

**TidalHealth
Anesthesiology Residency Program
Rotation Goals and Objectives**

GME Program: Anesthesiology

PGY Level: PGY-3
(CA-2)

Rotation Name: Cardiothoracic Anesthesia

Patient Care and Procedural Skills

Goal: TidalHealth Anesthesiology residents must be able to provide patient care that is patient- and family-centered, compassionate, equitable, appropriate, and effective for the treatment of health problems and the promotion of health. TidalHealth Anesthesiology residents must be able to perform all medical, diagnostic, and interventional procedures considered essential for the area of practice relevant to the resident's chosen specialty.

Objectives: To meet the objectives of this rotation, residents should be able to:

1. Devise and execute a comprehensive plan for the monitoring and anesthesia of patients undergoing cardiothoracic surgeries and procedures.
2. Complete the set-up for elective and emergent cardiothoracic cases by doing the following:
 - a. Ensure proper functionality of special monitoring devices.
 - b. Select appropriate vascular access catheters.
 - c. Ensure fluid delivery systems are set up.
 - d. Choose the appropriate anesthetic and resuscitation drugs, including vasoactive infusions.
3. Perform arterial line, central venous catheter, and pulmonary artery catheter insertions, using ultrasound guidance when applicable.
4. Predict, recognize, respond and prevent intraoperative cardiac ischemia and loss of cardiac output during anesthesia, under appropriate supervision.
5. Manage the anesthesia in patients undergoing cardiac surgery and intracardiac procedures to treat common ailments, including but not limited to, coronary artery disease, valvular stenosis, valvular regurgitation, and symptomatic dysrhythmias.
6. Interpret chest x-ray, EKG, and echocardiography results relevant to the peri-operative care of cardiothoracic surgery patients.
7. Demonstrate the ability to perform thermodilution cardiac output evaluation under level appropriate supervision.
8. Demonstrate the ability to safely insert a trans-esophageal echocardiography (TEE) robe, and manipulate the probe to achieve basic views, under level-appropriate supervision.

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Medical Knowledge

Goal: TidalHealth Anesthesiology residents must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioral sciences, including both the process of scientific inquiry, and the application of this knowledge to patient care.

Objective: To meet the objectives of this rotation, residents should be able to:

1. Demonstrate a sophisticated understanding of the anatomy and physiology of the heart and cardiovascular system.
2. Describe the common intraoperative problems and treatment options in an cardiothoracic surgery case.
3. Explain the use and limitations of common non-invasive and invasive tests for assessing cardiothoracic function, such as transthoracic and stress echocardiography, cardiac catheterization, and myocardial perfusion studies.
4. Demonstrate an understanding of the indications and uses of pharmacological agents for cardiac patients, including but not limited to:
 - a. Antiarrhythmics
 - b. Antianginal drugs
 - c. Inotropes
 - d. Vasodilators
 - e. Antithrombotic/anticoagulants
5. Demonstrate understanding of cardiac surgery and anesthetic implications of the “on-pump” and “off-pump” approach.

Professionalism

Goal: TidalHealth Anesthesiology residents must demonstrate a commitment to professionalism and an adherence to ethical principles.

Objective: To meet the objectives of this rotation, residents should be able to:

1. Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to differences in age, race, culture, religion, ability, and sexual orientation.
2. Act in accordance with ethical principles pertaining to the provision of clinical care, patient protected health information, and informed consent.
3. Demonstrate a responsiveness to patients’ needs that supersedes self-interest.
4. Participate in continuous professional development that contributes to the growth and development of an independently practicing physician.

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5. Complete all tasks in a timely manner and provide the appropriate follow-up and feedback to patients and staff.
6. Demonstrate courtesy and respect for patients, physicians, peers, nurses, and all ancillary staff associated with the interdisciplinary team.

Practice-Based Learning and Improvement

Goal: TidalHealth Anesthesiology residents must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care via consistent self-evaluation and lifelong learning.

Objective: To meet the objectives of this rotation, residents should be able to:

1. Identify personal strengths, deficiencies, and limits in knowledge and expertise as related to the field of anesthesia.
2. Demonstrate the ability to identify, access, and incorporate pertinent medical and scientific information to improve patient outcomes.
3. Systematically examine the practice of anesthesia, in its preoperative and postoperative phases, and incorporate relevant observations to enhance and improve system practices.
4. Assimilate and utilize feedback from faculty and interdisciplinary team members to improve practice.
5. Identify and apply evidence from scientific studies that are relevant to a particular patient's case.

Interpersonal and Communication Skills

Goal: TidalHealth Anesthesiology residents must demonstrate interpersonal and communication skills that further the effective exchange of information and collaboration with patients, their families, and other health professionals.

Objective: To meet the objectives of this rotation, residents should be able to:

1. Maintain comprehensive, timely, and accurate medical records for patients to ensure the effective exchange of information with other members of the patient care team.
2. Communicate effectively with patients and their families across a broad spectrum of cultural and socioeconomic backgrounds.
3. Consult effectively and in a professional manner with physicians, nurses, and ancillary staff.
4. Sustain a therapeutic relationship with patients and their families.
5. Educate patients and families in an understandable and compassionate manner.
6. Demonstrate active listening and allow opportunities for questions when communicating with patients regarding their therapeutic or end-of-life goals, when applicable.

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Systems-Based Practice

Goal: TidalHealth Anesthesiology residents must recognize and respond to the larger context and system of health care, including the structural and social determinants of health, as well as the ability to call effectively on other resources to provide optimal health care.

Objective: To meet the objectives of this rotation, residents should be able to:

1. Deliver anesthesia and analgesia care with mindfulness of the principles of cost-effective healthcare and resource allocation, albeit without compromise in quality and safety of a patient's care.
2. Participate in identifying system errors and recommending potential system solutions to optimize patient outcomes.
3. Identify and support hospital initiatives to improve quality and efficiency in the operating room and other common anesthetizing locations.
4. Demonstrate the ability to effectively practice in a variety of healthcare settings while understanding the resources available in each setting.
5. Enroll other members of the healthcare team in the maintenance and improvement of patient care, including follow-up care.
6. Serve as a patient advocate for both safe and high-quality care.