OSS 654
Anesthesiology Clerkship Syllabus

DEPARTMENT OF OSTEOPATHIC SURGICAL SPECIALTIES
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Please Note: At MSUCOM, we are constantly working to improve our curriculum and to meet new AOA accreditation guidelines. We need to meet the challenges of modern medicine that force us to innovate. While major changes will generally be instituted at the beginning of the school year, most minor changes may be implemented semester to semester.

Please be mindful of the need to read your syllabi before beginning your core rotations.

(Updated April 18, 2013)
INTRODUCTION/OVERVIEW

Welcome to the Anesthesiology Service. We believe that you will find your experience with us a valuable one. Our physicians strive to treat patients with quality and compassionate care. We ask that you treat all patients with the same care that you expect for those close to you.

This rotation is a balance of clinical encounters, didactic sessions and reading assignments. This blend will provide you with a strong foundation in your approach to anesthesiology both during urgent, elective and emergency conditions. There will be one-on-one teaching on this rotation. You will find our anesthesiology department physicians to be easily approachable and readily available. But you alone, ultimately, will determine what your experience will be. The more interest you demonstrate in learning, the more you will receive from your anesthesiology experience.

The enclosed syllabus represents the minimum didactic requirements that are to be mastered during your rotation. All anesthesiology educational conferences are mandatory. You must check with the department rotation office for time and scheduled dates that will be in effect during your rotation.

Goals and Objectives

GOALS

Clinical education in anesthesiology involves achieving competence in two important areas:

A. Acquisition of a specific body of information/knowledge.
B. Acquisition of the various mechanical (psychomotor) skills associated with anesthesiology.

The acquisition and demonstration of a core set of anesthesia skills is especially relevant to the adequate application of the art and science of anesthesiology. These skills vary in complexity from the insertion of an intervenous line to endotracheal intubation and progress to many increasingly complex diagnosis and therapeutic modalities. Mastery of these skills will often require repetition, in order for students to achieve the requisite skill level and degree of competence required.
ANESTHESIOLOGY CLERKSHIP OSS 654
ATTENTION!!

IT IS YOUR RESPONSIBILITY TO:

1. READ THIS SYLLABUS IN ITS ENTIRETY AND UNDERSTAND WHAT IS EXPECTED OF YOU WHILE ON THIS ROTATION

2. BE PROFESSIONAL AT ALL TIMES

3. COMPLETE THE FOLLOWING REQUIREMENTS (NOTE THAT THERE IS A DEADLINE):

   A. COMPLETE THE ON-LINE BREEZE PRESENTATION AND PRE-ROTATION QUIZ.

   B. MAINTAIN AN ACCURATE PATIENT/PROCEDURE LOG in the ENCORE Logging System.

   C. COMPLETE THE ON-LINE SHORT ANSWER QUESTIONS, WHICH NEED TO BE UPLOADED TO THE DROP BOX.

   D. TAKE THE END OF SERVICE/ROTATION ON-LINE EXAM.

   D. OBTAIN THE POST-SERVICE/ROTATION ATTENDING EVALUATION

   E. COMPLETE ALL REQUIRED SURVEYS

   F. IT IS YOUR RESPONSIBILITY TO MAKE SURE THAT ALL REQUIREMENTS OF THIS ROTATION ARE MET. FAILURE TO DO SO WILL RESULT IN A NO-PASS GRADE AND EITHER REMEDIATION OR REPEAT OF THE ENTIRE ROTATION.

IF YOU HAVE ANY QUESTIONS YOU MAY CONTACT SHANNON GROCHULSKI-FRIES OR DR. HENRY BECKMEYER
SPECIFIC CLINICAL LEARNING OBJECTIVES

At the completion of the anesthesiology rotation, in each of the following categories, students will be able to:

A. **Pre-Anesthesia History and Physical Examination.**
   Obtain a history and physical examination, including musculoskeletal status, on a scheduled preoperative patient. At a minimum, pertinent information will include: preoperative data (laboratory, x-ray/ecg findings), informed consent, anesthetic plan, and determination of ASA status and appropriate pre-anesthetic medication.

B. **Basics of Anesthesiology/Machine/Monitoring.**
   Complete an anesthesia machine preoperative check. Critical elements of this check include: knowledge of the proper utilization of nitrous oxide, oxygen, gas metering and flow, use of a semi-closed circle absorber system, vaporizer function, and the basics of intraoperative ventilator use. Students should also be aware of the safety features of the anesthesia machine and all applicable monitors.

C. **Anesthetic Agents/Medications**
   Define and describe pharmacodynamic, pharmacokinetic, physiological, and postoperative effects of all anesthetic agents as well as appropriate drug interactions.

D. **Airway Management**
   Identify and/or describe anatomic considerations of the airway, conditions that may compromise that airway, and airway management under mask, oral pharyngeal, nasal pharyngeal, and endotracheal tube placement. Students should also demonstrate familiarity with common complications and treatment of aspiration as well as indications for postoperative extubation.

E. **Spinal, Epidural, and Regional Anesthesia**
   Describe appropriate patterns of regional anesthesia usage, including indications, contraindications, principles of use, physiological effects, medications, basic techniques, proper dosage, as well as recognition of the manifestations of toxicity.

F. **Pain Management (Intraoperative / Post-Operative)**
   Demonstrate familiarity with the various analgesic agents, their modes of administration, physiological effect, and potential complications. If appropriate to your service, you should also be able to define and describe various nerve blocks and their use in intraoperative as well as postoperative acute pain management.

G. **Post-Anesthesia Care Unit**
   List factors related to anesthesia's emergence, recall its effect upon hemodynamics and physiological status, and explain the use of reversal
agents monitoring modalities, and scoring techniques utilized in the post-anesthesia care unit.

H. **Shock: Fluid and Electrolyte Management/Blood Therapy Management**
Distinguish between appropriate uses of fluids intraoperatively, replacement of intravenous volume during the operative procedure, use of blood products, as well as identify complications and side effects associated with volume replacement.

I. **Specific Types of Anesthesia Care**
Be aware of different physiological and psychological parameters encountered in the administration of Pediatric, Cardiac, Neurosurgical, Obstetrical, Ophthalmic, Thoracic, Vascular and Trauma Anesthesia.

FOR THOSE STUDENTS WHO HAVE ELECTED TO TAKE ADDITIONAL ROTATIONS IN ANESTHESIOLOGY (EXCLUSIVE OF REMEDIATION), THE FOLLOWING LEARNING OBJECTIVES MAY APPLY, DEPENDING UPON THE HEALTH CARE INSTITUTION AND INDIVIDUAL DEPARTMENTAL TEACHING OBJECTIVES/MANDATES

J. **Central Line Placement**
Be aware of the indications/contraindications as well as the mechanics relative to central line placement. Participation in the insertion of central lines will be at the discretion of the attending anesthesiologist and the Department of Anesthesiology.

K. **Arterial Line Placement**
Be aware of the indications/contraindication relative to arterial line placement. Participation in the insertion of arterial lines will be at the discretion of the attending anesthesiologist and the Department of Anesthesiology.

L. **Ultrasound**
Be aware of the use(s) of ultrasound in the placement of arterial lines, nerve blocks and central line placement.

RECOMMENDED TEXT(S)
While there are many fine anesthesiology texts available, much of the information contained in this syllabus and study guide may be found in the Handbook of Clinical Anesthesia, Barash, Cullen and Stoelting, Lippincott Williams & Wilkins, Fifth Edition.
LOCAL HOSPITAL CLINICAL OBJECTIVES (IF REQUIRED) WILL BE PROVIDED SEPARATELY BY EACH INSTITUTION

In addition, your hospital may require additional articles, videos or other forms of educational information to be obtained and utilized by you to further answer didactic questions that they may assign. The Chief of the Department of Anesthesiology and/or his/her designate at your hospital will be responsible for assigning a grade to their specific material. MSU/COM, Department of Osteopathic Surgical Specialties and the Division of Anesthesiology will be responsible for grading all didactics requirements including the log sheets and the exam.

COURSE/ROTATION REQUIREMENTS

To successfully complete this rotation, you must complete, and document where required, all of the following administrative and clinical requirements.

A. **Meet with the department where you will be rotating prior to the rotation and set your schedule.** Pick up all required and/or necessary educational materials and determine the educational conference schedule as well as any other mandatory requirements as per the department. Show and go over the end-of-rotation evaluation sheet with your attending so that you are both aware what is required of you.

B. **Complete all assigned shifts.**

C. **Complete the on-line Breeze module in Anesthesiology.** This introductory course and pre-service examination is the online module posted in the course Angel site entitled “Online Study Guide.” Documentation of your access to the online module will be tracked by the Department of Osteopathic Surgical Specialties and the Clinical Clerkship office.

D. **Complete and turn in the short answer questions sheet.** This short answer questions sheet must be downloaded from the Angel course website and then uploaded into the drop box when complete no less than two (2) weeks following the last day of your rotation.

E. **End of the rotation final examination.** You will take the post-service examination online in Angel. You will be notified via email at the time of your exam. In order to receive a passing grade in the course, you must complete this online exam; however the exam will not be graded.

F. **Complete required patient encounter logging system requirement.** When working in the hospital, keep a log of all your daily patient encounters. You must record these encounters in the online ENCORE logging system. You must record all patients you observe and attend to each day. **Please refer to the ENCORE logging system syllabus for details.** At the end of your rotation, print out a copy of your entries and give it to your attending along with your evaluation so that the attending can make a judgment about your logs.
G. Failure to complete the Breeze on-line module and pretest, the short answers sheet, the post-service examination, and the ENCORE patient encounter log requirement in the required time will result in your receiving an ‘N’ grade for this rotation and a complete repeat of this rotation.

H. Return all protocol books (if borrowed) to the hospital anesthesia department within two weeks of the end of the rotation.

I. Attend all scheduled conferences as assigned.

J. Complete any additional didactic work as required by the hospital anesthesia department and return to their office by their deadlines.

K. If illness precludes you from completing a shift, you must make it up.

L. Vacation days may not be scheduled during this rotation.

M. Maintain professional appearance and behavior at all times.

N. You must achieve a satisfactory level on the observation rating form. Ratings of less than satisfactory in two or more categories will be reviewed with you by a member of the MSU-COM anesthesiology faculty with a specific plan for remediation to be decided on a case by case basis.

Remember: Failure to do any of the above will result in an "N" grade and will require remediation as determined by the Department of Osteopathic Surgical Specialties, MSU-COM. A delay by more than 2 weeks from the end of your rotation in submitting required materials and evaluations noted above will result in an "N" grade and a total repeat of the rotation.

O. The Case Study guide and checklists are provided as educational learning tools. They are not required to be turned in as part of requirements for this course.

P. At the completion of the rotation, please fill out the end-of-rotation student evaluation that is online: http://kobiljak.msu.edu/Evaluation/UnitIII.html

SPECIAL CONSIDERATIONS

A. Medicare cases. Per HCFA regulations, medical students may not chart on a patient with medicare insurance if the department wishes to obtain reimbursement for this care. Medical students may participate in the care of these patients but may not be the primary caregiver. There may be other special types of insurance that have the same rules in the area where you are performing your anesthesia rotation and you must follow the department rules regarding who you may and may not see.

B. Special Cases: Upon occasion you may be asked not to be involved in certain anesthesia cases owing to a variety of reasons -- both published and unpublished. Please do not write on these patient's charts.

C. Attire: First impressions are very important. You must wear a clean lab jacket when not in the operating room and professional attire at all times. Name tags must be worn at all times. You must follow the guidelines
relative to head, face, and foot coverings as established and determined by your institution.

D. Sharps: When using sharp instrumentation, all sharps including needles and/or other invasive modalities must be properly disposed of. This is the responsibility of the person performing the procedure and you must take care to remove all sharp instruments in order to avoid injury to your co-workers.

E. Keys to good care: You should be aware of the physical, mental, and laboratory status of all patients in whose care you may anticipate. Constantly reassess your patients and update them of their status in the process as appropriate. Your attending physician should be able to easily access information through you. In short, take full responsibility for all aspects of the patient's care.