

American Society of Anesthesiologists®

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

How to Better Advocate for Anesthesiology on Campus

By Michael Esterlis, MS3 (St. George's University of London and Thomas Jefferson University) and Qiaohua (John) Zhang, MS3 (Thomas Jefferson University)

If you are planning to go into the field of anesthesiology, you are already an ambassador and are representing the profession even if you are not aware of it yet. Third year rotations are difficult, and it can be commonplace to meet passive disapproval when you are asked the dreaded question "Have you thought about what you want to do yet?" Dreaded not because you are not content with your decision, but often due to preconceived ideas people have about our choice of profession, prejudice and the worry to come across disinterested of your current rotation.

We are here to reinforce that commitment and passion are necessary, and to offer communication strategies and principles to cultivate a strong anesthesia-interest culture on campus.

We want to introduce the concept of "The Enthusiastic Promoter." Just like a warm smile, enthusiasm can be infectious. People's love of the profession will take care of the marketing. We want to encourage the same attitude to be applied toward anesthesia. The nature of our chosen profession will sell itself, but we should aim to promote it and hold it in the highest esteem at every interaction with our colleagues or casual social conversation.

We hosted a Q&A session and introduction to anesthesia as a career choice at the Jefferson Anesthesia Society event in September, where an audience representing all medical student years had the opportunity to hear residents give an introduction about the profession, what to

expect on an average day, and a chance to ask questions and raise concerns. Some of these concerns were resounded at a Q&A panel with five attending physicians in February. We wish to discuss the fallacies and debunk some common misconceptions.

The anesthesia scope of practice is narrow.

The different hats we wear are best represented by our ability to establish a myriad of effects in our patients as well as our ubiquitous presence in the hospital. We inject extremely potent and potentially lethal drugs with the intention to remove awareness and memory (unconsciousness/amnesia), anxiety (anxiolysis) and pain (analgesia). We also chemically paralyze (muscle relaxation), take over the instrumental work of breathing (intubation and ventilation) and optimize conditions for the surgeon. We then titrate these drugs in real-time, which affect different organ systems, exercising our clinical acumen and using our medical knowledge of multisystem disease. We are required to be experts in physiology and pharmacology to support life under anesthesia, and to ensure the patient regains their ability to breathe independently and safely transitions to recovery. We follow them in the postoperative suite until they are safe to leave our sight. We are the guardians of our patients.

JUNE 2017 IN THIS ISSUE:

HOW TO BETTER ADVOCATE FOR ANESTHESIOLOGY ON CAMPUS

SUBSPECIALTY HIGHLIGHT

BREAKDOWN OF ANESTHESIOLOGY PRACTICE TYPES

TWITTER
TRENDING IN
ACADEMIC
MEDICINE

RURAL ACCESS TO ANESTHESIA CARE REFLECTION ESSAY

> COMBINED ANESTHESIA PROGRAMS

UPCOMING OPPORTUNITIES

We have the noble privilege to take away people's pain in settings such as the labor and delivery ward with epidurals as well as spinals in cesarean deliveries, allowing mothers to witness the miracle that is birth while remaining relatively free of pain. With the recent innovation and application of ultrasound, we have the extreme precision to target specific nerves and dermatomes. We can now offer localized long-term analgesia and hasten the recovery of our patients, for example, in joint replacements or incisional laparotomy pain. This allows a hastened process of recovery through earlier engagement with physical therapy. Additionally, vast research opportunities in anesthesia are emphasized by diverse fellowships in fields such as obstetrics, regional anesthesia, pain management, pediatrics, neuroanesthesia, cardiac anesthesia, thoracic anesthesia and critical care amongst others. We are known as the airway experts, often called as a last resort in rapid responses and codes. We practice airway management on daily basis. Our comfort with the MAC/Miller, GlideScope, and fiberoptic bronchoscope is unparalleled. Finally, with the recent opioid epidemic as declared by the CDC, we are stepping to the forefront of the iatrogenic plague that is sweeping the U.S. and the world.

It looks boring behind the curtain.

Find a mentor who is willing to challenge you. After years of practice, an anesthesiologist and a well-functioning team can reduce an extremely complex set of decision-making and procedures to what seems as boring routine, just like a wellrehearsed dance. Ask why something is done—try to get the anesthesiologist to verbalize their thoughts. Learn the complexities of the anesthesia machines, gas laws, how each drug alters the human physiology, and why it is used in a particular circumstance. What happens when we collapse a lung during thoracic surgery? Can the patient even tolerate single lung ventilation? The physiology determines what we must alter on our machines. A thorough understanding of cardiopulmonary physiology allows us to react appropriately to traumatizing disturbances on the other side of the curtain. Find someone who forces you to think through these questions. Learn the surgeries and how each anesthetic plan was tailored and customized for the patient. Ask to become involved in procedures once you understand the decision-making—properly secure a 22 gauge? Let's seldinger an arterial line. Anesthesia is markedly hands-on, and getting the most of your experience will come from learning-by-doing. If you have the infrequent opportunity to experience a crisis in anesthesia, you will appreciate that avoiding excitement is part of the job. As older anesthetics agents are retired, novel and safer agents are introduced, algorithms are refined, and technology is exponentially improved over the years, safety and quality improvement became an integral part of our core practice principles.

There is not enough patient face-time.

Building the therapeutic relationship is arguably the most challenging and rewarding within the realm of the perioperative period. We need to acquire the skills to build a quick rapport. We need to gain the trust of allowing someone to take his or her life into our hands within minutes of conversation—now that's a serious task. We often need to calm a child that is scared, or talk with a patient for hours if they have procedural sedation or a regional block with no sedation. We also see patients at the preoperative clinic and use our medical knowledge to ensure the patient is medically optimized to tolerate anesthesia and surgery. In the outpatient setting, we can help manage pain and build long-term relationships with patients.

Concerns about job security with the expanding role of CRNAs and AAs.

One of the authors used to be a respiratory therapist and anesthesia assistant (AA) in Canada prior to medical school, so we offer some insight with the following. Although the CRNA/AA representative bodies will always push for more legislative responsibility as part their agenda to expand their role, it ultimately will not affect you as an individual. Our role is pushed to be more supervisory and with the introduction of the Perioperative Surgical Home, it is important to learn to embrace change. We are challenged academically to be even more diverse, to not only be able to pilot one single patient, but also to be able to manage a surgical suite filled with numerous patients and their comorbidities. Both physicians and allied health care professionals can deliver an anesthetic, however, the CRNA and AA scope of practice is within a defined medical directive (at least in most jurisdictions). The physician's role is also to know when to step outside the rules and algorithms, after having mastered the art and science of anesthesia. Health care and funding agendas are changing, more focus is being placed on quality-based compensation, and the status quo will consistently be challenged. As future anesthesiologists, we need to be comfortable with calculated risk. We should embrace change and remind ourselves the role we play in safeguarding the patient through their health care journey. The training between physicians and other health care professionals is different, and we should reassure ourselves, welcoming collegial and interprofessional patient care. Finally, we should always strive for lifelong learning.

We encourage you to join or pioneer an anesthesia society on campus. Liaise with your local anesthesia department for mentorship. Most importantly, have fun! Anesthesia is handson, so arrange for clinical skills workshops and simulation. We purposely chose not to talk about the perks that come with our field—as nice as they are (lifestyle, indeed). Be armed with information to tackle uninformed concerns, and share your passion. For event ideas, please get in touch with us at jas@jefferson.edu.

Subspecialty Highlight

Twenty Questions with a Cardiothoracic Anesthesiologist:

Leander Lee, M.D.

By Haley Wardrip, M3 University of Missouri Kansas City School of Medicine

Dr. Leander Lee is a cardiothoracic anesthesiologist at Missouri Baptist Medical Center in St. Louis, Missouri. He has owned his own private practice for more than 33 years. He attended medical school at Nebraska College of Medicine in Omaha and trained at Washington University in St. Louis both for residency in anesthesiology and a fellowship in cardiothoracic anesthesia.

1) What is one interesting fact about you?

The interesting fact about myself is the long and difficult journey I took from being an orphan in a poor Chinese town to be educated in the U.S. and becoming a successful cardiac anesthesiologist.

2) What made you decide to go to medical school?

For the Chinese, being a physician is an honorable and respectful profession. I wanted to take care of the sick and make a good living.

3) Where did you go to medical school?

University of Nebraska College of Medicine in Omaha.

4) Why did you choose to go into anesthesiology?

I wanted to be a surgeon. I have very skillful hands. After I took a rotation in anesthesia during the first part of my third year (I completed my M.D. degree in three years because I just could not afford to stay in school any longer), I found anesthesia really interesting and exciting. An anesthesiologist is the internist in the operating room, taking care of all aspects of the patient for the duration of the surgical procedure. I don't like chronic patient care or management at all. To become a surgeon also requires 5 to 7 years in training. I was so poor and I wanted to finish a shorter residency so I could start making a living. I found out, too, that in cardiac anesthesia I could perform invasive monitoring which is what I loved to do.

5) Where did you go to residency? Fellowship?

I was trained at the Barnes-Jewish Hospital in St. Louis, Missouri.

6) Why did you choose to go into cardiothoracic subspecialty?

As I said earlier, I love to place invasive monitors. Only in cardiac anesthesia can we do all these invasive hemodynamic monitoring. I love physiology and pharmacology that provide me a good foundation for understanding hemodynamics.

7) Where do you currently work?

After I finished my training, I became an attending anesthesiologist at Barnes-Jewish Hospital/Washington University School of Medicine doing cardiac anesthesia. About a year and half later I was recruited by two well-known cardiac surgeons from Barnes-Jewish Hospital to start a new cardiac surgery program at Missouri Baptist Medical Center where I've been for 33 years.

8) What is a typical day for you in the hospital?

It can vary a lot from no cases, one or two cases, up to six or seven cases that are shared among three cardiac anesthesiologists. I was solo the first year of my practice working 24/7. We normally start about 6:30 a.m. and sometimes last into the evening. We sometimes work through the night.

9) What is the best part of your job?

Being able to help the really sick patients and enjoying what I love to do.

10) What is the hardest/least favorite part of your job?

Medical charting and documentation is my least favorite.

11) How many hours per week do you work?

I work 30 to 60 hours depending on the surgical schedule.

12) Do you feel you are able to balance your professional and personal life?

I have devoted TOO much of my life to my career. Looking back, I wished I had worked less and spent more time with my family.

13) What interests/hobbies do you have outside of the hospital?

I am a man with few hobbies. I always love to read but there is never enough time. I love good food and wine. I study and collect great wine.

14) Why did you choose private practice over academic medicine?

I actually love academic medicine teaching students and residents. I am a very good clinician, but I am not very good with publishing. There is not much of a future in academic medicine if you don't publish. After 17 months in an academic position, gaining more skills and knowledge, I was ready for solo practice. I loved the challenge to be the only cardiac anesthesiologist in a busy new program. I did over 400 cardiac cases all by myself the first year in private practice. I was well-rewarded financially. I did the work of two or perhaps three anesthesiologists.

15) What are you looking for when you are hiring someone to your practice?

We love to have young, energetic, dedicated and hardworking anesthesiologists. I look for a young anesthesiologist who is well trained and is still eager to learn from someone with years of experience.

16) What characteristics do you think are important in order to thrive in the field of anesthesia?

Having a great interest in physiology and pharmacology so you can manage the patient as a whole. I love the Boy Scouts spirit—be prepared and ready.

17) What advice would you give to an aspiring anesthesiologist?

Don't go through years of training to come out supervising CRNAs. You can make lots of money that way. You want to do your own cases to take care of patients.

18) If you could go back, would there be any advice you would give yourself as a fourth year medical student applying for residency? First of all, decide where you want to settle eventually. I did not like the east or west coast or small towns. I came to St. Louis and hoped that after training I could find a job in town. I interviewed at the Mayo Clinic. It is a great place to train but unless you become employed by the clinic you have to move.

19) Would you choose the field of anesthesiology again? If so, why?

I would not do general anesthesia. I love cardiac anesthesia. Managing the hemodynamics in the critically ill is my ultimate challenge/reward.

20) Where do you see the field of anesthesiology in the next 10–15 years?

There will be a great need of well-qualified anesthesiologists due to the aging population and high demand in cosmetic surgery. There will be competition from the CRNAs if they are allowed to prescribe narcotics. In small towns, CRNAs are already acting like anesthesiologists and receive the same payment.

Breakdown of Anesthesiology Practice Types

By Chris Cheaney, M3 University of Oklahoma College of Medicine

Many of us have experienced the anesthesiologist's role in the operating room, but what does an anesthesiologist's overall practice actually look like? The two main categories of practices in anesthesiology are academic medicine and private practice. Due to the nature of our training we have primarily been exposed to academic anesthesiology. Yet even in academic medicine, we only see the clinical aspect of our attendings' work without seeing the time they invest in research and teaching. Also, data from the Anesthesia Quality Institute shows that 57 percent of anesthesiologists were employed in a private practice as opposed to an academic setting. The majority of us will practice outside of teaching hospitals but if your training has been similar to mine, there has been little exposure to this subject. The differences can best be explained by contrasting the work environment and compensation between the two types of practice.

Academic Medicine

Traditionally, academic medicine was differentiated by a professorship appointment and large amounts of administrative time for the clinician's scholarly pursuits. These pursuits are referred to as the three-legged stool: an equal balance of teaching, research and patient care. More recently, a wide variety of practice types have emerged in academic medicine. Many teaching programs offer various tracts for their clinical faculty. These can include clinician-educator, clinician-research, or pure research tracts and vary significantly with each university. These tracts allow faculty at teaching/research hospitals to pursue the areas of academic medicine that interest them the most while still providing opportunities for promotion and professional growth. Oftentimes, a balance of research, teaching and patient care is still encouraged regardless of tract, but the clinician can heavily favor their time towards their preference. Clinical time is primarily spent supervising residents and/or CRNAs with less than 10 percent of time spent directly performing cases or procedures.

Private Practice

Anesthesiologists in the private sector primarily operate in a physician group. There is a wide amount of variation between different physician groups. Some are large national companies that operate similar to any other corporation with a CEO, CMO and board of directors that make decisions for the group. For example, there are over 15 anesthesia companies in the U.S. that employ 500+ physicians. In contrast to this, many anesthesia groups are local companies that employ less than 20 physicians. These smaller groups often have either a small ownership group or more commonly each physician shares as partner after an initial "buy-in" or after spending 2-3 years in the practice. Time is spent primarily attending to clinical duties either at one hospital or rotating between various hospitals with which the group has a contract. Clinical practice can vary widely depending on the particular group. All-physician groups independently perform all of their own cases. Other groups utilize care teams where the physician both performs his or her own cases and supervises CRNAs or AAs

Compensation

Academic Medicine

The majority of academic facilities compensate their physicians with an annual salary based on the number of years spent with the institution and title (professor, assistant professor, etc.). Many academic hospitals have a system that pays a base salary to their clinical faculty and supplemental income based upon the number of cases worked. Physicians in academic medicine make an average of 10–25 percent below those in the private sector.

Private Practice

Compensation is much more likely to be fee for service than salary-based in private practice. There are two main models for this reimbursement system. First is the traditional fee-for-service model in which one receive the payment for each case he or she performs with a percentage deducted by the group to cover overhead such as malpractice, billing, office space, etc. The other model commonly used is similar in that one receives payment for each case or procedure performed, but this method takes the total Relative Value Units (RVU) earned and multiplies it by the group's average reimbursement rate across all insurance types. This allows for a fee-for-service payment model that does not fluctuate based upon the insurance provider for each case performed.

While these are the major differences between academic anesthesiology and private practice anesthesiology, these are generalizations that do not take into account the large amount of variation from practice to practice. Both private practice and academic medicine have pros and cons that each physician must consider in order to find the type of practice that provides the best fit. As you continue your training in medical school, ask if your school has any community rotations in anesthesia. If they do not, most private anesthesiologists are more than happy to talk through how their group operates and let you spend time working with them. Experiencing the day-to-day life of private practice is the best way to learn the differences in practice and see what setting appeals to you.

Twitter Trending in Academic Medicine

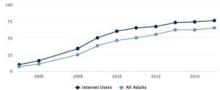
By Toni Gallo

Twitter has changed how he works, said Jason Frank, M.D. (<u>@drjfrank</u>), a clinician-educator at the Royal College of Physicians and Surgeons of Canada (<u>@RoyalCollege</u>). Frank is among a number of health professionals who are using this social media platform to share their scholarship, engage with the public, build new social networks and advocate for change.

Twitter offers a means for educators, clinicians and researchers to communicate and stay connected with each other in real-time through brief 140-character messages. Instead of waiting to discuss new research in-person with a handful of colleagues or at a conference, academic medicine professionals can reach more people in more places through social media. "Within the next decade, you won't be able to be a successful scholar without having some activity on social media," Frank predicted.

Social Networking Use Shot Up in the Past Decade

Percentage of all American adults and internet-using adults who use at least one social networking site.



Source: Pew Research Center surveys, 2005-2006, 2008-2015. No data are available for 2007.

Advancing scholarship one tweet at a time

Stressing the impact of Twitter, Frank said he relies on #meded as one of his primary sources of information about new education research and to build a community of practice. By searching the social media network for this hashtag, he is quickly able to find other colleagues who are tweeting about medical education. For example, Frank might share a tweet (known as retweeting, or RT for short) about a new medical school curriculum and add context by commenting on how that information applies to his own work. Then another educator, someone outside North America perhaps, might read Frank's tweet, which she found through a #meded search of her own, and add a comment about a course she introduced at her school. Now, a conversation has started about this new curriculum that stretches across the globe.

"Within the next decade, you won't be able to be a successful scholar without having some activity on social media."

Jason Frank, M.D.

Royal College of Physicians and Surgeons of Canada

These conversations benefit not only the participants, as they learn from each other, but also their followers, who are able to monitor and take part as the conversation unfolds. Twitter is "a way to connect with scholars all around the world who you wouldn't ordinarily be able to connect with," said Lauren Maggio, M.S., M.A., Ph.D. (@LaurenMaggio), associate director of distributed learning and technology in the Department of Medicine at the Uniformed Services University of the Health Sciences (@USUHSPAO).

In addition to learning about others' research on Twitter, both Frank and Maggio said they use the platform to share their own research with other scholars to increase the influence of their work.

Reaching a broader audience

Another reason to start tweeting? According to the Pew Research Center (@pewresearch), social media use is ubiquitous across genders, races and nearly every other demographic comparison. Potentially, you can reach 313 million adults worldwide who have Twitter accounts. Using Twitter, physicians can reach outside academic medicine to patients and the public, two groups that have traditionally been hard to engage.

Wendy Sue Swanson, M.D., M.B.E. (<u>@seattlemamadoc</u>), a pediatrician and the chief of digital innovation at Seattle Children's Hospital (<u>@seattlechildren</u>), said that social media allows her to amplify her voice and reach a wider audience in a short amount of time.

After talking in the exam room with parent after parent about the value of vaccinating their children, Swanson realized that she could reach more parents by blogging and tweeting about vaccine science and safety than she could counseling one person at a time in the exam room. While others were using social media to spread untruths that were changing the face of vaccine science, Swanson used her Seattle Mama Doc blog and @seattlemamadoc Twitter handle to present the facts from experts in the field.

Without social media, Swanson estimates she could reach about 25 patients a day in the clinic and 10 more in care coordination. With social media, though, she can connect with millions with campaigns such as the 2015 #MeaslesTruth Twitter Storm that reached 20 million people in 10 minutes. Although interactions like these on Twitter may not be as intimate as those in the exam room, they are helping families to understand science. "I don't know how to practice without these tools anymore," said Swanson.

Creating new social networks

As a way to process grief, Sarah Bernstein, M.D. (@sbernsteinmd), a pediatric resident at the University of Illinois College of Medicine at Chicago (@uiccom), wrote about the first patient she lost. More than 170 people tweeted about her essay published in the journal Academic Medicine. Through these tweets, Bernstein connected with other physicians and nurses who had similar experiences, as well as with families who lost children or had babies in a neonatal intensive care unit.

From her story, these families told her, they learned "how much heart had gone into caring for their children." Bridging the gap between families and physicians in this way wouldn't have been possible without Twitter.

Using Twitter is an easier and less invasive way to reach out to a stranger than speaking in person or sending an email, said Bernstein. In this case, Twitter not only encouraged these connections, but also served as an avenue for comfort and healing for both families and a physician alike.

Enacting change

Twitter also allows physicians to take action. On September 30, 2015, the McGill Qualitative Health Research Group (@MQHRG) tweeted an excerpt of a rejection letter their scholars received from the journal BMJ (@bmj_latest). The rejection stated that "qualitative studies are an extremely low priority [for BMJ]." That same day, scholars from around the world used Twitter to express their outrage. They organized to submit an open letter in response to the decision. Hundreds of tweets were sent in the first few days using #BMJnoqual. Three weeks later, 76 researchers from 11 countries had signed the letter, which argued for the value of qualitative research.

In February 2016, *BMJ* published the letter. More than 1,600 people have since sent upward of 2,200 tweets about it, triggering *BMJ* editors to respond with their own open letter and a formal call for articles about qualitative research.

"If you're in health care, social media is a critical element," said Frank. For those not already on Twitter, communication departments of most academic medical centers will be able to provide guidance and share policies about how to engage in social media in a responsible, ethical manner.

Rural Access to Anesthesia Care Reflection Essay

By Kusha Rahgozar, M4 University of Wisconsin School of Medicine and Public Health

The Rural Access to Anesthesia Scholarship Program is sponsored by the American Society of Anesthesiologists to introduce medical students to rural anesthesia. ASA Medical Student members can apply for scholarships valued up to \$500 to pay for travel and lodging expenses for a rural clerkship. See the website below for application instructions and further information.

https://www.asahq.org/about-asa/component-societies/asa-medical-student-component/rural-access-scholarship

As I drove down a single-lane highway, the occasional farmhouse zipping by, I watched the sunset dance across the horizon. Shades of red, orange and blue draped over the South Dakota landscape as the sun lay down for her nightly slumber. I was 10 miles from Watertown, the place I would call home for the next three weeks during my rural anesthesiology rotation. Being born and raised in small-town Wisconsin, the peculiarities and challenges of medical care within rural populations fascinated me. And when I heard about the ASA Rural Access to Anesthesiology Scholarship, I knew it was an opportunity I could not forego.

On my first day at Prairie Lakes Hospital in Watertown, we started our morning by surveying the medical histories (on paper charts, something new to me) of all the patients scheduled for surgery that morning. Once certain no contraindications to surgery were present, we spoke to each patient about the operation and anesthetic plan. Our unstoppable tornado of informed consent and midazolam made its way through the pre-op area until everybody was seen. Finally, the patients were moved back to the operating rooms where ortho case after ortho case was completed at rip-roaring pace. By the end of my first day, it was acutely apparent that a magnificent difference existed between the private practice and academic worlds.

Private practice surgery centers like Prairie Lakes allow turnover to supersede educational redundancy, without jeopardizing patient safety, largely due to the acuity of cases they handle. The majority of surgeries I observed in Watertown were orthopedic procedures carrying low surgical risk and low perioperative mortality. Our daily anesthetic plans generally consisted of regional anesthesia, supraglottic airways and MAC sedation. The surgeries were expeditiously performed. As wounds were dressed, the anesthesia team was expected to wake the patient and migrate to the PACU. And with CRNAs assisting intra-op, this well-oiled surgical machine allowed for five or more operations per day per surgeon.

The anesthesiologists in Watertown had mastered the art of perioperative efficiency, but by the end of my rotation, I realized that my favorite aspect of rural anesthesiology wasn't the pace of it, nor the relative simplicity of it; what I held closest to my heart was the culture. Every member of the surgical team was profoundly friendly. A sense of mutual camaraderie permeated through the hospital, blind to status, role and income. Nobody let their jobs define them, yet everyone strived to perform their jobs with impeccable perfection. What mattered most in life was the ability to live it outside the walls of the hospital. Spending time with family and friends was the priority; work was a means to facilitate this passion. Such a mindset was refreshing, distinct from the grind of academia. And while my personal ambitions lead me more to the challenges of academic medicine, I'm grateful to have experienced practicing anesthesiology in the rural private practice setting. The memories from my rotation in Watertown will be with me throughout my professional career.

Combined Training

Pediatrics and Anesthesiology

<u>Internal Medicine and Anesthesiology</u>

By Herodotos Ellinas, M.D., FAAP, FACP, Medical College of Wisconsin

Why should a student pursue combined residency training?

A few of the advantages in pursuing such a pathway are outlined below:

- 1. These programs offer in-depth training in the corresponding specialties.
- 2. Upon successful completion of the program, residents in these programs are board-eligible in five instead of six years (time needed to complete both residencies sequentially/separately).
- 3. These programs are accredited by the Residency Review Committees (RRC) for Internal Medicine or Pediatrics and Anesthesiology.

The goal of these programs is to develop highly qualified expert physicians in those specialties and funnel them into various subspecialties desperately needed nationwide (critical care, perioperative medicine, academic medicine, safety/quality and pain medicine). The requisites for each of the specialties should complement each other creating physicians who are leaders in their fields and who are able to provide consultation for complex pediatric, adult and anesthesia cases in the perioperative arena.

What is the structure of such programs?

The structure of such a training program incorporates required outpatient rotations in pediatrics or internal medicine (pediatrics-anesthesia and internal medicine-anesthesia, respectively) as well as inpatient high complexity case evaluation and management in pediatrics or internal medicine and anesthesiology. The first year is devoted to pediatrics or internal medicine, the second year is devoted to anesthesiology while maintaining outpatient experience and the last three years are integrated to complete the 60 months required for board eligibility.

What are the general requirements for the application process?

Most programs have one to three positions per match year and require the typical residency application documents (ERAS application with personal statement, CV, transcripts, USMLE scores, etc.). In addition, most programs require letters of recommendation from pediatrics or internal medicine and from anesthesiology faculty to support applicants' commitment to the dual training.

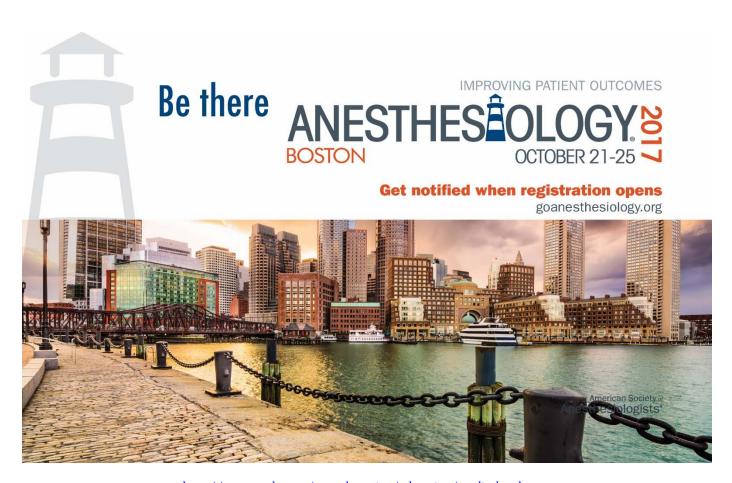
What residency programs currently offer such dual training?

The American Board of Anesthesiology (ABA) website has updated information of such approved training programs as well as objectives and detailed information of program requirements:

 $\underline{http://www.theaba.org/TRAINING-PROGRAMS/Combined-Training/Pediatrics}$

http://www.theaba.org/TRAINING-PROGRAMS/Combined-Training/Internal-Medicine-Anesthesiology

Upcoming Events



http://www.asahq.org/annualmeeting/education/medicalstudents