

Preparing for Your Surgical Rotation

Introduction

The surgical rotation is often one of the most daunting of the core rotations that physician assistant (PA) students complete. This rotation has the reputation of requiring long hours, grueling cases in the operating room (OR), and colleagues with strong personalities. Although this all may be true, the well-prepared student can have an exceptional experience, even if surgery is not his or her desired field. This chapter helps you prepare for the basics before and during your rotation and provides you with some tips for success.

BEFORE YOUR ROTATION

Prior to the start of your rotation, reach out to the site and ensure that all paperwork has been completed (scrub access, computer access, parking, badge, etc.). When you speak with the rotation coordinator or preceptor prior to your rotation, ask whether there is anything specific that you need to do to prepare for the rotation. Expectations prior to your arrival vary from site to site, so it is best to check with the site coordinator about what is expected of you prior to your first day. In addition, confirm the time at which you are expected on the first day and ask questions about where you should park and who and where you are to meet. If you are assigned to a hospital or clinic that you are not familiar with, you should consider taking a test drive before your first day so you can get an idea of how long it will take you to get there and to help familiarize yourself with the area so you do not get lost on your first day.

The night before the start of your rotation, make sure that you have all items ready to go the next day. Make sure your clothes have been selected and that

your short white coat is clean and ironed. It is also a good idea to “prepare” your lab coat with essential items such as a pen and notepad, pocket guide(s), and snacks. Box 1.1 includes some suggestions for items to have in your lab-coat pockets. If you are bringing a bag with you, make sure it is packed the night before so that you will not be rushed or forget any of the items needed on your first day. Make sure to get a good night’s sleep as you will want to be well rested when you meet your preceptor.

Box 1.1 Useful Items for Your White Coat

- Stethoscope
- Several pens
- Notecards/notebook for keeping track of your patients (helpful for logging)
- Trauma scissors (inexpensive, can purchase online)
- Any reference books or applications you find helpful
- Lubrication, FOB cards, gloves, tape, 4×4’s . . . , miscellaneous medical supplies
- Always helpful to keep a protein bar or quick snack

FOB, fecal occult blood.

THE FIRST DAY

Unless otherwise instructed, dress to impress on your first day. It is imperative that your white coat is clean and crisp; it should be pressed and wrinkle free. If you are unsure of what to wear or were not instructed, dress as if you were on a job interview. Even if you know that you will be quickly changing into scrubs, do not wear jeans or sweatpants. Wear shoes that are comfortable for you to wear all day. As an alternative, you may want to have a pair of shoes dedicated to the OR that you are both comfortable standing in for long periods of time and that you won’t mind blood or bodily fluids coming in contact with. Your hair should be neat and any jewelry worn should be tasteful. Avoid excessive piercings and consider removing nose rings as these are often not allowed in the OR. In addition, make sure your nails are clipped and neat. Acrylic nails are not allowed at most inpatient sites for infection-control reasons, so take the initiative to remove these prior to your rotation. Tasteful nail polish is generally permitted; however, if your site tells you otherwise, do not be offended if you are asked to remove it.

Upon arriving at the site, make sure you get to your predetermined meeting location early. You do not want your preceptor waiting on you on your first day. When you meet your preceptor for the first time, make sure to stand up and

greet him or her with a firm handshake. Have a positive attitude and come in with an open mind regardless of what students who have been at the site before you have told you.

After meeting your preceptor or coordinator, you will likely be bombarded with an overwhelming amount of information. Many times, part of the early discussion will be goals and expectations of the rotation. If this is not discussed, be proactive and ask your preceptor what his or her expectations are. This not only shows initiative, but also lets your preceptor know that you are serious about this rotation. Part of the conversation about goals and expectations should also include whether and when you are expected to be on call, if you are expected to cover outpatient clinics, and how OR cases will be assigned. Ask about attire; some sites allow you to round in scrubs, whereas others have the expectation that you be dressed professionally each morning. You should also have an idea about where you can keep your items during the day (locker room or call room). At the close of your first day, make sure you have the cellphone or pager numbers of your other team members. Depending on your assignment, you may be working directly with attending physicians, residents, PAs, nurse practitioners/advanced practice registered nurses (APRNs), or a combination of providers.

TIME MANAGEMENT

Effectively managing your time while on your surgical rotation is one of the hardest things for students to do well. While completing your surgical clerkship, your days are long and both physically and mentally exhausting. You are expected to learn a large quantity of information in a short period of time while working long shifts. This overwhelming idea can make it difficult to manage your clerkship and PA program’s expectations and can lead to significant anxiety. The key to this balancing act is time management.

The most successful students are those who manage their downtime exceptionally well; yes, even on your surgery rotation, there will be time where you are not actively engaged in learning or patient care. There is almost always time in between cases when the ORs are being turned over (unless you are assigned to back-to-back cases in different rooms). Moments like this offer excellent opportunities and how you manage these situations will vary greatly from day to day. If you are feeling especially exhausted, this would be a good opportunity for you to eat a snack, use the restroom, or to simply decompress (with some deep breathing or meditation, perhaps). These are also great times for you to do some reading. Read about the case you just saw so you can fully understand the procedure you just completed. Read about the procedure you are about to see so you have some understanding and are better suited to ask educated questions. These are also great moments to take a few practice questions or read a chapter in this book to prepare for your end-of-rotation exam.

Utilizing this in-between time will help you feel less stressed about learning the required material.

Students also often struggle in managing their time in the morning prior to rounds. Although each rotation is different, students are generally expected to preroound on a patient and be prepared to present this patient's case on morning rounds. You are expected to know every detail about your patient, even if every detail is not included in your presentation to the team. As a student, especially early on in the clinical year, it is expected that it will take you longer to gather the necessary information. You can alleviate some stress by staying after you are dismissed in the afternoon/evening to read through your assigned patient's chart. This way, in the morning, you will just need to learn the overnight details, vitals, and so on. Trying to learn a patient's full hospital course prior to rounds may not be possible for the trainee. In addition, this may be exceptionally stressful if you are expected to have written a note by the time of rounds. Putting in an extra few minutes the day before can be especially helpful for you.

OR ETIQUETTE

As you will learn, the OR has its own distinct culture. If you have never been in the OR before, it is helpful if you can enter with the resident or PA who will be with you during the case. When you enter the room, make sure you have appropriate attire; for example, make sure your cap is covering your hair completely and your mask is secured over your mouth and nose. When you first enter the room, remember the caution: "If it's blue, it's sterile!" In general, most of the sterile items in the OR are blue (drapes, towels, etc.); you cannot touch these items until you have "scrubbed in." In other words, you must complete a full scrub of your hands and don a sterile gown and gloves before you can touch any of the "blue items."

On your first day, it is prudent that you arrive to the room early and clearly introduce yourself to the staff. Make sure you tell the circulating nurse and surgical technologist ("scrub tech") your name, role, and that it is your first day. The staff will help you get your gown and gloves; as a student, the staff will typically open your gloves and gown for you so as to avoid any contamination of the field. If you do not know your glove size, ask the PA or resident to help you figure out what works for you. Sometimes finding the perfect glove size involves some trial and error.

When you arrive at the OR, ask the circulator whether you can be of any assistance. If there is downtime, it is always good to ask the circulator and/or scrub tech for any advice. She or he can provide you with valuable insight to the inner workings of the OR. The seasoned staff will teach you how to properly position, drape, or even how to place urinary catheters if you show interest, so always be in the room ready to lend a hand at the beginning of the case.

Showing interest and using your manners can make or break your experience in the OR.

Once you have started the case, you will see that the surgeon, assistant, and technologist work in synchrony like an orchestra. Do what you can not to disrupt the flow. If the surgeon asks for an instrument, you shouldn't be the one handing it to him or her unless asked. Also, you should never touch the Mayo stand. This is the property of the surgical technologist. If the technologist is busy doing something on the back table, ask to take the scissors or pickups and she or he will often give the instrument to you. Conversely, if you are going to place an instrument back on the table, ask the scrub tech for permission first. During the case, your scrub tech can prove to be extremely valuable to you. Remember, he or she most likely has more experience than you do. If you remember this and ask for advice, the surgical technologist can be an invaluable asset to you.

Finally, be respectful of the sterile field. If you contaminate yourself, step back from the surgical field and turn to the scrub tech and circulator for advice. Oftentimes it is a simple fix like changing a glove or placing a sleeve over your arm. If you need to change your entire gown, the circulating nurse will help you do this so that you do not have to rescrub. Most students find that they contaminate themselves at least once on the surgery rotation so don't be embarrassed but also don't make it a habit. Continuing a case with a contaminated glove can have adverse effects on patient outcomes.

If you feel faint or as if you are going to pass out, step back from the field immediately and ask the nurse to help you sit down. The last thing you want to do is pass out into the surgical field. Keep in mind that if you do feel faint and have to scrub out, you are not the first and will not be the last. You are tired, not accustomed to the long hours, and if you don't eat or the smell is just right, you may find yourself feeling unwell. The OR staff (and patient) will be much more forgiving if you don't pass out into the open abdomen or contaminate the entire sterile field.

MEDICINE IS A PRIVILEGE

Don't ever appear disappointed. Medicine is a privilege. Operating is a privilege. If you seem like you are frustrated with your lack of involvement in a case, your involvement in future cases is unlikely to increase and the amount of teaching received by your seniors will most definitely decrease. Always be grateful and thank the staff after the case no matter how much or how little you were able to do during the case.

Additional helpful information specific to the surgical rotation can be found in Boxes 1.2 and 1.3.

Box 1.2 Helpful Tips for the Surgical Rotation

- Be present for rounds (a.m. and p.m.—when not scrubbed).
- Participate in discussions both formal and informal.
- Ask to attend family meetings/discussions.
- Learn how to use the Doppler, pull drains, and so on. Asking to learn this shows that you are interested and your requests will open doors for you.
- See consults with the resident.
- Review imaging. Try to look at it yourself and then ask a team member to review it with you. Look at as many studies as you can; this will help you learn.
- Always follow your patient to the PACU after surgery. Sometimes the resident/PA will lag behind because she or he is answering a phone call or finishing some orders. Don't wait for the provider, follow the patient.

PACU, post anesthesia care unit.

Box 1.3 Dos and Don'ts for the Surgical Rotation

- DO ask your residents if there is anything to do, even if there is nothing to do.
- DO come early and stay late.
- DO always show initiative.
- DO preroound and see a patient on a Monday even if you were not in over the weekend.
- DO assist with preparation of the rounding list.
- DO volunteer information that you were previously asked to look up.
- DON'T complain about your hours.
- DON'T undermine the authority of your superiors, including your interns.
- DON'T take advantage of other students.
- DON'T be the last to arrive and the first to leave.
- DON'T act bored, disinterested, fake, or ungrateful.

Preoperative Evaluation, Testing, and Medication Management

Introduction

Evaluating a patient for surgery requires a delicate balance of risk versus benefit, a term commonly known as *risk stratification*. In controlled situations, risk stratification is often completed by a cardiologist or medical provider; ideally, in the cases of elective surgery, this should be done by a provider who knows the patient well. During this evaluation, the patient and all of his or her comorbidities are evaluated while considering the stress of anesthesia and surgery. In the case of emergencies, this is often hastened as the risk of not proceeding with the operation is greater than the risk of proceeding with it. It is ultimately, however, the decision of the surgeon (and often the anesthesia provider) to determine whether or not it is safe to proceed with surgery. This chapter introduces the basics of perioperative management for elective surgery with an emphasis on medications.

RISK STRATIFICATION

When evaluating a patient to determine whether or not it is safe to proceed with surgery, a principal concern is whether or not the patient is healthy enough to survive the operation and whether or not the patient's comorbidities (if any) would prevent a meaningful outcome after the operation. This begins with a comprehensive review of the patient's medical history, including past medical and surgical history, any medications and/or allergies, and