Preventing Surgical Errors: Patient Safety and Checklists

Guest: Vangie Dennis, MSN, RN, CNOR, CMLSO

Vangie Dennis is the Assistant Vice President for Perioperative services located in Anderson County, SC. AnMed is a third designation Magnet Facility. Professional organizations include the Association of Operating Room Nurses (AORN), American Association for Nursing Leadership (AONL) Laser Institute of America, AORN Specialty Assemblies, and the American Society for Lasers in Medicine and Surgery. She is on the editorial board for the Journal for Clinical Laser Medicine and Surgery, OR Today and Outpatient Surgery. Vangie has been published and cited in many books and publications. Vangie is on the Board of Directors for Laser Institute of America, the chair for the National Certification on Lasers, Board of Laser Safety: Board of Commissions, Board of Directors for AORN National, Past President of the NW AORN Chapter, Past Treasurer for the Georgia Council of Nurses, Board of Directors for Gwinnett Technical School and committee representative for the American National Standards Institute. She presently serves as the National Treasurer for AORN Board of Directors and served a term on the Board of Directors. She is a recipient named in Strathmore's WHO's WHO, the recipient of the 1996 Nursing Excellence Award from the American Society for Lasers in Medicine and Surgery, awarded the 2011 R. James Rockwell Jr. Educational Achievement Award, and the 2011 AORN Award for Outstanding Achievement in Perioperative Clinical Nursing Education. She is the recipient of the 2018 Distinguished Nurse of the Year for the Georgia March of Dimes and 2019 Manager of the year for OR Manager. Vangie was also awarded Perioperative nurse of the year for the Georgia Council of Perioperative Nurses and for the AORN Northwest Chapter. Vangie is a member of Emory Alpha Epsilon Chapter of the Sigma Theta Tau International Honor Society of Nursing and is the President for National AORN.

Host: Candace Pierce DNP, MSN, RN, CNE

Dr. Pierce is a nurse leader committed to ensuring nurses are well prepared and offered abundant opportunities and resources to enhance their skills acquisition and confidence at the bedside. With 15 years in nursing, she has worked at the bedside, in management, and in nursing education. She has demonstrated expertise and scholarship in innovation and design thinking in healthcare and education, and collaborative efforts within and outside of healthcare. Scholarship endeavors include funded grants, publications, and presentations. As a leader, Dr. Pierce strives to empower others to create and deploy ideas and embrace their professional roles as leaders, change agents, and problem solvers. In her position as the Sr. Course Development Manager for Elite, she works as a project engineer with subject matter experts to develop evidence-based best practices in continuing education for nurses and other healthcare professionals.

Episode 1: Unveiling the Checklist: Significance and Origins in Surgical Safety

This is Dr. Candace Pierce with Elite Learning by Colibri Healthcare, and you are listening to our Elite Learning podcast, where we share the most up to date education for healthcare professionals. I'm so glad you have chosen to listen in on our discussion about the importance of checklists, specifically surgical checklists and the prevention of surgical errors. Joining me for this discussion on the prevention of surgical errors is Vangie Dennis. Vangie, I am really thankful that you are here, that you are taking time to share your expertise with me and our listeners. Can you share a little background on how this became your area of expertise?

DENNIS: Sure. My background, I've been a nurse for 40 plus years, but just very passionate about nursing in general. As for specific, my specialty is pre-op nursing. I went to the regular channels where I became a floor nurse for a while, bedside nursing, and ICU nursing, and then just fell in love with the operating room and moved into this position. I've been in a leadership role for almost 25 years, where it encompasses the full spectrum of peri-op nursing. Because so many times people think it's just surgery. And specifically, we talk about surgical checklists a lot of the beginnings start in the pre-op phase with the surgical assessment center. It encompasses the whole spectrum of patient care.

PIERCE: Wow. So, I have not spent much time personally in the operating room, but I've recovered quite a few in the ICU. But I don't have a lot of experience in what you're going to be talking about. So, I'm really going to be learning a lot from you today and taking in a lot myself. So, I'm really excited about that, and I would like to thank you so much. And I was really preparing for this discussion. I felt like I needed to know a little bit more to be able to have this discussion with you. And so, I started looking at evidence-based articles, and specifically around checklists and patient outcomes. And I found some from all the way back in 2013 that really identified the implementation of checklists and how they improved post-operative mortality and morbidity and emphasized communication and teamwork. And I knew I get frustrated when you hand me another piece of paper or another step or another checklist, really. But surgery is so different from any other nursing role I have ever been in or seen. And I know that patients safety within the operating room is so important. So, I'm really excited to tap into your knowledge today.

DENNIS: Thank you.

PIERCE: And I think a good place to start is going to be, can you tell us kind of that difference of working in an operating room versus other bedside areas in health care and how critical patient safety is and how that checklist came about?

DENNIS: Absolutely, Candace. A lot of people you, one of the ongoing jokes with my peers, there were four executive directors or AVPs when I was in the Atlanta area. And they go, well, perioperative nurses count instruments and organize. We always had a running joke with that. I said, no, no, no, no. It is a very complex service line, and I say this respectfully, I can get acclimated to the floor fairly well and jump back in. I've been trained in that in school as well as you have. But going into the operating room or even the pre-op post anesthesia care area incorporates every component you can imagine of your nursing practice. And with that is

coupled technology which can make a big difference in the outcome of our patients. I think I'd love to just give our audience a brief overview, because as you and I dialog prior to this, surgical checklists have actually been around a long time, and it wasn't necessarily initiated by the WHO, the World Health Organization. And I thought as I started doing my own research, the development of checklists from a professional point of view actually ties back to the aviation industry.

PIERCE: I can see that, because my husband is in the aviation industry and so well.

DENNIS: He’s probably very familiar with checklists.

PIERCE: Yes!

DENNIS: But this was, in its earliest, the 1930s and the 40s. And looking at that, what they found is, even in your most experienced pilots, their results or outcomes or mistakes, I don't really want to call mistakes, because nothing was intentional, believe me. They were the ones that had the highest incidence of mistakes and it's extremely complex, as your husband can attest to. But what happens is called normalization deviance. We talk about that in our perioperative practice, but when you perform the same task 100 times, in essence as in surgery, “Hello, time-out, everybody be quiet”, and then we go boom, boom, boom, boom down the list, and somehow we’re doing nothing but focusing on the list, instead of the real outcomes of the list sometimes can be very scary. And what happens is you fall into a certain sense of complacency and really don't double-check. So, what the aviation industry did is so we would not forget those critical steps, and they're very unique to the service that was performed on a patient. They developed a series of safety checklists, and we incorporated that into peri-op practice is what we did as well as other parts of our nursing specialties.

PIERCE: Well, I knew that aviation had checklists, but I didn't know that we were connected to where that idea came about goes all the way back to aviation. So that's really neat to see how the two industries kind of intertwine for safety.

DENNIS: Absolutely. Yeah. A lot of the things we've adopted have actually been through industry. So, what is the surgical checklist? I think we all know this. It is intuitive if you've been in nursing. It is to improve the procedure that you're doing, whether it's on the bedside procedure or in the operating room to perform key safety checks during vital phases.

With perioperative nursing, our phases come into three phases is what happens. And this initially came on board in the year 2007 when the WHO, the World Health Organization Patient Safety, launched their second global patient safety challenge “Safe Surgery Saves Lives”. You've heard it. In fact, we actually have, I think it's June 6th, but don't quote me on it, please, because we have so many dates. But it's actually where we have what we call a time-out day, where everybody and perioperative nursing is to become aware of National Time Out, which is basically a checklist. It's just the perioperative checklist, which is pretty cool.

PIERCE: Like a reminder just to maybe remind them how important it is to do this so that it doesn't become white noise.

DENNIS: Absolutely.

PIERCE: Maybe the intent behind that day.

DENNIS: I beg your pardon?

PIERCE: I was going to say the intent. Maybe that's the intent behind that day.

DENNIS: And so absolutely, whether it be a Perioperative Nurse Week or your Boss's Day, it brings that awareness back. But it is actually, with 48,000 members of my professional organization, the Association of Perioperative Nurses, it is everywhere. And you see everybody emailing and texting Happy National Timeout Day. So, we are very aware of the criticalness of embracing our time out or the surgical checklists. Who does it incorporate? Well so what makes perioperative different? I'm not a bedside nurse. So what I'm going to tell you is what I know, and it incorporates the entire team, whether we are doing a block in post-anesthesia care unit, or we're in the pre-op area and the surgeon comes in, that would include anybody that's part of that specific procedure. So that could be the surgeon, that could be your anesthesia provider, that could be your anesthetist, and that could be the nurses, as well as the surgical tech. And it's to perform key safety checks during the vital phases of peri-op nursing. So that could be, again, in the pre-op area. It could be prior to induction of anesthesia. We even go into detail when they may go in prior to the skin incision, before the team leaves the operating room. It could do that. Or if they're doing a block, like I said, in post anesthesia care unit.

PIERCE: Now, when I worked on the bedside and I was on a heart floor, right before a patient was going up for open heart surgery. And we had checklists for him that you started the night before with his hibiclens and showers, and then that checklist continued up with him to pre-op to, and so, is that the continuation of the actual O.R. checklist? Is that the start of it?

DENNIS: I believe it's part of it. It's the start of it. It wasn't, it was pretty long time ago, but I remember that on the front of the chart. We didn't have electronic documentation. I had a checklist to assure all these components prior to surgery was done before we wheeled them back in.

PIERCE: Yes, jewelry off and gown on and yes, it was a full checklist. And it was not electronic charting, just like you're talking about. It was paper charting. But I see that as start of the checklist, the start of making sure that you are correct is done.

DENNIS: Go ahead. I apologize, Candace.

PIERCE: No, it's okay. Who has the main role, the main player in developing these checklists?

DENNIS: The checklist, actually, when you talk about where did it began, it was the WHO Patient Safety, the second global patient safety challenge, “Safe Surgery Saves Lives” and respectfully it was when there was an increase in wrong side surgeries. Do you remember when all that came about? It was national news. Oh my gosh. Or when radiology uses radiographic marking to indicate when we do surgery, if it's flipped or slightly reversed, you can end up doing the wrong side. So, it kind of evolved. And we're not all, I always kid, I say this to my team, we're not all Netter’s textbook model. So, what makes surgical checklists so different? You have got to look at the complexity and the type of procedure you're doing, and what if there's a magnitude of surgical specimens and we have to notify the team that there will be a certain type of specimen retrieval, because if you lose a specimen or forget to get it, that is a definitive diagnosis and can make the difference to a patient going back. So, it's very complex because it incorporates just not the procedure you're doing, but all this equipment around. What if you're in the airway? We've got to have oxygen to live, you're intubated, but oxygen leaks around the area. And then now the 98% of our preps are alcohol based, and if you don't let them dry, you end up with a surgical fire that can be very debilitating and even create death in some patients. So, all that checklist is, even though we have standardized components of it in surgery, whether it's positioning, we will expand on it on a given situation, the criticality of the procedure we're doing, and in some of the patient's co-morbidities.

PIERCE: Right. So, I've worked with quite a few surgeons in the ICU, and they're usually very short on patience, and very short on time. And so really, do you know when the checklist came about, how accepting were they at first, or even the team as a whole, how accepting it was, how easy it was to get them to start to work on the checklist and maintain checklist.

DENNIS: My goodness, culture is very hard to change. Kotter has this theory on what it takes and the steps of culture. And I can't tell you that off the top of my head right now. It's in one of my lectures, and to incorporate the cultural change, and in the beginning, they were reluctant, and I don't know whether they didn't understand. And our team was too. I can't blame it on the providers. We do this all the time. You know, one of those things, I know how to do this, and it took a huge culture change, absolutely. And doing that, how do you get a culture change? It takes two to three years. So, when our professional organization and our regulatory as well as our accreditation bodies came in, they started putting a tremendous amount of focus on the correct delivery of time out for our surgical checklist. It's a very big focus. So, I think it's important to do that culture change. And you talk about reluctantcy; you have to engage actively the stakeholders. You also have to develop your tools and your processes to support the implementation because docs are scientists. And when you start looking at wrong sites surgery, or a good example is as we're closing and the doctor says “oh I know how much sponges I have,” and lo and behold you leave a sponge and got to bring the patient back. It really makes a believer in them. I think, too, that institutions have to set clear expectations for accountability, and that accountability is not just our surgeons; it's our nurses and techs that are in that room and making that checklist part of our overall culture.

PIERCE: Absolutely. And I did study Kotter, actually. I actually taught and also, I pulled Kotter into some of my leadership teaching. Very familiar with the culture change. And I think the military, some of them, some of the leadership use that as well when they're trying to make changes. So, very well known, listeners, if you haven't seen it, I really encourage going in and looking at that theory. He's got some really great theories on culture change. But all right, so who's responsible for ensuring that the checklist is done?

DENNIS: I love that question. I get that a lot when I teach. I'm a teacher by nature. I said don't look at this title, I am really a teacher. I think it is a team approach. It used to be the infamous saying, and I know you remember it, the captain of the ship. The captain of the ship is no longer. If a patient is in the potential for imminent danger, we should all be able, no matter whether it's peri-op services or the bedside, to call a safety stop. So, we do set a standard operating procedure who will call the time out, but it's not necessarily the surgeon that calls the time out or the checklist. More times than not, because the surgical tech is so covered up with getting everything set up, it is usually the circulating registered nurse in the room that will initiate the checklist or time out in that room. When that occurs, and I think this is really important, I was at Emory for seven years. You have to enforce that everybody stops what they do. No music in the operating room, no talking. And we all go over that collaboratively together, and their silence in that room. And when Joint Commission, or DNV, AAAHC, QUAD-A, come into these operating rooms, they do look for that. Everybody has to stop. It is usually the nurse.

PIERCE: The regulatory bodies really do play a role in accountability. And what about development of, because I figure, is it a standard checklist, or does each organization have their own spin on the surgical checklists?

DENNIS: I think that's an excellent question. When we start getting into completely standardized, that's where we get into that normalization deviance. I think you could agree with that. Everybody's doing it the same way. And I always say it's kind of like when you drive your car, you know where everything is, and the car knows how to get you home. But if you get a rental car, I am so confused. Where are the lights? Where this? So, in short, to answer your question, we have templates whether it be from the WHO, and I have an excellent example I can send and share with the listeners, if you want it, I can email it to you, but you don't necessarily do, it's not necessarily created specifically for the culture of the type of services you have. Example: The Association of Operating Room Perioperative Nurses has an example or template of a comprehensive surgical checklist, whereas the WHO may have just a checklist. So, what we did within AORN is we incorporated the WHO, The Joint Commission Universal Protocol, as well as a combination of other national patient safety goals. So, you make it your own. Or, for example, if you have a center that does primarily pediatrics, your checklist is going to be very different from maybe an adult hospital system. So, they're actually customized using the basic templates from the WHO or from AORN.

PIERCE: And this is such a random question, and maybe it's more of a rhetorical question, but I wonder how many iterations came out before they got it right, before they felt that this was the checklist?

DENNIS: I can't imagine. I really can't, because I know within my time as a perioperative nurse of over 45 years, and then the implementation of the checklists, I've seen a lot of different versions. In fact, when I first came here, I noticed because they didn't do a lot of lasers, I'm certified in lasers, a lot of fires, things like that can happen. They're highly regulated devices. And I said, we are not incorporating the checklist, the fire safety. And we would even get to the point where we do a visual means of putting something at the door and you flip it over that says this was high risk for fire in the OR. So good examples, I came to this hospital, been here three years now, and implemented that as part of the checklist.

PIERCE: Wow. It would be very interesting to just know how many iterations came about because I know just in our careers you see so many different changes and so many different iterations to anything that we do to get it right. Do you happen to have any data before we have a checklist and then after that checklist, you made it through that culture change and was actually being used the way that it was intended.

DENNIS: I have a little bit. I did some research in preparation for this because, you know, as nurses, it's hard to get those statistics right off the top of your head, and estimate shows, and I'm looking at some of the notes that I put down to around 234 million major operations report were performed every year, and one for every 25 patients in the world itself was affected by some kind of outcome not doing the appropriate checklist or safety. Surgery had a high rate. We were stand out. I think that's why we have National Time Out day. Morbidity and mortality, at least seven million people a year experience some kind of disabling surgical complication and more than one million die. That's just pretty significant. So, the Safe Surgery Save Lives Strategy Campaign strives to promote the surgical safety as a public health concern. And that's when we saw them morphing more and more different types of checklists. So, looking at when the WHO and I think that's the baseline they used, came out with their recommendations on a surgical checklist, specifically, it reduced the rates of death and surgical complications by more than one-third across eight pilot hospitals. That's pretty significant. And the rate of the inpatient complications dropped from 11% to 7% in inpatient death rate following the operations fell from 1.5% to 0.8%. And there's many theories around that of what do you think helped to make it safer, and it's multifactorial. It's probably the checklist, the pauses, the slowing down a little bit with the uptake of technology. I've even said that to my boss, we've got to slow down. There is so much stuff in the room.

PIERCE: Do no harm. Bring it in slow, do not harm.

DENNIS: Absolutely. But you've got people doing the calculations. Again, I'm saying this respectfully at OR time being $47 to $57 a minute, they're going, we've got we've got to decrease our turnover time. We've got to do this, but not to the extent of our quality in taking care, because we are in the people business.

PIERCE: Absolutely. With the checklist, what are the key components of that checklist? Like a typical.

DENNIS: Let's start off with the WHO.

PIERCE: Okay.

DENNIS: Yeah. Well, let's start off with the WHO. They have ten objectives for safe surgery because we use that as our model. The first objective is, we will operate on the correct patient and the correct site. Number two, we will use methods or methodologies to prevent administration of anesthetics while protecting the patient from pain is, like I said, it’s huge. The team will recognize life threatening loss of an airway. We have to stop. Start bucking on that tube, or if they're extubated too quick the team will recognize and prepare for the risk of blood loss or avoid allergic or adverse response to a prep or medication. That's part of the checklist, a good exam. Are you allergic to any iodine? You know, that's something that may not be picked up on in pre-op, but if we prep in iodine, we're going to have a complication with irritation in surgery. And that's the last thing they need. We're going to minimize the effects of surgical site infection. So, here's another example of surgery. The antibiotic has to be given as close as possible to the time of the incision. So, you can't give an antibiotic in the pre op area if they're waiting an hour to come back. So, it is done in surgery. And then there is the counting. We have three stages of counting instruments, so the team will avert retention of surgical instruments and sponges. And then they'll identify specimens. Specimens are going to be a big deal, where if you throw away a specimen, as I said earlier, that's a definitive diagnosis. That's a problem. They'll secure effective communication where we don't want to, we want a relaxed situation in surgery. But you don't want the radio going loud, people talking over each other and not paying attention. And a good example, my heart team, I said, when we go off pump, there is no conversation. It is only led by our heart surgeon because that's such a critical time for the patient and systems, us specifically, should incorporate established surveillance of our capacity, our volume, and the monitoring. Are we doing this correctly? Because we don't want to get in a routine to where we just check the box and not really pay attention.

PIERCE: If this was not on a computer, how many pages would the checklist be?

DENNIS: Our checklists is, I'll give you an example. We have one that I can send you. It could be one page, but the font's probably a two, and you got to wear your glasses to see it. You want to keep it in simple terms, instead of trying to incorporate the pre-op checklist with the intra-op, and the post-op, it needs to be its own entity. So, you could do it in one page. You really could.

PIERCE: Okay. Did you have another? I know we talked about the WHO as far as what the typical components of a checklist. Is there another one that you wanted to touch on?

DENNIS: I did AORN, the Association of Perioperative Nurses, everything that the WHO was saying because remember, the WHO is designed for surgical safety checklists. So, when you look at our association's template on what they recommend with surgical safety, it's not any different really than the WHO, to be honest with you. I'm looking at it right here, I got it in front of me and it really incorporates everything that they recommend. We may expand and take it a step further to not get, so, the terminology for the staff in the room where we may say, are they allergic to any of the prep? We'll get specific. There is a potential fire issue. We are in the throat. We need to look at the anesthesia gases and keep the oxygen as low as clinically feasible. They will go into that more detail in that checklist.

PIERCE: So, to touch on the OR team a little bit, trying to really understand the collaboration in that communication aspect between all of the healthcare team, and there's really important pieces. within the OR, it seems like the entire team is going to have to adhere to this surgical checklist and play a role on that surgical checklist. What does that look like?

DENNIS: Okay. If I had to reiterate, what would actually happen, and let's say we're going in, and we're doing a trach in there. So, we go in, and the patient begins the induction, which is prior to when they start the induction, we will begin the surgical checklist at that time. We call that the time out, they call it their own name, remember National Time Out Day, and they will begin to identify the patient. The RN will signal the team. The team will then quiet down and anesthesia is going to give anesthesia, but they're going to be paying attention, and we're going to identify the correct patient by two indicators. So, same thing that you do in the bedside. And then we're going to go specifically and talk about the prep. We're not going to be using any flammable preps. We're up near the airway there. We're going to keep the oxygen as low as possible as clinically feasible. We are going to actually focus very much on that procedure with the checklist. There will be several specimens. Well, with the trach, there's not. But if there's an incision on the neck, and you require specimens, we would announce that during that time out. Blade, nothing will be passed until those indicators are completely reviewed during the surgical procedure.

PIERCE: Okay. Yeah, that's a lot. I mean, that really holds the whole team accountable. You don't take it out until we get through this. And everybody, it's almost like calling roll. I'm here. Everybody is here. I've done my job. I've done my role. All right. We're good to go. We can get started.

DENNIS: Yeah, they’ll even ask about the antibiotic. Have you given the antibiotics yet? Yeah. Close as possible to the incision. One hour prior to the incision or as close as possible, absolutely. Even sterilization indicators could come into that. We may have multiple trays in the room, and that will make sure that the indicators and everything or the trays are at the point where we can use them without any potential complication to any contamination.

PIERCE: It's very, very extensive. Well, Vangie, we've come to the end of our time for episode one, but I'm hoping when we start episode two, you're going to be able to share maybe some

real world examples of where sticking to that surgical checklist really made a difference. Got some of those for us for episode two?

DENNIS: Yes

PIERCE: Okay. Yeah, I have learned so much from you. Just in episode one and I'm looking forward to gleaning some more knowledge from you in episode two. So, to our listeners, I hope you will join us for episode two as we continue our discussion on patient safety and checklists in the OR.

DENNIS: Thank you.

Episode 2: Ensuring Excellence: Quality Control and the Future of Surgical Safety

PIERCE: Welcome back to our series on surgical checklists and how they prevent surgical errors. Vangie Dennis is back with us to share more of her knowledge. Thank you, Vangie, for coming back for episode two.

DENNIS: Thank you so much, Candice.

PIERCE: Yes. If you have not gotten to listen to episode one yet, take some time to check it out. In episode one, we really focus on the checklist and its content, its significance, and how it even came about. And for this episode, we're going to focus on quality control and the future. Vangie, to start us off, can you share maybe some real-world examples were sticking to that surgical checklist made a difference?

DENNIS: Absolutely. I can even give you some of my own situations that have occurred, but we know some of the biggest things that you heard happened, which initiated a full focus on surgical checklists, was wrong site surgery. And that's when the surgeon or the caregiver goes into the wrong part of the body during an invasive procedure. And in some cases, I have actually been in situations where they began to inject on the wrong knee or the level of the spine. And one of the most complex I saw was when I was in interventional radiology, where they may be accessing the left side through the right side. And you can imagine, or anesthetic given in the wrong place. There were several incidences in my career where the surgical checklist picked this up after the informed consent indicated the opposite side. So, you're going in there, you're looking at the informed consent, you're talking to the patient, and of course, they are agreeing, they're nervous anyway, and I don't know if they're hearing you when they're awake in the pre-op area, and then you go into surgery, and you begin to read the informed consent and you go, we're doing a right side arthroscopy on this patient on, and of course, you state the patient's name, Sandra Smith or whatever. And come to find out it's the opposite side. So, checklists will pick that up. They also do what they call surgical site markings, and sometimes the marking is on the wrong side. So, when that situation occurs, we

start doing rapid investigation before we move any further to assure the correct side of that patient is being treated. There are so many advantages of that, and we have to have the ability of the team to question issues. If it expands further, investigation needs to be done before surgery starts.

PIERCE: I want to go down a rabbit hole for a minute. When you were talking about the consent, and it was for the wrong side, what do you do in that instance?

DENNIS: Well, if you look at it.

PIERCE: If they signed it for the wrong side.

DENNIS: I know. Guess what? Wake them up. No, we don't do that. We start and do an investigation from the H and P to family members, if we can support that. And obviously, if we can't come to a solution, we're definitely not going to operate on it. But most of the time it's picked up after the investigation, and that's incorporating the family, look in the patient's H and P and some of the tests that are done on them to let us validate the correct side. But a lot of times, I'm not real big, and I know places do that. We do not question the patient if they're given any kind of medication prior to surgery. Most of the time it's caught actually in the pre-op area where the nurse comes in and begins a checklist of many checklists that you talked about in the first session that we discussed on surgical checklist. We talked to the patient there. When was the last time you had something to eat or drink? What is the doctor going to do today? We don't tell them. What is your doctor doing? Which leg is the doctor working on? So, most of the time it's caught there. But there are times where the informed consent is incorrect. More times than not, it should have been picked up in the pre-op area, but that's that double check in surgery.

PIERCE: Yeah. Wow. That's a lot to think about. The importance of informed consent is so, so important. So, the broader picture of surgical checklists and you kind of touched on where I'm going to go with this earlier in episode one, but they represent a culture shift in healthcare. And so, what is that signifying of the commitment to patient safety and overall quality improvement? How do surgical checklists really represent that culture change?

DENNIS: That was such a great question. It really made me step back and think about what are the issues that sometimes become obstacles in optimizing our outcomes. I think the common barrier theme for a lot of the articles that I have read is the redundancy. You've got to shake it up, you really do, and you do have standard bullets that you're always going to communicate. The informed consent, the patients two identifiers. I think is poor communication. When people are taking it lightly, it's a job, yes, but we're in the people business, and we have to mandate that there's no talking and communication stays open during that time out procedure or during the time the checklist is reviewed. I think that there's sometimes negative perceptions of its efficiency. All this is slowing us down is kind of like a situation recently that I dealt with and says, do we really need this safety huddle every morning? Yes, we do. We do safety huddles in conjunction with that, too. Or the lack of understanding and commitment to

this process. And even though effective implementation strategies have been looked at, there's high degree of variability in our operating rooms, our operational practices, and our cultural factors among hospitals, surgical services teams that require some flexibility and even modification in the strategies of developing that list. I think the improvement quality is when we embrace National Timeout Day, and that initiative began in 2004 that called. We all did like a mini one before the elaborate WHO checklist came out, and that called for surgeons and the teams to hit the pause button before starting an operation. And I said earlier, June six this year, apologies it is celebrated, I put those notes down, June 24th, to emphasize the importance of the pause. And the key dimensions are being patient-centered and treating the patient as a unique person, and all of us involved in the care and providing information that influences the outcomes of that experience for the patient.

PIERCE: Absolutely. I want to ask you a personal question, Vangie. It's okay if you don't want to answer, but you said you've been a nurse for about 40 years, so do you remember in your career that cultural shift where the view became more about patient safety and quality improvement? Do you recall a time kind of where that shift happened?

DENNIS: For me personally, I think I saw the shift 25 years ago, and that seems like a long time ago. I'm not saying we were perfect, but we started putting, and the reason why I'm giving this example, I was very institutional nationally on surgical smoke and the harm, and that is that Kotter's change in culture to let doctors know this is bad stuff for our people that are in the room, well, that's the same kind of thing. So, we saw the shift with a higher incidence of safety almost 20, 25 years ago. In fact, I can remember having a little block that when you would sterilize, and it was orange, and you were allowed, we put it on every mayo before the surgical tech or the nurse that was scrub was allowed to pass the blade. So, I'm going to say a little over 20 years ago, we started to see that change in putting things very focused on safety, not that we didn't do it in the past, but a little higher alert about 25 years ago.

PIERCE: I saw that smile on your face when you started to talk about it.

DENNIS: Yeah.

PIERCE: So, when addressing the need for ongoing training within well, I mean it doesn't matter what floor you're on, what unit you're on, we're always going to need that ongoing training. So, how crucial is continuing education for those in the O.R. when they're utilizing this checklist?

DENNIS: Well, it was a big component of when we first in Peri-op 101. That's what we call it when we're bringing whether it's transitional nurses or new grads into the operating room as part of their training. But every time that we do a reassessment of the needs, according to the types of cases we're doing in surgery, that's another need for the reeducation of our surgical checklists. I think the other times is when unfortunately, you put concurrent monitors in and people aren't doing it correctly, or Joint Commission or DNV comes in and goes, we’ve got a conditional here. That's not a good reason to do it. But I think that's when you start stepping

up your practices again in realizing you've been a little lackadaisical. Communication has to be emphasized that it is an important part of the checklist, and that due diligence to focus on our patient safety issues. And every patient, whether it's the bedside nurse or in surgery, you've got so many pieces to that. Every patient is unique. And during those training sessions, surgical teams need to understand the importance of the checklists in very difficult situations.

PIERCE: How often do you, when you're talking about education, how often do you reevaluate the checklist itself?

DENNIS: Well, I'm going to say what you should do, and I don't know if everybody does that. I think an assessment like policies and so say every two years, I think it needs to be reviewed yearly. If it's just assessment, a small task force or a team can do that, because things change, technology changes, especially the operating room. I've got three robots now, and I got an orthopedic robot that I didn't have the last place I worked. So maybe the checklist can be a little different with that orthopedic robot.

PIERCE: Right? But what methods do you employ to assess the tangible impact of that surgical checklist on actual patient outcomes and overall health quality?

DENNIS: Well, it's we know it's a tool to improve our communication among our teamwork. I hope that I don't have an incidence that requires me to validate the quality due to a situation. But if that happens, we end up doing a root cause analysis to see what occurred in that situation. Where did the failure occur there? And that's real important. When I look at substantial research on significant implications by not following the checklist, the mortality rate after a major surgery was about 0.5%, which is huge, and the complications that were up at 25% reduced significantly. So, I think more times than not, facilities end up having something happen, and then we do a root cause analysis to do something about it when the best thing to do for checklists is to, just like your policies, to put an assessment in place, as the culture and equipment and the types of procedures change to maybe to take that checklist and make it unique to your center with the standard points that we have to review.

PIERCE: Talking about change, do you see any emerging trends and technologies that are going to affect the realm of surgical safety?

DENNIS: Yeah, the only thing that kind of bothers me a little bit is there's a checkbox sometimes in most of the EHR that says I've done the checklist, but I think what I'm working with my EPIC team, they're amazing. And I think what you're going to see, and we've done that, the surgical leadership team, my team, directors and managers, I put hard stops in, and you're going to see that more, where we have the advantage that you cannot proceed, because the documentation won't let you go forward on that. So, there's going to be some hard stops that the checklist has been performed specifically to the needs. I think overall technology will be a pivotal role in our modern healthcare by assessing the quality and success of our surgical procedures. That's coming. I think there's going to be a broad spectrum of tools and instruments and techniques that is going to empower our surgeons to do very intricate

surgery. The robot is an example of that. But then what's going to happen? That means the speed is going to change. They're going to be faster and more efficient, which now we need to put a lot of emphasis on the safety, and the checklist is a good example that helps that. But if I had a crystal ball, I remember doing a podcast host to one of the past presidents there, and I said, well David, would if you had a crystal ball, what would you do, and he turned it right back on me. But I see the checklist implemented with other technologies much more granular, and that's like radiology or imaging analysis. Maybe a robotic checklist, which we have that was with lasers. Remember, I'm certified lasers. I have a checklist for laser or predictive analytics for risk assessment, surgical navigation, and intraoperative decision support. So, I did a little research on that and went, wow, I've learned something myself.

PIERCE: What are your thoughts on, we're talking about robots. I've seen some where people can be across the world doing surgeries, using a robot at a different hospital. What are your thoughts on that, and patient safety and surgical checks.

DENNIS: I remember years ago, 20 years ago, teaching telepresence, and surgeons would have a data glove and remotely, they would do surgery. Now, what I have seen working for big health systems like Emory, where they just like we're doing right now remotely, the surgeon could see the procedure and the technology is so, so good in the visualization now they can help directly. They would be part of that time out. Nothing would really change. They just may be remote. Not seeing that at my center on my community base hospital. But when I was at medical centers like Emory University Health System, they were looking at stuff like that back then. And I've been away from Emory for about ten years now.

PIERCE: Would you say that most hospitals use this checklist in the O.R.? I mean, is this an accrediting body requirement too, because I know they'll hold you accountable to your policies, but you don't have a policy to use it. Is there accountability there that every hospital is using checklists?

DENNIS: Yes, there is, absolutely. You know, CMS actually regulates us, whether we think so or not. They regulate us for sure. So, the accreditation bodies, again, such as Joint Commission, DNV, Triple-A, and QUAD-A, make this part of their survey and they assess hospitals for ambulatory centers and all. And with that they report to CMS. So, this is regulated in a sense.

PIERCE: So, this is regulated. So technically, everybody should, key word there, should be using it correctly. What's your call to action for our listeners, especially those that need to advocate for better use of it, or for it to actually be used correctly? What's your call to action for them?

DENNIS: I think continually assess your checklists as trends change. Don't wait a year. I keep bringing it back to laziness. So how often should we do audits, and of course the guidelines or standards will say every year? I don't think you have to do it, because I say do it once a year. If you need to change in six months because things and trends have changed, then change your checklist. I think it's important to put concurrent monitors in. And when I worked in another hospital system, we did that. We didn't wait for a Joint Commission to say we did not do a

good job. This is a conditional. You need to look at how you do your checklist or time out. So, I think it's important to monitor compliance, to make sure we continue to do that. And I think it's important to engage your team. I'm talking about staff nurses, and the techs, and our docs. And bring up and celebrate National Time Out Day, because it emphasizes the importance day after day. This is just not something that's going to go away. And with 500,000 lives on the line every year, it's imperative that we spread the checklists widely and rapidly.

PIERCE: Absolutely. Vangie, I know that you've been in leadership for a while now, so I want to ask you, as we come to a close, a leadership question. Do you have any tips for leaders who maybe are trying to bring about a big culture shift, a big culture change for patient safety within the O.R., within your area?

DENNIS: Wow. I think you go into a no tolerance. That's hard to do with something as important as this. But a lot starts with your leadership. And to get that leadership, and I have an amazing doc that leads quality here. And he looks outside the box. He is actually a general practitioner, but he comes in from another perspective. So, I think from my end, culture takes a while to change, but something like this can't wait two or three years. And right now, we are well over the tipping point of incorporation of a checklist, because it's been around a while. I think the take-home is this is not something that we should take lightly. Yeah, it reduces errors, but, it's about quality outcomes. And the take home for me would be too for every listener to take it very seriously, which I know nurses do. I always said we're independently wealthy and we do nursing as a hobby. No, we really truly love our jobs and love our patients. So, I think it's important, imperative that we emphasize this with our teams and incorporate that culture change rapidly and that that's tough.

PIERCE: Actually, it is. It's very tough to shift that. All right, as we come to the end of our series, what knowledge do you want to emphasize or leave our listeners with to think about when it comes to patient safety in surgery? What are your pearls of wisdom?

DENNIS: My pearls of wisdom. You know, for me personally, this is what I tell my team because I'm very big on getting my team certified. And when they're certified whether it's a tech or still processing or a nurse certified in the operating room, it incorporates all that gamut of patient safety and outcomes. And you can see that bar raised. I mean, that's why Magnet hospitals encourage certification. So, I'm very big on education. Knowledge is power, and I'm very supportive as a lead to assure that our nurses and our techs get the education they need to perform. I also do what we call town hall. So, there are my pearls again, as a leader, and that is a safe zone where if that doesn't matter that they talk, it matters the delivery. If the delivery is professional, I want to hear about what their pressure points are, because they are the eyes and the ears and the hands of leadership to know what we need to do to trend and make things better. So, I do, you know you talk about transformational leadership, I think it's a part of being servant and transformational where the transparency is important. And I do that with the leaders across the country being on the board of directors for AORN. We share things to make our patients safer within the perioperative setting.

PIERCE: Absolutely. Vangie, your passion and your love of teaching just pours out of you. And I have really enjoyed this conversation with you today, and I'm so grateful that you took the time to educate our listeners and myself because I learned a lot from you today as well.

DENNIS: Thank you so much. Thank you for your time. I absolutely enjoyed it. It's always fun about, talking about Peri-op nursing. There's nothing like it. I mean, I love all the other aspects and they're very important, don't get me wrong. But I always tease my new transitional nurses or new grads about getting into perioperative nursing. I say you'll never get bored. It's always something new.

PIERCE: It is, absolutely. ICU was like that for me, it was always something different.

DENNIS: It was like that for me too. But I scared myself a little bit.

PIERCE: You did? Should I ask how?

DENNIS: Well, I mean, you're in life and death situations. Not that it doesn't happen in surgery. I have got support. I've got an anesthetist, and an anesthesiologist and a surgeon, and you're flying alone, and that's scary. I was a dialysis nurse in a freestanding clinic, and if a patient crashed, you were on your own trying to get them back up before doctor could get there. That is what ICU is. It's a very high level performance of nursing.

PIERCE: You are not wrong. And, that's what I liked about it was that I was, I had to think through everything that I did. If I change this drip titration, what's it going to do with this other? What's my vital signs going to do? What do I do next? And that's really what I loved about it. But that's what scares me.

DENNIS: But that's what scares me. Oh my gosh. Yes, right now.

PIERCE: So many areas that you could go into, and there's so much that, and I just love that hopefully that as talking today maybe has piqued some interest of other nurses or even nursing students maybe be interested in checking out your area as well. Because your area sounds scary to me!

DENNIS: You’re scary to me.

PIERCE: Well, I really enjoyed learning so much on this topic. To our listeners, I encourage you to explore many of the courses that we have available on elitelearning.com to help you grow in your careers and earn CEs.

DENNIS: Thank you, Candace.