ACE 15B Behind-the-Scenes

2018

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Host: Welcome to the ACE Behind-the-Scenes podcast, giving you an exclusive look at the creation of the popular continuing education program from the American Society of Anesthesiologists. ACE, testing your knowledge of the fundamentals of anesthesia.

Dr. Rick Dutton: Hello everyone and welcome to the ACE Behind-the-Scenes podcast for October 2018. This is Dr. Richard Dutton. I am an editor on the Anesthesia Continuing Education Editorial Board, and this podcast is to introduce you to our upcoming issue. With me are Dr. Stacey Jones, Dr. Jones?

Dr. Stacy Jones: This is Stacey Jones. I am the co-editor and chief of ACE. I’m an assistant professor at the University of Arkansas for Medical Sciences in Little Rock, and the service line director for Interventional Services.

Dr. Rick Dutton: Also with us is Dr. Joel Johnson.

Dr. Joel Johnson: I’m Joel Johnson. I’m professor of anesthesiology at the University of Wisconsin. I am a co-conspirator with Dr. Jones in the ACE program.

Dr. Rick Dutton: And as everybody knows, ACE is a biannual publication of the ASA [American Society of Anesthesiologists]. One year consists of 200 questions, 100 per issue. Each is a question from the current best practices in anesthesia. What we think of as walking-around knowledge for the average anesthesiologist. We put these together twice a year as I say, 100 questions each issue. Each question comes with right and wrong answers and a critique
for explaining why the right answers are right and the wrong answers are wrong.

Each edition, each 100 questions is certified for up to 60 AMA [American Medical Association] Category 1 credits per year, and the product is available in print or on website or phone app. This podcast, we do one of these for each issue, is to introduce some of the interesting features of the issue and talk for a little bit about how we create the items and how we pick what goes into the issue. So I’d like to start right in for issue 15B coming out in October. We can talk about some of the personal stories that cause us to write items, and I think Stacy, we’ll start with you. You had one on informed consent.

Dr. Stacy Jones: Okay, Joel and I tried to encourage the other editors to write about things that they encounter in their clinical practice. I think it keeps the product fresh and interesting. And if you encounter something that you find interesting at work, you’re pretty likely to look into it pretty carefully and present it I think in an interesting way. The item itself on informed consent is pretty much your standard issue ethics question about autonomy being the basis for consent.

But in the discussion it talks a little bit about capacity versus competency. Capacity, is this person capable of understanding without undue external influences what you’re telling them? And competency really has to be determined by the courts. So as the service line director, I field kind of random calls all day long, crazy stuff. Call from a resident, “I can’t get informed consent from this patient. They’re coming for surgery for complex facial fractures, and the nurse said he’s had a head injury, therefore he can’t give consent.”

So digging into this a little bit more and this patient does have some facial and head injuries. Underwent emergency cricothyrotomy in the ED [emergency
department] for this particular thing, and this was all sort of secondary to a self-inflicted gunshot wound. The story sounds stranger, and I find out a little bit more. And apparently the misadventure that was associated with that entire process involved him attempting to shoot his wife, who has now completely refused to give any consent for any reason for this person at all, period.

So they can’t get informed consent from the wife. They don’t think this guy can give consent, mostly because he’s had this head injury. So I went up to look at him. He’s there in four-point chains with two uniformed, heavily armed individuals keeping him company. And from assessing him and talking to him, he can communicate. He can nod his head. He can give me a thumbs up. He can write. As a physician I determined that he was capable of making a decision about anesthesia. That he understood what I was telling him and he could communicate back to me appropriately.

So they unchained him long enough to sign his consent, and come to find out even later that because said misadventure had crossed state lines, earlier that morning he’d undergone a Skype interview with a judge in an adjacent state who was determining whether he was capable of understanding his extradition orders. So clearly you can give informed consent to a judge and to an anesthesiologist if we both interview you and talk to you and decide that yes, you are capable of understanding what I’m telling you.

Dr. Rick Dutton: I’m glad that didn’t happen to me. Dr. Johnson, where do you get your ideas?

Dr. Joel Johnson: Mine are not nearly as interesting as that last story. I had a couple of instances that ended up being questions on this particular ACE product. And the first one was, I was giving an anesthetic to a four-year-old child, and in the course of the preoperative evaluation I found that he had had an immunization a couple of weeks just prior to surgery. And so then it struck me that, well, how
does anesthesia affect immunization status? And of course to make the question a little more interesting I had to change some of the facts.

And so I wrote a question where the four-year-old was scheduled to have an immunization a day prior to his surgical procedure. The question came up then, as preoperative physician, do you cancel his surgery? Do you cancel the immunization? How do you progress with that, and is there really an issue here?

And the end result of my sort of foray into different reports was that there is no really good evidence that surgery affects immunization status. But there are some recommendations out there just in case it does. And so those recommendations include, for instance, you would not cancel the surgery. You would cancel the immunization and go ahead with the surgical procedure. But the official recommendations recommend that for live vaccines that you wait two weeks before having a surgical procedure and that you don’t have a vaccination after a surgical procedure.

The reasoning is that surgery itself does cause an immunologic reaction, which potentially could affect the quality of the immunization. So that was pretty cool just to look into that a little bit more.

And then the second item that I looked at, I was talking to a patient and she was taking tramadol and I was going to give another drug, ondansetron, which does interact with the serotonergic system. And the question came up as well, does tramadol interact with Zofran, and if so, which one should I try to avoid? Or should I just try to avoid giving them together? And you can look at the question perhaps in the next volume of the ACE to find out what the answer is.
Dr. Rick Dutton: Cool. I emphasize that we intend ACE to be about walking-around knowledge, things that every anesthesiologist should know. We especially like questions where the actual answer is counterintuitive. So these are obviously harder to remember because they don’t seem to make sense. Joel, you had one like this recently, right?

Dr. Joel Johnson: Right, and this is – maybe is known to many of our readers anyway. But I was pretty much always under the assumption that when I gave succinylcholine to a strapping young man and I saw that he had these really vigorous fasciculations, that this guy’s going to hurt afterwards. And many of us have had that story of the patient who says, “Well, the last time I had surgery, the surgical procedure went fine. My incision was fine, but I felt like I got hit by a truck.”

So I’d always assumed that fasciculations or that succinylcholine itself caused muscle pain and that that muscle pain is related to muscle mass, and therefore it must be greater in males than in females. Well, the data says, no, that’s not the case. Females tend to feel more succinylcholine-induced myalgia than males. As Dr. Dutton is saying, it kind of is a counterintuitive thing that just needs repeating. And that’s what I wrote an item about.

Dr. Rick Dutton: Well, of course I’m a recovering trauma anesthesiologist, so I’ve given succ to lots and lots of patients. But most of them were hit by trucks. {Laughs} Another area we frequently pick on for ACE items are ASA guidelines, since we assume that our readers, anesthesiologists really want to know what these are and want to be practicing in accordance with the latest guidelines. Stacy, you had an item like this, right?

Dr. Stacy Jones: I did. I really like writing items from the ASA guidelines. There’s all sorts of stuff out there. The ASA has an opinion on almost everything, right? Safe use
of propofol for nonanesthesiologists. There’s a plethora of information that I think is good to mine and good to bring forward every once in a while so people remember. Expert witness guidelines, this is really pretty interesting. The ASA defines some criteria that you have to have to be an expert witness. And one is that you be licensed and an active medical license. Another is that you are board certified and practicing anesthesia at the time of the event for which you’re providing testimony. I didn’t realize those guidelines were out there. So I think that’s pretty interesting.

Dr. Rick Dutton: We like our items to be interesting, and we like our readers to be interested in our items. But of course if you’re going to have ice cream for dessert, you have to eat your lima beans first. So sometimes we run items that we don’t feel heavily invested in personally, but we know are important for our readers and important for anesthesiologists to know. Dr. Johnson, you have an example of that?

Dr. Joel Johnson: Well, yes, I’d like to say that our editorial board consists of 12 editors, and when we are going about seeking new editors, what we try to do is we try to keep the breadth of experience fairly wide. So we have editors who are doing cardiovascular medicine, editors that are doing pediatric anesthesia. And one of the things that I have trouble writing about is in chronic pain, because I just don’t do chronic pain. And so we have an editor that does chronic pain, and this just goes to exemplify the fact that we need to really balance our coverage of all of the different facets of anesthesia.

And so we use the ASA primary terms and the In-Training Examination outline to really make it so that we cover the A to Z of anesthesia. And so from an editorial board member standpoint, we might be editing something that I don’t have much interest in, but the people that are reading the product have an interest in. Also the editors that specialize in that particular area, bring
that interest to the table. And I think it really makes it so that we as editors learn and hopefully we’re passing much of that excitement of learning onto the people who are reading the ACE product.

Dr. Rick Dutton: Joel, another lima beans item, at least for many of our readers who give us feedback has to do with statistics. We usually have a couple of statistics questions in every issue. How do we think about those?

Dr. Joel Johnson: Well, statistics is one of those things that we get comments on, sometimes that the readership or a particular reader thinks that it’s too far afield. And so what we try to do is find statistics questions that have a really pertinent point to them. And so there is a particular question that was written actually by one of our former editors that looked at a hypothetical new muscle relaxant compared to vecuronium.

And the point isn’t so much what the statistical measure is and what we were looking is relative risk. The point was that relative risk itself is important to anesthesiologists because we want to know which drug is better and which drug is safer. But what’s important to our patients is also important, and that’s what this question was concentrating on. It looked at absolute risk. So that’s the risk that the patient is undergoing.

And so we might have a relative risk between two different drugs of a factor of two, so one drug is two times better than another in terms of its safety. And yet if the risk of giving either of those drugs to a patient is one in a million, then the absolute risk is probably not that important to the patient. And these are the kind of points that we like to make with our statistical items. Things that really apply to practice.
Dr. Rick Dutton: Thank you. Certain of our items generate a lot of discussion when they come up in the editorial board meetings. I wrote one myself for this issue based on a phone call I got one night. I am the chief quality officer of a large private practice, and one of my partners called me to say that the hospital had just called him. They wanted him to go in to take care of a patient in the intensive care unit who was going to become an organ donor. And as the story developed, they wanted my partner to go in, extubate the patient, let them die. Pronounce them dead, then reintubate them and take them to the OR so that their lungs could be harvested for transplant. This generated quite the ethical firestorm in my group, and it prompted me to write a question about it. Stacy, can you comment on that one?

Dr. Stacy Jones: Those particular cases always generate a lot of unease in the OR staff. It was a really good question that generated a lot of conversation among our editorial board as well. In the early days of cardiac transplantation, we did all of them after cardiac death, right. And so all of our organ procurement, we have Christiaan Barnard to thank for the early work with establishing brain death.

But now I think with donor organs being so few and our waiting lists being so long, that we’ve seen this resurgence in organ donation after cardiac death, and the guidelines seem to be pretty well understood. If I remember correctly, Rick, at your place it was sort of a community hospital, right, that didn’t particularly always do this very often.

Dr. Rick Dutton: Yeah, exactly and in fact they did not have a good policy for it, and they had not engaged the anesthesia in advance in creating the policy. So…

Dr. Stacy Jones: I bet they have one now.
Dr. Rick Dutton: Yes, they do now and I helped them write it. Again, ASA has a guideline on this topic. So there’s another plug. In fact it is unethical for the anesthesiologist to participate in both the declaration of death and the organ harvest. And we explained that to the hospital and worked the situation out, and now they have a policy. Stacy, you also had an item about substance abuse and the anesthesiologist that provoked a lot of talk.

Dr. Stacy Jones: Yes, you know, you can’t really turn on the TV or the radio or log onto the Internet and not hear something about the opioid epidemic. We as anesthesiologists have for many years been very cognizant and concerned with opioid addiction. We’ve always understood well the risks of the drugs that we use every day, and we’re sadly overrepresented in treatment programs. We have a high risk of death due to this and recidivism.

So this particular item really looked at other behaviors associated with drug addiction, the types of things that hopefully maybe we’d notice sooner rather than later and intervene before things got really, really bad. But things like frequent unexplained absences, careless charting, unusual changes in behavior, there’s a list of all of these in the discussion for that item. We’ve been talking about it for years. I think it’s still very important for us to revisit this intermittently.

Dr. Rick Dutton: Yes, I agree. Joel, what other things do we do to help keep our content fresh?

Dr. Joel Johnson: Well, as Stacy was saying, we have to revisit certain items, certain topics. And the editors will oftentimes write on topics that they are perhaps not really close to. Alternatively, editors write on topics that everybody has an opportunity to use in the OR [operating room]. And so my challenge is always, well, how do I write a question about something that I wrote a question about three years ago or four years ago?
So, for instance, one of the things that comes up often and I think Dr. Dutton actually wrote this question for this issue, how do pulse oximeters work? And what are the problems that we see with pulse oximeters? So by altering the stem question and trying to mix up the – what we call the distracters, which are the answers or the possible answers, and then providing a discussion that gives you not only the basics of pulse oximetry, but also includes information that might be helpful in your practices.

Dr. Rick Dutton: Cool. I know another thing we’ve been doing a lot of lately is including graphics with our items. And I think now the majority of items in the book will have pictures or illustrations that go with them, including some that we actually draw ourselves specifically for the ACE product. Stacy, you have an example of that.

Dr. Stacy Jones: After many years of art lessons, I still can’t draw a stick figure. So it’s kind of fun. I can draw a figure in our – the ASA contracts with a fantastic medical illustrator, and we can describe what we want or draw out something similar. And then in this seemingly magical way, it just appears as an illustration for the item, and they look fantastic. This same illustrator has done the cover art, and I don’t know if you’ve noticed, but we’ve gone from our very kind of institutional looking front and back cover for ACE, to a really great picture of the whole endobronchial tree with a double-lumen tube for this particular issue.

The other nice thing is it’s not just that the illustrations are great, but they’re all done by the same artist. So there’s a certain consistent look across the product, and I think it just looks fantastic. I think it adds to the educational aspects because of the images, but it also just is very pleasing.
Dr. Joel Johnson: We also try to include as many sort of illustrative figures from the literature as well. If we have something that really makes the point, we have a contract with many of the journals, and we are able to utilize those figures and tables to really put a mark on whatever point we’re making on a particular item.

Dr. Rick Dutton: Yes, go ahead and elaborate on that Joel. ACE does a great job with the quality of the content and you’re largely in charge of that. How do we achieve it?

Dr. Joel Johnson: Well, there’s a pretty extensive editing process. So you’re hearing today all about how we come up with questions to write and topics to write about. Well, that happens at the front end, and then the review process involves editors reviewing other editor’s work. And then the co-editors in chief reviewing that work, and in between each one of those steps we have editorial assistance from the ASA to make sure that we are saying things the way that they should be said. And really the assistance from the ASA brings in a great amount of quality in terms of consistency of our product.

After that, then we talk about it at our editorial board review. Again, these things are gone over, each of the topics. And finally the co-editors then reread everything prior to putting it out for publication. Again, with the assistance of the ASA staff. In that final reread, we always pick something up that is a little different. For instance, in this particular 15B, we have a couple of items that are talking about how end-tidal CO₂ trace detects rebreathing. So then what comes up from the co-editor’s standpoint is, well, should we keep both those in? Should we move them to other editions later on? And to a certain extent the belief is, well, maybe having something in and having a particular item repeat the same topic, kind of cements the learning in.
And so we put it in, maybe a little bit away from the other one. And the reader then sees two topics on end-tidal CO$_2$ traces that might be somewhat related, but hopefully are presenting two different sides of the same story.

Dr. Rick Dutton: Well, that makes sense. Before we finish, one last chance to boast on your favorite items from 15B. Stacy, we’ll start with you.

Dr. Stacy Jones: Okay, well, these last two I think sort of represent our future as perioperative physicians, I think. I work with my residents a lot about, you need to be thinking about the entire continuum of care. How are you going to not just keep this patient safe in the operating room when you’re there with them, but plan their anesthetic before surgery, after surgery? Risk stratify them and prepare for what type of things they will need post-op. And one of the questions, I think it’s item 66 in this next volume, talks about pulmonary hypertension.

There’s an extreme amount of morbidity, mortality associated with patients with chronic pulmonary hypertension. And some operations carry higher risks than others. And to find out which ones, you’ll have to get the issue, but knowing what the risks are and which procedures may be more risky for this patient population allows you to have better informed discussions with your surgical colleagues on how you’re going to plan their perioperative care.

The next item really is about post-op MI [myocardial infarction]. Apparently the risk for post-op MI is increased for up to two weeks after orthopedic procedures. And as we move into more value-based care, for example, CMS [Centers for Medicare and Medicaid Services] is taking total knee replacements off the inpatient only list. So I think there’s going to be more of a drive to do more complicated procedures in the outpatient setting and also to be sending them home, these people home. And knowing that particular
orthopedic procedures carry a higher risk for up to two weeks of MI, will help you risk stratify your patients and plan for their perioperative care and also help decide maybe who needs to be in hospital for a couple of days.

Dr. Rick Dutton: It makes sense. Thank you all for listening to our podcast. Watch for announcements in the ASA Monitor and wherever you get your anesthesia news, for the launch of issue 15B. It will be out in early October, and you can always follow along with us at asahq.org/ACE. Thanks again for joining us.

Dr. Joel Johnson: Thank you.

Dr. Stacy Jones: Thank you.

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Host: Thank you for listening to the ACE Behind-the-Scenes podcast. For more information or to subscribe to the ACE program, visit asahq.org/ACE.

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