I) Education Goals

A) Patient Care - Learn the approach to patients with sleep disorders and build competency to evaluate, counsel, consult and manage them for delivering compassionate, effective and appropriate care.

B) Medical Knowledge - Demonstrate knowledge of common sleep diagnoses, evaluation tools, and management commensurate with the level of training

C) Practice-based Learning and Improvement - Develop skill to locate and learn evidence-based knowledge database, and assimilate feedback to describe a sleep disorder with an in-depth review

D) Interpersonal and Communication Skills - Communicate effectively to patients, their families, ancillary staff and other health professionals

E) Professionalism - Hold high ethical standards and demonstrate compassion, integrity and respect toward the patient and others.

F) Systems-based Practice - Understand local and national system of Sleep Medicine practice and patient care costs.

II) Core Competencies for this rotation

A) Patient Care
   1) Discuss common signs and symptoms of sleep disorders including sleep-disordered breathing and formulate appropriate treatment management.

   2) Perform history taking and physical examination focused on primary sleep disorders and sleep complaints secondary to other conditions encountered in general practice including pulmonary.

   3) Demonstrate an ability to interpret a polysomnogram (PSG), a multiple sleep latency test (MSLT) and a maintenance of wakefulness test (MWT), and data from portable monitoring devices, overnight trend oximetries, compliance downloads, Auto-positive airway pressure (APAP) therapy and the Epworth Sleepiness Scale (ESS).

   4) Order appropriate diagnostic tests to facilitate diagnosis and treatment.

   5) Identify common historical elements for all patients presenting with pulmonary disease including smoking history, occupational history, sleep history, environmental triggers for respiratory symptoms and family history.

   6) Apply the skills listed above to provide a clear, concise and legible consultation note and/or dictation, which directly answers the question asked by the primary care provider.

   7) Demonstrate effective communication through the informed consent process for minor procedures
8) Demonstrate caring and respectful behaviors when interacting with patients

9) Gather essential and accurate information from patients

10) Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence and clinical judgment

11) Develop and carry out patient management plans in association with the supervising physician

12) Counsel and educate patients and their families

13) Use information technology to support patient care decisions and patient education

14) Demonstrate competency in all medical and invasive procedures performed on this rotation

15) Demonstrate an ability to work with a variety of health care professionals to provide patient-focused care

16) Evaluation methods for this competency
   
   (a) Attending evaluation
   
   (b) Evaluations from clinic nurses and the Sleep Lab staff
   
   (c) Mini-CEX (to be arranged with attending)

B) Medical Knowledge

1) Describe the neurobiology of sleep and wakefulness and enumerate the physiological and medical consequences of sleep deprivation.

2) Explain scoring, rules, terminology, technical specifications of sleep, and associated events.

3) Describe etiopathogenesis, clinical manifestations and complications of sleep-related breathing disorders (obstructive sleep apnea, central sleep apnea, obesity hypoventilation syndrome and sleep-related hypoxemia).

4) Describe differential diagnosis of hypersomnolence and insomnia for the most common adult sleep disorders that present to an adult Sleep clinic.

5) Demonstrate knowledge of interpretation, indications and limitations of common sleep medicine practice tools like PSG, MSLT/MWT, portable monitoring and ESS.

6) Define approaches to sleep apnea treatment strategies such as PAP therapy utilizing continuous-PAP, Bi-level PAP, or adaptive servo-ventilation, upper airway surgery, maxilla-mandibular surgery, oxygen and positional therapy.

7) Recall medications’ effects on sleep and sleep disorders.

8) Demonstrate an ability to discuss recent readings relevant to patients seen in clinic or during rounds.

9) Read the suggested material listed at the end of this document.

10) Evaluation methods for this competency
(a) Attending evaluation
(b) Chart-stimulated recall sessions to be arranged with attending

C) Practice-based Learning and Improvement
   1) Present and critique a journal article on sleep disorder with emphasis on patient care for improved outcome.
   2) Recall current practice parameters, clinical guidelines and best practice guides on evaluation and management of sleep disorders published by the American Academy of Sleep Medicine (AASM).
   3) Evaluate a Sleep Medicine patient in outpatient sleep clinic under the supervision of a sleep medicine physician.
   4) Perform a complete PSG interpretation and review with the supervising physician.
   5) Select appropriate billing codes for all evaluation and management or procedures.
   6) Evaluation methods for this competency
      (a) Attending evaluation
      (b) MiniCEX in clinic to be arranged with attending

D) Interpersonal & Communication Skills
   1) Explain and present patient information handout (printouts from Epic or brochures) on Sleep disorders, prescribed therapy, and medication information as appropriate to patients seen in Sleep clinic.
   2) Sleep attending's observation of fellow's interaction with patients and their families during clinical encounters in outpatient settings.
   3) Explain and present patient information from diagnostic tests if ordered.
   4) Presentation at Sleep educational activities like Journal Club.
   5) Maintain a timely and comprehensive electronic medical record that is readable.
   6) Demonstrate an ability to develop a therapeutic and ethically sound relationship with patients and their families.
   7) Demonstrate an ability to use verbal and non-verbal skills to communicate effectively with patients.
   8) Demonstrate effective listening skills
   9) Elicit and provide information using effective nonverbal, explanatory, questioning and writing skills
  10) Demonstrate an ability to work effectively as a team member and team leader within the clinic.
  11) Demonstrate an ability to develop professional relationships with residents and other members of the health care team.
  12) Evaluation methods for this competency
E) Professionalism

1) Treat patients with compassion; demonstrate responsiveness to patient’s needs and respect patient’s autonomy and privacy.

2) Demonstrate sensitivity to patient’s age, sex, gender role, sexual orientation, culture, religion, race and disability.

3) Treat ancillary staff as a member of the team providing care.

4) Complete assigned responsibilities in timely fashion and with proper documentation.

5) Attend all educational activities including Journal Club, Case Conference, EEG Conference and didactics.

6) Demonstrate respect, integrity and honesty.

7) Accept responsibility for direct patient care activities.

8) Always act in the best interest of the patient.

9) Demonstrate a responsiveness to the needs of patients and society that supercedes self-interest.

10) Demonstrate accountability to patients, society and the profession.

11) Demonstrate a commitment to excellence and on-going professional development.

12) Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent and business practices.

13) Evaluation methods for this competency

   (a) Attending evaluation

   (b) Evaluations from clinic nurses and the Sleep Lab staff

   (c) Mini-CEX (to be arranged with attending)

F) System-based Practice

1) Understand definitions of and coverage for Sleep disorders under Medicare/Medicaid and other insurance carriers.

2) Demonstrate proper utilization of referral and consultant services for optimum patient care.

3) The fellow should understand how their patient care and other professional practices affect other health care professionals, the health care organization, and the larger society.

4) Practice cost-effective health care and resource allocation that does not compromise quality of care.
5) Advocate for quality patient care and assist patients in dealing with system complexities.

6) Evaluation methods for this competency
   
   (a) Attending evaluation
   
   (b) Evaluations from clinic nurses and the Sleep Lab staff

III) Instructional Methods

A) Clinical experience

1) The PCCM fellow on this rotation spends a full calendar month on the Sleep Medicine Rotation at the Nebraska Medical Center, providing high quality and timely care to include:

   (a) Sleep medicine care for outpatients of the Nebraska Medical Center. The fellow will:
      
      (i) Evaluate and provide effective care for sleep medicine patients
      
      (ii) Document evaluation and management plan for all sleep medicine patients seen in clinic.

B) Supervision and Performance of Procedures

1) The fellow will be expected to interpret all sleep medicine diagnostic studies assigned to them.

2) The fellow will be expected to perform procedures that are expected of a fellow-level trainee including but not limited to, bronchoscopy and chest tube placement.

C) Clinical Teaching

1) Faculty will be expected to discuss each clinical presentation by the fellow and provide guidance as needed on diagnosis and treatment.

2) The fellow will be expected to gather appropriate data and present in a succinct, yet complete manner.

D) Performance Feedback

1) The faculty will provide verbal feedback on a regular basis, at least weekly, on what the fellow has done well and what could be improved.

2) Fellow and supervising physician will review these goals and objectives at the beginning of the rotation

3) Fellow and supervising physician will meet in order to provide verbal, preferably face-to-face feedback at the completion of the rotation. This verbal feedback may be given by phone but the attending physician is required to provide a written evaluation of the fellow and attest that they have discussed this with the fellow. If the feedback was not face-to-face, the evaluation will be transmitted electronically to the fellow.

E) Didactic Sessions

1) The fellow will attend all Sleep Medicine conferences during the time on service.
2) The fellow assigned to this service will attend all scheduled fellow conferences. These are held each noon Tuesday and Wednesday in the Rennard Conference Room, SwH 4009 throughout the year and include Fridays during July and August. Journal Club and Research Conference are held in DRC 1004 on Thursdays from September through June.

3) Attend all Internal Medicine Conferences that do not conflict with Section Conferences. Internal Medicine Grand Rounds is held on Friday at noon, September through June, in the Durham Research Center Auditorium.

4) The fellow will provide at least one didactic session to students and residents on the service

F) Self-Learning

1) Review literature appropriate to care of sleep medicine patients.

2) Fellows will be expected to read the appropriate chapters in a Pulmonary Medicine textbook of their choice. Appropriate sections of eMedicine or Up-to-Date may be substituted.

3) Complete the reading assignments as outlined below.

IV) Program facility and fellow responsibilities

A) Program Facility Responsibilities

1) The Sleep Lab at The Nebraska Medical Center will provide access to the fellow for PSG and MSLT interpretation. Development of a basic level of proficiency is expected.

2) The University of Nebraska Medical Center Practice plan will provide clinic facilities for the fellow to attend outpatient Sleep clinics.

3) The Sleep Medicine faculty at UNMC will provide direct and indirect supervision of PSG/MSLT interpretations, ancillary tests (nocturnal trend oximeties, APAP) and in outpatient clinics.

4) The Sleep Medicine physicians of The Nebraska Medical Center will allow the Pulmonary/Critical Care fellow to evaluate patients referred for potential sleep disorders and to assist in their management of these patients.

B) Responsibilities of the Pulmonary/Critical Care Fellow

1) Sleep Clinic and Sleep Laboratory responsibilities

   (a) The fellow is responsible for interpretation of at least 5 PSGs under the direct supervision of a Sleep Medicine physician.

   (b) The fellow will attend the UNMC sleep clinic under the direct supervision of a Sleep Medicine physician.

C) Sleep rotation scholarly activity

1) The fellow must prepare and a present journal article on Sleep disorder (from peer-reviewed journal within 18 months of publication) at the Journal Club.

2) The fellow must attend to all scheduled educational sessions including didactics.
D) Readings during the Sleep Medicine rotation will include, but is not limited to the following resources, many of which are available in the Sleep Library located in the Sleep Fellow's workroom.

1) The AASM Manual for the Scoring of Sleep and Associated Events: Rules, Terminology and Technical Specification; AASM 2007. Edited by Con Iber, MD, assisted by a Steering Committee that included Sonia Ancoli-Israel, PhD, Andrew Chesson Jr., MD and Stuart Quan, MD.


3) Practice Parameters, Clinical Guidelines and Best Practice Guides published by the American Academy of Sleep Medicine. These can be accessed in the journals Sleep and Journal of Clinical Sleep Medicine, and the AASM Website (aasmnet.org/practiceguidelines.asp)

   (a) Polysomnography An Overview, pg. 3-12
   (b) Polysomnogram Scoring & Interpretation, pg. 15-35
   (c) Clinical Record Samples, pg. 38-183

5) Principles and Practice of Sleep Medicine: 5th Ed., Elsevier Saunders Co., Phil., PA 2011. This book is available in the section library. The following chapters are required reading:
   (a) Chap. 2 - Normal Human Sleep: An Overview
   (b) Chap. 3 - Normal Aging
   (c) Chap. 4 - Daytime Sleepiness and Alertness
   (d) Chap. 5 - Acute Sleep Deprivation
   (e) Chap. 6 - Chronic Sleep Deprivation
   (f) Chap. 19 - Cardiovascular Physiology: Central and Autonomic Regulation
   (g) Chap. 20 - Cardiovascular Physiology: Autonomic Control in Health and in Sleep Disorders
   (h) Chap. 21 - Respiratory Physiology: Central Neural Control of Respiratory Neurons and Motoneurons during Sleep
   (i) Chap. 22 - Respiratory Physiology: Understanding the Control of Ventilation
   (j) Chap. 23 - Normal Physiology of the Upper and Lower Airways
   (k) Chap. 24 - Respiratory Physiology: Sleep at High Altitudes
   (l) Chap. 41 - Circadian Disorders of the Sleep-Wake Cycle
   (m) Chap. 46 - Drugs That Disturb Sleep and Wakefulness
   (n) Chap. 56 - Approach to the Patient with Disordered Sleep
   (o) Chap. 57 - Cardinal Manifestations of Sleep Disorders
(p) Chap. 58 - Physical Examination in Sleep Medicine
(q) Chap. 59 - Use of Clinical Tools and Tests in Sleep Medicine
(r) Chap. 60 - Classification of Sleep Disorders
(s) Chap. 71 - Shift Work, Shift-Work Disorder and Jet Lag
(t) Chap. 77 - Insomnia: Diagnosis, Assessment, and Outcomes
(u) Chap. 83 - Treatment Guidelines for Insomnia
(v) Chap. 85 - Narcolepsy: Diagnosis and Management
(w) Chap. 86 - Hypersomnia
(x) Chap. 90 - Restless Legs Syndrome & Periodic Limb Movements during Sleep
(y) Chap. 94 - Non-REM Arousal Parasomnias
(z) Chap. 95 - REM Sleep Parasomnias
(aa) Chap. 100 - Central Sleep Apnea and Periodic Breathing
(bb) Chap. 101 - Anatomy and Physiology of Upper Airway Obstructions
(cc) Chap. 105 - Clinical Features and Evaluation of Obstructive Sleep Apnea and Upper Airway Resistance Syndrome
(dd) Chap. 107 - Positive Airway Pressure Treatment for Obstructive Sleep Apnea-Hypopnea Syndrome
(ee) Chap. 110 - Management of Obstructive Sleep Apnea - Hypopnea Syndrome
(ff) Chap. 111 - Sleep in Patients with Asthma and Chronic Obstructive Pulmonary Disease
(gg) Chap. 112 - Restrictive Lung Disorders
(hh) Chap. 114 - Obstructive Sleep Apnea & Metabolic Dysfunction
(ii) Chap. 119 - Cardiovascular Effects of Sleep-Related Breathing Disorders
(jj) Chap. 120 - Systemic and Pulmonary Hypertension in Obstructive Sleep Apnea
(kk) Chap. 134 - Obstructive Sleep Apnea in the Elderly
(ll) Chap. 138 - Sleep Disturbances and Sleep Related Disorders in Pregnancy
(mm) Chap. 142 - Monitoring Techniques for Evaluating Suspected Sleep-Disordered Breathing
(nn) Chap. 143 - Evaluating Sleepiness

6) Barkoukis TJ, Matheson J, Ferber R, Doghramji K, Therapy in Sleep Medicine, Saunders 2011

9) Lu BS, Zee PC. Circadian rhythms sleep disorders. Chest 2006;130:1915-23

V) Call Schedule and Vacations

A) On-Call Responsibility

1) There is no in-house on-call responsibility on this rotation for Sleep service; however, the fellow may be required to fulfill continued on-call responsibility to the Pulmonary, Critical Care Medicine (PCCM) fellowship as assigned by the PCCM program director.

B) Vacation

1) No more than one-week vacation is permitted during this rotation.

2) Emergency leave may be requested after discussion with the PCCM Program Director. The PCCM program director will then notify the Sleep Medicine program director and the rotation sleep attending.

C) Evaluations

1) At the conclusion of the rotation month, the rotation attending must complete a performance evaluation. The faculty must discuss evaluation with the fellow in a timely manner.

2) Likewise, the fellow must evaluate the faculty and the program.