

Anesthesia Rotation Medical Student Orientation

Students interested in a career in anesthesia may choose to follow the anesthesia-track which includes more reading and additional exposure to procedures. This is to help prepare students for success during potential away-rotations.

On the first day of the rotation please arrive no earlier than 8:00, as the anesthesiologists will be busy getting cases started prior to that. Rena Motika will be able to provide a locker assignment and direct you to the anesthesiologists' office. Once all the students arrive, you will get a brief tour of the OR including the front desk and preanesthesia holding area. Please watch the airway videos on the department website if you haven't already.

Daily Routine

Students are encouraged to set self-directed learning goals and to plan ahead for what you would like to accomplish each day. Arrive early enough to select a patient to see prior to surgery (which typically starts at 0715). If time allows, you are encouraged to perform a preanesthesia evaluation on a patient that you are interested in following. Present your findings to the anesthesiologist assigned to the case. Blank forms can be used during the patient interview and will not become part of the medical record (see below for more details). An anesthetic plan will be discussed and you can follow the patient to the OR. You are not obligated to stay in the OR during the entire surgery. Feel free to seek out new patients and learning opportunities.

In the OR, please introduce yourself to the CRNA and tell them what you'd like to accomplish (manage the airway, start an IV if needed, observe the entire case, etc.).

Speak to the anesthesiologist in charge (or any other available anesthesiologist) to determine which cases would be good for meeting your goals for the day (i.e. spinals, intubations, line placement, pediatric or OB exposure, etc). The in-charge anesthesiologist can be found on the main OR tracking board by the front desk and will be carrying phone #1 (see below). They can also help you look at the schedule for the next day to determine a good location for you to visit (main OR, Baylis day surgery, CVOR, etc).

If you have questions at any time during your rotation, feel free to contact Dr. Liberman (colin.liberman@gmail.com).

Textbook

Basics of Anesthesia, 7th edition by Pardo and Miller, available on Clinical Key

Course Requirements

1. Read the following chapters:
 - 9: Opioids
 - 10: Local Anesthetics
 - 13: Preoperative Evaluation and Medication
 - 16: Airway Management

Anesthesia-track students should also read the following chapters:

- 2: Learning Anesthesia
 - 8: Intravenous Anesthetics
 - 17: Spinal, Epidural, and Caudal Anesthesia
 - 20: Anesthetic Monitoring
 - 39: Postanesthesia Recovery
2. Airway Videos – These videos are found on the anesthesiology department website and should be watched early in (or even prior to) the rotation.
 3. Introductory lecture – A PowerPoint presentation with audio is available on the department website. Please review this at your leisure and plan to meet with Dr. Liberman to go over any questions that you may have regarding it.
 4. Procedure checklist – This list on the department website should serve as a reasonable goal for students to accomplish during their rotation (not graded, but encouraged).
 5. Final Exam – Download from the department website and complete either individually or as a group. Meet as a group with Dr. Liberman or another faculty member to discuss the answers during the final week of your rotation.

Study Questions

Some optional self-directed study questions can be found on the department website. These can be discussed at your leisure with any attending anesthesiologist.

Hospital Locations

Besides working in the main operating room, students are welcome to rotate in different areas of the hospital. Each student should plan on going to ECT at least once during their rotation (available each M,W,F starting at 7:00 on the 5th floor). This is the best location to practice mask ventilation and to learn to start IVs (please one student at a time). Most pediatric cases are done at the Baylis outpatient center. The CVOR is the best location for invasive procedures such as central lines, arterial lines, and double lumen endotracheal tubes. If you're looking for certain types of cases, any anesthesiologist should be able to help you view the upcoming schedule to help you plan when to visit other locations.

Procedures

Procedural checklists can be found on the department website. The checklists are not graded, but serve as a template for achieving a well-rounded experience in Anesthesiology. Students are welcome to participate in most procedures, but depending on the acuity of the case, patient factors, or timing of the procedure, you may be asked to observe or to assist in a minimal fashion.

Preanesthesia Evaluations

The final preanesthesia evaluation is performed by the attending anesthesiologist and entered into the electronic medical record. Blank paper forms are available in the preop-holding area for you to use when presenting to the anesthesiologist. One is attached for your reference. These forms do not become part of the medical record and are strictly used to help you present the case. The electronic forms automatically fill in vital signs, medications, allergies, and previous surgeries so you should not feel pressured to write all of these things down (but don't forget to mention them when pertinent!).

Strive to be brief when interviewing patients (around 10 minutes) and succinct when presenting. Our H&Ps are quite focused. You may need to look in the paper or electronic charts to find all pertinent information. High-yield areas for us include:

- Previous anesthetics and any complications
- Pertinent drug allergies
- Cardiac history along with any recent tests (stress tests, echo, cath reports, EKG)
- Pulmonary history, especially any history of recent illnesses or exacerbations
- Other major systemic diseases with anesthetic implications (e.g. ESRD, significant GERD, debilitating neuromuscular disease)
- Airway exam

Tips for Success

This rotation is loosely organized to allow students the freedom to learn what they want to. It helps to be assertive if there are certain things that you want to see or do during the rotation. Keep in mind that we are a busy private practice group and occasionally don't have as much time as we'd like for teaching.

When looking for cases, avoid rooms with SRNAs (student nurse anesthetists). They get priority for airway management. They have purple magnets on the board by the main OR desk so you can tell which rooms they're in (see picture). Very rarely they'll show up in ECT; if that's the case you'll have to find a different day to report.

Occasionally there may be competition for procedures from other sources (EM and ENT residents, EMT and paramedic students, RT students). They do not get priority over medical students (nor do you over them) so, again, it helps to be assertive.

Below is a picture of the OR assignments found by the front desk of the main OR. CRNAs are marked with red magnets for each room. In this instance, you can see that SRNAs have been assigned to OR rooms 4 and 8. You can also see the name of the anesthesiologist assigned to each group of rooms on the right side, along with phone numbers for each. In this example, Dr. Liberman is assigned to ORs 8,9, and 10 and is carrying phone #4 (306-7618). The in-charge anesthesiologist for the day will have phone #1 (306-7615). They are a good resource for finding cases when looking for something specific.

OR Room	Scr	Prusak	C Operator	CRNA	Anesthesiologist
2		Paoni		O'Flaherty	JANES
3		Nuzback		Fraser	LARSON, A
4		Tillman		Cobern	ELLIS, M Eckhart, SRNA
5	Barnes, J	Hill		McSherry	UY, H.
6		Grundler		Bailey	HODEL, M
7		Hamilton		Brusky	
8	Gardner	Fox	Martin		GORDEN, C DENNEY, SRNA
9	Moragas		Weakley		McMAHAN, J
10	Schmidt	Churchill			FIAUSH, J
11	Behl	Jay Ann	Conn		BEE, K
12	Milhauser	Warren	Thompson		LeFLORE, K.

2 306-7616
 Dr. T. Knox

5 306-7619
 Dr. K. Cunningham

4 306-7618
 Dr. C. Liberman

3 306-7617
 Dr. C. Fiedler

The next page shows an example of a blank pre-anesthetic evaluation that students can use as a template for presenting patients.



PRE-ANESTHETIC EVALUATION

Name _____ Room _____
Date _____ Time _____

Proposed Procedure

Chief Complaint

Age: _____ Sex: _____ Ht: _____ Wt: _____

BP: _____ HR: _____ RR: _____ Temp: _____ SPO₂: _____

Previous Anesthesia History	Medications	
Operations		B Blocker _____ <input type="checkbox"/> N/A Last dose date/time _____ Contraindicated: _____
Family Hx / Complications		Allergies _____

Past Medical History / Review of Systems / Physical Exam			SCIP Measures
wnl	System	Comments / Exam	
<input type="checkbox"/>	Airway/Neck Mouth/Teeth	Mallampati classification: <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV	DNR: Limited <input type="checkbox"/> Full Code <input type="checkbox"/> DVT: Heparin <input type="checkbox"/> Lovenox <input type="checkbox"/> Boot <input type="checkbox"/> PSO <input type="checkbox"/> Glycemic Management <input type="checkbox"/>
	Known history of difficult airway Neck Mobility: <input type="checkbox"/> Full ROM <input type="checkbox"/> Limited ROM <input type="checkbox"/> Limited mouth opening <input type="checkbox"/> Loose or missing teeth <input type="checkbox"/> Caps/Crowns/Bridge/Partial/Dentures	Comments: _____	CXR (Date _____) EKG (Date _____) Hgb / Hct (Date _____)
<input type="checkbox"/>	Respiratory <input type="checkbox"/> Asthma <input type="checkbox"/> OSA/CPAP <input type="checkbox"/> COPD <input type="checkbox"/> Tobacco Use <input type="checkbox"/> Home O ₂	<input type="checkbox"/> BBS	<input type="checkbox"/> Electrolytes (Date _____) <input type="checkbox"/> T & C (Date _____) <input type="checkbox"/> Coags (Date _____) <input type="checkbox"/> Pregnancy Test (Date _____)
<input type="checkbox"/>	Cardiovascular <input type="checkbox"/> HTN <input type="checkbox"/> PVD <input type="checkbox"/> CAD <input type="checkbox"/> MI <input type="checkbox"/> CHF <input type="checkbox"/> Dysrhythmias <input type="checkbox"/> Valvular Disease <input type="checkbox"/> Cardiac/Medical Clearance	<input type="checkbox"/> S ₁ S ₂	<input type="checkbox"/> Other
<input type="checkbox"/>	Gastrointestinal <input type="checkbox"/> Hepatitis <input type="checkbox"/> Hiatal Hernia/GERD	Exercise tolerance _____ NPO after _____	
<input type="checkbox"/>	Neuromuscular <input type="checkbox"/> TIA / Stroke <input type="checkbox"/> Arthritis <input type="checkbox"/> Neuropathy <input type="checkbox"/> Sz Disorder		Anesthetic Assessment and Plan ASA PS I II III IV V E
<input type="checkbox"/>	Renal / Endocrine <input type="checkbox"/> Diabetes BG _____ @ _____ <input type="checkbox"/> Renal Insuff'y / ESRD <input type="checkbox"/> Thyroid	Plan	
<input type="checkbox"/>	Other <input type="checkbox"/> Malignancy <input type="checkbox"/> Weight Loss <input type="checkbox"/> Steroids <input type="checkbox"/> Morbid Obesity <input type="checkbox"/> Bleeding Disorder <input type="checkbox"/> ETOH / Substance Abuse	Premed	
Add'l Monitors			
Postanesthesia Care Unit			
<input type="checkbox"/> Discharge Criteria Met			
RN _____			
MD _____			
Date: _____ Time: _____			

Patient examined and available medical records reviewed. Any update or interval changes affecting the perioperative anesthetic care of the patient are included above.

I have discussed with the patient and/or other _____ the anesthetic plan, alternatives, pertinent risks, and complications. He/she/they agree(s) to proceed. All questions answered.

Physician Signature _____

Date _____

Time _____



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Frequently Asked Questions

Q: If I'm looking for certain procedures, how do I know which cases to follow?

A: Some general ideas:

Intubations - Any surgery with the words "laparoscopic" or "robotic" in them, all gastric bypass cases, most ENT cases, all cases done in the prone position (such as lumbar spine surgery), all cervical spine surgeries, all CABG and heart valve surgeries.

Spinals – All total knee and hip replacements.

LMAs – Most non-laparoscopic and non-robotic gynecologic cases, most non-MAC cystoscopies (ureteroscopies, holmium laser, TURPs), and many peripheral orthopedic cases (hand, wrist, foot, ankle).

IVs – All ECT patients prior to their treatment. Also, many patients will get a 2nd IV placed after induction, for example, all robotic surgeries, many larger abdominal surgeries (colon resection, whipple), and many multi-level spine cases.

Arterial Lines – All CABG and heart valve surgeries, all carotid endarterectomies, most intracranial surgeries, many thoracoscopy/thoracotomies.

Central Lines – All CABG and heart valve surgeries along with most kidney transplants. Other instances typically depend on patient comorbidities.

Peripheral Nerve Blocks – All total knee replacements get an adductor canal block. Most shoulder arthroscopies and all total shoulder replacements get an interscalene block. Most wrist fusions get a supraclavicular or infraclavicular block. Most ankle fusions and ORIFs get sciatic/popliteal blocks.

Q: Who can I talk to about trying to find specific cases or procedures?

A: Any available anesthesiologist and especially the in-charge anesthesiologist. When not seeing patients on 1E, we can usually be found in our office in the main OR near OR 2. We can also look ahead in the schedule to help you plan your week.

Q: What are some ideas to help me get started if I'm having trouble?

A: Watch the introductory PowerPoint – it describes many fundamental concepts of anesthesiology. Read some of the required chapters in the book and any others that interest you. Work on the final exam. Look at your procedure checklist and ask an anesthesiologist which cases would be good to help you complete it. Seek out Dr. Liberman – we can meet and discuss any topics that are interesting to you.