

Stanford University Anesthesiology Residency Program
Rotation specific goals and objectives for residents
Core Curriculum for PGY 1 Surgery Residents on the Anesthesia Rotation

Description:

The General OR rotation at Stanford University Medical Center offers a broad experience in patient care and peri-operative management for inpatients and outpatients. Anesthetic care is provided for multiple surgical services including General surgery (Breast, Colorectal, GI), Orthopedics, Urology, Plastics, Gynecology, Transplant (Kidney), and Trauma.

This rotation is designed for surgery interns that spend one month in the Stanford OR as their anesthesia elective during their intern year. The intern on anesthesia will be expected to learn the basic principles of anesthesia. The intern will work most days with a resident or attending in the OR at Stanford University Medical Center, with one day spent shadowing an attending in the Preoperative Clinic and one day with a resident or attending in Pediatric Anesthesia at LPCH. Attendance at the weekly lecture CA-1, CA-2, and CA-3 lecture series in addition to the Monday morning grand rounds is expected. It is also expected that interns spend time outside of clinical work for independent reading and attend the grand rounds within their surgical specialty. On the first day of the rotation the intern should pick up the course syllabus and the loaned anesthesia textbook from Yun Tao in the Department of Anesthesia. Interns should keep a log of the cases they performed during the rotation, and they will also be expected to fill out evaluation forms for the course and for the faculty that supervised them.

Interns will be evaluated in the 6 core competencies (Medical knowledge, Patient care, Effective Interpersonal and Communication skills, Professionalism, Practice based learning and improvement, and Systems based practice) using specific evaluation forms. This occurs at the end of each month by each attending the resident has spent time with. They will also be evaluated on their performance during their final exam on the last day of the rotation. This practical final exam involves performing a basic anesthetic from start to finish. Also, each intern is expected to write a one page reflection about their experience during the month and how it will impact their training and patient care. This multiple evaluation approach offers a balanced assessment of the intern's performance over an entire month.

At the end of the rotation the intern should turn in the following items to Yun Tao: case log, evaluation forms, loaned textbook, and one page reflection about the month. An outline of core competencies with rotation objectives, instructional activities, and evaluations is outlined below for the surgery intern rotation.

Goal:

The purpose of this rotation is to introduce the surgical housestaff to the practice of anesthesiology and provide him/her with the anesthetic-related knowledge and skills which are useful and relevant to all physicians

The application of pharmacology and respiratory and circulatory physiology to the clinical care of patients is emphasized, along with life support skills and airway and anesthetic management

By the end of this rotation the intern should be able to:

- Develop a basic plan and to administer anesthesia care for patients ASA I and II under direct supervision.

Specific goals and objectives for residents by core competencies:

GOALS Core Competencies	OBJECTIVES	INSTRUCTIONAL ACTIVITIES	EVALUATION
<p>Knowledge: To acquire and apply knowledge of established and evolving basic and applied clinical sciences that relate to the practice of adult anesthesia.</p>	<p>Know and apply the basic and clinical sciences appropriate to the practice of anesthesia such as physiology, pharmacology, and disease processes.</p>	<p>Weekly Monday, Tuesday, and Wednesday Lectures Grand Rounds</p>	<p>Individual attending evaluations by GOR faculty Final exam given on last day of rotation (practical exam)</p>
<p>Patient Care: To provide compassionate, appropriate, and effective anesthetic management of adults.</p>	<p>Adequate preoperative assessment including:</p> <ul style="list-style-type: none"> • Confirmation of patient/surgeon/surgical site/drug allergies • Evaluation of appropriate laboratory data • Airway and pertinent physical exam <p>Demonstrate basic technical skills in obtaining IV access and in airway management (mask ventilation, intubation, and LMA placement) Perform anesthesia machine check Select appropriate induction and maintenance anesthetic technique Assess emergence from anesthesia and evaluating readiness for extubation Prescribe appropriate post-anesthetic care Able to manage ASA I and II patients</p>	<p>Grand Rounds Modeling by GOR faculty 1:1 teaching in OR by attending faculty</p>	<p>Individual attending evaluations by GOR faculty Final exam given on last day of rotation (practical exam)</p>

<p>Effective Interpersonal and Communication skills: Residents must communicate in a way that leads to effective information exchange of a general or regional anesthetic plan to patients, their families, and professional associates.</p>	<p>Discuss procedures, alternatives, risks, and benefits of anesthetic plan with patient Listen effectively, allow patients/families to ask questions, and be attentive to their concerns Create a sound relationship with patient with empathy and objectivity</p>	<p>Modeling by GOR faculty</p>	<p>Monthly evaluations</p>
<p>Practice based learning and improvement: In order to improve patient care practices, residents must be able to critically evaluate their own performance as well as appraise and incorporate clinical scientific evidence.</p>	<p>Knowledge of common medical complications and mishaps in adult anesthesia Use of information technology to acquire, evaluate, and assimilate current medical literature as it relates to anesthesia Welcome candid and constructive feedback from faculty and others</p>	<p>1:1 teaching in OR by attending faculty Morbidity & mortality case conferences</p>	<p>Individual attending evaluations by GOR faculty</p>
<p>Professionalism: Residents must show a commitment to professional responsibilities, adherence to ethical principles, and sensitivity to diversity.</p>	<p>Display appropriate demeanor, even in adverse situations Act with sensitivity and responsiveness to patient's culture, age, gender, and disabilities Maintain accountability to patients, medical profession, and society Adhere to professional ethics, respect patient privacy Obtain proper consent as well as review and confirm advanced directives, if present Become life long learner</p>	<p>Modeling by GOR faculty Grand Rounds</p>	<p>Individual attending evaluations by GOR faculty Attendance at lectures Updating case logs</p>
<p>Systems-based Practice: A resident must be able to</p>	<p>Advocate for and assist patients with attaining quality health care by using system resources</p>	<p>Modeling in OR by attending faculty</p>	<p>Individual attending evaluations by GOR faculty</p>

<p>demonstrate an awareness of and responsiveness to the system of health care and the ability to effectively call on system resources to provide optimal care.</p>	<p>Act as an organizational problem solver for patient Understand systems issues of clinical performance and patient safety</p>	<p>Grand Rounds</p>	
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Suggested Topics for Learning

Week 1

- a. Perform a complete safety check of the anesthesia machine. (Direct observation, Check list)
- b. Record intra-operative note and anesthetic data accurately, punctually, and honestly. (Chart review)
- c. Set up appropriate equipment and medications necessary for administration of anesthesia. (Direct observation)

Week 2

- d. Understand the basics of the anesthesia machine including the gas delivery systems, vaporizers, and CO2 absorbers. (Quiz)
- e. Conduct a focused history with emphasis on co-existing diseases that are of importance to anesthesia. (Direct observation)
- f. Discuss appropriate anesthetic plan with patient and obtain an informed consent. (Direct observation, check list)

Week 3

- g. Transport a stable patient to the Post Anesthesia Care Unit (PACU).
- h. Provide a succinct anesthesia report to the PACU resident and nurse. (Direct observation)
- i. Leave the patient in a stable condition. (Direct observation, 360 observation PACU nurse)
- j. Make a prompt post-operative visit and leave a note in the chart. (Chart review)

Week 4

- k. Placement of intravenous cannula. (Direct observation)
- l. Basic technical skills in airway management (mask, ETT, LMA) (Direct observation)
- m. Understanding and proper use of appropriate monitoring systems (BP, EKG, capnography, temperature, and pulse oximeter). (Quiz, case discussion)
- n. Perform a basic anesthetic from start to finish (Final examination)

ASSESSMENT METHODS

The resident will be evaluated in the 6 core competencies using specific evaluation forms. The evaluation method is accomplished by each faculty that worked with the resident. Face to face interaction between the attending physician and the intern is also an option. At any point of the rotation, the resident is encouraged to approach the attending physician that they have worked with primarily to assess and discuss performance. In addition, ongoing feedback is provided related to residents' patient care responsibilities and activities. On the last day of the rotation the resident will complete the final exam, which involves performing a basic anesthetic from start to finish.

Typical four weeks rotation*

First Day: Discuss Goals and Objectives for rotation; etiquette in the OR; proper documentation; proper sign out; post-op orders and machine check.

Typical Week:

Monday

6:45-7:45 am Anesthesia Grand Rounds, Li Ka Shing Learning Center

7:45 Report to Stanford OR front board

4:00-5:30pm CA-2 Lecture, Anesthesia Conference Room, H3565

Tuesday

6:45 Stanford OR

4:00-5:30pm CA-1 Lecture, Anesthesia Conference Room, H3565

Wednesday

6:45 Stanford OR

4:00-5:30pm CA-3 Lecture, Anesthesia Conference Room, H3565

Thursday

6:45 Stanford OR

Friday

6:45 Stanford OR

Additional training locations:

Lucile Packard Children's Hospital Operating Rooms – one day (day TBD)

Anesthesia Preop Clinic with Dr. Stephen Fischer – one day (day TBD)

Suggested topics to discuss with attending and residents in the OR:

Standard Monitors

IV Induction Agents Agents

Rational Opioid Use

Use Neuromuscular Blocking Agents

MAC & Awareness

Airway Management including face mask ventilation, intubation, LMA placement and when to use each

Difficult airway algorithm

Intraoperative Hypotension & Hypertension

Crisis Management in Anesthesia

Postoperative Management

Anaphylaxis

Anesthesia for special populations: pediatric, obese, geriatric, trauma, burn...

Fluid management

Types of anesthesia: GA vs MAC vs. block vs neuraxial anesthesia; risks/benefits of each

Blood product management and coagulopathy

ACLS

Common postoperative problems

Delayed awakening

Pain management

Chronic pain patients

Prevention of perioperative neuropathies

Placement of central and peripheral central lines