

Anesthesia Rotation Educational Goals & Objectives

The anesthesiology rotation is designed to provide the resident with an opportunity to evaluate and manage patients in the perioperative setting. Training should familiarize the resident both with patient management as a member of a coordinated team and with consultation for operative patients on other services. Residents will learn an approach to patients preoperatively and become comfortable with the appropriate ordering and interpretation of laboratory studies and imaging in urgent and non-urgent settings. Residents will develop skills in airway management, basic ventilator management, conscious sedation, pain management, and other pharmacologic management of patients in the perioperative setting.

Faculty will facilitate learning in the 6 core competencies as follows:

Patient Care and Procedural Skills

- I. All residents must be able to provide compassionate, culturally-sensitive, and appropriate care for perioperative patients.
 - PGY2s should seek directed and appropriate specialty consultation when necessary to further patient care.
 - PGY3s should supervise and ensure seamless transitions of care from the recovery room to the inpatient care team.
- II. Residents will demonstrate the ability to take a pertinent history and perform a focused perioperative exam with emphasis on perioperative risk factors, including family history of bleeding, clotting, or anesthetic reaction; comorbidities, such as coronary artery disease, cardiomyopathy, COPD, and cirrhosis; smoking history; and medication use.
 - PGY1s should be able to do a good cardiopulmonary exam and understand normal airway anatomy. PGY1s should be able to differentiate ill from stable patients.
 - PGY2s should be able to access pertinent complex historical information in a timely fashion and detect more subtle physical findings, including performing a detailed airway exam.
 - PGY3s should be able to independently obtain a focused history and perform a targeted physical exam, recognizing a potentially difficult airway.
 - Residents will become competent in airway management skills, including mask ventilation, direct laryngoscopy, laryngeal mask airway placement, and video laryngoscopy. Residents will become comfortable with endotracheal intubation and familiar with nasotracheal intubation, basic ventilator management, conscious sedation, and troubleshooting skills.

Medical Knowledge

- I. Residents will learn basic pharmacology of anesthetic agents, paralytics, sedation, and pressors as well as other commonly used drugs in the perioperative setting, including local anesthetics, benzodiazepines, opioids, muscle relaxants, and antiarrhythmics. Residents will understand the indications, risks, and benefits of general versus regional anesthesia.
- II. PGY2s will develop an understanding of the pathophysiology, clinical presentation, appropriate diagnostic studies, and therapy for the following conditions:
 - Cardiac arrest
 - Malignant Hyperthermia
 - Shock
 - Stable and unstable arrhythmias
 - Uncontrolled pain
- II. PGY3s will gain a better understanding of complexity of managing anesthetic agents and/or treating emergent conditions within the setting of comorbidities.
- III. Residents will become familiar with the Glasgow Coma Scale and scoring systems for sedation, severity of illness, perioperative risk, and postop mortality.
- IV. Residents will be able to understand the indications for ordering and interpretation of preoperative laboratory and diagnostic studies, including:
 - a. CBC, chemistries, coagulation studies, and arterial blood gas
 - b. ECG, echocardiogram, and stress testing
 - c. Chest radiograph and PFTs

Practice-Based Learning and Improvement

- I. All residents should be able to access current anesthesiology practice guidelines from the American Society of Anesthesiology, journals, and other sources to apply evidence-based strategies to patient care.
- II. All residents should learn to function as part of the operating room team to optimize patient care.
- III. All residents should respond with positive changes to feedback from members of the health care team.

Interpersonal and Communication Skills

- I. PGY1s must demonstrate electronic and verbal communication skills that facilitate the timely and effective exchange of information within the system.
- II. PGY1s must be able to accurately describe the risks and benefits of undergoing anesthesia to obtain informed consent.

- III. PGY2s must also demonstrate interpersonal skills that facilitate collaboration with patients, their families, and other health professionals.
- IV. PGY3s should demonstrate leadership skills to build consensus and coordinate a multidisciplinary approach to patient care.
- V. PGY3s must become proficient in managing social dynamics, including identifying the power of attorney or surrogate decision maker, resolving conflict among family members with disparate wishes, and patient advocacy.

Professionalism

- I. All residents must demonstrate strong commitment to carrying out professional responsibilities as reflected in their conduct, ethical behavior, attire, interactions with colleagues and community, and devotion to patient care.
- II. All residents should be able to educate patients and their families in a manner respectful of gender, age, culture, race, religion, disabilities, national origin, socioeconomic status, and sexual orientation on choices regarding their care.
- III. PGY3s should be able to provide constructive criticism and feedback to more junior members of the team.

Systems-Based Practice

- I. PGY1s must have a basic understanding that their diagnostic and treatment decisions involve cost and risk and affect quality of care.
- II. PGY2s must become familiar with perioperative quality measures, risk management strategies, and cost of care within our system.
- III. PGY3s should work with faculty to assess patient care trends in CMHS perioperative care and raise best practice issues that may merit further study.

Teaching Methods

- I. Supervised patient care in the operating room and postoperative recovery room.
 - Residents will initially be directly observed in the preoperative setting to facilitate the acquisition of excellent history taking and physical exam skills. Faculty will always provide one-on-one direct supervision of residents and teaching of hands-on skills for residents in the operating room.
 - Residents will review cases with faculty.
 - Initial emphasis will be on diagnosis and basic management.
 - When residents have mastered these skills, focus will be on medical decision-making and trouble-shooting.
- II. Conferences
 - Specialty-specific didactics
- III. Independent study

- Journal and Textbook reading TBD by attending anesthesiologist.
- Online resources
 - American Society of Anesthesiologists www.asahq.org
 - Pain management and addiction:
<https://www.hhs.gov/opioids/treatment/overdose-response/index.html>
 - Up To Date
 - Clinical Key

Evaluation

- I. Case and procedure logs
- II. Residents will get signed off on procedural skills as they achieve competence.
- III. Attending written evaluation of resident at the end of the rotation based on rotation observations and chart review

Rotation Structure

- I. Residents should contact the anesthesiology attending **2-3 days prior to the start of the rotation** determine start time and location. Residents should read about airway evaluation and management prior to beginning the rotation.
- II. Residents should spend the majority of their time in the OR and recovery room, with the exception of required conferences or patient-related time elsewhere in the hospital.
 - Rotations are a “hands-on” learning experience. Residents should spend the majority of their time engaged in patient care and/or doing procedures.
 - Case-based learning is very effective. Residents may be assigned patient-based questions to research and report back to the team.
 - Resident may be asked to do a short presentation to the group on a pertinent topic.
 - When doing consults, residents should understand the question being asked and provides a concise answer.
- III. Call and weekend responsibilities TBD by the attending physician.
 - Hours worked must be consistent with ACGME requirements and are subject to approval by the Program Director.
- IV. Residents have specialty-specific didactics and should be excused in a timely fashion to attend.