Hennepin County
Medical Center

Sleep Medicine Fellowship Handbook

2017-2018 Policies and Guidelines

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Welcome

On behalf of the institution and the Department of Internal Medicine, welcome to Hennepin County Medical Center Sleep Medicine Fellowship at the Minnesota Regional Sleep Disorders Center [HCMC] and the University of Minnesota Sleep Medicine Program [UMMC]. We are pleased you have chosen to train in our Sleep Medicine Fellowship program with a long history of training fellows in preparation for clinical and academic Sleep Medicine.

This manual contains information about program policies and procedures, Fellow roles and responsibilities, the ACGME core competencies, and the national duty hour requirements.

Fellows are responsible for knowing and adhering to the guidelines and policies included in this handbook. If any questions or concerns arise, Fellows are expected to contact the Program Director.

Mission Statement

The core mission of the Sleep Medicine Fellowship at Hennepin County Medical Center is to provide outstanding training in the practice of Sleep Medicine by offering our Fellows the opportunity to practice in an atmosphere of supervised autonomy and of scholarly inquiry. Our faculty is committed to training professionally responsible physicians focused on patient care, medical education and scholarship.

THE SIX ACGME CORE COMPETENSIES

Medical Knowledge
Patient Care
Practice Based Learning and Improvement
Systems Based Practice
Professionalism
Interpersonal and Communication Skills

Medical Knowledge

Fellows must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care.

Fellows are expected to:

- **A.** Demonstrate an investigatory and analytic thinking approach to clinical situations
- **B.** Know and apply the basic and clinically supportive sciences which are appropriate to their discipline

Patient Care

Fellows must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

Fellows are expected to:

1. Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families
2. Gather essential and accurate information about their patients
3. Make informed decisions about diagnostic and therapeutic interventions based on patient information, preferences, up-to-date scientific evidence, and clinical judgment
4. Develop and carry out patient management plans
5. Counsel and educate patients and their families
6. Use information technology to support patient care decisions and patient education
7. Perform competently all medical and invasive procedures considered essential for the area of practice
8. Provide health care services aimed at preventing health problems or maintaining health
9. Work with health care professionals, including those from other disciplines, to provide patient-focused care

Practice Based Learning and Improvement

Fellows must be able to investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices.

Fellows are expected to:

1. Analyze practice experience and perform practice-based improvement activities using a systematic methodology
2. Obtain and use information about their own population of patients and the larger population from which their patients are drawn
3. Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems
4. Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
5. Use information technology to manage information, access on-line medical information; and support their own education
6. Facilitate the learning of students and other health care professionals

Systems Based Practice

Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.

Fellows are expected to:

1. Know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources
2. Practice cost effective health care and resource allocation that do not compromise quality of care
3. Advocate for quality patient care and assist patients in dealing with system complexities
4. Partner with health care managers and health care providers to assess, coordinate

Professionalism

Fellows must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

Fellows are expected to:

1. Demonstrate respect, compassion and integrity
2. Demonstrate a commitment to ethical principles
3. Demonstrate sensitivity and responsiveness to patients' culture, age, gender and disabilities

Interpersonal and Communication Skills

Fellows must be able to demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their patients' families, and professional associates.

Fellows are expected to:

1. Create and sustain a therapeutic and ethically sound relationship with patients
2. Use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills

3. Work effectively with others as a member or leader of a health care team or other professional group

COMPETENCY-BASED EDUCATIONAL GOALS AND OBJECTIVES

1. Patient Care
    a. Perform an adequate medical history and physical exam on patients in outpatient sleep clinic and inpatients seen on the inpatient consultation service
    b. Order appropriate diagnostic tests
    c. Interpret laboratory and portable sleep studies and other diagnostic sleep evaluations
    d. Form a clinical management plan
    e. Interact with other health care providers to implement patient-focused care

2. Medical Knowledge
    a. Demonstrate knowledge about established and evolving biomedical, clinical and cognate sciences during clinical encounters including discussions with patients, other health care providers (during office hours, in dictations to referring physicians, and in consultation notes in inpatient charts), weekly Clinical Case conferences, and Research conferences
    b. Attend the didactic sleep conferences held throughout the year
    c. Application of medical knowledge to patient care

3. Practice-based Learning and Improvement
    a. Fellows' presentations at Clinical Case Conference
    b. Fellows' presentations at Sleep Journal Club
    c. Perform a chart audit looking at agreed upon minimum requirements of evaluation and management of patients with various sleep disorders
    d. Compare polysomnographic scoring abilities against a gold standard
    e. Perform case-management practice exams

4. Interpersonal and Communication Skills
    a. Communication and interaction with other health care providers/support staff by participating in multidisciplinary practice meetings involving physicians, nurses, medical assistants, respiratory therapists and clinical support staff
    b. Communication and interaction with patients and their families during outpatient and inpatient clinical encounters
    c. Fellows' presentations at Clinical Case Conference, Journal Club and institutional didactic conferences

5. Professionalism
    a. Intranet courses on patient privacy, good clinical practices, and patient safety
    b. Encourage sensitivity to patients of diverse backgrounds
    c. Carrying out professional responsibilities and adherence to ethical principles
    d. Timely completion of assigned responsibilities including chart documentation, dictations, and polysomnographic studies
    e. Answer pages and patient phone calls in a timely fashion
    f. Attend the minimum number of required conferences (60%)

6. Systems-based Practice
    a. Participation in quality assurance/quality improvement project
    b. Participate in multidisciplinary practice meetings involving physicians, nurses, medical assistants, respiratory therapists and clinical support staff

CLINICAL TRAINING REQUIREMENTS

Based on a review of clinical volumes in current training programs, and on recommendations of the Sleep Medicine Advisory Committee, the Review Committee has determined that a program should have the following minimum clinical activity per year for each fellow

- Total patient encounters 580.
- Each fellow is expected to evaluate **100** new patients in the adult sleep medicine outpatient practice.
- Each fellow is expected to provide continuous care to **150** follow-up patients in the adult sleep medicine outpatient practice.
- Each fellow is expected to evaluate at least **40** new patients in the pediatric sleep medicine outpatient practice.
- Each fellow is expected to provide care to at least **40** follow-up patients in the pediatric sleep medicine outpatient practice.
- Each fellow is expected to evaluate a minimum of **10** inpatients with sleep medicine complaints from representative demographic groups.
- Each fellow is expected to review and interpret **200** polysomnographic studies, of which a minimum of 40 need to be pediatric-based.
- Each fellow is expected to review and interpret **25** Multiple Sleep Latency Tests (MSLTs) and/or Maintenance of Wakefulness Tests (MWTs).
- Each fellow is expected to score **25** polysomnograms, at least **5** of which must be in children.
- Each fellow will keep a log of his/her clinical activities that documents: the date of visit; the supervising faculty member's name; initials, MRN and DOB of patients seen in clinic and their diagnoses; date, PSGs interpreted, PSGs scored and MSLTs/MWTs interpreted. This log will be used to document that the fellow has fulfilled the clinical requirements set by the ACGME. These forms when completed must be turned into the Program Coordinator on a monthly basis for placement in portfolios.
- Each fellow is expected to develop and execute a quality management project [see appendix 1].

COMPETENCY-BASED RESPONSIBILITIES

Given the direct faculty supervision during many outpatient encounters, competency evaluation lends itself to checklist evaluation following supervised evaluations. Checklist provides timely and structured evaluations and feedback. This method will be supplemented by review of fellow patient care strategies in the dictated medical record compiled from the fellow continuity clinics. Mentors will evaluate general competencies as detailed below using check lists or record review in the following areas:

Competency	Required Skill	Implementation	Potential Evaluation Methods
Patient Care	Caring and	Provide care that is sensitive to	Checklist evaluation

	respectful behavior	each patient's age, gender, cultural, economic, and social circumstances	of live performance**
	Interviewing	Experience and competence with all age groups in the elements of clinical diagnosis such as interviewing; clear and accurate history taking; competent physical, neurological and mental status examinations; complete and systematic recording of findings; relating history and clinical findings to the relevant medical, neurologic, psychiatric and social issues associated with etiology and treatment	Checklist evaluation of live performance*
	Informed decision-making	Synthesize clinical history, physical examination findings, laboratory results and current scientific evidence to arrive at a correct diagnosis and treatment plan Formulating a differential diagnosis for all conditions in the current standard nosology, taking into consideration all relevant data	Checklist evaluation of live performance*
	Develop and carry out patient care management plans	Provide a written action plan for management of acute and chronic sleep disorders.	Record review
	Counsel and educate patient and families	Provide information necessary to understand illness and treatment	Checklist evaluation of live performance*
	Perform medical procedures	Perform routine physical examination, especially in relation to sleep disorders. Perform appropriate diagnostic and therapeutic procedures including sleep logs, actigraphy, psychometric tools, and polysomnographic studies.	Checklist evaluation of live performance* and record review

	Preventative health services	Provide information about sleep disorders, heritable, occupational, neurologic and psychiatric conditions in which prophylactic measures are appropriate	Checklist evaluation of live performance*
	Work within a team	Make appropriate referrals to other medical or surgical specialists	Checklist evaluation of live performance*

Competency	Required Skill	Implementation	Evaluation Method
Medical Knowledge	Investigatory and analytic thinking	Actively participate in designing and implementing basic or clinical research projects; present teaching conferences	Checklist evaluation of live performance*
	Knowledge and application of basic sciences	Know, critically evaluate and use current medical information and scientific evidence for patient care. conversant with medical, neurologic, and psychiatric disorders displaying symptoms likely to be related to sleep disorders (e.g. the relationship between hypertension and snoring); ability to diagnose medical and psychiatric sleep disorders, as well as sleep disorders associated with a common medical, neurologic, and psychiatric conditions; to formulate appropriate treatment plans; and to make appropriate referrals.	Record review
	Procedures and Skills	Fellows will be formally instructed and have clinical experience in the following skills: 1.Polysomnography 2.Multiple Sleep Latency Testing 3.Maintenance of Wakefulness Testing 4.Actigraphy 5.Portible Monitoring 6.Imaging Studies	Checklist evaluation of live performance* and record review

		7.Psychological and Psychometric Testing 8.Sleep Consultation 9.CPR 10.Sleep Professionalism	

Competency	Required Skill	Implementation	Evaluation Method
Practice-based Learning and Improvement	Analyze own practice for needed improvement	Analyze one's practice experience to recognize strengths, deficiencies, and limits in knowledge and expertise	Record review
	Use of evidence from scientific studies	Locating, appraising and assimilating evidence from scientific studies related to patient's health problems	Journal Club eval
	Application of research and statistical methods	Critically review published medical literature related to patient problems	Checklist evaluation of live performance*
	Use of information technology	Use information technology to manage information, access on-line medical information and support their own education	Checklist evaluation of live performance*
	Facilitate learning of others	Actively participate in the education of patients, families, students, Fellows and other health professionals	Checklist evaluation of live performance*
Competency	Required Skill	Implementation	Evaluation Methods
Interpersonal & Communication Skills	Creation of an appropriate professional relationship with patients	Communicate effectively with patients and families to create and sustain an appropriate professional relationship	Checklist evaluation of live performance*
	Listening skills	Enabling patients to be comfortable asking questions about their disease or treatment	Checklist evaluation of live performance*

Competency	Required Skill	Implementation	Evaluation Methods
Professionalism	Respectful,	Demonstrate respect,	Checklist evaluation

	altruistic	compassion, and integrity; a responsiveness to the needs of patients and society that supercedes self-interest	of live performance*
	Ethically sound practice	Demonstrate a commitment to ethical principles pertaining to patient privacy and autonomy, the provision or withholding of clinical care, confidentiality of patient information, informed consent, conflict of interest and business practices	Checklist evaluation of live performance*
	Sensitive to cultural, age, gender and disability issues	Demonstrate respect for the dignity of patients and colleagues as persons including their culture, age, gender and disabilities	Checklist evaluation of live performance*
Competency	Required Skill	Implementation	Evaluation Methods
Systems-based Practice	Understand interaction of their practices with the larger system	Work effectively in various health care delivery settings and systems	Checklist evaluation of live performance*
	Knowledge of practice and delivery systems	Know how types of medical practice and delivery systems differ from one another, including methods of controlling health care costs and allocating resources	Checklist evaluation of live performance*
	Practice cost-effective care	Know the relative costs of procedures and treatments; ask patients how they pay for medications	Checklist evaluation of live performance*
	Advocate for patients within the health care system	Advocate for quality patient care and assist patients in dealing with system complexities	Checklist evaluation of live performance*

Sleep Medicine Fellow
SUPERVISED PATIENT ENCOUNTER EXERCISE

Evaluator_____ Date _____

Resident_____
Problem/Dx_____

Setting: ☐ Ambulatory ☐ In-patient

other_____
Patient: Age_____ Sex_____ ☐ New ☐ Follow-up

Complexity: ☐ Low ☐ Moderate ☐ High

Focus: ☐ Data Gathering ☐ Diagnosis ☐ Therapy ☐ Counseling

1. Sleep Habits and Medical History Interviewing Skills (☐ Not observed)

   Experience and competence with all age groups in the elements of clinical diagnosis such as interviewing; clear and accurate history taking; competent physical, neurological and mental status examinations; complete and systematic recording of findings; relating history and clinical findings to the relevant medical, neurologic, psychiatric and social issues associated with etiology and treatment.

1 2 3	4 5 6	7 8 9
UNSATISFACTORY	SATISFACTORY	SUPERIOR

2. Physical Examination including appropriate neurologic and airway exam and medical tests (☐ Not observed)

1 2 3	4 5 6	7 8 9
UNSATISFACTORY	SATISFACTORY	SUPERIOR

3. Humanistic Qualities/Professionalism

   Provide care that is sensitive to each patient's age, gender, cultural, economic, and social circumstances. Demonstrated respect, compassion, and integrity; responsiveness to the needs of Patients and society that supersede self-interest.

1 2 3	4 5 6	7 8 9
UNSATISFACTORY	SATISFACTORY	SUPERIOR

4. Clinical Judgment (☐ Not observed)

1 2 3	4 5 6	7 8 9
UNSATISFACTORY	SATISFACTORY	SUPERIOR

5. Counseling Skills for Sleep Hygiene, Sleep Schedules, Medication Use (☐ Not observed)

   Provide information necessary to understand illness and treatment. Provide information about sleep disorders heritable, occupational, neurologic and psychiatric conditions in which preventative measures are appropriate.

1 2 3	4 5 6	7 8 9
UNSATISFACTORY	SATISFACTORY	SUPERIOR

6. Organization/Efficiency (☐ Not observed)

1 2 3	4 5 6	7 8 9
UNSATISFACTORY	SATISFACTORY	SUPERIOR

7. Overall Clinical Competence (☐ Not observed)

1 2 3	4 5 6	7 8 9
UNSATISFACTORY	SATISFACTORY	SUPERIOR

Mini-CEX Time Observing_____Mins Providing Feedback_____Mins.

Evaluatory Satisfaction with Mini-CEX
Low 1 2 3 4 5 6 7 8 9 HIGH

Resident Satisfaction with Mini-CEX
Low 1 2 3 4 5 6 7 8 9 HIGH

Comments_____
_____
_____
_____

Resident Signature _____

Evaluator Signature _____

DUTY HOURS

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

1. Duty hours are limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities and no more than 24 hours of continuous duty.
2. Fellows are provided with 1 day in 7 free from all educational and clinical responsibilities, averaged over a four-week period, inclusive of call. One day is defined as one continuous 24-hour period free from all clinical, educational, and administrative activities.
3. Adequate time for rest and personal activities is provided. This consists of a minimum 10-hour time period (with justification) or a mandatory 8-hour time period, provided between all daily duty periods, and after in-house call.

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 workday when Fellows are required to be immediately available at HCMC/UMMC.

1. There is no in-house call in the Sleep Medicine Fellowship. At home call is scheduled as follows: on the nights prior to scheduled morning study reads, fellows will take phone calls from site sleep laboratory technicians for patient care strategies and management.
2. Continuous on-site duty, including in-house call, will not exceed 12 consecutive hours in the Sleep Medicine Fellowship.
3. At-home call (pager call) is defined as call taken from outside HCMC/UMMC.
4. The frequency of at-home call is not subject to the every third night limitation. However, at-home call must not be so frequent as to preclude rest and reasonable personal time for each Fellow. Fellows taking at-home call are provided with 1 day in 7 completely free from all educational and clinical responsibilities, averaged over a 4-week period.
5. When Fellows are called into HCMC/UMMC from home, the hours Fellows spend in-house are counted toward the 80-hour limit

WEEKLY SCHEDULES

HCMC

Monday
AM – PSG reading with Dr. Irfan and Clinic
PM – PSG reading with Dr. Varghese and Clinic

Tuesday
AM – Admin time and Noon Case Conference
PM – Clinic with Dr. Irfan

Wednesday
AM – Clinic with Dr. LeClaire/Dr. Irfan
PM – Admin time

Thursday
AM – Case Conference, Didactics and Journal Club
PM – Peds Sleep Clinic with Dr. Garcia/Dr. Espinosa

Friday
AM – PSG Reading with Dr. Varghese
PM – Clinic with Dr. Varghese

UMMC

Monday (*Southdale*)
AM – Clinic with Dr. Howell
PM – Clinic with Dr. Howell

Tuesday
AM – Clinic with Dr. Sagar
PM – PSG instruction with Dr. Iber and Admin time

Wednesday (*Riverside*)
AM – Lab with Dr. Cervenka (2nd Wed-AASM/Web lecture)
PM – Clinic with Dr. Cervenka/PSG review

Thursday
AM – Case Conference, Didactics and Journal Club
PM – Peds Discovery Clinic with Dr. Molero*

Friday
AM – Clinic with Drs. Goswami and Howell
PM – Muscular Dystrophy Clinic with Dr. Helena Molero** (every other week otherwise Admin time)

* MOLERO ON SERVICE NO CLINIC THESE WEEKS
- 7/31-8/6/2017
- 8/21-8/27/2017
- 9/18-9/24/2017
- 10/9-10/15/2017
- 10/30-11/5/2017
- 12/4/2017-12/10/2017

** Molero in Neuromuscular Clinic Fri PMs
- 7/28/2017
- 8/11/2017
- 9/8/2017
- 10/27/2017
- 11/10/2017
- 12/22/2017

MEDICAL LICENSURE

A Minnesota medical license or residency permit is required at the beginning of the Fellowship.

International medical graduates (IMGs) must have 2 years of US medical training to apply for a MN medical license. IMGs training on a J-1 visa MAY NOT work outside of the training program.

EVALUATION OF FELLOWS AND TRAINING PROGRAM

The program is committed to the effective assessment of Fellow performance throughout the program, and to the use of this assessment to provide meaningful guidance and timely feedback to the Fellows. The Clinical Competency Committee (CCC) is headed by Dr. Pulsavidyasagar and will provide Milestone evaluations with sub competencies required by the ACGME. The CCC will incorporate all of the following evaluations:

Faculty evaluations: Quarterly faculty supervisors are required to provide online written feedback to the Fellows with specific questions about their competence in each of the six core competencies. They also are expected to provide face-to-face feedback when any concerning issues arise or when requested by the Fellow.

360 degree Evaluations: Twice per year, ancillary staff including front desk staff, technologists, nursing assistants and continuity clinic nurses evaluate each Fellow's competency in professionalism, communication skills, patient care and systems- based practice.

The faculty evaluations are available for Fellow review on-line upon completion of the evaluation. The 360 degree nursing evaluations are available for Fellow review in their Fellow folders. The CCC meets on a semi-annual basis with then reports to the Program Director who then discusses with Fellow on a semi-annual basis.

Procedure for Appeal of a Negative Evaluation

Each Fellow has the right to discuss evaluations. They may make an appointment with the Program Director or one of the Associate Program Directors to discuss the evaluation. This appeal will be formally noted in the Fellow file.

At the discretion of the Program Director and the Fellow, the Fellow can meet individually or in the Program Director's presence with the evaluating faculty member to discuss the evaluation.

Appeal Procedure for Adverse Action by Clinical Competency Committee

In accordance with HCMC institutional policy described in HCMC Fellow Reference Guide, Fellows have the right to appeal an adverse action recommended by the Clinical Competency Committee. FELLOW EVALUATION OF EDUCATIONAL EXPERIENCES

Fellow Evaluations of Program

Fellows have the opportunity to evaluate the quality of their educational experiences. They are encouraged to provide informal feedback to the Medicine Education Office in an informal manner and are also regularly asked to provide such feedback in the following formal ways:

1. Medicine Fellow Evaluation of Faculty and Training Experience (sample form follows): at the end of each 4 week rotation, Fellows complete an on-line evaluation of the effectiveness of their faculty supervisor and of the educational value of the rotation as a whole. These evaluations are released to evaluated faculty every 6 months. They are also reviewed by the Program Director, the appropriate Division Directors, and the Chief of Medicine. They are used for departmental performance evaluations and academic promotions, and for recommendations for attending assignments.

2. End-of-Year Fellow Survey: The Graduate Medical Education Committee administers a confidential survey to all HCMC Internal Medicine Fellows at the end of each academic year. This information is presented to the Medicine Education Office in aggregate and is used to design curricular change.

3. Semi-annual Review: an explicit purpose of the semi-annual review with the Program Director or an Associate Program Director is to provide a forum for direct feedback to the program leadership about any concern a Fellow has with the Fellowship program.

RESOURCES

Books Provided:
ICSD-3
AASM Scoring Manual

Journals Provided:
SLEEP
Journal of Clinical Sleep Medicine

Software:
Sleep Multimedia
AASM Interscorer Reliability

Online:
Fellowship - **https://www.box.net/login**
Patient education - Children **http://www.sleepeducation.com/**
Adults **http://yoursleep.aasmnet.org/**

Professional :
http://www.aasmnet.org/
http://www.uptodate.com/index
http://www.sleepresearchsociety.org/
http://www.thoracic.org/education/career-development/residents/ats-reading-list/sleep-medicine.php
http://www.chestnet.org/accp/topics/network/Sleep%20Medicine%20NetWork

INPATIENT SERVICES: POLICIES AND PROCEDURES

Code Blue Team for Medical Emergencies **(HCMC Institutional Policy)**

PURPOSE

The purpose of this policy is to inform Hennepin County Medical Center (HCMC) staff on how to activate resources for a medical emergency as well as identifying specific roles and responsibilities.

DEFINITIONS

Code Blue Alert: This is an alert to activate the team that responds to a medical emergency.

Code Blue Team: The individuals who respond to medical emergencies within HCMC. The team is made up of: Medical Residents, Surgery Resident, Attending Physician, Nurse Anesthetist, Respiratory Therapy, Administrative Nursing Supervisor, an RN from an Intensive Care Unit (ICU) or Emergency Department (ED) that has received Advanced Cardiac Life Support (ACLS) training, Chaplain, Pharmacist and Security Officer (for non-inpatient nursing areas).

Code Leader: The physician in charge of directing the code.

LIP: Licensed independent practitioner.

Medical Emergency: Any condition that if not immediately addressed would pose a serious risk to that person's life.

Off-Site Clinics: HCMC Clinics not contained within the 5 building HCMC campus.

POLICY

The Code Blue Team shall respond immediately to all medical emergencies that occur within the five buildings of HCMC when assistance is requested, with the exception of the following areas:

The Code Blue Team responds to codes for adults in the Newborn Intensive Care Unit (NICU), Nursery, Post-Partum, Labor and Delivery or Midwife units. Off-site clinics, Life Sciences Building, Methadone Clinic, Parkside Building, Parking Ramp on 8th Street, HCMC Parking Ramp (except for the Transportation Department), Simulation Center, Contact Center, and the Loading & Receiving Dock will be supported by the community 911 emergency response system.

PROCEDURE

Medical Emergencies at Off-site Clinics:

Person(s) Discovering a Medical Emergency:

1. Call the community 911 emergency response system for support.

2. Begin necessary measures to maintain life and prevent injury of the patient until help arrives.

(Consistent with the medical training and safety needs of the care provider(s).)

3. Stay with the patient until help arrives.

4. Provide any necessary information to the emergency personnel upon their arrival.

Medical Emergencies within HCMC

Person(s) Discovering a Medical Emergency:

1. Activate the Code Blue Team by calling the internal 911 number or pushing the emergency button, in the areas that have them.

2. If calling the internal 911 number, the following information shall be provided:

· Description of the emergency

· Location of the emergency, including building color and floor

· Caller's name

· Phone number caller is calling from

3. Begin necessary measures to maintain life (i.e. open airway or CPR) and prevent injury of the patient until the Code Blue Team arrives (consistent with the medical training and safety needs of the care provider(s).

4. Stay with the patient until help arrives.

5. Provide any necessary information to the Code Blue Team upon their arrival.

Once the Code Blue Has Been Activated:

1. The Operator shall activate the code blue pager system and announce overhead two times for the,

"CODE BLUE TO_____(location)"

2. The resident (or attending physician if a resident is not caring for the patient) in charge of the patient shall be paged STAT by unit staff

3. A staff member from the area shall assist the person discovering the emergency by bringing emergency equipment to the scene, setting up the monitor, preparing for the arrival of the Code Blue Team, and supporting the patient as needed. Any staff with advanced cardiac life support (ACLS) training may defibrillate the patient as appropriate.

4. In situations where a crash cart is shared between units/areas, the area responsible for the maintenance of the crash cart will bring the crash cart in response to medical emergencies within their "shared" area.

5. All personnel assigned to the area where the emergency occurred, who are not in the area at the time of the emergency, shall return to the unit at once.

6. The assigned nurse shall remain at the scene summarizing the patient's history and events leading to the arrest, administering medications and checking vital signs.

7. If the arrest occurs in the clinic or another ancillary patient care area on the HCMC main campus, the identified physician and/or nurse shall be paged "STAT" to the scene. The appropriate staff member from

that area shall remain at the scene summarizing the patient's history and/or events leading to the arrest, administering medications and checking vital signs.

8. A physician shall assume primary responsibility for directing the Code Blue Team. In the event that a second emergency is paged while an emergency is already in progress, the code leader of the first emergency shall direct which personnel shall respond to the second emergency page.

9. Any Code Blue Team members who are not needed, as well as any "observers" who may be overcrowding the area shall be excused by the code leader. Medical students and other health professional students are not part of the Code Blue Team, and should not enter the patient room or patient care area unless specifically asked to do so by the code leader.

10. Once stabilized, the patient shall be transferred to the appropriate intensive care unit or taken to the emergency department, as needed

11. If the code leader determines that sufficient personnel are present, a code may be "cancelled" by calling 911 and asking for the code to be cancelled. Members of the code blue team who have not yet arrived at the patient care area may return to their previous duties. A Code Flow Sheet and Code Evaluation Form do need to be completed for cancelled codes, and returned to the NAS office within 24 hours.

Following the Code Blue:

The Physician shall:

Sign the Code Flow Sheet, this then signifies as a MD order for the medications given.

The Code Flow Sheet shall be sent to Health Information Management (HIM) to be scanned into the medical record within 24 hours after discharge.

Write a physician code summary note in the patient's medical record.

The Code Blue Team RN (ICU or ED) or the patient's assigned RN shall:

Complete the Code Flow Sheet, placing the white sheet in the patient's temporary medical record where it will be scanned by HIM after the patient is discharged. . Follow the instructions on the Code Flow sheet as to where to submit the form.

Complete the fuchsia-colored Code Evaluation Form and follow the instructions as to where to submit the form.

Completed forms are to be submitted within 24 hours of the event for review by a member of the Resuscitation Committee.

Document a post-code summary note in the patient's medical record.

Follow up on any issues related to the code.

Contact the Point of Care (POC) Office at x36141 with patient identification information if glucose testing was performed on an unidentified patient.

The Assigned RN or designee shall:

Call the Equipment Room for a new cart if it has been used, according to the Crash Cart Exchange Procedures outlined in the Medical Emergency Manual.

Check the expiration dates on the defibrillator & AED pads, emergency medication box and supply labels.

If sharps container has been used, close the top and the Equipment Room staff will dispose of it and provide a new replacement container.

Assure that the crash cart integrity is intact following cart replacement or restocking, by replacing and re-securing the crash cart lock/security tie.

Record the new security tie number on the pink audit sheet.

Code Blue Team Member Roles

Physicians/LIP shall:

· An Attending Physician shall supervise resuscitation efforts and respond in-person to a Code Blue in a timely manner. The Resuscitation Committee and the Medical Directors of each unit will decide which group of physicians will provide attending physician supervision for the Code Blue team in their unit.

· A Medicine or Surgery resident shall be the Code Leader and direct resuscitation efforts under the direct supervision of an attending physician

· When the patient's primary physician arrives, they may choose to assume leadership of the Code Blue Team and direct resuscitation efforts, otherwise the medicine or surgery resident will continue leadership of the code team under the supervision of the code team attending physician.

· The Surgery Resident shall direct resuscitation efforts for surgery service patients, with assistance from the Medical Residents.

· The Medical Resident shall direct Resuscitation efforts for all other patients with the assistance of the Surgery resident.

· In addition to the role of code leader, physicians may assume specific roles based on the needs of the patient. These roles may include the following

  · Performing chest compressions and checking for pulses

  · Assisting respiratory therapy and nurse anesthetist with airway management

  · Retrieving ultrasound machine and performing bedside ultrasonography

  · Performing needed procedures (eg central vascular access, intraosseous vascular access, tube thoracostomy, etc)

  · Reviewing the electronic medical record.

· The Newborn ICU responds to all medical emergencies for newborns in the Nursery, Post Partum, Midwife Unit, Labor and Delivery and NICU. The NICU is notified of the emergency by a telephone call from the unit where the baby is located.

· Upon arrival of the Neonatal Nurse Practitioner (NNP) and the NICU nurse, the NNP will take responsibility for resuscitative efforts. The NNP will request Neonatologist back-up if needed.

Nurse Anesthetist shall:

· Collaborate closely with team leader, and perform delegated tasks such as endotracheal intubation, respiratory support, and obtaining intravenous access,

Respiratory Therapy shall:

· Maintain airway, set up respiratory equipment and ventilate the patient.

Administrative Nursing Supervisor shall:

· Page additional personnel to the scene as needed

· Act as recorder if no one else is available

· Notify the inpatient unit or ED of impending transfer as needed

· Assist family members as needed

· Assure patient's name is obtained and recorded on the Code Flow Sheet and Code Evaluation Form

· Ask "observers" who are not participating in the care of the patient to leave the patient care area

ICU/ED RN shall:

· Prepare medications, IV set-ups and syringes for blood draws and provide additional patient care as needed

· Assist with monitor and defibrillator

· Act as a resource regarding location of any needed specialized equipment

· If in the absence of an assigned nurse for the patient, completes the Code Flow Sheet and completes and submits the Medical Emergency Evaluation Form according to the instructions on the form within 24 hours of the event

Patient's Assigned Nurse shall:

· Maintain primary responsibility for patient until patient is physically transferred to ICU, ED or is discharged.

· Completes the Code Flow Sheet, and completes and submits the Medical Emergency Evaluation Form to the location identified on the form within 24 hours of the event.

Pharmacist shall:

· Provide information about the use of emergency medications (i.e., drug compatibility, interactions, dosage ranges, and calculations) when available.

· Obtain additional medications as needed.

· Assist in medication preparation, administration and recording as back-up to other Code Blue Team members if needed.

Chaplain shall:

· Provide pastoral care to patient, family, roommate and staff; assist with reaching family if needed.

Security Officer shall:

Bring a stretcher for transport if notified by the Security Operations Center (SOC) of emergency in non-patient care area. (see Attachment A: Designated Emergency Equipment and Personnel Response List)

Inpatient Consultations in Sleep Medicine Guidelines

Sleep Medicine Consultations

1. The request for Sleep Medicine consultations will be initiated by the referring service by direct contact to the Sleep Center or by paging the fellow who is reading studies.
2. The fellow should complete an evaluation of the patient, staff with faculty and complete an EPIC inpatient consultation template ***within 24 hours of the normal work week (Monday-Friday).***
3. Inpatient PAP titration protocols in box.net should be individualized and incorporated in the note for patients who need immediate titrations prior to scheduled sleep studies.
4. Patients undergoing empiric titrations should be seen daily.
5. Final progress notes must incorporate coordination of care including specification of follow-up by sleep center and specific prescriptions for PAP/O2/medications/sleep schedules.

Limited Care Plans

Policy/Purpose: In some situations, it is appropriate to forego (withdraw and withhold) life-sustaining treatment. This policy and procedure is adopted to assist patients, patient representatives, and staff in implementing such a decision.

Statement of Principles:

1. The patient has the legal and ethical right to and the primary responsibility for self-determination, including the right to forego (withhold and withdraw) treatment. There is no legal or ethical distinction between withholding and withdrawing treatment.

2. When a patient lacks the necessary decisional capacity to participate in treatment decisions, such decisions will be made on behalf of the patient by the patient's representative. To the extent possible, the patient shall be included in these decisions. Decisions made by the patient's representative shall reflect the patient's wishes as previously expressed. If the patient's wishes are unknown, the decision shall reflect the patient's best interests.

3. Whenever the decision to forego life-sustaining treatment is made, the patient shall receive care that maintains dignity and comfort.

4. As with any plan of care, the patient's condition shall be reviewed periodically to assure that the decisions, the plan of care, and implementation of that plan continue to be appropriate.

5. When there is a decision to forego life-sustaining treatment, even when the patient's or patient representative's decision and the decision-making process are consistent with medical, legal, and ethical standards, the patient/patient representative and/or staff may have concerns regarding the appropriateness of a course of action. When this occurs, HCMC shall provide mechanisms to address these concerns.

6. The attending staff physician or other health care providers are not obligated to comply with the patient's decision if the treatment would be contrary to accepted standards of clinical practice or the law. Furthermore, in cases where implementing the patient's decision would be contrary to the deeply held personal or professional beliefs of the attending physician or other health care provider, that individual has the right to withdraw from the patient's case. Should such a conflict occur, the patient shall not be abandoned, but rather, shall be assisted by the physician and HCMC staff in obtaining care that is consistent with patient's wishes.

Procedure

I. Determining the Decision Maker

A. Patient with decisional capacity. If the patient has the necessary decisional capacity, the patient shall make all treatment decisions. A patient has decisional capacity if the patient has the ability to understand, reflect upon, and reiterates the medical situation, including the consequences of the decision to forego treatment. Decisional capacity may be presumed in the absence of any impairment of judgment. The attending physician usually determines decisional capacity. The physician may consult other health care providers, family members, or others who know the patient to determine the current level of decisional capacity.

B. Patient without decisional capacity. In those instances in which the patient lacks decisional capacity, the patient's representative shall make the decision regarding foregoing life-sustaining treatment. In the usual order of priority, the following individuals may act as the patient's representative:

1. In the case of a minor, the child's parents or legal guardian.
2. In the case of an adult:
   a) the agent, if the patient has a valid durable power-of-attorney for health care;
   b) the proxy, if the patient has a valid living will;
   c) the legal guardian with responsibility for health care decisions;
   d) the spouse;
   e) an adult son or daughter;
   f) either parent;
   g) an adult brother or sister;
   h) other close family members; and
   i) in some circumstances, a close personal friend of the patient.

3. If a patient does not have a representative to make a decision on the patient's behalf, does not have an Advanced Directive, and there is no other reliable evidence of the patient's wishes, the attending physician shall contact the Ethics Committee.

II. The Decision-Making Process

A. The attending physician shall ensure that the patient or the patient's representative making the decision understands the following before the decision to forego life-sustaining treatment is made:
    1. His or her current medical status, including the likely course of the condition if treatment is withheld or withdrawn;
    2. The interventions that might be helpful to the patient, including a description of the treatment options, their risks, and anticipated benefits and burdens, and
    3. The attending physician's professional opinion regarding the available alternatives.

B. In the case of the patient without decisional capacity, the decision regarding treatment shall be consistent with the stated directives of the patient as expressed in an Advanced Directive or, if there is no Advanced Directive, the decision shall be consistent with other reliable expressions of the patient's wishes, the decision shall be in the best interests of the patient, taking into consideration the patient's values, life philosophy, and/or spiritual beliefs.
C. Throughout the decision-making process, the attending physician is encouraged to consult with his or her colleagues and other members of the health care team.
D. When a decision to forego treatment has been made, the attending physician shall communicate the decision to the other members of the health care team.
E. If at any time during the decision-making process questions or concerns arise, see Section V.

III. Documentation

A. When the participants have reached a decision to forego life-sustaining treatment, the attending physician shall document the decision in the patient's medical record. Documentation should include:

1. Participants in the discussion.
2. Who the decision maker is.
3. If the patient is determined to lack adequate decisional capacity, the rationale for determining decisional capacity.
4. Summary of the information presented and the discussion, which led to the decisions.
5. Specific decisions reached, including treatment to be continued and treatment to be withheld. Considerations should include, but not necessarily be limited to, ventilation, blood products, medication, hydration and nutrition, dialysis, and other interventional procedures.

IV. Development and Implementation of the Care Plan

A. The care plan shall particularly address ongoing assessment and management of pain and psychological stress. In addition, the plan shall be documented in the medical record and shall include:

1. The patient's resuscitation status and an order if the patient is to be DNR/DNI.
2. Orders for what specific treatments will be withheld and/or discontinued. Treatment options to be considered include:
    a. intubation and ventilatory assistance
    b. oxygen
    c. dialysis
    d. blood products
    e. diagnostic lab tests and x-rays

f. medications (i.e. antibiotics, pressors, etc.)
g. nutrition and hydration

3. The plan shall address maintenance of dignity, comfort, and hygiene and shall contain mechanisms to insure that patient and family members are not abandoned, but have access to ongoing communication with the staff.
4. Orders for medication - the goal of treatment is to relieve pain and suffering to the fullest extent possible, consistent with the patient's wishes.
5. Health care professionals must make every effort to relieve the pain and suffering of the dying patient. Relief of pain and suffering may require either intermittent or continued administration of large doses of analgesics and sedatives which, in circumstances other than anticipated death, would be considered inappropriate. Dying patients should be assured the maximal possible comfort, even in the face of impending death, as heralded by falling blood pressure, declining rate of respirations, or altered level of consciousness. Vital signs may be obtained to assess the patient's status in the dying process, but should not influence decisions about administering medications in the presence of continued pain or other distressing symptoms for which the medication is an accepted treatment. The attending staff physician shall clearly document in the patient's chart all clinical indications for administration of medication, including all dosage changes.
6. Neuromuscular blocking agents are generally excluded from these medications as they have no therapeutic value in relief of pain and suffering and their use precludes assessment of pain and suffering. Before ventilator support is decreased or discontinued, neuromuscular blocking agents should be discontinued. No effects of neuromuscular blocking agents, as evidenced by a train of four repetitive stimulations, should be discernible prior to discontinuation of ventilator support in this context.

V. Decisions Which Result in Concern or Conflict

A. The attending physician, patient/patient representative, or other health care provider may seek an Ethics consultation when a concern or conflict remains after a reasonable attempt to resolve any of the following:

1. Who the decision maker should be
2. The decision making process, or
3. The plan of care

Line of Responsibility for Fellows and Attending Physicians

Sleep Medicine Fellow

1. Sleep study interpretation: the trainee will interpret polysomnographic studies, multiple sleep latency tests, and actigraphic studies as soon as they are available and under the direct guidance of a specialist certified by the ABSM. The trainees will discuss each study with a staff sleep physician, after which an agreed-upon report will be generated either by the trainee or staff. All studies will be discussed regarding diagnosis and treatment.

2. Sleep Clinic: trainees will be assigned new and follow-up patients (there are 9 half-day clinics per week at the MN Regional Sleep Disorders Center). All patients interviewed by trainees will be staffed by an appropriate faculty member (neurology, pulmonary medicine, pediatrics, or psychiatry). Checklist evaluations for general competencies will be performed following on a sample of patient encounters

including new and follow-up patients. The role of the staff is to verify the historical facts and physical findings related by the trainee, critique the presentation, and further discuss the findings and recommendations. That process will involve review of any available sleep laboratory studies. Diagnostic and therapeutic decisions will always involve staff. The trainee will dictate the patient encounter and assure that a copy goes to the patient's referring physician.

3. Fellows are closely supervised while developing procedural and interpretive skills. When they have acquired requisite skills, fellows supervise the patient care activities of medical students and Fellows working under their direction. Fellows may consult with other fellows when covering the Sleep Medicine Center.

Chart Maintenance

For patients you see in your adult fellows' continuity practice, please prepare follow-up notes as well as the consult letter. It is good structure for us as consultants to send letters to referring physicians, even if nothing much has apparently changed. It is good for them to know what is going on with the patient so that they can answer any patient-related questions better. Also, what seems to be "routine" to us with CPAP, may not be routine for a PCP.

NOTE: Please double check with other attendings for what they would like for their follow-ups.

1. Please use the sleep medicine EPIC templates [.SLEEPxxxx] that are imbedded as smarttext [see Appendix].

2. When seeing a new patient sent to us by another physician, please thank the physician for consulting you on their patient Mr./Mrs. XXX. Alternatively, you could state that Mr./Mrs.XXX was seen in consultation by us in the Penn Sleep Center Outpatient Practice. DO NOT USE the word "referral" in your initial introductory paragraph. This will actually change the appropriate billing code and can lead to fraud.

If you use abbreviations like ESS or MSLT, please say what it stands for at least once. "Mrs. Jones underwent a Multiple Sleep Latency Test (MSLT) to evaluate her sleepiness." Also, please give parameters for these tests. (e.g. the Epworth was XX out of 24 and this is consistent with pathologic sleepiness vs normal, etc)

Please have a full Impression & Plan at the beginning of the note which includes a description of what you are diagnosing and why as well as your management plan. A problem list is ok provided you put a "comment" section where you expand on the important items in the list. Alternatively you can list each problem in association with a written discussion about your thoughts processes as you manage that particular problem. Particularly remember that if you are diagnosing something a bit more unusual, like DSPS or narcolepsy, etc., further details about that disorder are warranted. You can have the dictation service create macros for you if this would be helpful.

Don't forget to always include one of the following statements:
"seen & examined by [name of attending] who performed a history and physical examination and agree with diagnosis & treatment plan as outlined above" or

"This patient was seen and examined under the supervision of Dr. XXXX, who performed a history and physical examination and participated in the formulation of the treatment plan as outlined above"

Before you are finished with the chart, please make sure you complete medication reconciliation and all orders and follow-up.

Finally, please make sure an attending has co-signed your note. ALL FELLOW NOTES MUST CONTAIN EVIDENCE OF ATTENDING SUPERVISION. The attendings must write an addendum or separate note on all visits both in the inpatient and outpatient settings.

ACADEMIC LEAVE POLICY

Time taken for academic leave must be judged by the Program Director to be academic in nature and relevant to the curriculum and content of the Fellowship. **THE FELLOW MUST ARRANGE NECESSARY COVERAGE PRIOR TO THE LEAVE PERIOD.**

Interview Days

The Office of Medicine Education and the Chief Fellow should be notified prior to all planned absences. If problems arise without proper notification and coverage, a vacation day will be charged.

Time taken in excess of 14 days of combined academic and interview leave will be regarded as vacation and will be subtracted from vacation time accordingly.

All attempts should be made to plan ahead, avoiding inpatient ward rotations during fellowship interview season (March/April).

Fellows taking interview days **MUST PROVIDE COVERAGE** for the involved service PRIOR TO the stated leave. It is NOT APPROPRIATE to have someone simply "be aware." If you are the only Fellow on a service, you must obtain permission from your service attending. If permission is denied by the service attending, the interview must be scheduled on an alternate day.

Vacation Policy

Time away from the hospital is necessary for vacation, fellowship/employment interviewing and academic conferences. Prolonged periods of leave however, compromise the educational experience of the Fellow taking leave, and burden the remaining Fellows and services. This policy is an attempt to create a balance between necessary leave and educational goals, requirements for board certification, service responsibilities, and patient care.

On any given clinical rotation the total amount of leave taken (vacation + academic leave + interview days) may not exceed 25% of the entire days of that month. If >25% of a clinical rotation is missed because of leave time, that clinical rotation must be repeated prior to graduation from the program.

Fellows: three weeks paid vacation (15 working days) to be taken in one week increments.

Back-to-back vacations affecting two consecutive rotations may be approved only under exceptional circumstances, pending review by Program Director. Two weeks' vacation from a single month and simultaneous vacations at the same site is not allowed.

Requests for vacation must be made IN WRITING to the Program Director, Program Coordinator and the Neurology scheduler (**Katie.Dolan@hcmed.org**) at least 12 WEEKS in advance of the proposed leave. Conflicts among requests will be resolved on a first-come first-served basis.

Continuity Clinic

The 12 week vacation notice is necessary for the cancellation of the Fellow continuity clinic.

A vacation request with fewer than twelve weeks' notice needs special approval from the Clinic Manager and the Program Director. With less than 12 weeks' notice, *if approved*, a Fellow will need to reschedule rather than cancel the affected clinic session.

During any vacation, the Fellow must leave a note on their clinic in-box notifying staff of their absence. They must also designate another Fellow or faculty to respond to patient care issues in their absence.

SLEEP CLINIC POLICIES

Clinic Responsibilities

Fellows will attend sleep clinic as described in their rotation schedule.

Documentation

It is HCMC policy that providers shall write or dictate a note on ambulatory visits by the end of the patient's visit day. Timeliness of dictation completion will be monitored periodically by clinic staff and reported to the Clinic Director. Records management will be part of your clinic performance evaluation.

Planned Fellow Clinic Absences

It is expected that Fellows will make every effort to be in clinic at the assigned date and time. Any deviation from that expectation reduces patients' access to clinic and increases their frustration as well as clerical and nursing time. In addition, clinic cancellations increase the likelihood of various errors in follow-up scheduling, review of important lab and x-ray results, etc. Cancellation of clinic reduces the availability of Fellows to their patients and has an adverse impact on continuity and education.

It is the Fellow's responsibility to be aware of clinic scheduling.

Procedures:

1. A Fellow's clinic may be canceled or changed with at least eight weeks' notice. Longer lead times to schedule changes are desirable.

2. Timely requests for changes in clinic will be made in writing to the clinic manager. Clerical staff will not alter schedules, except by direction of the clinic manager.

3. Requests for clinic cancellations or changes with less than eight weeks' notice will be presented to the clinic director and/or clinic manager. In the event a scheduling change is permitted, arrangements for coverage will be negotiated between the staff and fellow. The clinic manager will then be contacted for implementation of changes.

4. For illnesses or personal emergencies, the fellow should contact the clinic director or manager, Chad Eiken and Andy Cook (sleep front desk 873-2480). The patient list for that day will be reviewed by the staff for the

clinic. Patients needing to be seen or who cannot be reached and present themselves to the clinic will be seen by those willing and able to cover.

Sick Call and Back-up Coverage

A back-up policy is necessary to cover services in the case of an unplanned absence due to illness, emergency, etc. The chief Fellows will keep track of number of sick days each Fellow takes. All Fellows are **required to notify the Site Director when they miss a day.** After more than three consecutive missed days, a Fellow will require a physician's note and approval from the Fellowship program director. After a total of three sick days/year, a Fellow will be expected to repay those days during available weekends and/or elective time as needed to cover fellow Fellows

Back-up responsibilities take precedence over ALL OTHER DUTIES (including moonlighting). Fellows on all non-call rotations are at risk for back-up.

Providing back-up is part of your Fellow responsibilities, and therefore is not reimbursed as a moonlighting night, nor is the absent Fellow responsible for paying back a shift.

Back-up is designed for short-term absences. Coverage for absences for longer than 2-3 days will be at the discretion of the Program Director, although double Fellow services should be pulled first if the back-up involves daytime hours.

Fellow Quality Improvement Project

Fellows are expected to complete a quality improvement project by the end of the academic year. This project should be targeted and have specific objective measures demonstrating an improvement in patient care. This project can be performed at any rotating sites regarding any topic in sleep medicine.

Timeline as follows:

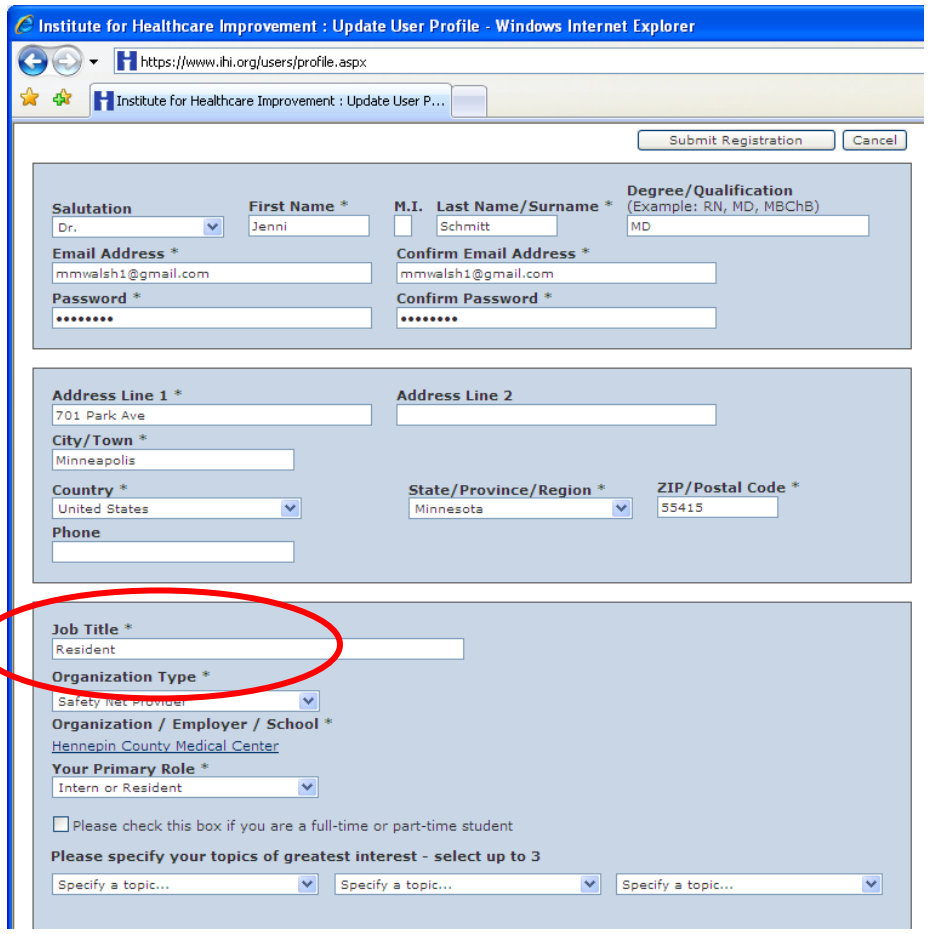
	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
Quality Improvement Project Tract	**Phase 1** -Identify an area in need of quality improvement -Present potential solution at thursday evening research meeting (<5 minutes)			**Phase 2** -Finish Project design (including quantifiable outcomes) -present at staff meeting		**Phase 3** -Implement plan -Monitor for results				**Phase 4** Present project with results to staff meeting		

APPENDIX:

QUALITY IMPROVEMENT & PATIENT SAFETY PROJECT

REVIEW RESOURCE MATERIALS ON FELLOWSHIP SITE AT BOX.NET

1) Completion of the Institute for Healthcare Improvement Online Courses: IHI Open School
   a. First you must register yourself online: **http://www.ihi.org/ihi**
   b. BE SURE TO REGISTER YOURSELF AS "Intern or Resident" under Your Primary Role
   c. Complete ALL courses under Quality Improvement (QI 101-106)
   d. Print a completion certificate at the end of all online coursework and submit to Con Iber



2.) Read the article, "Using a Healthcare Matrix to Assess Patient Care in Terms of Aims for Improvement and Core Competencies" from the Journal on Quality and Patient Safety.
3.) Choose a QI project to pursue-discuss possible topics with a faculty mentor.
4.) Complete project and present at scheduled fellowship conference.

Hennepin County Medicine Center (HCMC) Rotation Curriculum

This document summarizes the organization of the fellow's educational experience during the rotation.

In an effort to comply with the Institutional and Program Requirements of the Essentials of Accredited Residencies in Internal Medicine Graduate Medical Education, the HCMC/UMMC Fellowship Training program in Sleep Medicine is organized to provide the intellectual environment, formal instruction, peer interaction and broad supervised clinical experience necessary for residents to master the knowledge, skills, and attitudes **essential** to the practice of Sleep Medicine. Central to these goals, is the fellows' attainment, at the level of a new practitioner, of the **six ACGME core competencies** in the areas of patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice.

Each rotation includes experiences and formal evaluation of outcomes to ensure the development of competent graduates in Sleep Medicine.

A. CONTACT INFORMATION

1. Sleep Clinic Front Desk: 612-873-2480
2. Sleep Clinic Nurse Coordinator-Connie Ullevig: 612-873-8778
3. Fellowship Director-Muna Irfan: 612-899-2774 (pager), 678-622-5206 (cell)
4. Fellowship Coordinator-Kelly Napolitano: 612-873-4093, **kelly.napolitano@hcmed.org**
5. Clinic Scheduler-Katie Dolan: 612-873-6288, **katie.dolan@hcmed.org**
6. Site Director-Muna Irfan: **Muna.Irfan@hcmed.org**
7. Medical Director-Ranji Varghese: **Varghese.ranji@me.com**
8. UMN Contact Info -

B. MASTER SCHEDULE 2017-2018

ROTATION SCHEDULE	2017	2018
	July-Dec	Jan-June
Fellow A	UMMC	HCMC
Fellow B*	UMMC	HCMC

C. HCMC PSG INTERPRETATION FELLOW DAILY SCHEDULE

1. When assigned to the PSG laboratory, fellows should report to the Laboratory at 7:30 am to conduct morning rounds with the technologists and begin to review the overnight studies. From 8:00-9:00 am fellows will meet with the attending staff of the day to provide a comprehensive assessment of PSG results. With the attending staff fellows will

determine optimal patient care strategies by triaging patients for PAP setup, discussing with patients the preliminary results of their studies and determining whether patients will proceed with MSLT. Fellows will then have from 7:30-9:00 AM, to finalize reports and then assist with staffing of cross-overs (< 15 min clinic visits with patients to discuss the preliminary results of their sleep study the night prior).

2. The rest of the morning and afternoon is spent in sleep continuity clinic which include the following duties: a) review medical record, interview and examine patients and b) discuss cases with faculty of the day and to develop patient care strategies including ordering of diagnostic studies, as well as intervening with various behavioral, durable medical equipment, and pharmacologic interventions c) document the visit in the electronic medical record. The attending will personally see and evaluate all patients and be available throughout the day to discuss any issues that arise.

Lab/Clinic Schedule
Patient Rounds*

Monday -Friday	
7:30 – 8:00	Morning rounds with RPSGT's and AM Staff to prioritize patient management and determine urgent diagnostic and treatment needs.
8:00-9:00	Review PSG's with attending staff of the day (see schedule below) to interpret studies and establish plan of care. Prepare and finalize reports, assist with cross-overs (see definition above). Perform a chart review of the scheduled studies for the upcoming night.
9:00-12:00	Patient Care
12:00-1:00	Lunch
1:00-5:00	Sleep Continuity Clinic

*Except Admin research time and Thursday AM-see weekly schedule below

Sleep Fellow HCMC Rotation
Weekly Staffing Schedule

Lab/Clinic	Monday	Tuesday	Wednesday	Thursday	Friday
AM PSG Interpretation	Irfan*	Admin**	Irfan and LeClaire	Multidisciplinary Case Conference, Core Lectures, Journal Club**	Varghese*
PM Continuity Clinic	Varghese	Irfan	Admin	Peds-Espinosa ****	Varghese

*PSG reading time in lab

**Time is dedicated on Wednesday PM to work on Quality Improvement Project's and scoring of PSG's, Inpatient evaluations, and direct clinical evaluations.
***On the third Thursday of the Month there will be a one hour Sleep Center Operational Meeting. (Mandatory for fellow rotating at UMN.)
****Further there is a monthly sleep research dinner meeting at Dr Con Iber's house in Minneapolis the last Thursday of the month from 730-900PM.

Sleep Laboratory Call Duties
The fellow performing PSG interpretations will be expected to be available to direct the overnight management by telephone with the evening techs. This is primarily addressed with chart rounds as noted above to address any foreseeable upcoming challenges. The expected burden of these call duties is expected to be light with phone calls from the laboratory coming to the fellow at less than once per week conducive with ACGME work duty rules. The actual call burden will be revisited monthly to ensure that burden is reasonable.

The attending physician for the evening will be available to answer any questions the fellow feels unable to answer.

D. CONFERENCES

The fellows will attend three weekly sleep medicine conferences (see schedule above). These include: Thurs AM case presentation conference, didactic lectures, core curriculum topic or journal club. In addition, fellows are expected to attend monthly Sleep Center administrative meetings for policy and quality management discussions. The fellow will be free of clinical responsibilities during these conference times. Further there is a monthly sleep research dinner meeting the last Thursday of the month from 730-900PM. ASM-Wednesday Talks Tuesday noon conference (Mandatory for HCMC fellow.)

E. ACHIEVING CORE COMPETENCY GOALS AND OBJECTIVES

1. **Patient Care**
    c. Attending staff will personally see and evaluate every patient in the outpatient clinic as well as staff all inpatient evaluations to ensure that an adequate medical history and physical exam has been performed and to help form a clinical management plan.
    d. Attending staff will help ensure that appropriate diagnostic tests have been ordered on all patients.
    e. Attending staff will help fellows interpret all in-laboratory and portable sleep diagnostic evaluations.
    f. Attending staff will teach fellows how to interact with other health care providers to implement patient-focused care.

2. **Medical Knowledge**
    g. The clinical faculty will educate fellows about established and evolving biomedical, clinical and cognate sciences during clinical encounters including discussions with patients, ancillary staff, and other health care providers.

h. Through case conferences, research meetings, and didactic sessions teaching faculty will further refine fellow's knowledge of sleep and circadian rhythm's. Fellows will demonstrate an understanding of topics ranging from basic bioscience research to the potential benefits and limitations of novel clinical management strategies.
i. The clinical faculty will then ensure that fellows demonstrate the appropriate application of medical knowledge to patient care strategies.

3. Practice-based Learning and Improvement

j. Every week each fellow will present a case at the Thurs AM Clinical Case Conference.
k. Fellows will alternate presentations at the monthly Journal Club
c. Each fellow will audit the electronic medical record of a chosen sleep disorder to determine whether established clinical standards of care are being followed.
d. The Fellows polysomnographic scoring abilities will be measured against an established standard through the American Academy of Sleep Medicine Inter-Rater Reliability PSG Scoring Program.
e. Fellows will take perform case-management practice exams and will review results with the program director.

4. Interpersonal and Communication Skills

l. Interaction with patients and their families during clinical encounters will be supervised and feedback provided to fellows from attending staff.
m. Fellows will demonstrate communication and interpersonal skills with other health care providers/support staff by participating in multidisciplinary practice meetings involving physicians, mid-level providers, nursing staff, polysomnographic technicians, medical assistants, respiratory therapists and clinical support staff
n. Presentation skills will be refined during presentations at weekly Clinical Case Conference, monthly Journal Club and research meetings.

5. Professionalism

o. Fellows will be monitored by clinical faculty to ensure that they carry out their professional responsibilities with humanism and adhere to ethical principles.
p. The fellow will be evaluated by all medical, nursing, sleep laboratory, and administrative staff. The program director will provide feedback to the fellow during the semiannual evaluation.
q. Expedited feedback will be provided immediately by the program director if there is a report of inappropriate or other concerning behavior.
r. Conversely exemplary behavior will be noted and applauded personally by the program director.
s. Fellows will complete an intranet course on patient privacy and patient safety.
t. Clinical faculty will demonstrate ethical practice and encourage sensitivity to patients with diverse backgrounds

u. Fellows will be expected to complete assigned responsibilities in a timely fashion including pages, patient phone calls, chart documentation, and polysomnographic reports.
v. Attend the minimum number of required conferences (60%)

6. Systems-based Practice

w. Fellows will complete a quality assurance/quality improvement project
x. Each fellow will audit the electronic medical record of a chosen sleep disorder to determine whether established clinical standards of care are being followed.
y. Participate in multidisciplinary practice meetings involving physicians, nurses, medical assistants, respiratory therapists and clinical support staff

F. CLINICAL LINES OF RESONSIBILITY

All fellow activities, lab and clinic, will be supervised by an attending physician (see attending schedule above) who is ultimately responsible for ensuring proper clinical management.

G. INTERACTION WITH OTHER SERVICES

Sleep Medicine is multidisciplinary field and fellows will communicate with consulting and referring services. These interactions may include: letters to referring providers, notes via the electronic medical record or when appropriate by telephone.

H. HCMC KEY CLINICAL FACULTY

Name	Specialties	Year Certified in Sleep Medicine	Teaching Role
Michael Howell, MD Program Director	**Neurology Sleep Medicine**	**2009**	**Parasomnias, Hypersomnias, Nocturnal Seizures, Sleep Related Movement Disorders, Circadian Rhythm Disorders, Sleep and Obesity, Nocturnal Eating Disorders, Sleep Biochemistry, Sleep Neurobiology, Sleep Development Across the Lifespan**
Recent (last 5 yrs) Bibliography: 1. **Howell MJ**, Crow SJ (2012). Nocturnal Eating and Sleep/Movement Disorders. Night Eating Syndrome: Definition, Assessment, and Treatment. Guillford Publishers, New York, NY			

(Accepted for Publication)
2. **Howell MJ**, Schenck CH (2012). Sleep Related Eating Disorder. Encyclopedia of Sleep, Elsevier Publishing, Oxford, UK (Accepted for Publication)
3. **Howell MJ**, Arneson PA, Schenck CH (2011). A novel treatment for REM sleep behavior disorder (RBD). J Clin Sleep Med. Dec 15 7(6):
4. **Howell MJ** (2011). Did Osama bin Laden have sleep disordered breathing? J Clin Sleep Med. Oct 15;7(5):561.
5. **Howell MJ**, Schenck CH (2011). Treatment of NREM Parasomnias in Adults: Confusional Arousals, Sleepwalking, Sleep Terrors, and Sleep Related Eating Disorder. Therapy in Sleep Medicine. Elsevier Publishing, Oxford, UK
6. **Howell MJ**, Schenck CH (2011). Sleep Related Eating Disorder: relationship to amnesia and a review of its treatment. Pathways to Obesity and Main Roads to Recovery. Nova Publishers, Hauppauge, NY.
7. **Howell MJ**, Arneson PA, Schenck CH (2011). A novel treatment for REM sleep behavior disorder (RBD). *AAN Annual Meeting, Honolulu, HI.* April 13, 2011.
8. Allison KC, Lundgren JD, O'Reardon JP, Geliebter A, Gluck ME, Vinai P, Mitchell JE, Schenck CH, **Howell MJ**, Crow SJ, Engel S, Latzer Y, Tzischinsky O, Mahowald MW, Stunkard AJ (2010). Proposed Diagnostic Criteria for Night Eating Syndrome. Int J Eat Disord, Apr 17, 43(3):241-247.
9. **Howell MJ**, Schenck CH, Larson S, Pusalavidyasagar S (2010). Nocturnal Eating and Sleep-Related Eating Disorder are common in patients with Restless Legs Syndrome (RLS). *SLEEP 2010, San Antonio, June 7.*
10. **Howell MJ**, Schenck CH (2010 with update in 2011). NREM Parasomnia Overlap Disorder, Medlink.com
11. **Howell MJ**, Schenck CH (2010). A case of a 38 yo female with amnestic nocturnal behavior. Case Studies in Sleep Neurology. Cambridge University Press (in publication), Cambridge, UK
12. **Howell MJ**, Schenck CH (2009). Treatment of Nocturnal Eating Disorders. Curr Treat Options Neurol, 11:333-339.
13. **Howell MJ**, Schenck CH, Crow SJ (2009). A review of nighttime eating disorders. Sleep Medicine Reviews, 13(1):23-34.
14. Schenck CH, **Howell MJ** (2008). Sleep Related Eating Disorder. In: The American Academy of Sleep Medicine Case Book. Westchester, Illinois: American Academy of Sleep Medicine 232-235.
15. **Howell MJ,** Schenck CH, Crow SJ (2007). Curbing nocturnal binges in sleep-related eating disorder. Current Psychiatry, 6(7) 19-24.
16. **Howell MJ**, Gomez CM (2007). Sleep in spinocerebellar ataxia. Mov Disord 22(5):753-754.

Michelle LeClaire, MD	**Internal Medicine Pulmonary/CCM -Legal Sleep Medicine**	**2003**	**Forensic Sleep Medicine Parasomnias Sleep Disordered Breathing, Polysomnographic Interpretation, Sleep and Neuroscience**

Recent (last 5 yrs) Bibliography:

Mante Espinosa, MD	**Pediatrics Sleep Medicine**	**1990**	**Pediatric Sleep Medicine, Sleep Development Across the Lifespan, Sleep Disorders in Adolescence**

Recent (last 5 yrs) Bibliography:			
Carlos Schenck, MD	**Psychiatry Sleep Medicine**		**Parasomnias, Sleep and Mental Health, Sleep and Eating Disorders**
Recent (last 5 yrs) Bibliography:			

I. HCMC CLINICAL AND TEACHING FACULTY

Name	Specialties	Year Certified in Sleep Medicine	Teaching Role
Ranji Varghese, MD	**Psychiatry Sleep Medicine**		**Sleep in Mental Illness, General Sleep Medicine**
Dennis Haley, DMD, MPH	**Dentistry**		**Dental Treatment of Sleep Disordered Breathing, Bruxism**
Stephanie Contag, MD	**Otolaryngology**		**Upper Airway Surgery for the Treatment of Sleep Disordered Breathing,**

J. PRINCIPLE SETTING AND TEACHING METHODS

1. Settings-The principal setting for teaching will be the Minnesota Sleep Disorders Center at Hennepin County Medical Center with its associated Hospital, Clinic and Laboratory.
2. Teaching Methods-The Sleep Medicine rotation utilizes the following teaching methods:
   - Staff-supervised clinic teaching encompassing clinical evaluation and review of relevant laboratory data
   - Staff-supervised review of diagnostic sleep studies/actigraphy/MSLTs
   - Didactic lectures by sleep staff medicine on topical areas
   - Progressive discovery case conferences with review of pertinent literature
   - Journal Club is incorporated in Thursday AM meeting, with initial journal club review didactic and subsequent presentations that is organized by fellows with staff mentoring
   - Staff-mentored research protocol development and quality improvement projects with initial research design didactics and subsequent presentations organized by fellows with staff mentoring
   - AASM practice exams
   - AASM sleep study scoring examinations
   - Staff-mentored lecture series development

K. CLINICAL POPULATION

Hennepin County Medical Center is a critical piece of medical infrastructure for the most populous county in the state as well as a tertiary care facility and level one trauma center for greater Minnesota and parts of Wisconsin, Iowa as well as North and South Dakota. HCMC serves an ethnically and economically diverse patient population. The patient ethnic population is diverse including: Hispanic, Native American, African-American, and Caucasian patient populations.

The Minnesota Regional Sleep Disorders Center, established in 1978, was the first sleep disordered center in the state of Minnesota. A longstanding history of excellence in Clinical Care and Sleep Medicine Discovery has lead to an international referral population. The clinicians and fellows see patients of ages ranging from young children (older than 2 years) to the elderly.

Sleep and circadian rhythm disorders are prevalent throughout all fields of human pathology and health. Sleep disorders are pervasive, disabling, under-recognized and most importantly treatable. These conditions interact with medical and psychiatric comorbidities and require that we take a comprehensive approach in evaluating and managing patients. The most common examples include: Circadian misalignment, inadequate sleep, various forms of insomnia and hypervigilence, restless leg syndrome, sleep-related breathing disorders, and parasomnias.

The fellows will encounter patients in the outpatient, inpatient and laboratory setting, either referred to clinics or directly for sleep studies. Direct referrals are most often referred for the diagnosis and management of sleep-related breathing disorders by clinicians familiar with these conditions. Examples include: sleep related breathing disorders from pulmonary, cheyne-stokes periodic breathing from cardiology, and hypoventilation from bariatrics. Coordination of care requires the development of referral letters for all outpatients, and daily patient updates for inpatient management teams.

L. SKILLS AND PROCEDURES

The HCMC rotation provide fellows the opportunity to learn the performance, indications, contraindications, complications, and limitations of the following Sleep Medicine interventions:

a. Sleep Laboratory Studies for Children and Adults

1. Overnight laboratory studies for
2. Ambulatory studies including limited channel studies and actigraphy
3. Nap testing including MSLT, MWT

b. Psychometrics

1. Epworth Sleepiness Scale
2. Pittsburgh Sleep Quality Index
3. REM Sleep Behavior Disorder Questionnaire-Hong Kong
4. Minnesota Parasomnia Injury Scale
5. Berlin OSA questionnaire

c. Device application

1. Positive airway pressure-CPAP and bilevel modes including AVAPS, ASV
2. Oxygen
3. Mandibular Advancement Device

4. End Expiratory Positive Pressure Devices
5. Positioning devices
6. Bed Alarm for the treatment of REM parasomnias
7. Light Therapy

d. Behavioral therapies

1. Sleep hygiene
2. Sleep schedule counseling
3. CBT for insomnia
4. Pediatric behavioral management
5. Bed room restriction

e. Pharmacological therapies

1. Sleep initiating agents
2. RLS/RBD therapies
3. Stimulant medications
4. Chronotherapeutic interventions
5. Anticataplectic agents

e. Surgical management

1. Upper airway surgery
2. Bariatric surgery

f. General Laboratory Studies

1. Ferritin for management of RLS
2. Thyroid Testing
3. Narcolepsy Haplotyping
4. Dim Light Melatonin Onset
5. CSF Orexin

University of Minnesota Medical Center (UMMC) Rotation Curriculum

This document summarizes the organization of the fellow's educational experience during the rotation.

In an effort to comply with the Institutional and Program Requirements of the Essentials of Accredited Residencies in Internal Medicine Graduate Medical Education, the HCMC/UMMC Fellowship Training program in Clinical Sleep Medicine is organized to provide the intellectual environment, formal instruction, peer interaction and broad supervised clinical experience necessary for fellows to master the knowledge, skills, and attitudes **essential** to the practice of Sleep Medicine. Central to these goals is the fellows' attainment, at the level of a new practitioner, of the **six ACGME core competencies** in the areas of patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice.

Each rotation includes experiences and formal evaluation of outcomes to ensure the development of competent graduates in Sleep Medicine.

A. CONTACT INFORMATION

9. Sleep Clinic Front Desk: 612-273-5091
10. Sleep Laboratory: 612-273-3390
11. Clinic Manager-Christine Lyons: **CLYONS@fairview.org**, (W) 612-273-3307, (C) 612-741-3029
12. Site Director-Tree Cervenka: **cerv0001@umn.edu**, 612-281-0218
13. Fellowship Director-Michael Howell: (C) 612-281-1328
14. Clinic Manager, Southdale Location-Brittani Locker: **blocker1@fairview.org**
15. AMION scheduling-Angie Stepp: **astepp1@fairview.org**

People to Email for Absences from clinic: Christine Lyons, Tree Cervenka, Brittani Locker, Angie Stepp

B. MASTER SCHEDULE 2017-2018

ROTATION SCHEDULE	2017 July-Dec	2018 Jan-June
Fellow A	UMMC	HCMC

C. FELLOW DAILY SCHEDULE (for UMMC lab days)

a. **7:30-9:00** On days when the fellow will be reading polysomnography (Mondays, Tuesdays, and Fridays) the fellow will report to the Laboratory at 7:30 am to conduct morning rounds with the technologists, and begin to review the overnight studies. From 8:00-9:00am the fellows will meet with the attending staff to provide a more comprehensive assessment of PSG results and the staff will teach various facets of PSG interpretation. With the attending staff fellows will determine optimal patient care strategies by triaging patients for PAP setup, discussing with patients the preliminary

results of their studies and determining whether patients will proceed with MSLT. If appropriate short (<10 min) visits with patients in to discuss the preliminary results of their sleep study. At 9:00 Fellows will leave the laboratory to head to clinic.

b. **9:00-12:00** Fellows should report to the Sleep Center at 9:00 am to begin clinic which includes: a) review medical record, interview and examine patients and b) discuss cases with the attending staff of the day and to develop patient care strategies including ordering of diagnostic studies, as well as intervening with various behavioral, durable medical equipment, and pharmacologic interventions c) document the visit in the electronic medical record. The attending will staff personally see and evaluate all patients and be available throughout the day to discuss any issues that arise. Clinic will be scheduled to end at 4pm.
c. **8:00-12:00** On days when fellows do not have polysomnographic interpretation clinic will start at 8:00.
d. **12:00-1:00(pm)** Lunch
e. **1:00-4:00** Return to Continuity Clinic
f. **4:00-5:00** While the fellows are in clinic the PSG technologist will finish scoring the sleep studies from the night before and have them completed for fellows by 4pm. The fellows and staff will divide up the PSG's for interpretation and based on historical the fellow will be responsible for 6-10 studies a week. Fellows will also be given polysomnographic interpretation time (see weekly block schedule) with a goal of having reports finalized within 48 hours of the studies being scored.
g. **5:00-5:30** On Monday and Thursday afternoons fellows will perform a chart review of the scheduled studies coming up for the upcoming night (except for Friday where fellows will review studies for Sunday night). Goals are to ensure that studies are ordered with the correct protocol and prepare the night techs for any issues that might likely arise.
h. **5:30** Done for the day

Sleep Fellow Rotation-PSG Interpretation/Clinic
University of Minnesota Medical Center
Fairview Staffing Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday
Location	FAIRVIEW UMMC	FAIRVIEW SOUTHDALE	FAIRVIEW UMMC	FAIRVIEW UMMC	FAIRVIEW UMMC
AM	Sagar*	Howell	Cervenka*	Case Conference, Core Lectures***	Goswami and Howell

PM	Sagar and Iber	LAB/Admin Time**	Cervenka	Molero	Molero/ Admin Time**

* PSG Interpretation
**Time is dedicated on Thursday PM to work on Quality Improvement Project's and scoring of PSG's, Inpatient evaluations, and direct clinical evaluations.
*** On the third Thursday of the Month there will be a one hour Sleep Center Operational Meeting.

Sleep Laboratory Call Duties
On Monday and Thursday evenings (preceding UMMC PSG reading days) fellows will be expected to be available to direct the overnight management by telephone with the evening techs. This is primarily addressed with chart rounds as noted above to address any foreseeable upcoming challenges. The expected burden of these call duties is expected to be light with phone calls from the laboratory coming to the fellow at less than once per month conducive with ACGME work duty rules. The actual call burden will be revisited monthly to ensure that burden is reasonable.

The attending physician for the evening will be available to answer any questions the fellow feels unable to answer.

D. CONFERENCES

The fellows will attend three weekly sleep medicine conferences (see schedule above). These include: Thurs AM case presentation conference, didactic lectures, core curriculum topic or journal club. In addition, fellows are expected to attend monthly Sleep Center administrative meetings for policy and quality management discussions. The fellow will be free of clinical responsibilities during these conference times.

E. ACHIEVING CORE COMPETENCY EDUCATIONS GOALS AND OBJECTIVES

1. **Patient Care**
    a. Attending staff will personally see and evaluate every patient in the outpatient clinic as well as staff all inpatient evaluations to ensure that an adequate medical history and physical exam has been performed and to help form a clinical management plan.
    b. Attending staff will help ensure that appropriate diagnostic tests have been ordered on all patients.
    c. Attending staff will help fellows interpret all in-laboratory and portable sleep diagnostic evaluations.
    d. Attending staff will teach fellows how to interact with other health care providers to implement patient-focused care.
    e. The clinical faculty will educate fellows about established and evolving biomedical, clinical and cognate sciences during clinical encounters including discussions with patients, ancillary staff, and other health care providers.

f. Through case conferences, research meetings, and didactic sessions teaching faculty will further refine fellow's knowledge of sleep and circadian rhythm's. Fellows will demonstrate an understanding of topics ranging from basic bioscience research to the potential benefits and limitations of novel clinical management strategies.
g. The clinical faculty will then ensure that fellows demonstrate the appropriate application of medical knowledge to patient care strategies.

2. Practice-based Learning and Improvement

a. Every week each fellow will present a case at the Thurs AM Clinical Case Conference.
b. Fellows will alternate presentations at the monthly Journal Club
c. Each fellow will audit the electronic medical record of a chosen sleep disorder to determine whether established clinical standards of care are being followed.
d. The Fellows polysomnographic scoring abilities will be measured against an established standard through the American Academy of Sleep Medicine Inter-Rater Reliability PSG Scoring Program.
e. Fellows will take perform case-management practice exams and will review results with the program director.

3. Interpersonal and Communication Skills

a. Interaction with patients and their families during clinical encounters will be supervised and feedback provided to fellows from attending staff.
b. Fellows will demonstrate communication and interpersonal skills with other health care providers/support staff by participating in multidisciplinary practice meetings involving physicians, mid-level providers, nursing staff, polysomnographic technicians, medical assistants, respiratory therapists and clinical support staff
c. Presentation skills will be refined during presentations at weekly Clinical Case Conference, monthly Journal Club and research meetings.

4. Professionalism

d. Fellows will be monitored by clinical faculty to ensure that they carry out their professional responsibilities with humanism and adhere to ethical principles.
e. The fellow will be evaluated by all medical, nursing, sleep laboratory, and administrative staff. The program director will provide feedback to the fellow during the semiannual evaluation.
f. Expedited feedback will be provided immediately by the program director if there is a report of inappropriate or other concerning behavior.
g. Conversely exemplary behavior will be noted and applauded personally by the program director.
h. Fellows will complete an intranet course on patient privacy and patient safety.
i. Clinical faculty will demonstrate ethical practice and encourage sensitivity to patients with diverse backgrounds

j. Fellows will be expected to complete assigned responsibilities in a timely fashion including pages, patient phone calls, chart documentation, and polysomnographic reports.
k. Attend the minimum number of required conferences (60%)

5. Systems-based Practice

a. Fellows will complete a quality assurance/quality improvement project
b. Each fellow will audit the electronic medical record of a chosen sleep disorder to determine whether established clinical standards of care are being followed.
c. Participate in multidisciplinary practice meetings involving physicians, nurses, medical assistants, respiratory therapists and clinical support staff

F. VACATION REQUESTS

Fellows may take vacation while on the UMMC rotation. Signed requests need to be in to Christine Lyons, Tree Cervenka, Brittani Locker, Angie Stepp and the appropriate administrators for the clinic absences should be contact more than two months prior to time off. See Sleep Fellowship Handbook for further details.

G. CLINICAL LINES OF RESONSIBILITY

All fellow activities, lab and clinic, will be supervised by an attending physician (see attending schedule above) who is ultimately responsible for ensuring proper clinical management.

H. INTERACTION WITH OTHER SERVICES

Sleep Medicine is multidisciplinary field and fellows will communicate with consulting and referring services. These interactions may include: letters to referring providers, notes via the electronic medical record or when appropriate by telephone.

I. UMMC KEY CLINICAL FACULTY

Name	Specialties	Year Certified in Sleep Medicine	Teaching Role
Michael Howell, MD Program Director	**Neurology Sleep Medicine**	**2009**	**Parasomnias, Hypersomnias, Nocturnal Seizures, Sleep Related Movement Disorders, Circadian Rhythm Disorders, Sleep and Obesity, Nocturnal Eating Disorders, Sleep Biochemistry, Sleep Neurobiology, Sleep Development Across the**

			Lifespan

Recent (last 5 yrs) Bibliography:

1. **Howell MJ**, Crow SJ (2012). Nocturnal Eating and Sleep/Movement Disorders. Night Eating Syndrome: Definition, Assessment, and Treatment. Guillford Publishers, New York, NY (Accepted for Publication)
2. **Howell MJ**, Schenck CH (2012). Sleep Related Eating Disorder. Encyclopedia of Sleep, Elsevier Publishing, Oxford, UK (Accepted for Publication)
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4. **Howell MJ** (2011). Did Osama bin Laden have sleep disordered breathing? J Clin Sleep Med. Oct 15;7(5):561.
5. **Howell MJ**, Schenck CH (2011). Treatment of NREM Parasomnias in Adults: Confusional Arousals, Sleepwalking, Sleep Terrors, and Sleep Related Eating Disorder. Therapy in Sleep Medicine. Elsevier Publishing, Oxford, UK
6. **Howell MJ**, Schenck CH (2011). Sleep Related Eating Disorder: relationship to amnesia and a review of its treatment. Pathways to Obesity and Main Roads to Recovery. Nova Publishers, Hauppauge, NY.
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8. Allison KC, Lundgren JD, O'Reardon JP, Geliebter A, Gluck ME, Vinai P, Mitchell JE, Schenck CH, **Howell MJ**, Crow SJ, Engel S, Latzer Y, Tzischinsky O, Mahowald MW, Stunkard AJ (2010). Proposed Diagnostic Criteria for Night Eating Syndrome. Int J Eat Disord, Apr 17, 43(3):241-247.
9. **Howell MJ**, Schenck CH, Larson S, Pusalavidyasagar S (2010). Nocturnal Eating and Sleep-Related Eating Disorder are common in patients with Restless Legs Syndrome (RLS). *SLEEP 2010, San Antonio, June 7.*
10. **Howell MJ**, Schenck CH (2010 with update in 2011). NREM Parasomnia Overlap Disorder, Medlink.com
11. **Howell MJ**, Schenck CH (2010). A case of a 38 yo female with amnestic nocturnal behavior. Case Studies in Sleep Neurology. Cambridge University Press (in publication), Cambridge, UK
12. **Howell MJ**, Schenck CH (2009). Treatment of Nocturnal Eating Disorders. Curr Treat Options Neurol, 11:333-339.
13. **Howell MJ**, Schenck CH, Crow SJ (2009). A review of nighttime eating disorders. Sleep Medicine Reviews, 13(1):23-34.
14. Schenck CH, **Howell MJ** (2008). Sleep Related Eating Disorder. In: The American Academy of Sleep Medicine Case Book. Westchester, Illinois: American Academy of Sleep Medicine 232-235.
15. **Howell MJ,** Schenck CH, Crow SJ (2007). Curbing nocturnal binges in sleep-related eating disorder. Current Psychiatry, 6(7) 19-24.
16. **Howell MJ**, Gomez CM (2007). Sleep in spinocerebellar ataxia. Mov Disord 22(5):753-754.

Conrad Iber, MD **Fairview Service Line Medical Director**	**Internal Medicine** **Pulmonary** **Critical Care** **Sleep Medicine**	**2007**	**Respiratory Physiology, Sleep Disordered Breathing, Sleep Related Hypoventilation/Hypoxemia, Sleep Medicine Education/Certification, Sleep and Cardiovascular Disease, Polysomnographic Interpretation, System-wide Patient Care Strategy**

			Development, Portable Monitoring

Recent (last 5 yrs) Bibliography:

1. **Iber C**. Implementation of the 80-hour work-week limitation for residents has not improved patie and education. *J of Clin Sleep Med*. 2006:(2):1;18-20.
2. **Iber C.** Chronic obstructive pulmonary disease and sleep. In: T. Lee-Chiong, ed. *Encyclopedia of Sleep Medicine: A Comprehensive Handbook.* John Wiley & Sons Inc: 2006:89:677-684.
3. Gay P, Weaver T, Loube D, **Iber C**. Evaluation of positive airway pressure treatment for sleep related breathing disorders in adults. *Sleep*. 2006:29:381-401.
4. **Iber C,** Ancoli-Israel S, Chesson A, Quan S. The New Sleep Scoring Manual–The Evidence Behind The Rules. *J Clin Sleep Med.* 2007; 3:107.
5. Silber M, Ancoli-Israel S, Bonnet M, Chokroverty S, Grigg-Damberger M, Hishkowitz M, Kapen S, Keenan S, Kryger M, Penzel T, Pressman M, and **Iber C**. J Clin Sleep Med. 2007; 121-131:107.
6. Grigg-Damberger M. Gozal D. Marcus CL. Quan SF. Rosen CL. Chervin RD. Wise M. Picchietti DL. Sheldon SH. **Iber C**. **The visual scoring of sleep and arousal in infants and children.** *J Clin Sleep Med. 2007; 3:201-240.*
7. Caples SM. Rosen CL. Shen WK. Gami AS. Cotts W. Adams M. Dorostkar P. Shivkumar K. Somers VK. Morgenthaler TI. Stepanski EJ. **Iber C**. **The scoring of cardiac events during sleep.** *J of Clin Sleep Med. 2007; 3:147-154.*
8. **Iber C,** Ancoli-Israel S, Chesson A, and Quan SF for the American Academy of Sleep Medicine. *The AASM Manual for the Scoring of Sleep and Associated Events: Rules, Terminology, and Technical Specifications, 1st ed.:* Westchester, Illinois: American Academy of Sleep Medicine, 2007.
9. Kushida CA. Chediak A. Berry RB. Brown LK. Gozal D. **Iber C.** Parthasarathy S. Quan SF. Rowley JA. Positive Airway Pressure Titration Task Force. American Academy of Sleep Medicine. Clinical guidelines for the manual titration of positive airway pressure in patients with obstructive sleep apnea. *Journal of Clinical Sleep Medicine.* 2008; 4:157-71.
10. Quan SF. Berry RB. Buysse D. Collop NA. Grigg-Damberger M. Harding SM. **Iber C.** McCall WV. Sateia MJ. Sheldon SH. Silber MH. Sorscher A. Ward SL. Veasey S. Woodson BT. Hess B. Kangilaski R. *Development and results of the first ABMS subspecialty Certification Examination in Sleep Medicine.* Journal of Clinical Sleep Medicine, 2008. 4**:** 505-8.
11. **Iber C.** Wang K. Cardiac Monitoring During Sleep. *Sleep Medicine Clinics,* 2009. 4: 373-384.
12. Berry RB. Chediak A. Brown LK. Finder J. Gozal D. **Iber C.** Kushida CA. Morgenthaler T. Rowley JA. Davidson-Ward SL. *Best clinical practices for the sleep center adjustment of noninvasive positive pressure ventilation (NPPV) in stable chronic alveolar hypoventilation syndromes.* Journal of Clinical Sleep Medicine, 2011. **6**(5): p. 491-509.

Tereza Cervenka, MD Site Director, UMMC	**Pulmonary/Critical Care Sleep Medicine**	**2009**	**Sleep Disordered Breathing, Sleep Related Hypoventilation/Hypoxemia**

Recent (last 5 yrs) Bibliography:

1. Reilly C, **Cervenka T**, Hertz MI, Becker T, Wendt CH. Human neutrophil peptide in lung chronic allograft dysfunction. Biomarkers. 2011 Dec;16(8):663-9. Epub 2011 Oct 11.
2. Zhang Y, Wroblewski M, Hertz MI, Wendt CH, **Cervenka TM**, Nelsestuen GL. Analysis of chronic lung transplant rejection by MALDI-TOF profiles of bronchoalveolar lavage fluid. Proteomics. 2006 Feb;6(3):1001-10.

Snigdha Pusalavidyasagar, MD	**Internal Medicine**		**Sleep Disordered Breathing Insomnia**

	Sleep Medicine		Sleep Pharmacology

Recent (last 5 yrs) Bibliography:

1. Sert-Kuniyoshi FH, Squires RW, Korenfeld YK, Somers VK, **Pusalavidyasagar S**, Caples SM, Johnson LL, Thomas RJ, Lopez-Jimenez F. Screening for obstructive sleep apnea in early outpatient cardiac rehabilitation: Feasibility and results. Sleep Med. 2011 Oct;12(9):924-7. Epub 2011 Oct 5.
2. Adachi T, Sert-Kuniyoshi FH, Calvin AD, Singh P, Romero-Corral A, van der Walt C, Davison DE, Bukartyk J, Konecny T, **Pusalavidyasagar S**, Sierra-Johnson J, Somers VK. Effect of weight gain on cardiac autonomic control during wakefulness and sleep.
Hypertension. 2011 Apr;57(4):723-30. Epub 2011 Feb 28.
3. AS, Garcia-Touchard A, van der Walt C, **Pusalavidyasagar S**, Wright RS, Vasquez EC, Lopez-Jimenez F, Somers VK. Patients with obstructive sleep apnea exhibit impaired endothelial function after myocardial infarction. Chest. 2011 Jul;140(1):62-7. Epub 2011 Feb 24.
4. Romero-Corral A, Sert-Kuniyoshi FH, Sierra-Johnson J, Orban M, Gami A, Davison D, Singh P, **Pusalavidyasagar S**, Huyber C, Votruba S, Lopez-Jimenez F, Jensen MD, Somers VK. Modest visceral fat gain causes endothelial dysfunction in healthy humans. J Am Coll Cardiol. 2010 Aug 17;56(8):662-6.
5. Kuniyoshi FH, **Pusalavidyasagar S**, Singh P, Somers VK. Cardiovascular consequences of obstructive sleep apnoea. Indian J Med Res. 2010 Feb;131:196-205. Review.
6. Kuniyoshi FH, Garcia-Touchard A, Gami AS, Romero-Corral A, van der Walt C, **Pusalavidyasagar S**, Kara T, Caples SM, Pressman GS, Vasquez EC, Lopez-Jimenez F, Somers VK. Day-night variation of acute myocardial infarction in obstructive sleep apnea.J Am Coll Cardiol. 2008 Jul 29;52(5):343-6.
7. Kuzniar TJ, **Pusalavidyasagar S**, Gay PC, Morgenthaler TI. Natural course of complex sleep apnea--a retrospective study. Sleep Breath. 2008 May;12(2):135-9.

J. OTHER UMMC CLINICAL AND TEACHING FACULTY

Name	Specialties	Year Certified in Sleep Medicine	Teaching Role
Umesh Goswami, MD	**Pulmonary/Critical Care Sleep Medicine**		**Sleep Disordered Breathing, Sleep Related Hypoventilation/Hypoxemia**
Louis Kazaglis, MD	**Internal Medicine Sleep Medicine**		**Hypersomnias, Sleep and Endocrine**
Tom Hurwitz, MD	**Psychiatry, Sleep Medicine**		**Portable Monitoring**
Jennifer Hsia, MD	**Otolaryngology**		**Upper Airway Surgery for the Treatment of Sleep Disordered Breathing**
Helena Molero, MD	**Pediatric Sleep medicine**		**Pediatric Sleep Medicine**
Mike John	**Dental Sleep Medicine**		**Treatment of Sleep Disordered Breathing with Dental and other Oral Devices**

K. PRINCIPLE SETTING AND TEACHING METHODS

1. Settings-The principal setting for teaching will be the University of Minnesota Medical Center, Sleep Disorders Center with its associated Clinic and Laboratory.
2. Teaching Methods-The Sleep Medicine rotation utilizes the following teaching methods:
   - Staff-supervised clinic teaching encompassing clinical evaluation and review of relevant laboratory data
   - Staff-supervised review of diagnostic sleep studies/actigraphy/MSLTs
   - Core lectures by sleep staff medicine
   - Progressive discovery case conferences with review of pertinent literature
   - Journal Club conference with initial journal club review didactic and subsequent presentations that is organized by fellows with staff mentoring
   - Research conferences
   - Staff-mentored research protocol development
   - Staff-mentored quality improvement projects
   - AASM practice exams
   - AASM sleep study scoring examinations
   - Staff-mentored lecture series development

L. CLINICAL POPULATION

The University of Minnesota Medical Center, Fairview is a tertiary care facility receiving referrals from the Fairview Health System, the state of Minnesota and upper Midwest Region. In addition to this approximately half of our patient population is directly referred from primary care providers or patients seeking medical attention themselves. The patients encountered are predominantly adults with a slight female gender predominance (approx 60/40) and adolescents over the age of 15. The patient ethnic population is diverse including: Hispanic, Native American, African-American, and Caucasian patient populations.

Sleep and circadian rhythm disorders are prevalent throughout all fields of human pathology and health. Sleep disorders are pervasive, disabling, under-recognized and most importantly treatable. These conditions interact with medical and psychiatric comorbidities and require that we take a comprehensive approach in evaluating and managing patients. The most common examples include: Circadian misalignment, inadequate sleep, various forms of insomnia and hypervigilence, restless leg syndrome, sleep-related breathing disorders, and parasomnias.

The patients will be encountered in the outpatient and laboratory setting, either referred to clinics or directly for sleep studies. Direct referrals are most often referred for the diagnosis and management of sleep-related breathing disorders by clinicians familiar with these disorders. Examples include: sleep related breathing disorders from pulmonary, Cheyne-Stokes periodic breathing from cardiology, and hypoventilation from bariatrics. Coordination of care requires the development of referral letters for all outpatients and daily coaching for inpatient teams.

M. SKILLS AND PROCEDURES

The UMMC rotation provide fellows the opportunity to learn the performance, indications, contraindications, complications, and limitations of the following Sleep Medicine interventions:

a. Sleep Laboratory Studies
    1. Overnight laboratory studies
    2. Ambulatory studies including limited channel studies and actigraphy
    3. Nap testing including MSLT, MWT
b. Psychometrics
    1. Epworth Sleepiness Scale
    2. Pittsburgh Sleep Quality Index
    3. REM Sleep Behavior Disorder Questionnaire-Hong Kong
    4. Minnesota Parasomnia Injury Scale
    5. Berlin OSA questionnaire
c. Device application
    1. Positive airway pressure-CPAP and various bi-level modes including AVAPS, ASV
    2. Oxygen
    3. Mandibular Advancement Device
    4. End Expiratory Positive Pressure Devices
    5. Positioning devices
    6. Bed Alarm for the treatment of REM parasomnias
    7. Light Therapy
d. Behavioral therapies
    1. Sleep hygiene
    2. Sleep schedule counseling
    3. CBT for insomnia
    4. Adolescent sleep behavioral management
    5. Bed room restriction
e. Pharmacological therapies
    1. Sleep initiating agents
    2. RLS/RBD therapies
    3. Stimulant medications
    4. Chronotherapeutic interventions
    5. Anticataplectic agents
e. Surgical management
    1. Upper airway surgery
    2. Bariatric surgery
f. General Laboratory Studies
    6. Ferritin for management of RLS
    7. Thyroid Testing
    8. Narcolepsy Haplotyping
    9. Dim Light Melatonin Onset
    10. CSF Orexin