ACE 15A 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: Welcome to the ACE Behind-the-Scenes podcast. I am Dr. Richard Dutton. I am an anesthesiologist in Dallas, Texas and with me are Dr. Stacy Jones.

Dr. Stacy Jones: Hi. This is the Stacy Jones. I am an anesthesiologist at the University of Arkansas for Medical Sciences, a co-editor-in-chief of ACE and a practicing anesthesiologist.

Dr. Rick Dutton: And Dr. Joel Johnson.

Dr. Joel Johnson: Yes. And I’m Dr. Johnson. I am an anesthesiologist at the University of Wisconsin in Madison, Wisconsin and I practice neuroanesthesia and am a co-editor-in-chief of the ACE product.

Dr. Rick Dutton: ACE, the Anesthesiology Continuing Education program, is designed to provide our subscribers with walking-around knowledge in anesthesia. We publish twice a year, in April and October; each issue consists of 100 questions drawn from the content outline of the American Board of Anesthesiology to cover all the topics in continuing education required for anesthesiologists.
We are certified by the ACCME for up to 60 *AMA PRA Category 1 Credits™* per year and ACE can be subscribed to in either the print or the online version.

This podcast is intended to highlight areas of interest in the ACE 15A issue which will be available to subscribers in April of 2018.

I’d like to start today’s discussion with Dr. Jones talking about an item that she worked on that related to a real experience in the operating room.

Dr. Stacy Jones: Thanks, Rick. I wrote this item after I had been tasked to draft our hospital’s policy regarding overlapping and concurrent surgery. We were expecting a very special visit from the Joint Commission almost at any time and it was our understanding that we had to have in place as a deliverable for this site visit a particular hospital policy prohibiting concurrent surgery.

This is relatively new and a timely topic. In October of 2015, *The Boston Globe* published an investigative piece pretty much suggesting that patient harm was associated with this practice of performing concurrent operations and this happened at a very prestigious teaching hospital in Boston and generated a lot of interest.

The U.S. Senate Finance Committee very soon thereafter—remember, they are the regulatory and oversight body for CMS—published their own review followed by policy statements from the American College of Surgeons and the American Association of Neurological Surgeons essentially stating that performing concurrent operations was inappropriate and should be prohibited.
So, we were in the midst of drafting that policy. And if you look at the item, if you subscribe to the product, the discussion really goes into a lot of definitions regarding overlapping and concurrent surgery and what that means.

Who hasn’t been running the board and have an orthopedic surgeon come up and say, “Hey, can I have two rooms?” and understand and wonder in the back of your mind, “Is that kosher? What are we doing?”

I think this is helpful for that.

Dr. Joel Johnson: Just to add in, Rick, we at our hospital also have a similar policy and it is amazing how people, perhaps surgeons in general, understand that policy differently.

And I guess the crux of the matter is that we are supposed to be avoiding a surgeon being in two rooms or two places at once when critical portions of the surgical case are taking place. And that is entirely defined by the surgeon which always makes it interesting.

Dr. Rick Dutton: Yes. So, that’s a situation that has moved very rapidly into the necessary content for anesthesiologists to know. And with the publication of federal guidelines, it certainly fits in the content area for practice management.

Shifting gears here, Dr. Johnson, one of the things we hear from our users that they really like about ACE is the comprehensive use of figures and illustrations in our items.

How did you pick the figures that we put with the questions?
Dr. Joel Johnson: When we do the editing and actually give instructions to our fellow editors, we really have been pushing the idea that a picture paints a thousand words and that sometimes pictures, graphs, tables really add to the content because they can be illustrative, but also make the content much more interesting.

And so, we suggest that everybody that’s writing an item look in the sources that they are using—the textbooks in the medical literature, for pictures or tables, graphs sometimes—that really accentuate the points that we’re making.

And so, when we then get to the editorial board meeting, we look at the items and sometimes we’d find that somebody else on the board has a notion that this picture or that picture, this graph or that graph may be helpful and so that we just start accumulating those.

And if we’re not satisfied with an item, that we think that it needs something that—like a table that succinctly points out portions of the question that are most important, then we go ahead and make a table on our own.

Even more interesting from my standpoint is that the ASA has allowed us to commission an artist at times and we can make our own artistic drawings that really pinpoint the major points in that particular item.

So, sometimes we get a little bit wild. For instance, we had an item where we were talking about one of the extracts, I guess you could say, that come from a leech and so we put a picture of a leech in there just to make it interesting.

There was an earlier item where we were talking about extract from a South Sea snail that provided a sodium channel blocker that was used in pain control and so we put a picture of a South Sea snail in there.
Of course, from an anesthesia perspective, that probably doesn’t impact very much on our readers, but it might make it so that they would remember that item when it’s necessary to remember that in the clinical setting.

So, we really like to include these visual aids in with all of our writing that occurs in order to really make a better product.

Dr. Rick Dutton: Thanks, Joel. Referring back to the evaluations and a particular kind of picture or video are the transesophageal echocardiography items we sometimes run. It turns out that some of our readers like those and others don’t.

So, I guess the question for you, Dr. Jones, you’re a TEE expert, is this part of the curriculum for an anesthesiologist today?

Dr. Stacy Jones: Well, we talk a lot at board meetings about individual items and say, “Well, is this really general knowledge? Should this be in ACE?”

I think for perioperative echo the answer is yes. Perioperative echo has become prevalent and part of residency training. So, we’re trying to include a couple of basic TEE questions in almost every issue.

Our goal is to expose practicing anesthesiologists who might not have had the opportunity and training to learn echo and employ it in their practice, refresh them on the concepts and the images and reinforce the application.

There’s another item in this volume that I actually used to explain to one of my residents what we were going to be doing in the cath lab. We had a patient
that was symptomatic, had had a stroke from a PFO [patent foramen ovale] and we were in the cath lab.

They were deploying a transvenous closure device and the item itself had a great image of the interatrial septum and I could take that picture and that question in and go over with the resident, “This is what we’re looking for. This is what they’re going to be doing.”

I think actually we’re going to see more of these minimally invasive transvenous interventions, repair of some cardiac defects, these sorts of things in the cath lab and they may not fall to someone on your cardiac team.

So, I do think that transesophageal echo and perioperative echo is a very important part of anesthesia practice nowadays.

Dr. Rick Dutton: What about you, Dr. Johnson? Do you agree with that?

Dr. Joel Johnson: Well, yes. And for people like me who have trained well before the onset of using TEEs in the OR, this exposure that the ACE product allows is really, really important in that it allows you to keep up with things, even if you’re not a TEE expert or you don’t – when I have a case that requires insertion of a TEE and reading, we are in a big enough practice that I can have one of my colleagues who has much more experience doing that come in and help me look at the different views.

And it helps, for me, to have read different items and different questions in the ACE product because then I have at least a working knowledge of what is going on.
And a good example is this last issue that is just coming out. We had multiple questions about systolic anterior motion on a TEE and I have to admit that wasn’t a term that I was familiar with.

And so, not only did one question pique my interest and tell me, “Okay, well, this is maybe something I should know about,” but then in talking to the other experts on the editorial board that do TEE, they pretty much said, “Well, this is a concept that really has come about and, well, has been there for a while and you need to know about that.”

And we actually had more than one question about it which then made it so that I learned even more.

So, even for the old dogs that have to learn new tricks, it is important, I think, for us to include these visual images that then hopefully can translate into a clinical scenario and a clinical knowledge that you use on an everyday basis.

Dr. Rick Dutton: I agree. For me it’s been the images we’ve run for TAP blocks have been very useful to me since I moved to an operating room in Dallas where we do a lot of them. And it was a technique I had to pick up and there were several latest items on that and that helped me quite a bit.

We do try and make most of the items in ACE clinically applicable. Dr. Jones, you have some examples of that from the current edition?

Dr. Stacy Jones: Joel, and I – and Joel, you can correct me if you disagree, but we’ve been encouraging our editors to submit items and questions that do have clinical relevance or that have a clinical scenario in the stem.
I think it makes the product more interesting. There is an item in this one about preoperative respiratory symptoms: what do you with the otherwise healthy child that presents for elective surgery with a runny nose?

We’ve been talking about this at least since I was a resident and the item focuses on that a little bit, but the discussion also goes into depth about what actually can help and what doesn’t.

And I think it reviews some things like deep extubation or prophylactic albuterol that maybe we think is going to help us and it might not.

So, I think that was a really clinically relevant question that never seems to go away.

Another one is actually a procedure we do at my place, the hyperthermic intraperitoneal chemotherapy. This isn’t just happening at teaching hospitals anymore; this complex aggressive procedure is becoming part of the armamentarium of a lot of cancer surgeons.

And then you go back to what Joel said about interesting pictures and illustrations. This particular item has some really gross pictures, so if you’re into really gross pictures, that’s a good one to look at.

Dr. Joel Johnson: I was going to mention that as well because it allows you to walk into an OR and say, “Oh, they’re doing HIPEC in here” because you’ve seen it.

Dr. Stacy Jones: Right. And I was talking to a friend of mine not too terribly long ago who is an anesthesiologist in private practice and she said, “Yes, I just walked in one day and this was in my room.”
And apparently her surgical colleagues had been very invested in this process, had created protocols, had – really were excited about starting this program, but hadn’t thought about the anesthetic implications or including the anesthesia team.

I don’t know how often that happens to other people in other practices, but I think being exposed to this and knowing that it’s a thing and that it’s out there is pretty interesting.

The physiological perturbations of this process are impressive, and I think it’s good to know about it.

Dr. Rick Dutton: Well, this private practice anesthesiologist has had that same experience. So, reading about it in the ACE as we put the issue together was helpful for me as well.

On the other hand, we do sometimes run nonclinical items in ACE. Dr. Johnson, why is that?

Dr. Joel Johnson: Well, a good example of that is what we talked about at the beginning of the podcast that where we were talking about concurrent surgeries, but there is a lot more to anesthesia than just being in an OR.

And even the general anesthesiologist that’s working outside of the academic institution has to deal with things like billing, has to deal with what the current status is on regulations.

And so, oftentimes we touch on those by using the ASA and then as well any other publications that might be there. And then we’ll talk about resource management.
There was an item in an earlier issue about the legal ramifications, for instance, of consent: who can and cannot give consent about when you can give out personal information in terms of HIPAA rulings.

All those things, even though they’re not dealing with physiology and pharmacology and actually giving an anesthetic, those are important parts of our practice that can’t be ignored.

Dr. Rick Dutton: Dr. Jones, any other examples of that in this issue?

Dr. Stacy Jones: We included an item that focused on the preop evaluations. There are actually two elements in the preop eval that according to CMS have to be done within a certain timeframe: the review of the medical history and the interview and exam have to be done within 48 hours.

I think we do occasionally not a great job in our training programs of exposing our residents to the regulatory aspects of the practice. And not that it’s all about the billing, but if you can’t bill, you can’t keep the lights on. And understanding what regulatory aspects have to be done is important.

Dr. Rick Dutton: Yes. And it’s worth noting that it is in the content outline, although we don’t, as you say, do a great job teaching it.

Are there other questions from 15A that were controversial among the editors or that generated a lot of discussion?

Dr. Stacy Jones: Yes, there were a couple in this particular volume. One was your question, I believe: the use of anesthetic agents in children. The FDA issued that warning in December of 2016 regarding the risk of anesthesia to children
under the age of three requiring warning labels be placed on some of the drugs that we use commonly.

I think parents are going to be – even if you’re not a pediatric anesthesiologist, parents are going to be coming and asking you questions about this. This generated a lot of publicity on the national scale and a lot of publicity in the popular media.

Then we talked back and forth, “Should we put this in or not?” And I think we came to the conclusion that it is a very important topic and needs to be in this volume.

Dr. Rick Dutton: Yes, I think that was the right call. I heard a lot about it in my own practice and we had to develop internal guidelines specifically to answer questions from patients.

And then in the state of Texas where I practice, we actually changed the statewide anesthesia consent forms to include this warning. So, I think this is very much material people need to know.

Dr. Johnson, any other items that caught your attention?

Dr. Joel Johnson: Well, yes, I was going to comment on the fact that for me, anyway, besides images, what also tends to make me remember facts and things is if you can put things into a historical context.

For instance, I got maybe a little too deeply involved in writing an item about the difference between “French” and “gauge” in terms of thinking about catheters.
And so, I wanted to put that into something that was clinically important, which is the flow rate through these different catheters and then also provide the reader with maybe a handle on how can you remember the difference between French and gauge.

And so, I explore a little bit of the historical context of that particular question. And so, for instance, the whole idea of gauge, you wonder, “Well, why is it that a needle or a catheter that’s 18-gauge, which is fairly big, is a heck of a lot bigger than a 30-gauge, whereas the numbers are different?”

And so, the answer to that is that gauge actually came from the fact that when they were sizing wire. And so, you would start out with a piece of metal and then in the old days the way that they would make wire is they would heat the metal and then pull the wire.

And so, the concept of gauge came out in that as the wire got pulled longer and longer, which was the measure, the wire, of course, the piece of metal got smaller and smaller.

And so, a 30-gauge wire at that time, which was a very thin wire, occurred because you pulled this metal a really long way out; whereas an 18 gauge, which is a thicker wire, didn’t require as much pulling and so the length of the actual wire was shorter.

And so that has allowed me to remember: well, where did gauge come from? Why is gauge the way it is? But also, then we were able to go into a discussion of “What is the difference between French and gauge?” and hopefully make the reader be interested enough to remember those differences.
Dr. Rick Dutton: Stacy, any items like that for you in this issue?

Dr. Stacy Jones: Yes, there was one that was, again, a subject close to my heart—pun intended—about the physiology of the transplanted heart. As you know, Rick, I did transplantation for years and years.

I didn’t write this question, but, actually, the subject comes up in my practice now: we are not the transplant center for the city, but we have patients who’ve undergone orthotopic heart transplantation at another facility, but show up in our ER with trauma—because we’re a level one trauma center—needing to have their gallbladder taken out, or other non-cardiac procedures.

And the assessment of someone after having heart transplant is important. The concept that, “Well, they’re transplanted, they’re fine,” may not be actually true.

Five years after transplant, 80% of patients have some degree of transplant vasculopathy and can have really severe coronary artery disease. Because the heart’s denervated, they won’t have typical symptoms of angina and really reductions in their functional status may be the first indication that they have critical coronary artery disease.

So, an EKG is not unreasonable in a patient who is at least five years out from their heart transplant.

That was an interesting question to me and I thought, again, the interesting takeaway is remember that the transplanted heart can have essentially a form of coronary artery disease that may be silent.
Dr. Rick Dutton: Interesting. Although I will say most of us do fine on the clinical issues, one of the big values I find in ACE is the periodic refresher on some of the basic science that we tend to forget over time, but which remains relevant to our practice.

Dr. Johnson, are there any items like that in this issue?

Dr. Joel Johnson: The one that comes to mind for me, anyway, is that item written about context sensitive half-times. And for most all of our readers they have all heard of that term and it’s a term that we readily translate into a clinical knowledge because everybody has known about pharmacology and half-lives and everything like that.

But the concept of context sensitive half-times is one that has really made a huge difference in terms of how we think about IV infusions. And one of our editors, I think, has taken that concept and written a discussion in a really concise manner that allows you to understand it without having to read an entire paper about how it started.

And so, that particular question occurs early in this issue that’s coming up. And then what we’ve done is that this same editor then wrote a follow-up question, again, about context sensitive half-times but more talking about decrement times.

By linking those two, as you go through the ACE study material, you’re able to build on the knowledge, even within a single issue, and it really tends to then make that knowledge stick a little bit better.

So, these are the sorts of things that we are trying to really work on making it, say, a tool for anesthesiologists, not only to review knowledge that they
already know and that they probably know really quite well, but then to review that knowledge that they know something about, but can you learn more about it.

Dr. Rick Dutton: Well, thank you, Joel. Although I expect the item to not explain why in the context of the Super Bowl half-time is longer. {Laughter} But we can’t cover everything.

Dr. Joel Johnson: Yes, that’s right.

Dr. Rick Dutton: We will be launching 15A in April, we have new cover artwork for the print versions of both the question book and the answers. And you can find out more about ACE or sign up for the product at asahq.org.

Thank you all very much for joining us on this podcast. And thank you, Dr. Jones and Dr. Johnson.

Dr. Stacy Jones: Thanks, Rick.

Dr. Joel Johnson: 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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