**On the CUSP: Stop CAUTI in ICU
July 8 ICU Content Call**

Travis: Excuse me, everyone. We now have all our speakers in conference. Please note that participation on this call by written invitation from the AHA for AHA members only. Unauthorized participants and/or any part in the aid of unauthorized participants may be subjected to criminal and civil penalties under both state and federal law including Electronic Privacy Act. Please be aware that each of your lines is in a listen-only mode. At the conclusion of today's presentation, we will open the floor for questions. At that time, instructions will be given as to the procedure to follow if you would like to ask a question. I will now turn the conference over to Ms. Anna Wojcik you may now begin.

Anna: Thank you, Travis. Welcome everyone to the July ICU content webinar. Today, we will be discussing CAUTI sustainability, embedding CAUTI policies, using data to monitor progress and hardwiring CUSP principles. As a reminder for those who aren't familiar with the platform, you can download the slides to our webinar in the bottom right hand corner under the materials box. They are also available on the project website. We also remind everyone to please complete the evaluation. I will include a link to this as well as at the end of the presentation. We'd like everyone who is participating that there's more than 1 person in the room to complete this evaluation. We really value the feedback that you provide for us.

 Now, I'd like to introduce our presenters today. We have Diane Byrum who is a critical care clinical nurse specialist with 30 years of experience as a critical care nurse, educator, and education department manager. Diane is currently employed by the Society of Critical Care Medicine as a program manager for the SCCM Cohort 9 CAUTI Elimination Project and the ICU Liberation ABCDEF bundle implementation cooperative.

 We also have Dr. William Miles. Dr. Miles joined as attending staff of the F.H. Sammy Ross, Jr. Trauma Center at Carolinas Medical Center in 1995 where he is currently the director of surgical critical care and the medical director of surgical trauma intensive care unit as well as the medical director of the Stanly Community College Respiratory Therapy Program in Charlotte, North Carolina.

 Our unit presenter today is Ginger Dickens who is a nurse manager of a 24-bed critical care in telemetry department at Maury Regional Medical Center. She has 27 years of experience as a nurse with a focus in critical care advance practice nursing and management and has departmental oversight for strategic key metrics and quality, service personnel, and resource management.

 Finally, Pat Posa as you know is our resident CUSP expert and she is also the system performance improvement leader at Saint Joseph Mercy Hospital in Ann Arbor, Michigan. I'm really excited to have these great presenters today. With that, I'll turn it over to Diane Byrum.

Diane: Thank you, Anna. Our learning objective for today are to examine the key lessons learned at sustaining the gain. I would really like to be able to offer you some firework, hear some new information kinds of things, but we all know that if it was out there, we'd already be doing it. We're going to examine some of the things that you've already done, but all of these things that you've already done and put into place will help you to sustain the gain. We're going to identify roadmap for continued success using the tier 1 and tier 2 protocols from Dr. Sanjay Saint's work in the med/surg unit.

 I wanted to talk a little bit about some of the information that has come from this project will be held in a website called Project IMPACT, which is a website that was collaboratively formed from the AHRQ and Society of Critical Care Medicine. It will be held under Project Dispatch. It's focused on patient-centered outcomes, research, and aims to provide clinicians with information on how to adapt and adopt successful interventions in their own ICU. This information is available for anyone who go to and look at videos or hear our webcast. I just want to make sure that everyone knew that there was a more global ICU place that you could go if you were looking for information in addition to CAUTI about some of the best practices and some of the successful interventions in ICU.

 Quality health care. I found this definition and I really like this definition. It's very old. It says the degree to which health services for individuals and population increase the likelihood of desired health outcome and are consistent with the current professional knowledge. I like this definition mainly because I think it gives that whole vision of why we are looking at preventing CAUTI. We never want to cause harm when someone comes in to the hospital. I think our current professional knowledge tells us that we shouldn't do that. We need to put those practices in play that will allow us to provide the best care that we can for our patient who desire a good health outcome when they leave the hospital.

 Change requires respect and when you think about how you've always done things and how you were taught to do things and how after 40 years as an ICU nurse. Someone is going to come along and say, "You need to do this differently and this needs to change and this is just how we are going to do it." I want you to think about that change requires respect. You have to respectfully think about the past. You have to realistically talk about the future or the present. Then, you have to optimistically speak about the future. When we are trying to get people to buy-in to CAUTI reduction or CAUTI elimination or any kind of new initiative that we might have in the ICU, we have to keep this in mind. Change requires that we respect where people came from. That we provide them with the tools to move forward and that we are optimistic that in the future, we will be able to make a difference.

 Begin with the end in mind, if anybody have read the Covey book that comes from Stephen Covey, who said when anytime you start something, you have to be begin with what you think the end might look like. Remember that quality issues are often process related and not people related. People are a part of it, but usually it's a process. If you fix the process, you usually fix the problem. Not to steal any thunder from Pat Posa, who will present at the end, but a couple of things about fixing processes are you have to standardize and they have to be simple. You have to decrease reliance on individual decision making. If your process for putting in a Foley or how you get equipment or how you do things is very complicated, it's likely not to be followed. There has to be such redundancy and such practice about making that process that you have decided will be standardized and simplified so that it doesn't allow for someone to make a decision outside of that process and then possibly cause harm.

 Sustaining the gain. You have to recognize that change takes place every time. For some of the people in this project, you may have started at square 1. You haven't started any kind of process in your ICU about eliminating CAUTI. You have to understand that when we finish this project in August that you may not be exactly where you thought you would be, but you have to continue to believe that over time things will change. The problem is that people stop changing when they don't see results immediately. If you do that because you say "Well, we didn't make any difference." It's not going to happen overnight. It's going to take time and over time you will begin to see that.

 Other lessons learned. Ensure administration is aware of your efforts and your results. I don't mean this in a derogatory way towards nurse managers in any way. If you're the leader in your unit of the CAUTI project, make sure that your nursing administration knows about what you're doing and the processes and the gains that you've made. You also [inaudible 00:09:24] for the physicians to make sure that your CMO knows about the results you've made. That goes all the way up to the administrator. That goes all the way up to the board of the hospital. They want to hear things like this that there's a project out there. We are working on it and we are making huge strive in giving better care to our patient.

 Encourage and reward participation and problem identification. As people begin to identify that there are things that aren't working or they are really doing a lot to make the process work. Then, why don't encourage and reward those people? Most of people enjoy being praised in front of their peers. Anytime that you can have that opportunity to do that, it really goes a long way. The biggest thing for sustaining gains and losing that gain is complacency. I won't redo the definition of it. I'm sure that many of you know what complacency means. I think sometimes we think "They are there and everything is working and we don't really need to do anything out." That's when you start to see things slip. I would caution you about being complacent with where you are.

 Keep CAUTI projects on the front burner. Talk about them in staff meetings. Create healthy competition within the unit. If you have not have the opportunity to watch on YouTube the story called Jerri's story about a person who came into the hospital for a simple hip replacement and what happened as the result of the CAUTI. I would ask you to show that in a staff meeting – it's 4 minutes – or to ask your staff to watch it. I think it really gives you the [inaudible 00:11:17] what really happened and can continue to happen when someone just develops a urinary tract infection, which is sometimes how we think about it.

 Continue to work on staff competency. If you have not done that as part of your project so far, then I would challenge you to continue to work on how are you going to ensure competency. Not only have to insert a Foley, but making sure that people know how to care for that Foley once it's in. While it is about taking care of the whole peritoneal area, it's really about taking care of that Foley and making sure that everyone is following the process as it's decided in your facility.

 Hardware Foley education into all of your new employee education. Lots of us have turnover. We don't like it, but sometimes that's just the name of the game. It means new employee orientation, not just new nursing orientation. It means physicians that come on board, new assistant if you have nursing assistants, new assistants, new nurses. Anyone new that comes into your facility whether it's a transporter, someone in radiology to have a piece of this Foley prevention information in their orientation in some way. We can't sustain the gain if we have a lot of new staff members that don't know where we've been and where we are trying to go to.

 Short-term attainable goals. Don't try to do everything at one time. Celebrate success. On my visits to in-person meetings as well as to site visit, I heard some very fun and creative ways and we've heard that on our content calls to celebrate. If you go a week without ... sometimes you don't know that, but let's say go a month without a CAUTI, celebrate that, especially if you have 1 a month for the last 12 or 14 months. Celebrate what you've accomplished, but raise the bar a little each time so you don't become complacent. Each time that you accomplish something, raise the bar a little higher. Continue to engage in failures because you're going to continue to have them. That's not the way I learned. That's not how we ought to be doing that. You're heard the gamut of all of the things that people can say. We challenge you to continue to engage them. Sometimes the best way to engage them is to invite them to be a part of your team. Maybe they do have really good ideas and no one ever asked them for their opinion.

 Treat the CAUTI with respect. I know that Pat has talked in the past about the learning from defects tool. If you have another tool that you use, I will challenge you that anytime you have a CAUTI, you drill down and figure out what went wrong and fix it. If you don't fix it, you don't know what went wrong and then you don't fix it, you likely will continue to have that problem. In an effort to not take up any more time, I'm going to talk to you just a second about this tier 1 and tier 2 protocol. Dr. Saint published this as part of his original publication about the med/surg unit.

 I would say to you if you don't have all the processes in place at tier 1, then you can't move to enhance processes in tier 2. If you begin to have problem, then you probably need to go back in to tier 1 and make sure that all of those things that you thought you had fixed are truly fixed. To lead into the next discussion which is going to be about data, driving practice and improvement, I would say to you when you have CAUTI put a face on them, don't just make it a bar graph with a number. Put a face on them so people understand that there really is a person behind that number. When you get the zero, make sure that you celebrate. I will turn the call over to Dr. Miles.

Dr. Miles: Thank you Diane. Welcome everyone. This afternoon, my presentation, we will be discussing how to use data for sustainability. We have a very robust group of objectives and we have a lot to cover. I want to say I'll be happy to provide any additional information in the slides we present and answer any questions that come out of it. We will review some of the concepts and utilizing data to sustain health care initiatives, learn how to use data to change culture and maintain results. I also want to review many hospitals that have been successful in using data to sustain a process as well as maintaining that patient safety goal and establishing a culture of confidence.

 The power of measuring results. I like this, although it is a relatively older study, but it look at information adopted from Osborne & Gaebler in 1992, but pertinently to today. We really have to measure results to see success and we need to reinforce behavior to achieve success and to sustain it. Through this consistent measurement, validation, reporting and rewarding, you can really achieve and sustain those goals. Learning from data. This is important because when you ever represent data and review data and validate data, we also define a process in the same way. We don't all assume steps without falling them out. We don't all address the problem in the same way. Without using data and validating that data, we will not get the same results. We really need to work together as a team in reviewing, addressing the data and addressing the issues and moving the ship so to speak in the right direction.

 I like this graph. It's really a model. Some 10 steps to designing, building, and sustaining a results-based monitoring and evaluation system. It came from the World Bank, but it is actually very good and useful in health care processes. It really demonstrates how to use baseline data and monitoring results, evaluating them and using the findings appropriately to sustain the mission and going through the whole process from 1 through 10. We are already at really 6 and 7. This really getting to the 10 component of really monitoring and evaluating the data. We really need to be fluid with the understanding of the data, use it real time, adapt with ease from the data to get to the end result. This a lot of times is redundant. Redundancy in what we do in health care is very important for sustainability.

 In the next slide, we will discuss different models in which how to analyze data and different processes, if you will. Using the PDSA cycle, some of you already use this, you may not be aware of it and some invitations. It's really the process improvement approach to evaluate change and allow for integration of new and existing systems and really promote small scale rapid cycle change. By using it, you can use current data to troubleshoot, evaluate, improve which gives you the ability to adapt quickly and better ability to sustain your successes.

 Really the objective of PDSA cycle is plan, do, study, act. Plan, you may need to alter your questions and change the [inaudible 00:19:43] of data to get answers. This is even very important in processes that you've been using for a while. You need to go back and after you look at the data, there are different results that you expect. Come up with questions and predictions and why it happen and then again start PDSA model. Do, documenting the problems again and analyzing the new results. Study, you compare the data and summarize what is learned. Action, make changes in the process to improve outcomes and maintaining good results. Really the repeated use of this cycle like I mentioned earlier about redundancies are very important. We already have a process and plan in this CAUTI initiative. We really need to have repeated use of this cycle to be successful in analyzing the data and moving forward.

 Really using the PDSA cycle for testing or adapting a change, implementing and improvement, spreading improvements to the rest of your organization whether it's your own institution, whether you want many hospitals in a system. This is important to use and maintaining this process by reassessing and making it correct. By using it to be active, iterative, and learning, it really allows us to use it quickly to be active over repetitive cycles. We actually need to learn and take time to study the effects or action that our processes to be successful. Most of us have used root cause analysis to look at special safety events. I think it's a good process to really look going forward using it for every CAUTI that may occur.

 Hopefully, we have ability to sustain a major reduction in CAUTI. That's really what this is about. It's a way of looking at unexpected event, the data results and outcome to determine all of the underlying causes of the event. Thinking outside the box, not just in your own unit, but where outpatients actually travel to what other ports of entry of patient may have come. What other services, departments may have actually laid hands on the Foley, laid hands on the Foley bag, things like that. This data can be done, validated that any changes made to achieve sustained outcomes.

 Really the RCA tools. The 5 whys, appreciation of the information that allows for drill downs and cause and effect diagrams with fishbone diagrams. When we do the RCAs concerning CAUTI or patient safety events, we really need to do them regularly, effectively and then we need to publish the data and the results and be transparent. The successful unit and successful institutions are the ones that are transparent. I like this slide and this quotes from General Powell. Success, "There are no secrets to success. It is really the result of preparation, hard work, and learning from failure."

 As I move to the velocity of carrots and sticks, many of you have heard we speak about this. I want to build on to some of the research behind it and fill in the publications. There had been many studies that actually discussed it. We'll go over a couple of them. These highlights really the carrots and sticks issue. We think we know what carrots and sticks may be. I think it's important to know your local hospital culture, what drives your employees and staff to maintain the patient safety initiative. Carrots could be CAUTI-Carnival, could be CAUTI-Cash, increase bonuses, incentives or whatever that would stimulate that change. Sticks could be negative incentives. Also peer pressure be it in nursing staff or actually physician staff is even more important with peer pressure. That's really how you can help break down barriers to physician resistance to follow initiatives. If you think about that the CMS value based purchasing as the ultimate stick.

 I borrowed the next 2 slides from Dr. Ko who presented a few weeks ago and I think the very important in talking about how to use data to maintain improvement. What she talked about was using data for feedback and have it be a rapid cycle, repetitive and very frequent. Use data to generate awareness, never to inflame. It's how you maintain engagement of physicians and nursing staff. Also, how using evidence-based guidelines that are on the collaborative websites could be very important as needed to support the plans.

 She also talked about presenting data on particular results. Present the business case to reduce CAUTI using the data initially and regularly talking about prevalence, morbidity, mortality. As you progress to sustainability, sometimes we have to go back to present the business case for CAUTI prevention. Sometimes successful programs with changes in health care, reimbursement, et cetera, resources may be limited. Sometimes you have to go back to present the business case of why CAUTI prevention is so important.

 Going on with the carrots and sticks, which one is more important is not simple as choosing one or the other and there is some research behind it. The economist look at designing rewards on the carrots dressed as sticks presented in 2010. Success depends on spin you put on the incentives and having incentives real-time. They maybe need to change depending on how the employees change or other things develop. You need to have continuing strategies that your institution may employ to maintain that success. One thing that will show as a carrots dressed as sticks may actually be more important than one or the other.

 What economist showed is that presented in incentive bonus could equal a good performance. That most would consider a carrot. It also showed in their study and how the methods utilize is it's an incentive bonus minus a potential penalty actually equal to better performance. That's considered a carrot dressed as a stick. Clearly, both of these programs really relied on carrots, but in one the carrots were enticingly dangled to motivate the positive effort while the other, the carrots were actually frozen. Incentive frozen used to give employees occasional little kick when needed. What they discovered that the fear of loss was actually a better motivator than the prospect obtained. This maybe 1 way to maintain and sustain success. Whey they show the carrots, it may work better if they can somehow be made to look like sticks.

 The New England Journal of Medicine, "Redesigning Employee Health Incentives" showed in 2011 that the data you use also rely on must be real-time, transparent and acted upon often and quickly. Several factors might influence the outcomes. The most common implementation mechanism is less effective dollar for dollar than other approaches. One of these key factors is that most individuals place more weight on the present than the future. They are more attracted by the immediate than the delayed benefits and more determined by immediate by delayed cost. That's keeping it real.

 I think there are some barriers for using data to maintain sustainability. We've seen many of these and I think it's important that your institution is you lead this initiative to make sure it can be sustained to recognize the barriers. If you're not using the data effectively, if you're not meeting regularly reviewing it and not really doing the RCA drilling down why something CAUTI patient safety issue may occur is a barrier. Validating and discussing it with outliers. The outlier physicians, the outlier nursing staff, whatever outlier there maybe. Not using data is part of the culture of safety. Not having explicit intent to continue a program and resources. We've seen that before where a lot of times it becomes more of a process and lip-service and not be active resource utilization that needed to sustain it.

 I think one of the other things we have to be careful of barrier and we've see it often enough when we have an excellent team with excellent dynamics and have done well. Many times, some of the team members get moved up in administrative ladder and the team gets altered. I think we have to be aware of that to help maintain success. Many of the institutions that had been successful in sustaining that success. It won't matter if its member moves onto another career or leaves and being able to maintain that success like keeping all the culture the same no matter who moves into that team it is sustained.

 I talk about creating a culture of confidence. I have mentioned this before and I think this is really what it is about. When we've been successful, you get confidence. How to maintain that is creating that culture of confidence where it becomes the norm. Confidence is at the very heart of all the effective performance of what we have seen. Professor Kanter actually talked about this is that confidence comprises positive expectations for favorable outcomes. That's great because on the way out, success creates positives momentum. People who believe they are likely to win are also likely to put that extra effort into the maintaining it. On the way down, however, as Diane Byrum says, its failure feeds on itself. Growth cycles produce optimism. Optimism decline produces pessimism.

 How can we build and maintain that culture of confidence with success cycles were amplified and failure cycles were minimized. You have to build awareness of strengths. You have to cultivate a positive, appreciative environment. You have to ensure leaders and managers model the way. It's not just lip-service. They model it themselves also. Make customer and stakeholder feedback visible. You have to make it transparent and building a strong cohesive teams and social networks are very important.

 Building a culture of confidence is largely really about amplifying the successes to ensure the voices of possibility, optimism, and self-belief drown out the voices of self-doubt. Those barriers, the physicians that may not be engaged. This is 1 way to make sure the culture of confidence maintains that culture of optimism. With the right mindset approaches using data and results real-time, the leaders can actually build accountability for the turnaround. It inspires people to optimize their strength. The turnaround like failure cycle can be tough, particularly when success and failures have occurred which really zap the morale and energy from the team or organization. However, like Dr. Kanter initially said, we can find that that is primarily a leadership challenge.

 I have visited many hospitals, site visits with Diane and with [inaudible 00:31:39]. I can tell you I've seen many successful hospitals and hospitals that have gone from significant number of CAUTIs down to a remarkable reduction. The successful hospitals that also had been able to sustain that momentum. I think there are some examples of how they've done it is very important to relate today. Using validated resources are important; AHA and IHI collaboratives from the beginning have been very important to utilize institutions to make sure that the resources and evidence that is current can be utilized and maintained. Those institutions have adopted a culture of safety. They've taken the culture of patient safety survey. They took the results seriously. They educate and re-educate new and establish hires so that they come in well. In my institution, I've done it this way. This institution where about a culture of safety and this is what needs to be done. That's very important the top down/down to top mentality where the CEO down to environmental services also over to the patient and families are all part of the team to maintain that culture. I think that's very important to be successful.

 [inaudible 00:33:08] the process to evaluate, validate, publish, celebrate, make that data redundant and how they utilize it. You know what works in your in your institution and make that data, make the results part of that culture and behavior. Successful institutions have been transparent. In some institutions, the patients and families have actually been part of a safety committee. They are allowed to come in and actually round with patients and addressing the patient safety events and actually part of the root cause analysis overlooking and coming up with improvement relating to any patient safety problems. They've also been able to find a way to celebrate the wins and publicly evaluate the losses and to show they make a difference and they mean what they say in sustaining their good results.

 Quality improvement is a process, not an event. I think that is very important. This process needs to be continued, redundant, et cetera to be sustained. I hope I've been able to show that using processes to collect, evaluate, adapt and publicize data is important. Use the data real-time, make it transparent. Use specific data mining tools that work. Some institutions may need more than others. Utilize the process of carrots and sticks. I think it's important to participate in the American Hospital Association collaboratives and utilize AHRQ resources to maximize effects of those processes at your institution to sustain that success. Use your data to be accountable, transparent, and sustain your culture of confidence. Thank you. I'm going to turn it over to Ginger Dickens.

Ginger: Good afternoon everybody. I really appreciate the opportunity to share our story from Maury Regional. Today, we are going to cover our learning objectives for effective team and how important the right culture is. We are going to share a few tools that had been beneficial to us in our CAUTI prevention project. To tell you a little bit about Maury Regional. We are the largest hospital between Nashville, Tennessee and Huntsville, Alabama. We are the flagship hospital for a health system and we serve about a quarter million patients in the Southern Middle Tennessee region. We offer a variety of services from cancer and cardiac all the way through orthopedic and women services.

 In 2014, we were the recipient of the Tennessee Center for performance excellence. Just this year, we were designated as Planetree patient-centered hospital and we are proud of this very much. We are first in Tennessee to have this and only 1 of 28 in United States. I share these things with you about Maury Regional, not only because I'm proud of them, but I think it speaks to the same points that the previous presenters have shared is what our culture is like at our organization and the impact that it has made on our success in this project. We are also certified by the Joint Commission for several disease specific care program. We have used the same process or improvement when we took on these projects and sepsis is near and dear to my heart and we just achieved that so I wanted to share that with you.

 To tell you a little bit about critical care, we have 24 beds of critical care on 2 different floors of the hospital. Some years ago from the team aspect, we were very divided. I know that competition can be healthy, but for us, it was important to pull together and become 1 department and 1 group. It helped us focus our efforts. We have 24/7 intensivist coverage and they are with us and required on all admissions. We are not a closed unit, but every patient that comes to us is evaluated by our intensivist. We encouraged our staff to maintain their education and certification. For this project, our team design included a physician champion which was our critical care medical director and the infection prevention, most certainly the frontline staff. Clinical education, wound care, supply chain was involved and our senior leaders and administration.

 I'm going to start a little bit earlier than the recent project that we've often worked on, but I wanted to tell you about it because CAUTIs has been an initiative that we had for a period of time and we were in a prior cohort before and I think that helped us gain a little foothold getting started. Some of these maybe redundant to you or you may already know about it, but hopefully you can take some other away if you have not thought of these things. In 2012, we formed a unit-based team, a frontline staff and began to drill down into what else could we do to help prevent our patients from having a catheter infection. We figured out that our external catheter options were not ideal and that we needed to take that back to our product committee and standardize what we were using.

 We also updated our physician order sets that for post-op day #1 for surgery and get those catheters out and had stickers in place. We've transitioned more to electronic charting since then, but there is still a paperwork trail, sometimes more paper than before. The Foley stickers were a bright color and with helpful reminder. We also standardized our securement device and we even realized that we had different products in the building and the Foley bag itself when you want to empty it, it had different types of closure devices. Our staff are concerned that that would contaminate the Foley bag itself and possibly allow bacteria to translocate. We had to standardize that. We also decided to start prepping the sample port on our Foley. Must like you do the IV port on IV tubing. Our nurse driven protocol for catheter removal was implemented in the summer of 2012.

 In 2013, we could call all of our critical care nurses back through a documentation review. I'm going to show you some screenshots of the documentation that we used and our electronic medical record provider is Meditech. Some of that may look familiar to you if you use Meditech. In the spirit of preventing hospital acquired infections, we went a step further and also took down all the curtains at our patient rooms. Our windows are glass across the front of our patient rooms. The bottom half was tinted and the front top half had mini blinds. We installed those. They've been much easier to keep clean and environmental surfaces and the staff love it. There's not been any issues with privacy.

 We also added sinks in our hallways. Our practice is not gel in and gel out. It is gel in and wash out. Every time you are coming out of a patient room, you better head to sink and wash your hands. It is really ingrained in us to prevent any kind of hospital acquired infection through the hand hygiene. We also decided that we would consider if a Foley catheter was present on admission that we might take that out and reinsert it so that we knew that it has gone thought he proper technique. That was only if it was not contraindicated. In 2014, we made a big push. We have done some education in December 2013 and decided that we were going to follow the universal decolonization protocol and [inaudible 00:41:27] were CHG baths within 4 hours of admission to critical care. We also had a large campaign for physician education on antibiotic usage and urine culture stewardship. They updated their physician order sets. We were able to eliminate automatic urinalysis and even with the lab department.

 If you have not drilled down with them and had specific conversations about what happens behind the scenes. When the urinalysis is sent to the lab, we were not aware until we had some CAUTIs and we had conversations with them that if a certain number of white cells show up, they were going ahead and do a culture whether it is ordered or not. It was just part of their process. You have to dig deep sometimes and had some very detailed conversations with other disciplines. We implemented a health wide competency and this wasn't just critical care, but this was everywhere for all of our licensed staff. They did the science of safety video. They went back to basics on education for insertion technique and the maintenance bundle. Even our assistant staff, the nurse tech and patient care assistant learned the maintenance bundle care.

 We develop a CAUTI status board. The status board is an electronic tool that is used and it's very beneficial for our charge nurse staff who need to look a broad group of patients at one time and figure out who's got a catheter, what day it was inserted, if it's still needed, when they need to come out. It's a great snapshot tool. We developed pocket cards and updated our policies and keep all those stools that the staff needed to help them be successful.

 In last summer, we decided as an organization, a department and then individually as a personal goal for every staff member in critical care that it will become part of our personal goal that reflects on our performance appraisal if our patient have a CAUTI. CAUTI reduction has been on the forefront ever since. We made it a very important goal that people took to heart. This is a screenshot of our urinary catheter insertion assessment. You can see that this tells you and makes remark whether the catheter is needed and what it's needed for. On the genitourinary shift assessment, the same thing is there and this is required every shift. It's the [inaudible 00:44:20] you have to say whether the catheter is needed or not and then why.

 This is a screenshot for our CAUTI status board. Depending on how many patients you add on this. You could add as many patients on your unit or your floor, how many unit to select. The lead charge nurse in the critical care use this in conjunction with a paper audit and I'm going to show you that a little bit later on. It really allows them a quick look at the patients and who's got a catheter.

 This is the HICPAC guidelines and it is what we used for our physicians to help educate them on the recommendations for catheter and when patients need them and when they don't and why they should need medical assessment by the provider. This has to be documented. Once we did these things, we did some follow-up audit and we figured out that we have a few things we need to improve on. We had to change our supply stock in emergency department so that the patients come in the critical care will already have a catheter in place with the urometer. Sometimes we will get some with urometer already on it and other times we wouldn't and we would have to change that out.

 We also figured out we didn't have any place to hang Foley catheter when we took patient for CT. That was when it came just by talking to the frontline staff. We also realized that catheter care for that maintenance bundle wasn't really being charted away that it should have been and we had to go back and do some education for the nurse techs. Another thing that we added as a follow-up measure was having a lead charge complete the audit tool. We revisited our interdisciplinary daily round. That tool is very generic in a sense that it cover some broad topic because we use it for 7 days at a time. Any line or any tubes in a patient, we want it to come out as soon as it can if it's not needed. It's generic on there, but we realized that we needed to get back to a conversation with our physicians and our frontline staff about don't overlook the Foley catheter. Don't assume because they are in critical care that they need one.

 Then, our patient safety committee which is interdisciplinary and it has our chief medical officer, infection prevention, directors of nursing, or assistant chief nurse all the way to frontline staff and environmental services and food nutrition. Everybody on this committee and we do quarterly rounds out on the floors and all the units inpatient and outpatient, but we weren't asking anything about catheters. We made the decision to add that and talking to the frontline staff really helped open our eyes about catheters and how comfortable the that people feel using the nurse-driven protocol to take them out. What we came to find out is that not everybody was that comfortable. We had to go back and do some more education which is a reminder to us that simply because you put something in place, it doesn't mean that everybody got it [inaudible 00:47:46] that everybody is okay with it. We revisited our audit tools and we solidify that thought that we had kind on early on in '13 about changing out catheters that come to critical care. We really made that part of the process that we change them if they have a broken seal.

 This is the lead charge nurse audit tool. They have to fill this out. Of course, it covers everything, but Foley catheter if it's still needed, they have to put a reason code and we have a key for them to go by. It's based of the guidelines. They sent that to infection prevention and to the nurse manager. This is a screenshot of our interdisciplinary rounding tool. We have team rounds every day with our intensivist and the frontline staff. Our data, you can see we struggled for some time. In January '14, that's about the time that we implemented the CHG bath and our physician order sets were updated and we had education for them. We did well for several months and we were very proud of that and glad that we have the successes that we did. We did have a blip in November.

 Like the previous presenters, you have to celebrate those successes and mark the milestone. Prior to November, we have had unit celebrations and talked about it in our nurse staff meetings. It is done every staff meeting agenda. It's on every charge nurse meeting agenda. We celebrated and recognize the team and had management team recognize the staff for the work that they had done. That means a lot to you. Your senior leaders come behind you and pat you on the back and be proud of what you've done. We did have that blip in November so what happens when you have a CAUTI? You have to drill down into it and we use an analysis tool and there is team notification in the minute that it's decided that, yes, this is going to be a CAUTI. It meets the criteria. Everybody knows because it matters to everybody. We have to report out to infection prevention council.

 This is our analysis tools that we have. It has some very specific questions and helps us drill down into the reasons of why that the CAUTI could have occurred. We report our data at the critical care committee which meets every month, patient safety council every month. The quality council is quarterly, but all of these meetings have chief medical officer, medical directors, our frontline staff, our nursing leaders. I have to say having that senior leadership support, administrative support and they partner with our Tennessee Hospital Association leaders. From the bedside of the boardroom, it matters. They have been instrumental and I guess I'd say all this to tell you that it really is who we are. It's part of what we do every day with every project that we take on.

 This is the screenshot of our visual management board. It's right in the unit when you walk in. Families, patients see this. Staff see this. We share with everybody whether we are doing low or whether we're not. We are totally open with it. Another measure that we have in place for transparency is [inaudible 00:51:21] hospital, you can click on and see the last time that anybody had an infection of any type and this is a screenshot of the critical care unit that you can compare yourself to the other unit. They are right there beside you. This is quick screenshot of our shift huddle. This is how we start each shift. We have a rundown of our patients and we talk about CAUTI at the beginning and where are we, who's got a catheter, what's our target and what are we doing. That's on the forefront of everybody's mind.

 The prior CUSP initiative takeaways really focus on the team and engaging those frontline staff because they are going to tell you what works and what doesn't. Then, having senior leadership support behind you because if you need a new product brought into the organization or if you need to make a change that impacts more than your department, you have to have someone backing you up. You have to have safety [inaudible 00:52:18], you're not setting your team up for success. Then, to review your processes, educate it and execute it. Go back and look at what went well and what didn't and learn from that and then communicate it out to your team.

 For us, we know that we have to carry it forward and this wasn't just a project. It really is who we are. We share this with everybody that comes on board as part of our critical care and hospital orientation. The common goal that we've had has enhanced our physician and nursing relationships. They are our true partners in fighting against hospital acquired infection and to quote one of our senior leaders, they had [inaudible 00:53:02] just wish we had done this sooner. I'm going to turn it over to Pat now. Thank you.

Pat: Thank you so much Ginger. Phenomenal work that your organization has done. Congratulations. I just going to spend the next couple of minutes and each of the presenters, Diane, Dr. Miles, and Ginger have talked a lot about CUSP as part of what needs to be sustained and talked a lot about culture. I'm just going to briefly highlight the 5 steps of CUPS and then define some strategies to sustaining CUSP. Sustaining CUSP will take work and your team should expect to face challenges just like sustaining anything. They struggle often because the team lost sight of the steps of CUSP. Just a reminder that you need to set in place and understand that educating the staff from the science of safety is important. That you need to be able to identify your defects, not only CAUTI, but other safety defects. Your senior executive partnership is important and apply learning from our mistakes and using the tool learning from defects to do that. Continuing to work on improving teamwork and communication.

 CUSP helps us identify problem. It helps us understand what the staff is thinking that's impeding patient care versus what maybe the managers or directors are thinking or prioritizing for priority areas. CUSP improvement tools are designed for the bedside caregivers easy for the staff to use. It puts the ownership for quality and patient safety down to the unit level and the frontline staff level. CUSP can be complimentary to Lean/Six Sigma, and other quality improvement and process improvement tools. They are focusing on streamlining the process which we know is important in designing safe systems. They can work complimentary with CUSP. You want to be able to integrate and coordinate with all the other efforts going on and so you can see Lean/Six Sigma, [inaudible 00:55:23].

 Dr. Miles talked about the IHI model for improvement. Back down here in the right corner is team steps and then adjust culture. All of these can work well with CUSP. It's important that one of the underpinnings of safety is to understand the science behind safety and the basic principles to design safe system. As Diane talked about earlier, standardization is important. Standardization and then carrying on that standardization and educating the oncoming staff in all disciplines what our standard processes are. Making sure that you create independence. Check for those key process we heard though. Those independent checks, discussing it on round, the audit tools. Those are independent checks to ensure that things are happening correctly.

 Then, most importantly learning from mistake. You heard all 3 speakers today talk about the importance of any time you get a CAUTI to understand why it happens. You can use to learn from the defect tool, root cause analysis, many tools to again learn why it happened. Then, you can better understand to get down to the root causes and then set up tweaks or changes in your systems or your processes to prevent that from happening again. One of the things to ensure that you're applying or integrating these principles of safe design into your unit processes for CAUTI and beyond is to assess whether or not your unit is continuing to do this by have your CUSP team name 3 principles of safe design and have them write down or you can discuss as a group an example of how you or your team has applied each of these principles.

 Again, it's a reminder that we need to apply these principles if we are going to increase the safety in the unit. Very important to continue to identify defects. Remember that identification of defects goes beyond just looking at CAUTI as a defect and again it is, but you want to look at feedback, quality and safety measures, other gaps and application of the evidence. Remember that important tools staff safety assessment where you ask the frontline staff how they think the next patient will be harmed and what would they do to mitigate that harm. Remember CUSP is all about tapping into the wisdom of that frontline staff because they understand it.

 You might want to have that staff safety survey administered every 6 months or a year and then you might want to keep track of the safety issues that you've identified and what the status of resolution is. Here, you can see on the right hand of the screen an example tool where you're just continuing to inventory what you've identified and what you've done about it. Again, learning from defects is important and answering those questions what happen, why did it happen, what can you do to reduce the risk that it would happen again, how will you go that that risk has been reduced and where will you share the learning?

 You could see what is displayed in the right hand side of the screen. It's to learn from a defect step and a badge card. In our organization, to help with sustainability and utilization of this tool, every employee as they enter into our system, we review learn from a defects and they get a badge card so that it's readily accessible for them. You want to measure how well you're sustaining your CUSP work. Your team can evaluate if you're achieving your CUSP mission, how are you doing on your culture safety and do you have a strong partnership with your senior executive? How well are you learning from your defects? What are you doing to improve teamwork and communication?

 On this slide, you can do a review of different components of CUSP and see how you're doing. Here's an example of a CUSP score card asking a variety of questions, and you could also define your own team members’ measures of success. For example, number of CUSP meetings that were canceled in the last 6 months. Of course, you wouldn't want any canceled, but if you have a large number canceled then are you really sustaining and going to sustain the work that's been going on? Percentages of the staff that have received science of safety training. The number of patient safety improvement plans that are currently in effect. What was the last time you did a learn from a defect? How much did you learn from the defect in the last 6 months?

 Again, the goal is to learn from a defect very often at least once a month. I know we have many times where we multiple learn from a defects even in a week's time. Remember safety culture continue to assess it annually, celebrate your successes and ensure that based on the results, you create action plan to resolve what you found. I know we are overtime so I only have 1 more slide. Teamwork and communication tool. Here's a list of them. I know we are all really busy, but keep 1 of these tools and implement a different tool every 6 months to a year. Other strategies, make sure that you've integrated the science of safety training into your orientation for all new employees. Encourage new staff to take an active role. Make sure CUSP initiatives are visible through bulletin board and you saw Ginger shared that. Make sure that you are expanding the CUSP team concepts to other units. I want to thank you for your time and I know we are at or passed the hour. If anybody has any questions, please feel free.

Anna: Thank you very much Pat. I think because we are after the hour, if anyone has questions, please feel free to post them in the chat box. I know we already have a few questions there and will be sure to share these questions with our presenters and put out our question and answer document on the website. If you have any final questions, please be sure to post them in the chat box. I've also pushed out the evaluation so we really do ask you to fill up that evaluation. With that, I think we'll thank all of presenters and it's really a terrific presentation today. Thank you everyone. We'll see you again next month.