Eve: Welcome to a Quality Insights webinar: The ABCs of VAE. I'm Eve Esslinger, Quality Insights, HAI Network Task Lead. Thank you for joining us today. Here with staff from Quality Insights, Judy Volz and [Gail Bonder 00:00:29]. Our speakers are from Quality Insights, the Chambersburg Hospital in Pennsylvania and St. Joseph's Wayne Hospital in New Jersey. We'll introduce each speaker prior to their presentation.

Before we begin, I need to go over a couple of things. Type any questions for our presenters in either the Chat or K-Box on the right side of the screen. We'll be monitoring those boxes and we'll read all the questions or as we have time for, at the end of the webinar. All guests, except for the panelists, are now muted. This presentation is being recorded and will be posted to the Quality Insights website soon. The handouts for today's presentation are already on our archived events page. The link is in the Chat box now. After the webinar, we ask you to complete a short evaluation and you will receive a certificate of appreciation for attending today.

One last thing before we get started, many of you are already enrolled in the Quality Insights HAI project. Thank you for participating in our project. If not joined, or not sure, please contact the Quality Insights HAI contact in your state. We will have a list of our staff at the very end of the webinar.

Now to the presentation. First up is Julie Volz, Quality Insight Project Coordinator. Julie has been a nurse for over 35 years. She has the critical care background and also worked in quality and infection control for more than 25 years. She's been at Quality Insights for 12 and a half years and we value her expertise and experience in infection control.

Julie?

Julie: Welcome. This presentation is part of the reducing health care-associated infections in hospital programs with the Quality Insights Quality Evaluation Network. This presentation is not intended to be a comprehensive program on collecting and reporting data. For that, I would have you look towards the CDC and the NHS. I'd never do justice to that topic, nor would I want to. Instead, we're going to concentrate on reducing and eliminating ventilator-associated events.

First, the algorithm that describes the identification of the various components of the events that are part of the VAE. We've seen this in various forms. We're mainly dealing with the VAE algorithm, the first part of it, which is just the events or the ventilator-associated condition. There are portions of it, too, which go onto the infection-related ventilator-associated complications and then probable or possible VAP.

The first instance of the ventilator-associated events are here. It's much more than VAP or just ventilator-associated pneumonia. It changed about two years ago. But VAC or the events is anything that causes hypoxemia for at least two days after a period of stability. It could be atelectasis, pneumothorax, pulmonary embolism, or anything that puts extra stress on the pulmonary system. Only with positive culture with antibiotics administered do we have a diagnosis of VAP or ventilator-associated pneumonia.

[Inaudible 00:04:20] with the algorithms and definitions, now we move to the exciting part of the role of the infection preventionist [Inaudible 00:04:24]. These are practices shown to prevent, reduce and eliminate VAEs. They've been endorsed by all the major players, the CDC, [SHAY 00:04:32], IDSA, and they've been published in Chest. We'll be going through each of these in depth on the next few slides.

Let's talk about the ABC portion or coordinating the awakening of breathing trials [Inaudible 00:04:49] of the bundle. It started with ABC, which aimed to prevent VAPs, but then D and were added. Other methods that have also been proven to be successful for an E prevention, I list here. I just couldn't figure out how to make the last four F, G, H, and I.

The [Inaudible 00:05:15] of it, the spontaneous awakening trials and spontaneous breathing trials. Decreasing time on the ventilator has many positive effects. It will also decrease mortality, decrease length of stay, decrease delirium and long-term cognitive impairment and decrease prolonged muscle weakness. The key to reducing time on the ventilator is providing the spontaneous awakening and breathing trials, to determine the readiness for extubation.

The SAT screen, which I have an example listed here, should be performed daily. If the patient passes this screen, the safety screen, then you can proceed with spontaneous awakening trial. And if all goes well with the sedation vacation, then move onto the spontaneous breathing trial. If not, you need to regroup and try again the following day. As they say, if at first you don't succeed, try, try again.

Just to change ideas for sedation vacation and the breathing trials. I think it's enough, the first thing on the list, which is order sets and checklist of being essential components of any changes. The sedation of procedures and protocols allow you to anticipate what's next and plan accordingly. Long gone are the days when I worked in ICU and we used to wait until the doctor came in every morning to start the weaning and it was usually only by two IMV a day. You need these protocols in place so that you know what to plan for, how to progress with

your weaning and to not prolong it by having just do a few things each day, but to move on it quickly.

Checklists are also vital for a few reasons. First, they're a great communication tool. They also make sure that everything is completed and it's completed in the proper order. It provides documentation of any procedures that were … this screen keeps slipping back and forth here. The checklist can also be a written form of communication so that the next person who walks in the room knows exactly where you were and whether it's time. If you're at lunch and somebody needs to come and they can see, let's say if you have a checklist there, for completing your oral care, then they'll be able to see right away that they need to complete oral care while they're in the room.

Checklists can also be used as an audit tool to assess the progress towards improvement. Because you can't just change things. You have to document that the change was a good change. Other change ideas are listed here and including the need to coordinate and communicate with the staff and the appropriate use of the sedation. Avoid the benzodiazepines and going towards something like Propofol. Got to love that Propofol.

As for D and E, which is Delirium and Early Mobility, [Inaudible 00:08:48] are the same thing, just listed here together. Studies have shown that delirium is present in up to 81 percent of mechanically ventilated patients, but remains undetected by both nurses and doctors in more than 65 percent of ICU patients. When you have someone that's sedated and pretty far under, it's kind of hard to detect whether they have delirium or not. So you need to take these steps that I have listed here.

Delirium can be associated with a longer duration of being on the vent, a longer length of stay in the ICU, and the hospital, and it can lead to excess morbidity, mortality, long-term cognitive impairment. Also, it will prevent you from getting further with your extubation and your mobility. You should pay attention to the level of sedation, but you also need to make sure that things are as normal as possible for the patient, such as open the shades and keeping a light on during the day and closing the shades, dimming the lights and pulling the curtains at night.

I can tell you that many people use the whiteboards, but if you use the whiteboard, be sure it's up to date. It's very disconcerting for a patient to look up and see, that they think it's still Monday because it says so the board, when it's really Tuesday.

Acquired weaknesses, the acute onset of neuromuscular impairment in the critically ill, for which there is no plausible cause, other than the fact that they're

critically ill. The weakness impairs your ability to wean the patient from the ventilator and without early mobility, there'll be longer hospital stays and the patient will not be, when they're ready to leave the hospital, they won't be independent.

Early mobility can mitigate the risks of mobility such as VAP, hospital-acquired pneumonia, prolonged length of stay, skin breakdown, and decreased cardiovascular function. We have pain agitation and delirium guidelines, which is the PAE guidelines, recommend early mobilization for adult ICU patients, to reduce the incidence and duration of delirium also. You can see that they go together.

They say that by improving the immobilization or decreasing the immobilization, you decrease your length of stay in the ICU by 25 percent. And it greatly improves their chance of returned independence, by the time of discharge, by nearly 75 percent. The progressive mobility should start with range of motion. We all learned that in nursing school. And progress steadily even up to ambulation.

These are things that are not part of that bundle, but also have evidence-based background. Elevating the head of the bed. Now elevating the head of the bed between 30 to 45 degrees. It's a simple nursing procedure and it does reduce VAP. Keeping the bed elevated has also shown to prevent aspiration of gastric content and secretions which would also improve the chance of getting of the ventilator.

One of the [Inaudible 00:12:28] to having the head of the bed elevated to the proper level is providing visual cues. People have stripes on the wall, pieces of tape on the wall, pieces of tape on the bed, that when at a certain level, 30 to 45 degrees, then that piece of tape on the bed would be horizontal to the floor. I've found that most of the beds that are in use now have some type of angling apparatus on the bed itself. Don't underestimate the angle of the head of the bed. One research study showed that the head of the bed angle was perceived correctly only by 50 percent of the clinicians in those facilities.

Another aspect is to engage the patient and the family in the head of the bed elevation. There's nothing worse than the nurses doing everything they possibly can to keep it properly elevated and you go in the room and the patient's flat because the family lowered it to make the patient more comfortable.

Typical disease and VTE prophylaxis. Critical patients requiring mechanical ventilation are increased risk for stress ulcers and subsequent GI bleeding. Viral colonization of the stomach can lead to infection in the respiratory tracts or aspiration. Mechanically ventilated patients are also at high risk for VTE and

possibly pulmonary embolism. Those factors we talked about before, such as immobility can lead to this.

With both of these, order sets are a key to assuring that peptic ulcer disease and VTE prophylaxis is placed on every patient every time. Physicians need to be allowed to opt out for valid reasons. The reasons must be documented. And if you have a pharmacist assist you on these projects, then they can be a real asset, because they can collect that information for you to see whether you need to be changing your order sets or your protocols or there needs to be some physician education. I put that in quotes.

Then oral care, seems to be a simple task, but it can be very challenging to implement. It's because we think it's so minor [Inaudible 00:15:07] lips or something, that it tends to be the last thing on our list of things to do. Swabbing a patient's mouth with an antiseptic mouthwash has been recommended for comfort. But recent studies have demonstrated that antiseptic can also reduce the risk for VAP. The mouthwash and swabbing should be performed and you can use, like I said, a checklist by the bedside or use the whiteboard to communicate the schedule, so that you can share this responsibility with the respiratory therapy staff.

Other visual cues could be just putting out the supplies and making sure that you have enough of them, but putting them at the head of the bed or someplace that you easily reach, so that you would be more likely to grab for them. Now they have, it's not like you have to pull every little thing off of the FPD cart. Now they have these great packages that have everything in it for you, so you can just hang it on an IV pole or something that's readily available to you.

Also, important, now is making sure that you use your Yankauer suction to clear your oral secretions and making sure that those are covered when they're hanging around. Then, also, when you're doing your subglottic suctions, make sure you're using a closed system.

Now that we know what should be done, how do you start? The first thing you want to do is perform a readiness assessment, to determine where you need to focus. Some of you have some of these things in place, but not others. The readiness assessment that you see here was adapted from AACN. We have that available on the resources page of our website. Christa will post that link for you.

Once assessed where to start, then you need to put together your multidisciplinary improvement team and make sure that it is multidisciplinary. Make sure you have the bedside nurses. They're the key to this, because they have to implement all these protocols. Have respiratory therapy, PT and OT, as I said before, pharmacy represented on your team. Good pulmonologists, one

that's progressive. If your hospitalist or house docs, make sure that they're included also, because they need to follow through on this when the pulmonologist isn't around. Absolutely, your unit managers should be there. Then make sure you have somebody from the C suite, your CMO or case medical officer, someone there to support this project from the administrative side.

I guess the most vital thing is to choose your project leader carefully, make sure that it's someone that can relate to all the different members of the team. Make sure you have enough staff to complete the audits, because as I said, you'll need to use those audits to determine if a change is an improvement or not. You've all heard that. Change, but not an improvement.

One of the ways that you can go about doing your improvement efforts, is using the model for improvement, which is also people call it the PSA cycle. The method to implement change using very small tests. One patient, one item of your protocol. That's the key to this, that you want to implement the VAP bundle one element at a time. You can use your assessment to determine where you really need to work at. Or you can just try something easy that's going to be successful. Instead of trying to work in these breathing trials, you'd just want to try with the head of the bed elevated and get some buy-in with that. Then once they're positive, something positive comes of it, and it works, then you become the rah-rah. That becomes the cheerleader for the rest of it.

Getting ready to go with the ABC changes and we'll go over this model that's here. This step is the pen. If possible, don't bite off more than you can chew. Just go flow and go easy with this. Don't reinvent the wheel. Get a protocol from somebody else, there's a million out there on Google that's been successful in other hospitals. Sometimes your pulmonologists go to different places. They can get one from another facility. Test one step at a time.

Try the SAT safety tool and see if that works for you. If you make changes to everything at once, you're going to introduce too many new variables and it'll be difficult to attribute things that don't work. Once you have your plan in place, then you're going to do step 2. Make sure you identify an early adopter physician to try all these changes on a ventilator patient, [Inaudible 00:20:21] their patients. Ask a receptive nurse and a receptive therapist, respiratory therapist, to try all the protocols as well. As I said, test small. One nurse, one respiratory therapist, one physician and one patient.

Once you implement a change, as soon as you're finished, debrief as soon as possible. Find out how it went. Don't be afraid to try something different, though. If somebody doesn't like something, don't take it as an affront to your idea. Be willing to adapt as things go along.

And act. Say you find out that something didn't work. Then make a change right away. Revise it, but with the same physician, same nurse, same therapist. Don't wait to get committee consensus. You all know how slow committees are. Then once something works, add another part of the bundle, or add more patients. Or move it to more physicians or different nurses. Spread can be done in so many different ways. Doing these changes rapidly, making a change and doing something different the next time in the next few hours, whatever. In no time at all, you'll have a comprehensive VAE program for the whole unit.

Some ideas on how to eliminate VAEs at your facility. Some ideas and information we provide at the American Hospital Association, VAE change package on the resource page. There's a link here, but Christa also has it posted on the Chat or the Q&A, somewhere there. So more ideas that have successfully led to decrease at VAEs at their facilities. We'll hear some success stories from hospitals. I'll be available for answer questions at the end of the program, just so you enter them in the Chat.

Gail?

Gail: I'm actually going to go Chambersburg now. But before we do, I just wanted to say that was very helpful information. I also want to take a moment. We did not have a big response to our first poll question. I didn't let everyone know that we were going to do poll questions. We're going to do two, the one that we did and we're going to do another one at the end of the webinar. We're actually going to repeat the poll question that we did earlier, so everyone has a chance to take that, Christa, if you could load that. Even if you took it already, if you could retake it and those of you who didn't get an opportunity to do that, if you could go ahead and take that now.

Thanks, Julie, that was helpful information. We are now going to go to the Chambersburg Hospital and first, I'm going to introduce you to the Chambersburg Hospital. Then I'm going to introduce you to the speakers.

Let's go to the next slide. Chambersburg Hospital, an affiliate of Summit Health. Chambersburg Hospital has 248 beds, a full range of medical services, including nationally recognized heart and stroke care. At Chambersburg Hospital, there is 1,800 employees and they have the 2015 Health Grade Distinguished Hospital Award for Clinical Excellence.

A little bit about the community surrounding the Chambersburg Hospital. Chambersburg Hospital is in Franklin County, Pennsylvania. You can see on the map, it is south central, about as south central as you can get in Pennsylvania. Population of about 170,000 with 23 municipalities, nearly a hundred square

miles and a median household income of approximately 52,000. That gives you a very good picture of Chambersburg Hospital's community.

I have the opportunity and pleasure to introduce our speakers. Teresa Napier and Tammy Maclay. Teresa is the Director of Patient Services for Critical Care and Tammy is the Clinical Nurse Specialist in Critical Care. Teresa and Tammy have both enjoyed 28 years at the Chambersburg Hospital. Tammy started her RN career in emergency care, then transferred to critical care and clinical nurse specialist. Teresa started as a CNA, then LPN, then RN, all in the critical care setting. Teresa is currently working toward her MSN through Wilson College. Thanks Teresa and Tammy for joining us and presenting.

Teresa: Thank you.

Tammy: Thank you. To begin our presentation, I'm Tammy Maclay, as she said, and talk about the journey that we've gone through here at Chambersburg. It started back in 2007. In the spring of 2007, we joined the VHA Initiative, transforming the ICU or the TICU Initiative. We looked at the ventilator bundle. The bundle included weaning assessment, head elevation, deep vein thrombosis prophylaxis, peptic ulcer disease prophylaxis, appropriate sedation and oral care.

A senior member was selected to collect the data. It was done through daily auditing of compliance to the bundle. They were given part-time hours to collect the data with all of the CNS and nurse managers filled in during her absence, to collect it, basically, on a Monday through Friday basis. Collection began in January of 2008.

We identified early on that we did not have issues with compliance with weaning assessment, head of bed elevation, DVT prophylaxis, peptic ulcer prophylaxis and intubation. We would run greater than 90 percent compliance in those areas. Oral, though, was the big problem. We were 11 percent compliant with the initial audit, so that became our main focus.

The component we were looking at with the oral care included assessment of the gums, teeth and mucous membranes daily, deep oropharyngeal suctioning every 12 hours, teeth cleaned twice daily, oral and suctioning every four hours, membranes moistened every four hours.

Things then to get compliance and increase what our compliance was, we used whiteboards at the bedside, we put signs and bedside computers, electronic charting specific to what needed to be done on the list, purchased oral care kits with everything in them, that assured compliance. With frequent feedback, we posted our results monthly as far as where we were with compliance. And

numerous education sessions in various formats using various formats, using various speakers.

Those efforts, in 2010, when we stopped the ongoing auditing process, we were at 90 percent or higher on all aspects related to oral care, other items in the bundle or at 98 percent or higher.

We used Meditech documentation systems. This shows you shows some of what is included in our ventilator assessment. You can see we have a whole section just related to oral care and the expectations as far as oral care are included.

These slides are our physician order set. This is a later order set. You can see the things that have a checkmark beside them get to everybody and order that's not to come off as part of this set, the physician would have to uncheck the order.

These next, to kind of go through, expectations there. As you know, we mentioned the physical therapy part. We start physical therapy early on with our vent patients, with the high [Inaudible 00:30:03]. That gets into some of the consults, and education. We are a user of Propofol and she had mentioned, we try to avoid the benzodiazepine. We use Fentanyl and Propofol for management for our vent patients. We do, in our order set, I mentioned before that peptic ulcer prophylaxis [Inaudible 00:30:43].

The policy related to oral care states that we have a two hour oral care kit, so we do every two hours is when we do our oral care and that's our kit. It’s the suction toothbrush twice a day, every morning and evening. This is where our policy is very specific. Gently brush teeth, tongue and hard palate for approximately one to two minutes. To the patients who do not have teeth, about brushing the gums with the swab on the back of the toothbrush, using gentle pressure, while moving in short horizontal or circular strokes.

We use suction foam swabs every two to four hours as needed between brushing. If brushing causes bleeding or discomfort, we place swab perpendicular to the gum line, apply general mechanical action for one to two minutes. We do the moisturizer every two to four hours and as needed. We did in the room, as she has suggested, and we start at one side and kind of just work across. Then we put it in our [Inaudible 00:31:59] date and time and the expectation is, when the 24 hours is up, there should be nothing left hanging on the rack.

Our events, going from [Inaudible 00:32:22] of 2013, and we were good until this April. In the new criteria, what we had was actually a VAE-associated condition. So patient did not become febrile, according to the new CDC clinicians, we did an

increase in the FAO-2, that after the two calendar days for that to give us an associated condition.

This was why we've been successful. I think in the beginning, the daily auditing really hardwired it with staff. They had a peer that was doing the auditing and she really held them accountable to that. It was just a flavor of the month, but there's something that we really stuck with for the long haul. Sometimes initiatives get started and then you go onto the next initiative and the ball gets dropped. But this was something that we really stuck with and became hardwired. It's part of our standard operating procedure and expectation is that it must be done. This gets set right at orientation, when people are being oriented, it is reviewed, what must be done is reviewed with new folks. That's an ownership for the process and they do hold their peers accountable.

Thank you.

Teresa: This is Teresa. Hello, everyone. One of the major things is the hardwiring. Folks who know and staff know about how dedicated we are to making sure that we don't send our patients home sicker than they were when they came in here. The hardwiring and knowing that you need to make sure you're taking care of your vent patients, that has been one of the major things, I think, that we have done. Hardwiring of our vents is almost as automatic as knowing you need to clock in before you come to work. When you come to work, everyone knows that that is exactly what we do here.

Everyone holds each other accountable, like Tammy said, we have these very nice kits and people do hold each other accountable and they'll come and say, listen, if mouth care was truly done in there, we have too much of the kit left. So I think we're very good about doing that, but I think that's a major goal right there. You get everybody on board and that this is one of our standards of care and what we're measured by. It's one of the things that you really need to concentrate on, is the hardwiring. Once staff has buy-in and know that this is the route that you're going to take, it's all on board with it, and it makes a much easier transition.

I think Tammy is good that we will set it back to Gail and everyone else. Thank you.

Gail: Hello, everyone. This is Gail. I want to thank you, Teresa and Tammy, for your very informative presentation and for sharing your successes at Chambersburg Hospital. Our next presenter is Beverly Nieves. Miss Nieves is an experienced infection prevention and control practitioner with extensive knowledge of surveillance and monitoring of antimicrobial resistance. A clinical laboratory scientist and certified in infection control, Miss Nieves became the infection

control manager at St. Joseph Wayne Hospital located in northern New Jersey in 2011.

St. Joseph Wayne Hospital is a division of St. Joe's Regional Medical Center, as an acute care community hospital, which offers a complete range of leading edge services that complement those provided at their Paterson campus.

In addition, Miss Nieves has collaborated in several research studies and developed a poster presentation at the International Society of Antimicrobial Agents in Physical Therapy. A publication titled "MRSA Colonization in Pediatrics: An Emerging Epidemic." At this time, Miss Nieves will share St. Joseph Wayne Hospital's journey for the successful reduction of ventilator-associated events.

Miss Nieves, the floor is yours.

Beverly: Thank you, Gail. Good seeing everybody. As Gail said, our hospital is located in the suburb of Wayne. We are a 120 bed community hospital. We have an open ICU and 16 [Inaudible 00:37:24] beds. When I started at Wayne, St. Joe's in 2011, I identified Joanne Duffy as my teammate, being that she's the critical care APN.

We looked at all the gaps for AIs and we have identified that VAP was one of the HAIs that we had and we have to do something about it. Our patient population comes from low time care facility; 85 percent of our admissions come from long-term care. The median age of our patients is 79 years old. We're dealing with a population that has numerous comorbidities and is highly complicated.

We identified VAP as being one of our HAIs that needed attention. We formed a multidisciplinary team. We had to engage the primary nurse. If we did not have buy in from the bedside nurse, we were not going to be successful. Again, we [Inaudible 00:38:34] the care APN and I really became teammates and a full engagement of the nurse managers, so she can assist with the implementation and adherence to the protocols. We also engaged with the physicians. Their knowledge is indispensable in something like this. We have dedicated respiratory therapists in our ICU and of course, infection control.

What changed in 2011 for us? Well, back in 2011, we were using the definitions that were established by NHSN or [Inaudible 00:39:15] back in 2002. Those definitions were subjective, based on clinical symptoms and signs, a lot of interpretations of their X-rays, laboratory data and [Inaudible 00:39:32] However, this definition was not sensitive or specific for surveillance.

In 2013, a group of experts had met and they redefined what a VAE or a VAP was, is. To me, the definition is more objective and streamlined. Based on respiratory values, evidence of infection, inflammation and a lot of laboratory

evidence of a respiratory infection. Here you've got identified a broad range of conditions, such as inflammatory conditions such as SERS and ARDS that occur in ventilated patients. The definition is now more consistent for surveillance, not a clinical definition. This is where in 2012, we were a rate of 5.6, way up above our NHSN benchmark of 1.6. In 2013 and to date, we have maintained zero rate of VAP.

What intervention? We had all of this in place, we just needed to group them together and really make it a bundle. Nurses discussed the daily goals during every shift change at the bedside and to indicate whether the head of the bed at 30 degrees or higher, if oral care was performed and if they were not performed there, then to find out why they couldn't be performed. We introduced CHG bath for the daily [Inaudible 00:41:14] of the patient. Daily sedation holidays and the same hygiene. If a patient was identified with a multi-drug resistant organism, the patient was isolated. And PD/NBT prophylaxis.

Our respiratory therapists, alongside with our physicians, they really are a team. They really discuss their setting for the ventilators. Respiratory therapy department uses HME, which is the Hand and Moisture Exchanger Filter. It does not require a removal of a nebulizer when treatment is given. Change ventilator circuit as needed. Use closed suction catheters. Change trach inner cannulas dressings every shift. Clean the trach plate with peroxide as needed. The spring-loaded TEE adapters for inserting nebulizers into the circuit. This also avoids breaking the system. The goal of respiratory therapy is to keep a closed system.

This many open [Inaudible 00:42:29] is not necessary. Also keep a checklist, just like RNs uses daily goals, they have something similar where they can track all their interventions through the day and communicate those with the oncoming shifts.

What are next steps? January of 2015 we joined the CUSP VAE. It led to keep our gains. We've come a long way in the past few years and we want to maintain it. We will introduce, we're in the process of introducing early mobility, spontaneous awakening and the subglottic ET tubes.

Eve: This is Eve. Thanks, Beverly. This was a great presentation and information all hospitals can use. At this time, we're going to do a couple of things. We're going to put up another poll question. We're also going to see if there are any questions. I have had a couple of questions emailed to me. Just give me a second and I will get to those. Certainly you can continue to put questions in Chat or Q&A and I did put in Chat, you can email those directly to me. Speaking of email, we have put the email and phone number contacts for all our staff, so they're in Delaware, Louisiana, New Jersey, and West Virginia. Please contact us at any

time if you have questions and let me look at a couple of those questions. While I'm doing that, please take an opportunity to take the poll.

Actually, Chris, I just wanted to make sure that all panelists' lines are open, I see that they are. I'm going to throw this out to everyone. A question came to my email saying, "We would like to compare and update our standing orders and protocols. Where do you suggest us to look and review the latest standards?"

Teresa, Tammy, Julie, Beverly and Joanne, do you have suggestions?

Tammy: I would start with AACN. They do have a practice alert related to ventilator care. They're a good resource.

Eve: Anyone want to add to that?

Joanne: Just check, I know ATS, which is the American Thoracic Society, they have published, evidence-based protocols there.

Eve: And Chest Society. Thank you. Our other question came through Chat to me privately. I'm going to throw it out to all of you practicing. "For assessment of sedation, is the Ramsey sedation scale still appropriate and clinically useful?" So the Ramsey sedation scale in your hospitals, Teresa, Tammy and Beverly?

Tammy: Chambersburg uses the Richmond Agitation Sedation Scale. But I know about the Ramsey, that is not however what we're using. We use the Richmond.

Eve: Okay. Thanks.

Joanne: This is Joanne from Wayne. We also started using the RAS scores as well, about three years ago. We switched from Ramsey to RAS about that time.

Eve: Great. In that, the HA/VAE change package that's posted on our website, they actually have all of those scales published in there. The suggestion I have for order sets and not having to reinvent the wheel is, as I said, during our presentation, just google it. Then you can see where, actually, there is a hospital in Virginia, Cabell Huntington Hospital, that I know has had no VAE events also. They actually have their order sets online.

Thanks, all of you. A question came in privately. It says, "How many hospitals are currently using subglottic ET tubes? Or should they make a difference in that?"

Tammy: This is Tammy from Chambersburg. I believe the literature indicates that they do help in decreasing your rate. It's something we use here at Chambersburg. We had discussion on it and opted not to go that route because ours had been good

and there is a cost associated with that. But I believe you'll find literature that supports that they are helpful with that.

Eve: Joanne or Beverly?

Beverly: The health system is moving towards subglottic, so all of our ICUs, we will get practice of the subglottic. Even though we are at zero, we want to keep our gains, so we will begin the use of the subglottic in a few months, I believe.

Eve: Thank you. I actually have a couple comments. Tammy and Teresa, and then I'm going to go to Beverly and Joanne with another question. But Tammy and Teresa, I really love how you talked about hardwiring the auditing and the VAE protocol or the VAP protocol and making it stick. I think it's great how your [Inaudible 00:49:19] is holding each other accountable. I'm going to ask you kind of a soft question here, I guess.

But I know this took work, it always does. It's hard for us to hold each other accountable. I'm going to ask you, as you kind of think back, what was the hardest part of that and then also, maybe a moment when you knew you were kind of turning the corner on it and you were getting there, you were to the point to where the nurses were going to hold each other accountable and this really was going to stick. Kind of two questions. What was the hardest part and when did you see yourself turning the corner?

Teresa: Thank you. This is Teresa. I joined in a leader position in critical care after this had pretty much been established. My job was very easy, because these guys had laid the groundwork for the hardwiring, which we still do today. The hardwiring and the holding folks accountable, we do it every day. Because if you do have staff buy-in, they'll do what you ask of them, because they believe in it and know that it's [Inaudible 00:50:31] of the unit and it's what's absolutely best for the patient. I'm going to let Tammy answer this because she went through the rough period of this and I walked in and they gave this wonderful thing to me on a platter.

Tammy: I'd say that it became, the person who was doing the auditing, it kind of got to be, I would say, comical, but they would joke. Okay. Here comes the VAP police. It really got everybody knew that she was going to be coming around and doing the documentation. She went in every room. They didn't know when she would be coming in the room. I think what was really that hard is I can't really … it was really disheartening when we first started it and we found out how terrible we were with oral care, because we were doing so well with the other things.

I can't identify what was the hardest, but I can say it was really was that day in and day out and people, and because it was a peer, somebody they knew had

worked there a long time, that it kept people from becoming defensive. They were more open to it and we would joke around about, here comes the cop. They really didn't look at that it was a punitive process, but rather that it was a quality improvement initiative.

Eve: Thank you. You know, humor helps, it really does. Obviously, the work they do, we all do is serious, but I think sometimes making that a little light can kind of reinforce the message, too. It works.

Tammy: Another step was interesting in order sets. Ours are part of our side presentation. So that is the order that we use and we don't patent it or anything. So anybody is free to look at that, use whatever. We have made changes because we do do the spontaneous awakening trials, spontaneous breathing trials. We do lighter sedation than what we've done in the past. We've made changes to that. Again, probably as recently as the last six months. But to anybody who wants to look at that.

Eve: Great. Thank you, Tammy. Christa just noted in Chat a link to those handouts. Those are available, as Tammy said, those are in their handouts. If for any reason someone can't access them, you have my email on the screen. Please email me. I'll make sure you get those. Thank you so much, Tammy and Teresa.

I had a question and this is my question. Now for Beverly and Joanne. I noticed you were talking about CUSP, and I'm curious, have you already implemented CUSP at your hospital or are you in the process of doing that? Just wondering, how you're working on that?

Joanne: We started in January of this year, 2015, our data collection here in Wayne, since we are part of St. Joseph's Health Care System. They have in our sister hospital, one of their units is submitting their data. All the other five critical care units are just collecting data for internal purposes. I've been doing that data collection since January.

Actually, most of the elements of the data collection are part of a bundle already and things that we have been implementing. As far as following the data and practice, I think we are changing our practice a little bit, along the lines of those data, with keeping patients maybe less sedated than we did before. More of a focus on the sedation holiday, which maybe wasn't done as routinely as it should have been. That's also just doing the data collection has also changed our practice a little bit. So it'll be interesting to see as we progress with early mobility and [Inaudible 00:55:08] assessment, how much better our care can be.

Eve: Great. Thank you. I'll just let our participants, and anyone on the line that's enrolled in the HAI project. We do have an eLearn course on CUSP for staff. We

will be giving access to everyone enrolled in the project about that soon. It does have CMEs attached to it and it's really designed for your staff. If you're rolling CUSP out on a unit, let me know. I can get you access to that. We're in the process of giving all our participants access to that. I'm glad you mentioned that, Beverly and Joanne, and that was real good.

I have one more question here. It came in privately. It says, "Is there any difference in results if the unit is open or closed?" I will go back to Teresa, Tammy, Beverly and Joanne to answer that.

Joanne: This is Joanne from Wayne. I think part of our success is it is an open unit and with mostly private attendings, we're not a teaching hospital. We don't have residents or medical students. The control of the ventilator is tightly controlled. We really only have nursing and respiratory therapists controlling the ventilator, the ventilator changes and care of those vent patients. So I think it contributes to our success.

Teresa: This is Teresa. Our critical care here in Chambersburg, we actually started a new model of care of probably about a year ago now. It still really is an open critical care. Any physician could admit or anything. Then we went to, it's sort of like an intensivist program, where the pulmonologist, some of our hospitalists, they do most of the orders and care of our patients here. Now it is constantly evolving, how we're changing it up a little bit.

But [Inaudible 00:57:36] has really worked and helped pulmonologists of care exclusively, of course, for our ventilator patients and work really good here with the nursing staff here. You could say we're a half-open, half-not. But like I say, we keep changing the model on that. But it had the pulmonologist and one of the pulmonologists as the director of the care that we give here, has been a big plus also.

Eve: Thank you. Okay. I'm looking through everything. I think we've answered the questions. If there are any additional questions, please email me. Just a couple things before we close. I want to thank Tammy, Teresa, Julie, Beverly and Joanne. That was great information. We really, really appreciate your being with us and sharing your expertise and your success. Thank you.

Tammy: Thank you.

Teresa: Thank you.

Eve: All right. We will close the presentation. Just a reminder, you're going to get a very brief evaluation. It's painless. Then you will get a certificate of participation, once you complete that evaluation. If you have any questions, contact any of us

here at Quality Insights. We appreciate your time. Hope you have a great rest of the day. Thank you so much.