



Edward Via College of Osteopathic Medicine

4th Year Clinical Rotation: Sleep Medicine

MED 8400/MED 8401: Elective Clinical
 Rotation I MED 8410/MED 8411: Elective
 Clinical Rotation II MED 8420/MED 8421:
 Elective Clinical Rotation III MED
 8430/MED 8431: Elective Clinical Rotation
 IV

COURSE SYLLABUS

Chair	Contact Information
Andy Langley, DO Chair of Internal Medicine - AC	Phone: 334-442-4070 Email: dlangley@auburn.vcom.edu
Megan C. Thomas, DO Chair of Internal Medicine - VC	Phone: 540-231-0375 Email: mcthomas@vcom.vt.edu
Teresa Kilgore, DO Chair of Internal Medicine - CC	Phone: 864-327-9817 Email: tkilgore@carolinas.vcom.edu

I. Rotation Description

Students will expand their knowledge of common adult sleep-related disorders and learn about the treatment of acute and chronic medical conditions, including but not limited to parasomnias, obstructive sleep apnea, and narcolepsy. Students are challenged to acquire the ability to apply this knowledge in diverse clinical settings with the majority being in an outpatient consultative service. The curriculum is taught through assigned readings, bedside and clinic teaching, journal clubs, grand rounds, and through one-on-one student-preceptor experience in caring for patients in the clinical setting.

II. Rotation Goals

- a. To acquire the knowledge, skills and competencies that are required to evaluate and treat patients presenting with sleep-related conditions commonly found in the adult
- b. To develop the physical examination and clinical skills required of a graduate medical student in general internal medicine practice, including the ability interpret information relative to normal and abnormal structure, function and physiology
- c. To develop the psycho-social and communication skills and competencies that are required to communicate with, and treat a wide diversity of patients
- d. To develop the ability to research medical literature and scientific resources for information that affects the patient's condition, treatment and outcomes and the ability to evaluate and apply scientifically valid information to maximize the outcome of the patient
- e. To develop knowledge, skill application and understanding of the indications, contraindications and application of medical procedures and therapies common to the specialty, including but not limited to ordering and interpretation of diagnostic studies, utilization of pharmacological agents, incorporation of osteopathic principles and practices into the patient's care, and clinical procedures such as central line placement, lumbar punctures, intubation, etc.

MED 8420/MED 8421: Elective Clinical Rotation III: Sleep Medicine
MED 8430/MED 8431: Elective Clinical Rotation IV: Sleep Medicine

III. Rotation Design

The majority of the Sleep Medicine rotation occurs in the outpatient setting as a consulting service.

IV. Credits

4 week course = 4 credit hours

2 week course = 2 credit hours

V. Suggested Textbook and References

- a. Current Diagnosis & Treatment in Pulmonary Medicine. Available on Access Medicine on VCOM's electronic library
 - Chapter 28: Sleep Apnea & the Upper Airway Resistance Syndrome
 - Chapter 29: Evaluation of Sleepiness & Sleep Disorders Other than Sleep Apnea: Narcolepsy, Restless Leg Syndrome & Periodic Limb Movement
 - Chapter 20: Medical Conditions that Often Cause Daytime Sleepiness
- b. Adams & Victor's Principles of Neurology, 9e. Available on Access Medicine on VCOM's electronic library. Chapter 19: Sleep and its Abnormalities
- c. Current Diagnosis & Treatment in Otolaryngology: Head & Neck Surgery. Available on Access Medicine on VCOM's electronic library. Chapter 41: Sleep Disorders
- d. Harrison's Principles of Internal Medicine, 18e. Available on Access Medicine on VCOM's electronic library. Chapter 27: Sleep Disorders
- e. Hazzard's Geriatric Medicine and Gerontology, 6e. Available on Access Medicine on VCOM's electronic library. Chapter 55: Sleep Disorders
- f. Sleep disorders information: NHLBI (National Heart, Lung, Blood Institute)
<http://www.nhlbi.nih.gov/health/prof/sleep/index.htm>

VI. Course Grading/Requirements for Successful Completion of the Sleep Medicine Rotation

- a. Attendance according to VCOM and preceptor requirements
- b. Preceptor Evaluation at end-of-rotation

Grading policies, academic progress, and graduation requirements may be found in the *College Catalog and Student Handbook* at: <http://www.vcom.vt.edu/catalog/>.

VII. Clinical Performance Objectives

The end-of-rotation evaluation for this rotation will be completed by your preceptor and is based on clinical core competencies. These core competencies reflect student performance in 6 key areas: communication, problem solving, clinical skills, medical knowledge, osteopathic medicine and professional and ethical considerations. Your end-of-rotation evaluation from your preceptor will be based directly on your performance in these 6 core competencies as described below.

- a. Communication - the student should demonstrate the following clinical communication skills:
 1. Effective listening to patient, family, peers, and healthcare team
 2. Demonstrates compassion and respect in patient communications
 3. Effective investigation of chief complaint, medical and psychosocial history specific to the rotation
 4. Considers whole patient: social, spiritual & cultural concerns

5. Efficiently prioritizes essential from non-essential information
 6. Assures patient understands instructions, consents & medications
 7. Presents cases in an accurate, concise, well organized manner
- b. Problem Solving – the student should demonstrate the following problem solving skills:
1. Identify important questions and separate data in organized fashion organizing positives & negatives
 2. Discern major from minor patient problems
 3. Formulate a differential while identifying the most common diagnoses
 4. Identify indications for & apply findings from the most common radiographic and diagnostic tests
 5. Identify correct management plan considering contraindications & interactions
- c. Clinical Skills - the student should demonstrate the following problem solving skills:
1. Assesses vital signs & triage patient according to degree of illness
 2. Perform good auscultatory, palpatory & visual skills
 3. Perform a thorough physical exam pertinent to the rotation
- d. Osteopathic Manipulative Medicine - the student should demonstrate the following skills in regards to osteopathic manipulative medicine:
1. Apply osteopathic manipulative medicine successfully when appropriate
 2. Perform and document a thorough musculoskeletal exam
 3. Utilize palpatory skills to accurately discern physical changes that occur with various clinical disorders
 4. Apply osteopathic manipulative treatments successfully
- e. Medical Knowledge – the student should demonstrate the following in regards to medical knowledge:
1. Identify & correlate anatomy, pathology and pathophysiology related to most disease processes
 2. Demonstrate characteristics of a self-motivated learner including demonstrating interest and enthusiasm about patient cases and research of the literature
 3. Are thorough & knowledgeable in researching evidence based literature
 4. Actively seek feedback from preceptor on areas for improvement
 5. Correlate symptoms & signs with most common diseases
- f. Professional and Ethical Behaviors - the student should demonstrate the following professional and ethical behaviors and skills:
1. Is dutiful, arrives on time & stays until all tasks are complete
 2. Consistently follows through on patient care responsibilities
 3. Accepts & readily responds to feedback, is not resistant to advice
 4. Assures professionalism in relationships with patients, staff, & peers
 5. Displays integrity & honesty in medical ability and documentation
 6. Acknowledges errors, seeks to correct errors appropriately
 7. Is well prepared for and seeks to provide high quality patient care
 8. Identifies the importance to care for underserved populations in a non-judgmental & altruistic manner

g. Osteopathic Manipulative Medicine Components

Students must be familiar with the OMM didactic and workshop requirements for their OMS-4 year as described in the Osteopathic Manipulative Medicine website.

VIII. Curriculum

The Sleep Medicine curriculum is delivered through the assigned readings detailed on the website that affect the clinical conditions most commonly encountered in the care of the adult patient. Each of these topics has specific learning objectives and is accompanied by assigned readings in the texts.

a. Physiology of Sleep

1. Reading assignment:

- i. Adam's & Victor's Principles of Neurology section on Physiology of Sleep and Sleep-Wake Mechanisms
- ii. Harrison's section on Physiology of Sleep and Wakefulness

2. Objective:

- i. Understand the stages of sleep
- ii. Discuss physiologic changes that occur to the body during sleep

b. General evaluation of sleep disorders

1. Reading assignment:

- i. Harrison's section on Disorders of Sleep and Wakefulness
- ii. Hazzard's Geriatric Medicine and Gerontology sections on Changes in Sleep with Aging and Special Issues
- iii. Current diagnosis and treatment in Pulmonary Medicine section on Introduction: Disorders Other Than Sleep Apnea in Chapter 29.

2. Objectives:

- i. Understand common patient presentations to sleep consultants
- ii. Demonstrate history and physical related to sleep disorders including sleep diary, Epworth sleepiness scale
- iii. Understand common evaluation methods in sleep medicine including the outpatient sleep study
- iv. Discuss the importance of counseling patients on sleep hygiene

c. Insomnia

1. Reading assignment:

- i. Adams & Victor's Principles of Neurology section on Insomnia and Disorders of Sleep related to Neurologic disease
- ii. Current Diagnosis & Treatment in Pulmonary Medicine Chapter 30: Medical conditions that often cause daytime sleepiness

2. Objectives:

- i. Understand presentation and diagnosis of common insomnias including
 - Primary
 - Acute
 - Insomnia associated with mental disorders
 - Insomnia associated with other medical disorders
 - Medication-, Drug-, or Alcohol-Dependent Insomnia

d. Restless Leg syndrome

1. Reading assignment:

- i. Adams & Victor's Principles of Neurology section on Restless Legs (Ekbom) Syndrome, Periodic Leg Movements of Sleep, and Related Disorders
 - ii. Current Diagnosis & Treatment in Pulmonary Medicine section on Restless leg syndrome in Chapter 29
- 2. Objectives:
 - i. Recognize common presentation of Restless Leg Syndrome, diagnosis and common treatments for this condition
- e. Narcolepsy
 - 1. Reading assignment:
 - i. Adams & Victor's Principles of Neurology section on Narcolepsy and Cataplexy
 - ii. Current Diagnosis & Treatment in Pulmonary Medicine section on Narcolepsy in Chapter 29
 - 2. Objectives:
 - i. Understand pathogenesis, clinical presentation, diagnosis and treatment of narcolepsy
- f. Sleep Apnea
 - 1. Reading assignment:
 - i. Current diagnosis & Treatment in Otolaryngology section on Sleep Disorders in Adults and Sleep Apnea
 - ii. Current Diagnosis & Treatment in Pulmonary Medicine Chapter 28: Sleep Apnea & the Upper Airway Resistance Syndrome
 - 2. Objectives:
 - i. Understand the common patient presentation of sleep apnea both central and obstructive
 - ii. Understand the diagnosis of both central and obstructive sleep apnea
 - iii. Recognize complications of sleep apnea
 - iv. Recognize treatment strategies for obstructive sleep apnea including non-invasive ventilation and surgery
- g. Parasomnias
 - 1. Reading Assignment:
 - i. Adams & Victor's Principles of Neurology section on Parasomnic Disturbances and Isolated Sleep Symptoms and Additional Syndromes Occurring during Sleep
 - ii. Harrison's section on parasomnias within Disorders of Sleep and Wakefulness in Chapter 27
 - 2. Objectives:
 - i. Understand common presentations of various parasomnias including:
 - Somnambulism
 - Sleep terrors
 - Sleep bruxism
 - Sleep enuresis
- h. Circadian rhythm disorders
 - 1. Reading Assignment:
 - i. Adams & Victor's Principles of Neurology section on Disorders of Sleep Associated with Changes in Circadian Rhythm
 - ii. Harrison's section on Circadian rhythm sleep disorders
 - 2. Objectives:
 - i. Understand common presentation and treatment of
 - Jet lag
 - Shift-work disorder