assurance program.

Standards

- (1) *The quality assurance program must address inter-scorer reliability based on epoch comparisons and at least three other QA indicators.*
- (2) *A Diplomate of the ABSM must review, report and modify as necessary the quality assurance program on a quarterly basis.*

Intent

A written quality assurance program documents and encourages continuous improvement of the delivery of services. Suggestions for programs include monitoring of “sentinel events” indicating patient risk for injury, patient satisfaction and timeliness of reports. A Diplomate of the ABSM is responsible for quality assurance. Other aspects of quality assurance are addressed elsewhere in this document.

Scoring of Section QA.1

<p>QA.1.1. A comprehensive quality assurance program is specified in the policies and procedures manual.</p> <ol style="list-style-type: none"> 1. Score 1 if the center has a formal, written quality assurance program that addresses inter-scorer reliability based on epoch comparisons and at least three other QA indicators. 2. Score 3 if comprehensive quality assurance indicators are specified in the policies and procedures manual including inter-scorer reliability based on epoch comparisons. 3. Score 5 if the center does not have a quality assurance program or it is incomplete. 	<p>1 3 5</p>
<p>QA.1.2. A quarterly report, signed by Diplomate of the ABSM, describes the results of the quality assurance program.</p> <ol style="list-style-type: none"> 1. Score 1 if the Diplomate of the ABSM and the medical director sign a quarterly report of the quality assurance program indicating problems identified and methods for addressing them. 2. Score 3 if a quarterly report, signed by a Diplomate of the ABSM, describes the results of the quality assurance program. 3. Score 5 if the results of the quality assurance program are not reported or done quarterly or are not signed. 	<p>1 3 5</p>

Personnel

PE.1. Written duties and responsibilities must be maintained for all center staff positions.

Standards

- (1) *Written duties and responsibilities for each position in the center must be specified in the policies and procedures manual and kept in an appropriate location.*

Intent

The job description specifies the educational requirements, qualifications and duties of center staff.

Scoring of Section PE.1

PE1.1. Written duties and responsibilities for all technical and professional center staff must be present in an appropriate location. 1. Score 1 if complete and up to date duties and responsibilities are present for all center staff in a appropriate location and are reviewed, dated and signed by the medical director. 2. Score 3 if written duties and responsibilities are present for all center staff in an appropriate location. 3. Score 5 if written duties and responsibilities for all center staff are incomplete or absent.	1 3 5
--	-------

PE.2. The center must have a sufficient number of adequately trained and supervised technicians.

Standards

- (1) *Technicians must have valid certification in cardiopulmonary resuscitation.*
- (2) *The technical staff is able to perform the duties indicated in the appropriate Polysomnographic Technician Job Description⁶.*
- (3) *Technician staffing must be adequate to address the workload of the center and assure the safety of patients. It is recommended that there be a ratio of one technician to two patients under most circumstances.*
- (4) *It is recommended that the center have at least one registered polysomnographic technician on staff.*

Intent

The center must have personnel trained in cardiopulmonary resuscitation available at all times during patient testing. The technicians responsible for patient care must have cardiopulmonary resuscitation training. The number and timing of patients must allow the technician sufficient time to begin and end recordings at times that approximate the patient's bedtime and rising time. Under most conditions, a ratio of one technician to two patients is considered adequate to assure the safety of patients.

Scoring of Section PE.2

<p>PE.2.1. Technicians have valid certification in cardiopulmonary resuscitation.</p> <ol style="list-style-type: none"> 1. Score 1 if all technicians have valid certification in cardiopulmonary resuscitation. 2. Score 5 if not all technicians have valid certification in cardiopulmonary resuscitation. 	<p>1 5</p>
<p>PE.2.2. The technical staff performs the duties indicated in the appropriate Polysomnographic Technician Job Description⁶.</p> <ol style="list-style-type: none"> 1. Score 1 if the center's technicians are thoroughly familiar with all instrumentation used in the sleep laboratory, have a working knowledge of the physiological and behavioral aberrations associated with sleep, and are capable of rapid interpretation of physiologic tracings so as to be able to intervene appropriately during a study. 2. Score 3 if the technicians are familiar with the equipment, are able to recognize normal and abnormal sleep patterns, and can recognize medical emergencies. 3. Score 5 if the technicians fail to perform the duties listed in the position statement. 	<p>1 3 5</p>
<p>PE.2.3. Use of less than a ratio of one technician to two patients must be justified in accordance with technician staffing guidelines.</p> <ol style="list-style-type: none"> 1. Score 1 if the ratio of technicians to patients is always at least one to two. 2. Score 3 if the ratio of technicians to patients is one to two, with instances in which the ratio is less defined and circumstances are reasonable and well-defined in the policies and procedures manual. 3. Score 5 if the ratio of technicians to patients is routinely less than one to two and circumstances are reasonable and well-defined in the policies and procedures manual. 4. Score Fail if the ratio of technicians to patients is one to three or more. 	<p>1 3 5 Fail</p>
<p>PE.2.4. The center has registered polysomnographic technicians (RPSGTs).</p> <ol style="list-style-type: none"> 1. Score 1 if all technicians are registered. 2. Score 3 if there are one or more registered technicians. 3. Score 5 if there are no registered technicians. 	<p>1 3 5</p>

PE.3. The center must have adequate administrative, clerical and maintenance staff.

Standard

- (1) *Administrative, clerical and maintenance staff must be adequate to maintain reasonable quality assurance goals regarding timeliness of reports and patient satisfaction.*

Intent

Adequate delivery of care requires communication with patients as well as referring physicians and other health care providers. Adequate staffing is essential for these center activities.

Scoring of Section PE.3

PE.3.1. Adequate administrative, clerical and maintenance staff is present. 1. Score 1 if the center has staff adequate to monitor the fiscal health of the center, provide clerical support for scheduling, typing and answering telephones, and has sufficient maintenance staff to provide a clean testing environment. 2. Score 3 if the center has sufficient administrative, clerical and maintenance staff so that the function of the center is not impeded. 3. Score 5 if the center is adversely affected by insufficient administrative, clerical or maintenance staff.	1 3 5
---	-------

PE.4. The medical director must determine the qualifications and requirements of all sleep staff professionals.

Standard

- (1) *The qualifications and requirements of all sleep staff professionals must be determined by the medical director.*

Intent

Staff physicians may perform initial evaluations, interpret polysomnograms, provide medical coverage for the center and direct treatment under guidelines established by the medical director.

Scoring of Section PE.4

PE.4.1. The medical director must determine the qualifications and requirements of all sleep staff professionals. 1. Score 1 if the medical director develops criteria for center staff physicians. 2. Score 3 if the medical director has input for the appointment of center staff physicians. 3. Score 5 if the medical director has no input for the appointment of center staff physicians.	1 3 5
---	-------

REFERENCES

- (1) Clinical Practice Parameters Developed by the Standards of Practice Committee (collected). Available from the American Academy of Sleep Medicine, Rochester, MN, (507) 287-6006 or www.aasmnet.org.
- (2) American Medical Association Council on Ethical and Judicial Affairs Code of Medical Ethics Current Opinions with Annotations, 1998-99. Available from AMA Customer Service, (800) 621-8335.
- (3) Rechtschaffen, A. and Kales, A. *A manual of standardized terminology, techniques and scoring system for sleep stages of human subjects*. Brain Information Service/Brain Research Institute, University of California, Los Angeles, 1968. Call (310) 825-3417 to order.
- (4) Carskadon, et al. *Guidelines for the multiple sleep latency test (MSLT): a standard measure of sleepiness*. SLEEP 1986;9(4):519-524.
- (5) Clinical Practice Review Committee of the American Academy of Sleep Medicine. *Indications for the Clinical Use of Unattended Portable Recording for the Diagnosis of Sleep-Related Breathing Disorders*. ASDA News 6(1):19-20,22. Available from the American Academy of Sleep Medicine, Rochester, MN, (507) 287-6006 or www.aasmnet.org.
- (6) American Academy of Sleep Medicine, Association of Polysomnographic Technologists, Board of Registered Polysomnographic Technologists and American Society of Electroneurodiagnostic Technologists. Job Descriptions for Polysomnographic Trainee, Polysomnographic Staff Technician and Polysomnographic Technologist. Available from the American Academy of Sleep