Common Program Requirements
Sleep Medicine

Preface

The program requirements set forth here are to be considered common to all specialties, and are complete only when supplemented, where indicated and individually, by each specialty.

I. Introduction

A. Definition and Scope of the Specialty

Sleep medicine is a discipline of medical practice in which sleep disorders are assessed, monitored, treated, and prevented by using a combination of techniques (clinical evaluation, physiologic testing, imaging, and intervention) and medication. Specialists in sleep medicine are expected to:

1. participate in an interdisciplinary care of patients of all ages that incorporates aspects of psychiatry, neurology, internal medicine, epidemiology, surgery, pediatrics and basic science;

2. acquire detailed knowledge of the sleep and respiratory control centers, aphysiology, and neurobiology underlying sleep and wakefulness;

3. diagnose and manage sleep disorder patients in outpatient and inpatient settings.

II. Institutions

A. Sponsoring Institution

One sponsoring institution must assume ultimate responsibility for the program, as described in the Institutional Requirements, and this responsibility extends to fellow assignments at all participating institutions.

B. Participating Institutions

1. **Assignment to an institution must be based on a clear educational rationale, integral to the program curriculum, with clearly-stated activities and objectives. When multiple participating institutions are used, there should be assurance of the continuity of the educational experience.**

2. Assignment to a participating institution requires a letter of agreement with the sponsoring institution. Such a letter of agreement should:

a) identity the faculty who will assume both educational and supervisory responsibilities for fellows;

b) specify their responsibilities for teaching, supervision, and formal evaluation of fellows, as specified later in this document;

c) specify the duration and content of the educational experience; and

d) state the policies and procedures that will govern fellow education during the assignment.

III. Program Personnel and Resources

A. Program Director

1. There must be a single program director responsible for the program. The person designated with this authority is accountable for the operation of the program. In the event of a change of either program director or department chair, the program director should promptly notify the executive director of the RRC through the Web Accreditation Data System of the ACGME.

2. The Program Director, together with the faculty, is responsible for the general administration of the program, and for the establishment and maintenance of a stable educational environment. Adequate lengths of appointment for both the program director and faculty are essential to maintaining such an appropriate continuity of leadership.

3. Qualifications of the program director are as follows:

a) The program director must possess the requisite specialty expertise, as well as documented educational and administrative abilities.

b) The program director must be Board-**certified** in Internal Medicine, Pulmonology, Psychiatry, Pediatrics, Neurology, or Otolaryngology, and be certified **by the applicable ABMS**

board in sleep medicine **or possess qualifications judged to be acceptable by the sponsoring RRC**.

c) **The program director must be appointed in good standing and based at the primary teaching site**.

d) The program director must be fully committed to the fellowship program, and devote sufficient time to provide leadership and supervision to the program and its fellows.

4. **Responsibilities of the program director are as follows:**

a) **The program director must oversee and organize the activities of the educational program in all institutions that participate in the program. This includes selecting and supervising the faculty and other program personnel at each participating institution, appointing a local site director, and monitoring appropriate fellow supervision at all participating institutions.**

b) **The program director is responsible for preparing an accurate statistical and narrative description of the program as requested by the RRC, as well as updating annually both program and fellow records through the ACGME's Accreditation Data System.**

c) **The program director must ensure the implementation of fair policies, grievance procedures, and due process, as established by the sponsoring institution and in compliance with the Institutional Requirements.**

d) **The program director must seek the prior approval of the RRC for any changes in the program that may significantly alter the educational experience of the fellows. Such changes, for example, include:**

(1) **the addition or deletion of a participating institution;**

(2) **a change in the format of the educational program;**

(3) **a change in the approved fellow complement** for those specialties that approve fellow-complement.

On review of a proposal for any such major change in a program, the RRC may determine that a site visit is necessary.

B. Faculty

1. **At each participating institution, there must be a sufficient number of faculty with documented qualifications to instruct and supervise adequately all fellows in the program.**

2. **The faculty, furthermore, must devote sufficient time to the educational program to fulfill their supervisory and teaching responsibilities. They must demonstrate a strong interest in the education of fellows, and must support the goals and objectives of the educational program of which they are a member.**

   Appropriate expertise in the areas defined above in Section I must be present between the Director and faculty. The RRC recognizes that expertise in sleep medicine is available from physicians who are Board certified in many medical specialties, particularly in Internal Medicine, Pulmonology, Psychiatry, Pediatrics, Neurology, and Otolaryngology. The RRC encourages multidisciplinary cooperation in educating fellows.

3. **Qualifications of the physician faculty are as follows:**

   a) The physician faculty must possess the requisite specialty expertise and competence in clinical care and teaching abilities, as well as documented educational and administrative abilities and experience in their field.

   b) The physician faculty must be Board-certified in Internal Medicine, Pulmonology, Psychiatry, Pediatrics, Neurology, or Otolaryngology, and be certified by the applicable ABMS board in sleep medicine **or possess qualifications judged to be acceptable by the RRC.**

   c) The physician faculty must be appointed in good standing to the staff of an institution participating in the program.

4. **The responsibility for establishing and maintaining an environment of inquiry and scholarship rests with the faculty, and an active research component must be included in each program. *Scholarship* is defined as the following:**

a) the scholarship of *discovery*, as evidenced by peer-reviewed funding or by publication of original research in a peer-reviewed journal;

b) the scholarship of *dissemination*, as evidenced by review articles or chapters in textbooks;

c) the scholarship of *application*, as evidenced by the publication or presentation of, for example, case reports or clinical series at local, regional, or national professional and scientific society meetings.

Complementary to the above scholarship is the regular participation of the teaching staff in clinical discussions, rounds, journal clubs, and research conferences in a manner that promotes a spirit of inquiry and scholarship (e.g., the offering of guidance and technical support for fellows involved in research such as research design and statistical analysis); and the provision of support for fellows' participation, as appropriate, in scholarly activities.

5. Qualifications of the nonphysician faculty are as follows:

a) Nonphysician faculty must be appropriately qualified in their field.

b) Nonphysician faculty must possess appropriate institutional appointments.

6. Other Program Personnel

Additional necessary professional, technical, and clerical personnel must be provided to support the program.

7. Resources

The program must ensure that adequate resources (e.g., sufficient laboratory space and equipment, computer and statistical consultation services) are available.

IV. Fellow Appointments

A. Eligibility Criteria

The program director must comply with the criteria for fellow eligibility as specified in the Institutional Requirements.

B. Number of Fellows

The program will approve the number of fellows based upon established written criteria that include the adequacy of resources for fellow education (e.g., the quality and volume of patients and related clinical material available for education), faculty-fellow ratio, institutional funding, and the quality of faculty teaching.

C. Fellow Transfers

To determine the appropriate level of education for fellows who are transferring from another residency program, the program director must receive written verification of previous educational experiences and a statement regarding the performance evaluation of the transferring fellow prior to their acceptance into the program. A program director is required to provide verification of residency education for fellows who may leave the program prior to completion of their education.

D. Appointment of Fellows and Other Students

The appointment of fellows, other specialty residents, or students must not dilute or detract from the educational opportunities available to regularly appointed fellows.

V. Program Curriculum

A. Program Design

1. Format

The program design and sequencing of educational experiences will be approved by the RRC as part of the review process.

2. Goals and Objectives

The program must possess a written statement that outlines its educational goals with respect to the knowledge, skills, and other attributes of fellows for each major assignment and for each level of the program. This statement must be distributed to fellows and faculty, and must be reviewed with fellows prior to their assignments.

B. Specialty Curriculum

The program must possess a well-organized and effective curriculum, both didactic and clinical. The curriculum must also provide fellows with direct experience in progressive responsibility for patient management.

C. Fellows Scholarly Activities

Each program must provide an opportunity for fellows to participate in research or other scholarly activities, and fellows must participate actively in such scholarly activities.

D. ACGME General Competencies

The program must require its fellows to obtain competence in the six areas listed below to the level expected of a new practitioner. Programs must define the specific knowledge, skills, behaviors, and attitudes required, and provide educational experiences as needed in order for their fellows to demonstrate the following:

1. ***Patient care* that is compassionate, appropriate, and effective for the treatment of health programs and the promotion of health;**

2. ***Medical knowledge* about established and evolving biomedical, clinical, and cognate sciences, as well as the application of this knowledge to patient care;**

3. ***Practice-based learning and improvement* that involves the investigation and evaluation of care for their patients, the appraisal and assimilation of scientific evidence, and improvements inpatient care;**

4. ***Interpersonal and communication skills* that result in the effective exchange of information and collaboration with patients, their families, and other health professionals.**

5. ***Professionalism*, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to patients of diverse backgrounds;**

6. ***Systems-based practice*, as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide**

optimal health care.

VI. Fellow Duty Hours and the Working Environment

Providing fellows with a sound didactic and clinical education must be carefully planned and balanced with concerns for patient safety and fellow well-being. Each program must ensure that the learning objectives of the program are not compromised by excessive reliance on fellows to fulfill service obligations. Didactic and clinical education must have priority in the allotment of fellows' time and energy. Duty hour assignments must recognize that faculty and fellows collectively have responsibility for the safety and welfare of patients.

A. Supervision of Fellows

1. **All patient care must be supervised by qualified faculty. The program director must ensure, direct, and document adequate supervision of fellows at all times. Fellows must be provided with rapid, reliable systems for communicating with supervising faculty.**

2. **Faculty schedules must be structured to provide fellows with continuous supervision and consultation.**

3. **Faculty and fellows must be educated to recognize the signs of fatigue, and adopt and apply policies to prevent and counteract its potential negative effects.**

B. Duty Hours

1. **Duty hours are defined as all clinical and academic activities related to the residency program; i.e., patient care (both inpatient and outpatient), administrative duties relative to patient care, the provision for transfer of patient care, time spent in-house during call activities, and scheduled activities such as conferences. Duty hours do *not* include reading and preparation time spent away from the duty site.**

2. **Duty hours must be limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities.**

3. **Fellows must be provided with 1 day in 7 free from all educational and clinical responsibilities, averaged over a 4-week period, inclusive of call. *One day* is defined as 1 continuous 24-hour period free from all clinical, educational, and administrative duties.**

4. **Adequate time for rest and personal activities must be provided. This should consist of a 10-hour time period provided between all daily duty periods and after in-house call.**

C. On-call Activities

The objective of on-call activities is to provide fellows with continuity of patient care experiences throughout a 24-hour period. *In-house call* is defined as those duty hours beyond the normal work day, when fellows are required to be immediately available in the assigned institution.

1. **In-house call must occur no more frequently than every third night, averaged over a 4-week period.**

2. **Continuous on-site duty, including in-house call, must not exceed 24 consecutive hours. Fellows may remain on duty for up to 6 additional hours to participate in didactic activities, transfer care of patients, conduct outpatient clinics, and maintain continuity of medical and surgical care.**

3. **No new patients may be accepted after 24 hours of continuous duty.**

4. **At-home call (or pager call) is defined as a call taken from outside the assigned institution.**

    a) **The frequency of at-home call is not subject to the every-third- night limitation. At-home call, however, must not be so frequent as to preclude rest and reasonable personal time for each fellow. Fellows taking at-home call must be provided with 1 day in 7 completely free from all educational and clinical responsibilities, averaged over a 4-week period.**

    b) **When fellows are called into the hospital from home, the hours fellows spend in-house are counted toward the 80-hour limit.**

    c) **The program director and the faculty must monitor the demands of at-home call in their programs, and make scheduling adjustments as necessary to mitigate excessive service demands and/or fatigue.**

D. Moonlighting

1. Because residency education is a full-time endeavor, the program director must ensure that moonlighting does not interfere with the ability of the fellow to achieve the goals and objectives of the educational program.

2. The program director must comply with the sponsoring institution's written policies and procedures regarding moonlighting, in compliance with the ACGME Institutional Requirements.

3. Any hours a fellow works for compensation at the sponsoring institution or any of the sponsor's primary clinical sites must be considered part of the 80-hour weekly limit on duty hours. This refers to the practice of internal moonlighting.

E. Oversight

1. Each program must have written policies and procedures consistent with the Institutional and Program Requirements for fellow duty hours and the working environment. These policies must be distributed to the fellows and the faculty. Duty hours must be monitored with a frequency sufficient to ensure an appropriate balance between education and service.

2. Back-up support systems must be provided when patient care responsibilities are unusually difficult or prolonged, or if unexpected circumstances create fellow fatigue sufficient to jeopardize patient care.

F. Duty Hours Exceptions

An RRC may grant exceptions for up to 10% of the 80-hour limit to individual programs based on a sound educational rationale. Prior permission of the institution's GMEC, however, is required.

VII. Evaluation

A. Fellow

1. Formative Evaluation

The faculty must evaluate in a timely manner the fellows whom they supervise. In addition, the residency program must demonstrate that it has an effective mechanism for assessing

fellow performance throughout the program, and for utilizing the results to improve fellow performance.

a) Assessment should include the use of methods that produce an accurate assessment of fellows' competence in patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice.

b) Assessment should include the regular and timely performance feedback to fellows that includes at least semiannual written evaluations. Such evaluations are to be communicated to each fellow in a timely manner, and maintained in a record that is accessible to each fellow.

c) Assessment should include the use of assessment results, including evaluation by faculty, patients, peers, self, and other professional staff, to achieve progressive improvements in fellows' competence and performance.

d) Assessments by a faculty member must occur at least once every two months. Such evaluations are to be communicated to each fellow in a timely manner.

2. Final Evaluation

The program director must provide a final evaluation for each fellow who completes the program. This evaluation must include a review of the fellow's performance during the final period of education, and should verify that the fellow has demonstrated sufficient professional ability to practice competently and independently. The final evaluation must be part of the fellow's permanent record maintained by the institution.

B. Faculty

The performance of the faculty must be evaluated by the program no less frequently than at the midpoint of the accreditation cycle, and again prior to the next site visit. The evaluations should include a review of their teaching abilities, commitment to the educational program, clinical knowledge, and scholarly activities. This evaluation must include annual written confidential evaluations by fellows.

C. Program

The educational effectiveness of a program must be evaluated at least annually in a systematic manner.

1. **Representative program personnel (i.e., at least the program director, representative faculty, and one fellow) must be organized to review program goals and objectives, and the effectiveness with which they are achieved. This group must conduct a formal documented meeting at least annually for this purpose. In the evaluation process, the group must take into consideration written comments from the faculty, the most recent report of the GMEC of the sponsoring institution, and the fellows' confidential written evaluations. If deficiencies are found, the group should prepare an explicit plan of action, which should be approved by the faculty and documented in the minutes of the meeting.**

2. **The program should use fellow performance and outcome assessment in its evaluation of the educational effectiveness of the residency program. Performance of program graduates on the certification examination should be used as one measure of evaluating program effectiveness. The program should maintain a process for using assessment results together with other program evaluation results to improve the residency program.**

VIII. Experimentation and Innovation

Since responsible innovation and experimentation are essential to improving professional education, experimental projects along sound educational principles are encouraged. Requests for experimentation or innovative projects that may deviate from the program requirements must be approved in advance by the RRC, and must include the educational rationale and method of evaluation. The sponsoring institution and program are jointly responsible for the quality of education offered to fellows for the duration of such a project.

IX. Certification

Fellows who plan to seek certification by Board should communicate with office of the specific specialty board regarding the full requirements for certification.

Program Requirements for Fellowship Education in Sleep Medicine

X. Educational Program

A. A subspecialty educational program in sleep medicine must be organized to provide educational and supervised experience at a level sufficient for the fellow to acquire competence in the field.

B. The educational program must be 1 year in duration.

1. At least 12 months of the program must be devoted to the inpatient and ambulatory clinical experiences.

2. Education must be separate and distinct from all education required for certification in the core sponsoring specialties and in pulmonary disease.

C. All applicants entering the sleep medicine residency must have completed a core educational program accredited by the ACGME in a sponsoring specialty. The sponsoring specialties are family medicine, internal medicine, neurology, otolaryngology, pediatrics, and psychiatry.

D. A sponsoring institution may have only one accredited sleep medicine program.

E. The sponsoring specialty (internal medicine, neurology, otolaryngology, pediatrics, or psychiatry) must have a core education program accredited by the ACGME.

XI. Faculty

There must be a minimum of 2 core clinical faculty members, including the Program Director. In programs with more than 4 fellows, a ratio of one core clinical faculty to every 2 fellows must be maintained.

XII. Facilities and Resources

A. Patient Population

1. There must be an adequate number and variety of patients of all ages in both inpatient and outpatient settings to expose fellows to the broad spectrum of sleep disorders.

a) Experience should include evaluation of hospitalized sleep disorder patients. Fellows should make regular patient management rounds and record reviews with the attending

faculty.

b) Experience should include longitudinal management of patients for whom the fellow is the primary physician (but acting under the supervision of a faculty member).

c) The patients seen by fellows must have a balance of age, gender, and short- and long-term disorders.

2. The patient population should include patients with the major categories of sleep disorders, including:

a) apnea and other sleep-related breathing disorders;

b) parasomnias;

c) circadian rhythm disorders;

d) insomnia;

e) narcolepsy and related excessive daytime sleepiness disorders; and

f) sleep problems related to other factors and diseases such as medications, and psychiatric and medical disorders.

B. Facilities

1. The sleep laboratory facility should be appropriately equipped, and have a minimum of 2 fully-equipped polysomnography bedrooms and support space. The American Academy of Sleep Medicine or an equivalent body should accredit the sleep laboratories and other related facilities and equipment for the use of both adults and children.

2. There must be adequate space and equipment for the educational program, including meeting rooms, classrooms with audiovisual and other educational aids, office space for staff and fellows, pertinent library materials, and diagnostic, therapeutic, and research facilities.

XIII. Specific Program Content

A. Clinical Experience

1. Fellows must have formal instruction, clinical experience, and

demonstrated competence in the following:

a) performing competent physical, neurological, and mental status examinations, and recording the findings completely and systematically;

b) integrating information obtained from patient history, physical examination, physiologic recordings, imaging studies, psychometric testing, pulmonary function testing, and biochemical and molecular tests results to arrive at an accurate and timely diagnosis and treatment plan;

c) diagnosing medical and psychiatric sleep disorders, as well as sleep disorders associated with common medical, neurologic, and psychiatric conditions;

d) formulating appropriate treatment plans and making appropriate referrals; and

e) observing, evaluating, and managing patients of all ages with a wide variety of sleep disorders.

2. Fellows must have formal instruction and clinical experience in:

a) systems-based skills that include working in outpatient and inpatient settings and effectively utilizing health care resources; and

b) the administration of sleep disorders center, especially leadership of interdisciplinary teams.

3. Fellows should have clinical experiences that provide for basic and advanced education, as well as professional development, including:

a) opportunities to formulate a clinical diagnosis and to order and use laboratory data to clinically evaluate a patient's condition and to support outpatient and inpatient diagnostic evaluations;

b) progressive experience for education that includes caring for a sufficient number of sleep disorder patients to achieve competence in the assessment of patients with a wide range of sleep medicine disorders;

c) experience with medical, neurologic, and psychiatric disorders displaying symptoms likely to be related to sleep disorders (e.g., the relationship between hypertension and snoring);

d) experience with the interactions between treatment for sleep disorders and other medical, neurologic, and psychiatric treatment;

e) experience and/or familiarity with the major types of therapy, including psychotherapy, pharmacotherapy, surgical treatment, behavioral treatments, and other somatic therapies;

f) clinical consults and teaching from the following disciplines as related to sleep disorders: cardiology, neurology, otolaryngology, oral maxillofacial surgery, pediatrics, pulmonary medicine, psychiatry, and psychology including neuropsychology, pathology, and radiology services; and

g) supervised experience in teaching sleep medicine to students in the health professions.

It is suggested that the above experiences are attained by multidisciplinary cooperation in the diagnosis and treatment of sleep patients.

B. Technical and Other Skills

1. Fellows must have formal instruction, clinical experience, and demonstrated competence at the completion of education in the following:

a) the indications for and potential pitfalls and limitations of diagnostic tests and the interpretation of the results in the context of the clinical situation. These diagnostic tests must include the following:

(1) polysomnography, scoring and interpretation of polysomnograms and recognition of artifacts, including montages with additional EEG leads for seizure detection;

(2) multiple sleep latency testing;

(3) maintenance of wakefulness testing;

(4) actigraphy;

(5) portable monitoring related to sleep disorders;

(6) imaging studies, magnetic resonance imaging; and

(7) psychological and psychometric tests as they relate to sleep disorders.

b) skills necessary to perform polysomnographies from preparation and hookup of the patient to the completion of the study, including multiple sleep latency and maintenance of wakefulness tests;

c) scoring and interpretation of polysomnograms and recognition of artifacts, including full montages with additional EEG leads for seizure detection;

d) consultative skills in sleep medicine in a variety of medical, surgical, and psychiatric settings;

e) certification in cardiopulmonary resuscitation; and

f) relating to patients and their families, as well as other members of the health care team, with compassion, respect, and professional integrity.

C. Formal Instruction

1. The education program must conduct a monthly, multidisciplinary teaching conference and a monthly journal club organized by the faculty on topics that cover the scope of sleep medicine.

2. The education program must conduct seminars and core conferences. This instruction must be relevant for pediatric and adult patients.

3. Fellows must have formal instruction in, and demonstrate comprehensive knowledge of:

a) fundamental mechanisms of sleep, major theories in sleep medicine, and the generally-accepted facts of basic sleep mechanisms:

(1) Basic neurological sleep mechanisms;

(2) Chronobiological mechanisms;

(3) Respiratory physiology during sleep and pathophysiology;

(4) Cardiovascular physiology during sleep and pathophysiology;

(5) Endocrine physiology during sleep and pathophysiology;

(6) Gastrointestinal physiology during sleep and pathophysiology;

(7) Ontogeny of sleep; and

(8) Sleep across the life span.

b) airway anatomy;

c) nosology for sleep disorders: *The International Classification of Sleep Disorders;*

d) etiopathogenic characterization of sleep disorders;

e) pharmacology of sleep (i.e. medication effects on sleep);

f) clinical manifestations of sleep disorders:

(1) evaluation of patients presenting with excessive sleepiness;

(2) evaluation of patients presenting with difficulty initiating or maintaining sleep;

(3) evaluation of patients presenting with parasomnias;

(4) biological rhythm disorders;

(5) pediatric and neonatal sleep medicine;

(6) SIDs and related respiratory distress;

(7) medical, neurologic, and psychiatric disorders displaying symptoms likely to be related to sleep disorders (e.g., the relationship between hypertension

and snoring);

(8) Biological, psychological, social, economic, ethnic, and familial factors which significantly influence the evaluation and treatment of sleep disorders; and

(9) The nature of the interactions between treatment for sleep disorders and other medical, neurologic, and psychiatric treatment.

g) diagnostic strategies in sleep disorders:

(1) etiologies, prevalence, diagnosis, and treatment of all of the sleep disorders in the current nosology of sleep medicine;

(2) the use, reliability, and validity of the generally-accepted techniques for diagnostic assessment; and

(3) administration and interpretation of psychological tests.

h) treatment strategies in sleep disorders:

(1) treatment approaches for obstructive sleep apnea, to include nasal CPAP, bilevel PAP, upper airway surgery, oral appliances, and position education;

(2) treatment approaches for insomnia, to include cognitive-behavioral therapies and pharmacological therapy;

(3) treatment approaches for narcolepsy and idiopathic CNS hypersomnolence;

(4) treatment approaches for parasomnias; and

(5) treatment of circadian rhythm disorders.

i) operation of polysomnographic monitoring equipment:

(1) polysomnographic troubleshooting;

(2) ambulatory monitoring methodology; and

(3) polysomnogram interpretation.

j) financing and regulation of sleep medicine;

k) medical ethics and its application in sleep medicine;

l) legal aspects of sleep medicine; and

m) epidemiological issues:

(1) research methods in the clinical and basic sciences related to sleep medicine; and

(2) critically appraising the professional and scientific literature, and applying new contributions to management and care of patients.

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