
Medical Student Component

January 2014

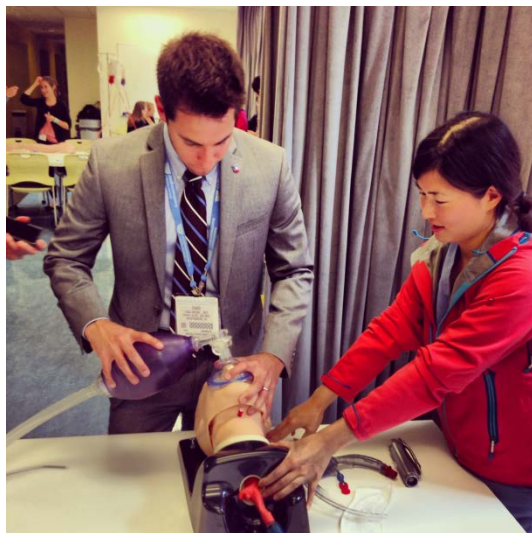
The ANESTHESIOLOGY 2013™ Annual Meeting

By Chad Greene, OMSIII, Chair ASA-MSC



This past October, ASA members converged upon the streets of San Francisco to take part in the annual meeting of the American Society of Anesthesiologists (ASA). Medical students from all over the world made the journey to join in various educational, advocacy, and networking opportunities. This year, more than 400 medical students were in attendance!

We began the weekend with a welcome reception on Friday night where residents and medical students were able to make new friends and catch up with old acquaintances. Saturday morning came early for a group of students who met at the University of California, San Francisco (UCSF) Medical Center for the annual Medical Student Workshop. Attendees rotated through various stations, where they brushed up on intubation skills, intravenous access, real-time patient simulation, ultrasound-guided procedures and anesthesia-related case scenarios. Everyone had an enjoyable and enlightening experience. Thank you to Dr. Manuel Pardo and the rest of the UCSF Anesthesiology staff for putting on this awesome event.



On Saturday afternoon, hundreds of medical students gathered for one of the most popular events of the conference, the Residency Program Director's Meet and Greet. Anesthesiology programs from all over the country were represented at this event and many took advantage of this great networking opportunity.

Later that night, residents and medical students hung up their suits and congregated in a local San Francisco eatery for a night out on the town with friends and colleagues. Proceeds from the night out benefited the Lifebox Foundation.

The Medical Student Component (MSC) House of Delegates convened on Sunday morning. After a welcome from Dan Hansen, the 2012-13 ASA MSC Chair, the first order of business was the election of the new MSC Governing Council. The newly-elected officers are as follows:



Chair: Chad Greene
Chair-Elect: Stephen Shumpert
Secretary: Melissa Zhu
Senior Advisor: Craig Barnette
Member-at-Large: Benjamin Stam
Delegate to the AMA: Jamie Sparling
Alternate Delegate to the AMA: Ryan Budwany
Alternate: Maggie Coffield

Immediately following the elections, we heard from three of the nation's top names in the field of anesthesia. Lecture topics

consisted of the future of anesthesiology and ASA, what residency program directors look for in applicants, and information pertaining to research and education in the field of anesthesiology and perioperative medicine. We also hosted a panel of current anesthesiology residents who took questions from the crowd and shared with us their experiences and ways to prepare for the residency application process.

The weekend came to a close all too early, but excitement was already in the air in anticipation for next year. The ASA annual meeting is a unique and rewarding experience for everyone involved in the field. ASA's commitment to investing in and cultivating young student doctors for a career in anesthesiology and perioperative medicine is unsurpassed, and for that we give our thanks.

I want to thank every medical student who attended the conference this year and encourage you to share your experiences with colleagues and friends. I look forward to seeing you all in New Orleans for ANESTHESIOLOGY 2014™!

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Post-Interview Communication, Second-Look Visits, and Rank Lists

By Craig Barnette, OMS IV, ASA-MSC Senior Advisor



So, you've just finished up with all of your interviews for an anesthesia residency position. What now? We can break up the entire application process to residency into five steps: Apply; Interview; Rank; Match; and

the optional SOAP for any unmatched applicants. The focus of this article will be to advise students on the third step of the application process - rank.

During the ranking step, which includes the post-interview period typically around January-February, many students begin to question whether they should be sending out thank-you notes to programs at which they interviewed, requesting second-look visits in order to have a little extra face time before rank lists are submitted, or just kicking back and taking a breather after a busy semester of traveling the country. In reality, this really depends on what you are trying to accomplish; if your objective in your post-interview communication is to simply express appreciation to programs who gave you an opportunity to visit their training site, a thank-you letter is an excellent medium. If you are still unsure whether a particular program would fit your needs during residency, a second-look visit may be a great way to solidify your rank list. If, however, your primary motivation in establishing additional communication during the post-interview period is to gain an edge over other applicants, then your efforts may not necessarily yield the results you are hoping for.

In order to be somewhat objective, let's take a look at the 2012 NRMP Program Director Survey to see if post-interview contact or a second-look visit improved an applicant's chance of being ranked highly. Out of 38 factors cited by anesthesia residency program directors as being important in ranking applicants, post-interview contact and a second-look visit ranked 36th and 37th, respectively, with a mean importance rating of 2.6 and 2.3 on a 5-point scale. Only 28 percent of anesthesia programs cited post-interview contact as being a factor in ranking applicants. While some programs may be swayed by a well-written thank-you letter, it seems that most anesthesia programs do not place a great deal of weight on any of the post-interview communication when establishing their rank lists of future residents.

Perhaps the most important activity occurring during the pre-match months is the establishment of the applicant's rank list. This can be a daunting task as many programs you will visit will have excellent training opportunities and very few negatives. According to the 2013 NRMP Applicant Survey, the top three factors listed by applicants applying to anesthesiology residencies in establishing their rank lists were reputation of the program (91 percent), geographic location (85 percent), and work/life balance (79 percent). While several other factors were listed, and certainly every applicant will have their own priorities in ranking their top programs, it seems a general rule of thumb is to go by your overall gut feeling about the programs you visited and to try not to over-analyze all of the little differences between them. If you are still having a hard time putting a rank order to your programs, try to figure out what one factor is most important to you and go from there. If living in a big city is a must, you can easily move the small city programs to the bottom of your list. If publishing research is extremely important to you, move all the programs with strong research support to the top of your list. Never rank a program that you would not want to attend, but you should definitely rank every program that you would be happy training at, regardless of how long your rank list seems. Finally, always put your true number-one at the top of your rank list; there is absolutely no advantage in ranking a program you think you have a better chance of matching into at the top of your rank list instead of your favorite program. The match algorithm always gives the applicant his or her top-ranked program as long as the residency still has a spot open.

The takeaways:

- 1) While I highly encourage every applicant to send out as many thank-you notes as time and energy allows, don't expect this single act to boost your rank over other applicants in most situations.
- 2) Second-look visits should not be confused for a valuable time to schmooze the application committee into giving you a high rank, but should be viewed as an opportunity to solidify your rank list if you are still uncertain about specific programs.
- 3) When creating a rank list, be sure to figure out what matters most to YOU and use your overall gut feeling.

While this time before the match can be stressful, realize that you're only a few short months away from finally becoming a doctor! Best of luck to all of the applicants with the match!

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Regarding That Ever-Elusive 'Exposure' to the Mysterious Field of Anesthesiology During Medical School.

By Benjamin Stam, MS III, ASA- MSC Member-at-Large



One of the unanswered questions in medical school curricula is how to allow medical students adequate exposure to the various branches and subspecialties of medicine while also allowing the necessary education of the core courses to occur during the clinical years. Most medical schools only allow a few electives to be taken during the third and fourth years, and many of these electives are granted through a lottery system, so some might not have the chance to take an anesthesiology course. This relative inexperience is complicated by the fact that medical students are required to choose an area of study by the beginning of their fourth years — just the time when they would/could/should be doing sub-internships (Sub-I's). Thus, it is conceivable that many medical students across the country will graduate each year having never gained any exposure to the field of anesthesiology. I would like to provide some tips on how to become acquainted with the field of anesthesiology during the medical school years.

Odds are that if you're reading this right now, you've probably devised your own way of gaining exposure to the field of anesthesiology as a medical student (either that or you have mysteriously and serendipitously stumbled across this newsletter). However, on the off chance that you have not, this article is for you. This article is also for your colleagues who have not had the chance to experience the world of anesthesia and are wondering just how they can.

To the preclinical MSI:

Your brain is being filled with all these amazing new facts and wonderful new words. Where to

begin learning about the field of anesthesiology, you ask? Here are some suggestions to start:

- **Read:** Hey, you have to be reading anyway, why not read a little here and there about anesthesiology? Wikipedia is a great place to start. The American Society of Anesthesiologists (ASA) has a plethora of information (<http://www.asahq.org/For-Students/For-Medical-Students.aspx>). If you want to pull out the big guns, you can download a PDF of Miller's *Basics of Anesthesia*.
- **Ask:** Find a faculty member or resident who might be willing to sit down with you and explain to you exactly what he/she does during the course of a shift. You might start with the anesthesia clerkship director or one of the faculty members who has spoken at an interest group meeting.
- **Attend anesthesiology interest group meetings:** This is, after all, what the interest groups were designed to accomplish (albeit "interest group" is a misnomer since you can hardly be "interested" in something about which you know very little). These meetings can be very helpful by allowing you to hear from physicians and residents in the field and to meet other students who are also interested.
- **Shadow:** Regardless of what you think about your current state of affairs, you will *never* (excluding the entirety of fourth year) have as much time on your hands as you do now. This is the time to get out there and do the legwork to see if you actually like the field. Odds are there is a consistent block of time in your weekly schedule you could carve a couple hours out to head to the O.R. to see what an anesthesiologist does. In my MSI/MSII schedules, it was Friday afternoons. We were always done with lecture at noon and never had activities in the afternoons on Friday. I decided I would use this consistently open block of time to shadow. This was one of the best decisions I made as an MSI.
- **Sign up for summer research:** It doesn't mean you have to give up your whole summer vacation, but if your institution has a summer research program in anesthesiology, look into it and see if it's for you.

To the preclinical MSII:

You're starting to get the hang of this whole med school thing, but you still don't know what you want to do with your life. Here are some ideas:

- **Shadow:** If you didn't start as an MSI, go ahead and start now. Odds are you still have that block of time somewhere in your weekly schedule that you can assign to the O.R. and shadowing. Now is the time that the residents will probably let you try an intubation or an I.V.-start. This is your time, make it count!
- **Research:** Good, high-quality research **takes time!** Now is the time to start. You could very well have a published research article by the time you graduate if you diligently start either a) asking around to see if anyone is starting up a project you can join, or b) coming up with your own idea and presenting it to a faculty member or resident.
- **Get involved in the AIG:** Become an officer if you so desire. It will get you the chance to meet many of the faculty members and give you exposure in the department.
- **Join ASA:** 'nuff said. <http://www.asahq.org/For-Students/For-Medical-Students/Join-Now.aspx>
- **Find a mentor:** A quality mentor at this stage in the game is indispensable. They can guide you toward research, help you with questions, set you up with shadowing opportunities and be a great resource when it comes time for application season. (I know, fourth year seems so far away, but it will be here before you know it!)

To the MSIII:

What happened to sitting in your PJs and studying all day? You mean you have to be at the hospital at 5 a.m.? What?! And you still don't know what in the world you want to do when you grow up. Here's some help:

- **Attend an ASA conference:** These are quite the event each year. There are tens of thousands of attendees from all around the world. Medical students also come to expose their research, meet program directors and see the political side of the field. Odds are there are anesthesiology faculty and residents from your institution who will be in attendance. This is the time to meet them and hang out with them outside the formal O.R. setting.
- **Sign up for an anesthesiology elective:** Duh! This is a great way to get a letter of recommendation for your residency application. Work hard, and don't stand out in a bad way.
- **Do more research!** Research is one of the best ways to broaden your residency application and give you a talking point on your interview trail. Oftentimes it will be your ticket to an ASA conference. FYI, **Medically Challenging Cases** are a quick and easy way to get your name on a poster and present said poster at a convention without much work or time. I would highly suggest asking around to see if any of the residents need help creating and/or presenting their medically challenging case posters.

To the MSIV:

You've got this whole thing figured out... you just need to make your application strong. Then you need to go watch "Breaking Bad" (code for "Downton Abbey" really).

- **Sign up for an anesthesiology sub-I:** This should help solidify your decision to go into anesthesiology. It will also hopefully get you another letter or two for your application, if need be.
- **Research, research, research:** You will need to be doing research as a resident anyway. Better start figuring out the process earlier rather than later. And let's face it, you've got more than enough time on your hands to do it as a fourth year.
- **It's not too late!** Many PGY-1 classes in anesthesia are made up of residents who either completed or started a residency in another specialty. Even if you need to take a gap year or do a transitional year, you will be better off in the long-run.

All-in-all, this is your journey — see what fits you best and go from there.

Best of luck in all your endeavors,

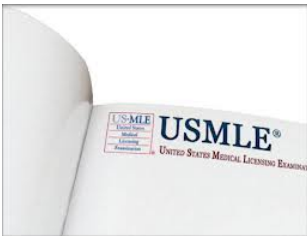
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Anesthesia on USMLE Step 1 and Step 2

By Melissa Zhu, MSIV, ASA- MSC Secretary



Did you know anesthesiology is relevant to your Step 1 and Step 2 exams? Beginning with this issue, we will bring some high-yield anesthesia topics to help you ace the USMLE!

Let's talk about **succinylcholine** first! In the O.R., you will frequently hear people mentioning "sux." What is sux and why is it important?



Succinylcholine is a depolarizing neuromuscular blocking drug, commonly used in induction to paralyze muscles. It targets motor nicotinic receptors, and side effects include hypercalcemia and hyperkalemia.

Succinylcholine is known for its 60-second fast onset and two-phase reversal of blockage:

Phase I: prolonged depolarization – no antidote.

Blockage is potentiated by cholinesterase inhibitors.

Phase II: repolarized but blocked – antidote consists of cholinesterase inhibitors (e.g., neostigmine)

That's it for today. Hopefully if you run into sux on Step 1, you will know that sux is the anesthesiologist's best friend! Good luck!

Reference: Tao Le, Vikas Bhushan, Jeffery Hofmann. First Aid for the USMLE STEP 1. McGraw Hill Medical

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AIG Spotlight

BY Jeff Hodges, MSI, and Jennifer West, MSII



The anesthesiology interest group at Texas Tech University Health Sciences Center's Paul L. Foster School of Medicine in El Paso provided medical students with the opportunity to attend an intubation skills workshop this past November. The workshop was led by Anthony Han, M.D., Ph.D., Associate Professor in the Department of Anesthesiology and Director of the Texas Tech Pain Management Center, along with anesthesiology residents from TTUHSC. The workshop began with a brief instructional session by Dr. Han regarding proper positioning of a patient and correct use of the laryngoscope during intubation. Students were then invited to practice these skills on various adult and pediatric models at the Center for Advanced Teaching and Assessment in Clinical Simulation (ATACS). Hector Aranda, Assistant Director at the ATACS Center, was instrumental in organizing the workshop and preparing the models. The mission statement of the ATACS center is to provide facilities and expertise in stimulation-based health care provider education, and to train learners of all levels using state-of-the-art educational tools.

Skills workshops are necessary resources for students during their preclinical years. First, they allow students to interact with practicing faculty physicians and residents in a low-stress learning environment prior to encountering preceptors in the clinical setting. Second, they provide students with the opportunity to practice on models and gain confidence in their skills prior to performing the procedure on a real patient. This not only gives students an advantage during medical school, but also serves to lessen the learning curve as they approach residency. Finally, it exposes first- and second-year medical students to the requirements and job descriptions of medical specialties, enabling them to make more informed decisions when choosing electives for the third and fourth years of medical school.

Overall, more than 30 MS1s and MS2s attended the workshop and it was well received. Jeff Hodges, a first-year medical student, described this workshop as "an excellent way to see the theory that we have learned in class applied in a more tangible way." The anesthesiology interest group has plans to host a workshop on establishing intravenous access during the next semester. In addition, the group will hold a session with a panel of fourth-year medical students along with Dr. Han, to discuss residency applications and interviews.

Acknowledgement: We would like to thank Dr. Han, residents of TTUHSC, and the members of the ATACS Center for helping make the intubation workshop a valuable and successful educational experience for the medical students.

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FAER Research Opportunities: An Inside Look Into the Medical Student Anesthesia Research Fellowship Program



By Stephen Shumpert, MSII, ASA-MSC Chair-Elect



The Foundation for Anesthesia Education and Research (FAER) provides exceptional opportunities for medical students to work with a mentor researching cutting-edge topics in anesthesiology. FAER's Medical Student Anesthesia Research Fellowship Program (MSARF) offers you the opportunity to research for a summer or full year. You can spend this time at your home institution or visit another academic anesthesiology department.

What Does FAER Offer?

8-week Summer Program

- Available to students in their 1st, 2nd, or 3rd year of medical school.
- Receive a \$400 per week stipend and up to \$1,000 in travel funds.
- Paired with a mentor at your home institution or another anesthesiology department.
- Spend up to six hours per week in a clinical anesthesia setting.
- Present your research at the FAER MSARF Symposium during the ASA annual meeting.

Year-Long Program

- Available to students who have completed their core clinical rotations.
- One year of full-time research in anesthesiology.
- A formal mentor-protégé relationship with an experienced investigator.
- Receive a \$30,000 stipend, plus additional funding to cover relocation, housing, health insurance, travel to a national meeting and other related expenses.
- Present your research at the FAER MSARF Symposium during the ASA annual meeting.

What do you need to apply?

- Curriculum vitae
- Three short essays (250 Words)
- Two letters of recommendation

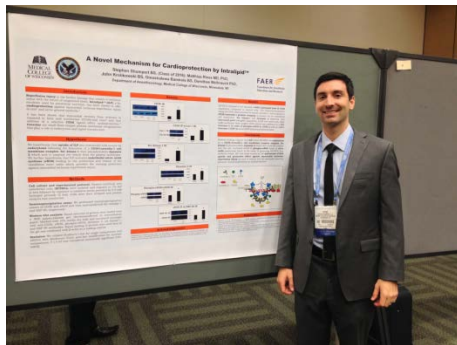
- Letter of good standing
- Program selection (choose up to five anesthesiology departments)



What was my experience like?

I spent this past summer researching “A Novel Mechanism of Cardioprotection by Intralipid” with Dr. Matthias Riess in the Anesthesiology Department of the Medical College of Wisconsin. I learned how to use models to investigate methods of negating ischemia-reperfusion injury. I worked with a great team and learned about the research process. I gained skills ranging from performing assays to writing

abstracts and creating a poster. I presented my poster during the FAER MSARF Symposium at the ASA 2013 annual meeting in San Francisco. Participating in the ASA meeting opened up the opportunity for me to serve on the ASA MSC governing council! I also gained clinical experiences working with Dr. Riess in the O.R. and was able to meet a number of fantastic anesthesiologists. Overall, I had an outstanding experience and have had many doors open because of my participation in the MSARF program.



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Where can you find more information?

More details are available online at www.faer.org/msarf. You can also email Ginger Smith at gingersmith@faer.org if you have any other questions about FAER’s MSARF program.

My ‘Ah Ha’ Moment

By Adjoa Boateng, MSIII
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“Well, Adjoa, to effectively explain the inner-workings of anesthetics on the brain, we must first have a philosophical discussion of consciousness. And that, my dear, would take all afternoon,” quipped one of my senior attendings on the first day of my anesthesia clerkship. While I cannot say that his statement catalyzed the proverbial “Ah ha” moment when a student decides on a specialty, his comment definitely shifted how I would approach and

view the field of anesthesiology.

Throughout the clerkship, residents would often use the pilot analogy to describe how induction and emergence of anesthesia are the most important components – as are the take-off and landing of a flight. However, during my rotation, it became clear that anesthesiology is much more than this. For me, the beauty of this specialty is found in the intangibles. Unlike other specialties, where patients visibly show signs of distress or pathology is evident via imaging and lab results, the anesthesiologist, having limited access to the patient him or herself, must quickly assess limited data to determine the patient's level of homeostasis, comfort and safety.

In the O.R., where medical acumen, precision and technical skill reside, it is still amazing that each day, thousands of patients are able to undergo life-altering surgery through the manipulation of consciousness. Thus, all students regardless of specialty choice, should seize the opportunity to experience the various facets of anesthesiology, as it exemplifies the nexus of medicine as both an art and a science.

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Ask a Resident: Interview With Brad Cardonell, intern at Geisinger Health System in Danville, Pennsylvania

By Maggie Coffield, OMS IV, ASA-MSC Alternate



What was most important to you in a program?

I wanted a program that was committed to maximizing resident education. I would try to gauge how heavily residents are relied upon as a workforce versus how much flexibility the program had for resident education.

What was most important to you in selecting [ranking] a program?

My rank list was based on a combination of factors, including geographical location, program commitment to maximizing resident education, and my interactions with staff and residents during the interview process.

Could you give an aspiring anesthesiologist some interview tips?

1. Relax... most interviews I had were casual conversations.
2. Remember you are interviewing to make sure the program is right for you as much as they are interviewing you.
3. At the end of the day, be sure to take some notes to help you remember how you felt overall about the interview day.

Can you explain the intern year, specifically, the process of matching into both that and the clinical anesthesia years?

The program I matched into was categorical and all of the programs I was interviewing at were categorical. Sometimes candidates put too much focus on the intern year and rank programs

based solely on this first year. I would highly recommend against this strategy. Regardless of the program you match into, the goal of the intern year is the same and that is to expand your base knowledge. More weight should be placed on what the program has to offer during the clinical anesthesia years.

Could you give some tips to first- and second-year students to make them more competitive as the specialty itself becomes more competitive?

Seek out a mentor early! It's beneficial to have an attending physician who can help you with any particular interests you have within anesthesia. It is also advantageous to make friends with the residents and 4th year medical students who are going into anesthesia. Some of the most helpful information I received about the interview trail was from past graduates of my medical school. They were able to give me helpful hints about externships and interviews. I also asked them about specific programs and how they felt when they left the interview day. It was just another piece of information that I could use when ranking the programs.

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About Us:

ASA MSC newsletters are quarterly publications that aim to promote the field of anesthesiology and connect medical students around the country. If you have any memorable anesthesia-related stories or if you want to highlight an anesthesiology interest group activity, please write it up and email it to ASA MSC Secretary Melissa Zhu at **Melissa.zhu725@gmail.com**.

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