American Society of Anesthesiologists®

The Official Newsletter of the **Medical Student Component**

## Anesthesiology Externship Program: A Unique Opportunity for Medical Students

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For nearly all medical students, anesthesiology is one of the more challenging specialties to gain exposure to throughout medical school. Unfortunately, at many schools, anesthesia rotations are only offered as an elective during the clinical years, while at other schools it may not be offered at all. Additionally, it tends to be an abbreviated experience compared to many of the other rotations. This poses a problem to medical students who are interested in learning more about what anesthesiologists do and what the specialty has to offer. The University of Oklahoma Department of Anesthesiology addressed this challenge through the creation of an anesthesiology extern program to broaden exposure and opportunities in anesthesiology. This article will explain the extern program and the benefits it provides students with the intent to educate and hopefully inspire medical students to advocate at their home institutions for the creation of a similar program.

The anesthesiology extern program runs throughout the year and is offered to incoming third-year through fourth-year medical students. The program is taken concurrently with students' clinical rotations, as shifts are completed during weekday evenings and on Saturdays. On weekdays, one student is assigned to the adult trauma operating rooms, and one student is assigned to the obstetric unit. On Saturdays, one student floats between pediatrics, obstetrics and trauma. Participating student externs must apply and be accepted into the program at the beginning of each year. Accepted student externs then go through a training process to familiarize them with the operating room and anesthesiology equipment and to teach them duties that must be completed each shift. Once trained, students work on average at least two shifts per month throughout the year. Each shift is financially incentivized, making the program unique among all the specialties on the medical campus, and popular among cash-strapped medical students.

Duties and responsibilities that student externs are trained to complete during their shifts include work typical of an anesthesia technologist, including preparing invasive monitoring arterial lines and "hotline" warmer sets for overnight trauma operating rooms, restocking critical anesthesia equipment in the anesthesia machines, and epidural and spinal carts, and turning-over and setting up anesthesia machines and equipment for emergency C-sections. As these are essential tasks, the extern is a valuable member of the anesthesia team, and coordinates with and supplements the anesthesia technologists. In addition to required duties, students can work one-on-one with anesthesiology residents and attendings, participating in various hands-on procedures including performing endotracheal intubation, starting IVs, observing epidural, spinal and central line placement, and assisting in perioperative care of the patients.

Overall, students gain various benefits from participation in this anesthesiology extern program. These include the acquisition of basic skills and understanding of the preparation required for safe anesthesia care, such as setting up lines and checkout of an anesthesia machine. Further, students improve their procedural skills through consistent, repeated exposure that is superior to an isolated rotation. Arguably the most important aspect is the opportunity to function as part of the anesthesiology team, gaining valuable insight into the responsibilities and challenges of the specialty through action and in-depth conversation.

While not every student that participates in the student extern program chooses to pursue the field of anesthesiology, the externship still offers invaluable experience to all that participate. Students that choose to pursue surgical specialties

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gain operating room exposure by observing trauma and C-section cases, increase their comfort level in the operating room and learn about equipment utilized in the operating room. For students that have a passion for the anesthesia specialty, they can interact with and develop relationships with anesthesiology physicians in one-on-one scenarios, seek out mentors in the field and find writers for letters of recommendation. These relationships that are formed also help to present students with opportunities to participate in case write-ups and research.

In conclusion, the author strongly encourages and highly recommends medical students with interest in anesthesiology to advocate at their home institutions for the creation of a similar program or opportunities that allow students to get a closer look at anesthesiology beyond the limits of formal rotations.

## A Resident's Perspective on Post-Anesthesia Residency Pathways

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**Why choose a fellowship for your career path vs. general practice? Why did you choose your specific fellowship?**
I think this is a very personal decision and both can be the "right decision." Choosing to pursue a fellowship allows the opportunity to gain more knowledge, expertise and skills in a specific area. It's a good option if you know that you want to specialize or if you feel like you need more experience in a specific area prior to going into a generalist practice. This may be more important if your residency program has areas which are lower in case volumes or are difficult to obtain case minimums. Fellowships are also becoming more important if you want to pursue a career in academics. On the other hand, if you know you want to be a generalist, it might be better to jump into a private practice or academic generalist job. This has the advantage of being able to get started in your practice, start making a "real" salary, and working toward tenure/promotion/partnership. For some, it is hard to pursue a fellowship later in their career once they are making that "real" salary and have settled into a practice.

I started residency interested in pursuing a fellowship, knowing that I likely wanted a career in academic medicine. I chose a pediatric fellowship based on my experiences on my resident rotations. I enjoyed working with children and families, the even-more-preciseness of everything with smaller patients, and I found it incredibly rewarding to be involved in surgeries that could make big, lifelong impacts (like repairing cleft palates). While I had enjoyed other rotations, on peds I more often left at the end of the day feeling excited about the next day (even after a long, tedious day in the peds ENT room). The hard days on my peds rotations were still something I looked forward to.

**Were you able to contact previous fellows or recent graduates on the interview trail? If so, what advice did they share?**
At pretty much every interview, there is opportunity to interact and talk with current fellows about their programs. This is invaluable in helping to know what the culture and day-to-day workings of the program are like. I would also advocate for contacting past residents from your home program who are current fellows or past fellows at places that you are considering. Advice I received was to make sure to ask if there were any case minimums that were hard to meet, how helpful the program was in the job search process and how much protected time fellows got outside of their clinical duties.

**What advice would you share concerning the interview process? Is there anything that you would do differently, or think was beneficial?**
My advice would be to apply as early as you can. It doesn't have to be the day the system opens, but I wouldn't wait until the deadline. Some programs will offer interviews on a rolling basis; others will wait until after the deadline for applications ends. Either way, having your application in earlier increases the likelihood of being offered an interview and having more flexibility in scheduling a preferred date. Make sure you know who in your residency program administration will be the one approving your time off for interviews and helping to get the coverage you need — communicate with them early and often. They will be your best friend during interview season. Be prepared to use some vacation days to interview — it may not be the case for everyone, but most people I encountered on the interview trail sacrificed some vacation for interviews. I found it helpful to be really organized by keeping a Google document of all the programs I applied to, interview dates I had scheduled, and the email/phone numbers of the program coordinators so if I needed more information or wanted to reschedule I didn't have to dig through my inbox. Another piece of advice (which sounds obvious) is to be honest in your interviews and don't lie — the world of anesthesiology is small, but the world of pediatric anesthesiology is even smaller. It's a close-knit community of people. Even if you don't end up at a specific program for fellowship, there is a high chance you will interact with your interviewers again at meetings or when looking for employment. Treat the interview process as an excellent way to network. For example, I went to the SPA meeting after the Match had concluded and saw people I interviewed with from most of the programs — many of whom said hello or had conversations with me.

**What did you consider important things to know or ask representatives/programs during your interviews?**
Of course, it is important to ask all the usual things about the call schedule, rotations, opportunities for additional fellowship training or jobs, etc., to figure out if the program will meet your education goals. I also think it is just as important to ask current fellows about their happiness and satisfaction with the program. Are they happy? Do they feel overworked? Do they have appropriate work-life balance? Do they feel supported by their program leadership? The answers to those questions may seriously impact your opinions on a specific program. Also, remember to ask if the program is going to offer spots outside of the Match — this is becoming less and less common but is important. Usually these spots go to internal candidates or candidates committing to a two-year fellowship. If there are eight spots, but four are outside of the match, there are essentially only four spots that you are competing for!

**Important deadlines? Letter writer recommendations or advice? Rotations that are beneficial in your CA-3 year prior to starting your fellowship?**
Remember that the whole process comes early — midway through your CA-2 year!
ERAS opens sometime in November and you can start working on your application and personal statement. Starting in early December, you can submit your application to programs. ERAS closes in May. Programs, however, will review and make interview offers at various times from about February through June. Interviews occur from March through August. *Remember that if you are interviewing after June, the fellows may be brand new and may not be as helpful as outgoing fellows. For the programs I interviewed at later in the season, after their fellows had graduated, I felt like I didn't get as good of an idea of the program and if it would be a good fit for me. Registering for the Match occurs separately through the NRMP; registration opens in June and rank lists can be submitted in late-August through mid-September. Match Day is in early October. In terms of letters of recommendation, one letter must come from your program director. Most people have a pediatric anesthesiologist write one of the other two. My biggest advice here? Ask early! Pick people to write your letters that know you best and will be able to put a personal spin on it. I was surprised by how many people commented on my letters of recommendation during interviews.

## Anesthesiology vs. CRNA: Scope of Practice

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Scope of practice is a challenging issue for many medical specialties, but few have had as lengthy and as public a discussion on the issue as anesthesiology. Over the years our population's increasing demand for health care and surgical services has outpaced the supply of physicians to provide that care, necessitating an increase in the use of specially trained nurses and mid-level providers to fill the gap. In anesthesiology, rapidly improving technology and increased safety have made the field attractive to specialized nurses and prompted a dramatic increase in the number of these providers entering the field. As this field continues to grow, some of these providers have made a push for independent practice free from the supervision of a physician, often claiming that they can provide care just as safely as a physician. With these debates increasingly finding their way into proposed legislation, many medical school students have asked me: How do these providers differ, how is anesthesiology adapting to this changing landscape, and what do you think is the future of the specialty?

Anesthesiologists are specialty-trained medical doctors, which typically have four years of undergraduate education, four years of medical school and four years of residency training to be eligible to practice. In comparison, nurse anesthetists typically have four years of undergraduate education, a minimum of one year of nursing practice in a critical care setting and typically two years of specialty education in a nursing anesthesia program. Many of these programs have evolved over time from master's programs to Ph.D. programs, but the educational requirements affected by this title change vary by program and do not necessarily require a longer period of training or education. Anesthesiology assistants are also mid-level anesthesia providers with a bachelor's degree, but with course requirements more like that of pre-medical students. They also must take the MCAT or GRE and all AA programs require the direct involvement of academic anesthesiologists and require academic medical centers to be primary rotation sites. Both types of anesthetists typically work in a team-based care model under the supervision of a physician anesthesiologist, although there are "opt-out" states that allow nurse anesthetists to practice independently. These independent practice sites are typically rural areas with smaller health care facilities that have had difficulty recruiting physicians.

It is true that the specialty is evolving to meet the changing health care system. Although anesthesiologists frequently oversee midlevel providers and are directly involved in critical portions of operative cases, there are still many facilities where anesthesiologists continue to sit their own cases or care directly for the most critical of patients. Anesthesiologists are also becoming more involved in all facets of perioperative care and, in many facilities, play a major role outside the operating room in the management of their patients prior to and after surgery. Fellowship trained anesthesiologists are also in higher demand than ever before. There has always been a role for cardiac-, pediatric-, critical care- and obstetric-trained specialized anesthesiologists, and these fields continue to

experience a robust job market. The areas of acute pain and regional anesthesia, chronic pain and palliative care have been expanding rapidly as the population ages and alternatives to opioids and general anesthesia are more necessary than ever. General anesthesiologists will also continue to play a critical role in the future of the specialty as leaders of the O.R. and the specialized physicians best trained to care for critically ill patients. The job market in general anesthesia has remained strong.

Concerns about patient access have driven the growth in midlevel anesthesia providers and serves as the primary argument used by their lobbyists for increasing the independent practice of nurse anesthetists. Although organizations like ASA share concerns about access, most significantly in rural areas, patient safety remains the top priority of physician anesthesiologists. ASA has shared the "When Seconds Count" initiative with the public and legislators in the hope of providing education about the unique training of physician anesthesiologists and how this can impact their patients. Although studying the impact of anesthesia providers on patient safety is a difficult task to accomplish, the most scientifically valid studies to date have shown that the safest anesthesia care teams are those led by a physician anesthesiologist. The ASA Political Action Committee (ASAPAC) has fought for patient safety for years and continues to disseminate this information to state and federal leaders as legislative threats to the anesthesia care team arise. These threats are unlikely to disappear any time soon, which makes it even more critical that **current and future anesthesiologists get involved in advocating for their specialty.**

The future of anesthesiology is still a bright one. The unmatched education and training, increased surgical needs of our patient population, and need for innovative approaches to anesthesia practice make physician anesthesiologists well-suited to steer the future of the specialty. To do this, anesthesiologists will need to be vocal advocates for their patients and their profession. They will need to ensure that the public understands the different education and roles of different providers and continue to demonstrate their expertise in patient safety. We will certainly continue to face challenges as our specialty and healthcare system continue to change, but I have no doubt that this generation of anesthesiologists will be up to the task.

## ANESTHESIOLOGY® 2018 – Medical Student Program


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