



Hospital Value-Based Purchasing (VBP) Quality Reporting Program

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Hospital Value-Based Purchasing (VBP) Program Patient Safety Series: CLABSI/CAUTI

Presentation

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2 p.m. ET

Oniel Delva:

Hello everyone and welcome to today's event. My name is Oniel Delva, and I'll be your technical host for today's session. Now, before we officially get started, I just want to go over some housekeeping items that can be used to assist you with today's session. Audio for today's event is being streamed via internet streaming or will be via internet streaming. What that means basically is that no telephone line is required for this session; however, computer speakers or headphones are necessary in order for you to be able to hear and follow along with today's session.

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Now, we want to make sure that you are able to hear today's event. So, if you do not have computer speakers or headphones, or if you encounter audio challenges, just note that we have a limited number of telephone lines available. Just send us a chat message, and we can assist you with that. Also, today's event is being recorded.

Now, we do not foresee any audio issues taking place during today's session. But, if you are streaming the audio, and if you happen to encounter a challenge as far as if the audio starts to break up or if the audio suddenly stops, you can click the pause button that's located to the left hand side of your screen. And wait five seconds, and click the play button. And that should resolve the audio challenge in your – as you continue with the streaming as usual.

Additionally, if you are hearing an echo right now, just know that echoes are caused due to multiple connections to a single event on the same computer. So, if you hear an echo, just close out. Check to see if you have multiple tabs or windows open, and you can close all but one, and that should resolve the echo that you may be hearing right now.

Lastly, as we go on with today's event, you'll be able to hear us but we can't hear you. But, we encourage that you get involved, and you can submit questions to us by using the chat with presenters feature that's located on the left hand side of your screen. Just please make sure to remember to click the send button. And that would do it for me, and at this time I'd like to turn it over to our first speaker.

Bethany Wheeler:

Hello and welcome to our Hospital Value-Based Purchasing first session and its patient safety series covering the CLABSI and CAUTI measures. My name is Bethany Wheeler, and I will be your host for today's event. Before we begin, I'd like to make a few announcements. This program is being recorded. A transcript of

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the presentation along with the Q&As will be posted to our inpatient website www.qualityreportingcenter.com, again, that's www.qualityreportingcenter.com within 10 business days, and will be posted to *QualityNet* at a later date. If you registered for this event, a reminder email as well as the slides were sent to your email about two hours ago. If you did not receive the email, you can download the slides again at the inpatient website www.qualityreportingcenter.com. And now, I'd like to introduce our guest speakers from Rush University Medical Center and Kaweah Delta Medical Center. Alexander Tomich is the Director of Infection Prevention and Control Department at Rush University Medical Center and is an Instructor of Leadership, Quality and Outcomes Performance, Process Improvement Measures and Infection Control at Lay— excuse me, Loyola University. Marci Wawrzyniak is an Infection Preventionist at Rush University Medical Center. Melissa Janes is the Infection Prevention Manager for Kaweah Delta. Her background is in education and in infection prevention. She is honored to be able to work in an outstanding organization with a very talented infection prevention department, which includes a data and a field unit. Together with their partners on the clinical unit, they help promote and prevent healthcare associated infections. Emma Camarena is a Clinical Nurse Specialist for Critical Care Services at Kaweah Delta Medical Center. She is the Chair of the CLABSI Subcommittee and is also actively involved in the stroke and sepsis initiative, caring for patients pre-hospital to discharge. Sabrina Orique is a Clinical Nurse Specialist for medical-surgical services, and is a Chair of the CAUTI Committee. If you have a question for either Rush University Medical Center, Kaweah, or myself, as we moved through the webinar, please type either Rush, Kaweah or Bethany at the beginning of your question, so we can direct the question to the appropriate party. Any questions that are not answered during our question and answer session at the end of the webinar will be posted to the qualityreportingcenter.com website within 10 business days.

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In today's presentation, I will be providing a short overview on the uses of the CLABSI and CAUTI measures within the Hospital VBP Program. The majority of today's webinar will be the presentation of the best practices and stories of our two guest hospitals, who work to improve their CLABSI and CAUTI infection volume and SIRS.

The CLABSI measure was first included in the Hospital VBP Program during the fiscal year 2015 program year. CMS has continued to adopt and retain the CLABSI measure throughout each of the subsequent fiscal years that have been proposed through the IPPS proposed and final rule. The latest year that CLABSI has been proposed is fiscal year 2018. It's anticipated that CMS will propose measure through the fiscal year 2019 program year and the FY 2017 IPPS proposed rule to be released this spring. CAUTI was introduced one year later in the fiscal year 2016 program year, and like CLABSI, continues to be included in the hospital VBP program and subsequent fiscal years. In the FY 17 program year, the CLABSI and CAUTI measures, in addition to the MRSA, *C. diff*, SSI, and the AHRQ PSI-90 measures are included as part of the safety domain, which is weighted at 20 percent of the total performance score. The performance period for CLABSI and CAUTI in FY 2017 is calendar year 2015.

In FY 2018, CLABSI and CAUTI are still included in the safety domain, which increased in domain weigh to 25 percent from the 20 percent seen in FY 17. The performance period for CLABSI and CAUTI in FY 18 is calendar year 2016.

In order to save some time, so our hospital presenters will have more time for their presentations and have more of your questions answered at the end of the call, I'm going to skip over slide 10, 11 and 12, but please if you have time, go back and review these for your reference. These are some of the updates that have been made to the CLABSI and CAUTI measures that you will see in the upcoming fiscal years in addition to a nice resource that has been

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made available for you for the Hospital Value-Based Purchasing Program.

I thank you all for listening to my short overview and updates to the CLABSI and CAUTI measure. Remember, for the questions that you submit to the chat bar, please state who the question is intended for. Rush University Medical Center, we welcome you and the floor is now yours. After Rush presents, Kaweah, the floor will also be yours. Thank you.

Alexander Tomich: Hi, this is Alexander Tomich and I'm the director of Infection Prevention and Control at Rush University Medical Center.

Marcelina Wawrzyniak: And my name is Marcelina Wawrzyniak. I'm a preventionist at Rush University Medical Center.

Alexander Tomich: So, the objectives of our talk today are really to detail the facility ownership and how we got a handle on overall healthcare associated infection. And also, kind of describe where we were to now, where we've come in terms of some of our successes in reducing catheter associated urinary tract infections, as well as central line associated bloodstream infections. And then, we'd like to end it with our plans for the future, as we talk about sustainment of our gains, as well as introducing a lot of our interventions in a – and introducing reliability in that manner.

So, a little bit about Rush University Medical Center: we have 1015 staff beds; we have 10,000, or over 10,000, total full time employees; around 50,000 or so admissions annually; and, we have a rather robust ambulatory network, where we see on any given year over 400,000 outpatient visits.

Locally, within the Infection Prevention and Control Department, we're staffed with eight full time staff members. Where, we have five infection preventionists, we also have myself as the director, we have a full time data analyst, as well as a full time infection control technician. When we conduct our surveillance for any

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healthcare associated infection, we really focus on the investigation of each event, almost conducting a mini root-cause analysis as the potential – what could be potential drivers of this event. So, once one of the preventionist, or members of the team, identify a healthcare associated infection, we really stress real time feedback with close feedback as to the diagnosis of the event to the unit. Oftentimes, it occurs within the same day, if not within the same hour of once our preventionist identifies a central line infection or a catheter associated urinary tract infection, or CAUTI. Additionally, we conduct an investigation at the unit level where we have key unit stakeholders, as well as frontline staff that had been involved with the care of the patient. And we meet with infection prevention and the staff to discuss what could be potential contributors to that event. On a more granular level, each unit then is required, a unit leadership is required to come to our healthcare associated infection committee. And, in that committee, we really discuss additional interventions and what opportunities at a systems level we can introduce to help reduce the incidence of CLABSIs and CAUTIs at our organization. Furthermore, our committee has worked so well, we've even expanded it to *Clostridium difficile*, as well as surgical site infections.

Our HAI committee is multidisciplinary in nature. It consists of, or is comprised of members of our Infection Prevention and Control team, which include our Hospital Epidemiologist and Director – Medical Director of Infection Control, myself, two of our Preventionists; we also have key members from nursing leadership, which we have our Chief Nurse Executive, we have three VPs of Nursing as well, that sit on the committee overseeing our operating rooms, overseeing our medical units, as well as our surgical nursing unit. Our Chief Quality Officer sits on the committee, as well as various members of our quality team. And, we have key physician leadership that make up membership. We have our Assistant Chief Medical Officer that sits on the committee. And also, we have various physician leadership over

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our different initiative for CAUTI and CLABSI. This is a group that meets weekly, and we really review any trend data as they relate to healthcare associated infections. And additionally, when the units identify an infection, they come and present the case to this committee as well every other week, so that we can really drill down and potentially identify any additional drivers. It kind of gives us a fresh set of eyes on the situation. And also, we have the key stakeholders at the table. In the event of any system wide initiative or change that needs to be implemented, they can help expedite that process.

Marcelina Wawrzyniak: On this slide, we will discuss unit based interventions, and we would really like to highlight how we bring HAI information back down to frontline staff. So, each unit has a running tally of the day since their last infection, and this is really to raise awareness of HAI to all staff on the unit. Many units also have infection prevention committees and this is a good way for them to include frontline staff and unit-based initiative. There is a nursing audit process of device-associated infection prevention practices, and that these are mostly bundle components, and there is a component within this process of paying it forward. So, if staff are out of compliance, then they are the next one to perform these audits. We also have attending involvement in the HAI discussion, and this has proven to be quite effective. We have attending involvement on the units, on the unit debrief itself, as well as in the HAI committee. And this has helped us identify drivers.

Alexander Tomich: On this slide, we'll begin to talk about specific steps we take in relation to the reduction of CAUTIs and how we were able to successfully achieve sustainable gains in reducing the incidence of these events.

Now, this slide shows us our past performance over the past two fiscal years, as it relates to CAUTI. For example, our fiscal year 2013 standardized infection ratio was at 1.29, which showed to us what was an alarmingly high incidence of CAUTI events in our

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organization. However, over the past two fiscal years, and the result of a lot of our interventions, which we'll talk about, we were able to achieve a 68 percent decrease in CAUTI events from fiscal year 13 to actually fiscal year 2015. A lot of this focused on these three key components, looking at practice standardization. What we found in direct observation by the Infection Prevention and Control staff is that practice varied from unit to unit, also from provider to provider within each unit. Additionally, we took a higher, deeper drill down into, not just a discussion of early discontinuation of Foley catheters, but actionable steps that we could use to achieve that. And this was truly a multidisciplinary collaboration. We had members from our IT, or information technology team, we had members of senior leadership that were a part of this, frontline staff, resident staff. Everybody contributed into coming up with what we felt was a good plan for Rush to move forward to reducing these events. One of the things when we looked at the literature was, we try to reconcile the fact, that we do have the best evidence based practices, and there are a list of them, but we also try to drill down in our observations, in our investigation to say, which of these interventions really apply for what are the true drivers of our Rush CAUTIs and not just having a blanket top 10 list of interventions, but focusing on the one that were drivers of our events.

On this slide, we can see our past performance and our current performance where we see some of these reductions and gains as we went from year to year. And the interesting thing is, other than a couple bad months in the past two years, we've really been reliable and in terms of sustaining these gains in terms of our reduction efforts.

This slide show us just some of the earlier themes that we talked about in this lecture, looking at increased data availability across the organization. One of the things we really want to discuss was how do we get the data to our frontline staff? More importantly,

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how do we disseminate it in a meaningful manner that our frontline staff can understand, so that they are the ones– the true individuals that can implement change, can take that data to drive change in the organization. So, we had our dates up of infections that are, you know, posted on the entrance to each unit. We set up numerous dashboards that for– show the data in a variety of ways. We adopted the standardized infection ratio, and we really spent significant effort in educating our frontline providers on what that means. Additionally, we do also show numerator counts as well, and it's something that, in any manner we can, that they can really take it and make it home for them, that they want to know that they are a key participant in driving change and really empowering them to do so as well. Additionally, we looked at developing leadership and accountability structure. For each of our CLABSI and CAUTI initiatives, we try to look at it outside of the – it's just an infection prevention and control event and really drive it into the organizational arena that this is an organizational issue and not necessarily just an infection control issue. So, for each of our initiatives, we would have a volunteer member of leadership of our nursing department, as well as our physician co-chair that would drive these initiatives, and drive these improvement activities to their respective service lines. Also, we wanted to perform event reviews on each CAUTI. Because of the fact, by doing this manner, or this method, it really allowed us to glean significant and great insight into what are true drivers of our CAUTI events. And, by having the engagement of the frontline staff, it really empowered them to take that information back and drive change and model some of these interventions and behaviors that we'll discuss. As with any initiative, that we felt that in the early days of it that, we really didn't want to just go organization wide with a set of initiatives, but we really want our interventions – but we really wanted to test it out. So, one of our units at the time that had a higher incidence of CAUTI events, we really focused on piloting this process there, and we dedicated a lot of time to develop these interventions, and then introduce them in a reliable manner, and

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really test it at this level, work out all the kinks, and then from that point, we felt that we were ready to spread to the rest of the organization.

On this slide, we show how we actually attack the issue. We looked at it from the four main components that put you at risk for a CAUTI. From insertion of catheters, to the maintenance of catheters, we even drill down to what, you know, effective or proper diagnosing, in terms of do we need urine cultures, and also we had significant discussions and interventions. I'm looking at prompt removal of catheters, which we'll touch on. From the insertion perspective, we looked at retraining our OR staff, because our health staff in the operating room and the interventional platform are the ones that place Foley catheters. So, we did significant reeducation on correct insertion technique, and it's an ongoing education with each new health staff member that would come to the procedural area. But, we thought that that wasn't enough at that time to just reeducate, so we wanted to, in a reliable manner, to show that each catheter that's inserted is being inserted safely. So, at that point, we introduce RN observers. So, each catheter that's inserted in our procedural area, we have a nurse that's overseeing the insertion process, as well to ensure reliability and ensure that best practices are being adhered to. When we look at maintenance of our catheters, we spent significant training and resources for our nurses and our PCTs on proper catheter maintenance. You know, focusing on proper use of the securement device, daily bath, reeducating and standardizing our perineum or catheter care. Also making—ensuring on our various rounds and various audits— and this is something that the audits are being done at the unit level, as well as the infection preventionists are being around to audit staff as well to ensure that these best practices are being adhered to, and we're continually feeding that information back to our stakeholders. From a diagnosis perspective, we focused on educating our providers on proper reasons for ordering urine cultures. You know, one of the things we made significant inroads

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and improvement is that our post-op patients, where the data in the literature really support that that 48 hour period post-op when a fever spikes is not necessarily related to a urinary tract infection. However, there was a tendency to just culture for any post-op fever after 48 hours. So, we have, you know, these processes placed in our electronic medical record to support and to really alert our provider that is a urinary– or is a urine culture, properly being ordered, and is not reflective of just the post-op fever that will resolve on its own and is not potentially related to the CAUTI event. Additionally, we looked at educating our nurses and our patient care technicians on specimen collection. One of the things we had was the old method where we had the Vacutainer, which could allow for a less than sterile urine collection, and we saw cases where they would insert the spigot into a urine hat and collect urine from there allowing for a contaminated specimen that could potentially be misdiagnosed as a CAUTI. So, we took significant effort to reeducate on proper specimen collection and we also adopted a new urine collection kit that did away with that spigot, and it allowed for better or proper collection of urine specimen. From a removal perspective, we did something, in that in addition to having a urinary retention protocol or a catheter – I apologize, the catheter – continuous or catheter discontinuation protocol or de-cath protocol, we focused on removing all present on admission catheters. On any patient admitted to our organization, we would remove all the catheters and then assess the need for a reinsertion. And, if they met the need, we would reinsert, but oftentimes we were finding that these catheters, there wasn't a need for reinsertion. We had other methodologies or other care plans that we can for these patients. We reinforced the use of that nurse removal protocol with nurses and physicians. We really tried to ingrain it in their everyday discussions, that once we met the parameters of the protocol, that the nurse was empowered to remove it and not have to necessarily wait for that physician order afterward. But, if they met the protocol and it didn't meet any of the exclusionary criteria, that they felt free to remove the catheter.

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Also, we were enforcing the need for the continuous catheter assessment. This is something that we developed, the catheter utilization report of every patient that has a catheter in the organization, we were able to match the indication for the catheter to see do they truly still need a catheter at the time. So, for example, if we would find the odd case of a patient that requires a catheter for hourly input and output in the critical care setting but they were on a non-critical care unit, we can then meet with the team to say, is this catheter truly indicated and can we remove it at that time? We developed the urinary retention protocol to support catheter removal. We purchased bladder scanners for each of our inpatient units that would help with decatheterization, or assisting a decatheterization, and then is there a potential at that point, can we go to a straight cath method, if the patient is able to tolerate? Additionally, in our procedural area, we looked at a post-op huddle. Because oftentimes, what we would find in any instances that once the patient left the procedural area onto the unit, that catheter would have a tendency to stay there for longer than it should. So, at – on discharge or discharge of the – in a post-op unit to the inpatient unit, or before the transfer, there will be discussion to say could this catheter even be removed in this instance, before the patient made its way to the inpatient unit. And, it was by really stressing these key interventions that we feel that we were able to achieve the system wide gains that have been sustainable over the past two years. And, the key components of it, again, that we couldn't stress enough were engagement at all levels within the organization, from our frontline staff up to our senior leadership. CAUTI and, as we talk about, CLABSI, were our – a part of our organizational reduction efforts, it made it to our board level. Our CEO was even in tune to our performance regarding these measures. And, by getting that system level support and buy in, it really allowed for the frontline staff to be engaged and empowered to implement some of these significant improvement efforts and, you know, significant interventions that we feel have really been successful for us at Rush.

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Marcelina Wawrzyniak: I will be discussing the CLABSI initiative at Rush University Medical Center over fiscal year 2013 through 2015.

This slide details our CLABSI initiative. From years – fiscal year 2013 to 2015, we saw a 63 percent decrease in the SIR for CLABSI. Fiscal year 2013 had an SIR of 1.37, which we were able to decrease down to 0.48. And this was largely thanks to an organization-wide multidisciplinary performance improvement effort, which really has four large aims: the first of which was bundle compliance, and this was creating and adhering to a central line associated bloodstream infection prevention bundle; practice standardization, so piloting interventions and taking them health wide, ensuring that all staff are performing interventions in a standardize method; product optimization, choosing the ideal products and vetting them by frontline staff; and of course, multidisciplinary collaboration.

This slide shows us our progression over the course of three whole fiscal years and year-to-date 16 on our CLABSI SIR. As you can see, fiscal year 13 ended with an SIR for the entire year of 1.37, which we were able to sharply bring down to 0.38 by fiscal year 14. And fiscal year 15 has been all about sustaining the gains and improving upon fiscal year 14, as we are to date in fiscal year 16.

And this slide will detail some of the CLABSI initiative highlights from fiscal years 13 through 15. And, what we see, in a broad perspective over the fiscal years, is really inclusion of both nursing and physicians and CLABSI reduction. And so, fiscal year 13 had focused on physician and nurse rapid improvement cycled on insertion maintenance. And, the physician side had really focused on conscientious insertion and removal of lines. While nursing in fiscal year 13 was really focused on maintenance. And so, scrub the hub have been implemented that year, but we had noticed that the 15 second scrub, 15 second dry, the dry times and the scrub times sometimes were less than ideal. We also added lines into our electronic medical record to support nursing being able to

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document these new interventions, and we had empowered charge nurses to inquire about lines, central lines on patients inquiring about their removal. We had also reviewed dialysis practices by direct observation to identify areas of improvement. Fiscal year 14 really looked at implementing new interventions, looked at a variety of new products, and we saw a lot of piloting whole house, which was beneficial throughout fiscal year 15. And so, some of the maintenance interventions implemented in fiscal year 14 were chlorhexidine bath utilization on high risk units, in the ICUs, as well as our bone marrow transplant unit. Implementation of an audit process called the CLABSI Accountable Education and Peer Feedback Process on pilot units, really to see if the interventions that we are putting in place, be it already in place interventions or piloted interventions are being done. We also started piloting alcohol-impregnated catheters as an alternative to scrub the hub. One of the other interventions for fiscal year 14 was transitioning away from central line blood culture to peripheral only blood culture. And, this is one of the biggest interventions aimed at decreasing contaminant cultures and the potential for contaminant CLABSIs. We had also brought in our physician colleagues to discuss the prompt removal of lines and really implement a hard-to-hardwire the daily needs assessment. And this is a physician assessment of lines in patients. Fiscal year 15, we brought the piloted interventions and the trial of fiscal year 14 house-wide. So, this year, this previous fiscal year was really focused on standardization and house-wide implementation. We continued using chlorhexidine baths. We brought the alcohol-impregnated caps house-wide. We also brought the audit process, the CLABSI accountable education and peer feedback process to all units, and this really helps make everyone accountable and really helped open the entire organization up to the interventions that were implemented. We brought peripheral culturing house-wide as well. In a removal of lines, we decreased the use of a product called the front port. And what we had found is that we had an increased incidence of CLABSI in patients who had portacath. And

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so, in collaboration with our procedural list, we were able to decrease the use of a smaller port, this is that slim port, which was being used in many patients who had ports. And this, along with some of our nursing interventions aimed at port CLABSI reduction, we believe drove down some of our port CLABSI infections. And so, some of our nurse CLABSI interventions included an education module, which educated all nurses regarding the mechanism and prevention of CLABSI, as well as port dressing reeducation and the creation of champion units. And this all centered on our incidents of port associated CLABSI. So, instead of having any unit be able to cannulate, we had created cannulation champion units who are now the champion cannulation units for the whole hospital. And, only validated nurses can cannulate from those units. And so, over these three years, we saw a 64 percent decrease in CLABSI.

This slide shows us our central line bundle at Rush University Medical Center. And this is an evidence-based bundle and it's created to function within a structure that's familiar to staff. So, when a staff member approaches a central line, really we bucketed their interventions into five key buckets and those are hand hygiene, line care, skin and site care, blood draws and assessing catheter necessity. Of course, under hand hygiene, the staff is to perform hand hygiene before and after contact or manipulation of the line. Under line care, which we will detail a little bit more in the next slide, we have four subcategories including tubing change, having our alcohol-impregnated caps on all ports, including those on peripheral lines and central lines. Changing needle free caps every 96 hours and port cannulation by a validated RN as I had described in the previous slide. Under skin and site care, we are performing dressing changes as the evidence-based support every seven days and performing chlorhexidine bathing on high risk units. For blood draws, this was one of our key interventions and successes in driving down our CLABSI reduction. Our standard of practice is not to perform central line blood cultures. And, for the

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peripheral cultures, to perform proper aseptic technique for peripheral cultures as well as central line blood draws, if they have to be done. And then, we end the bundle with assessing catheter necessity; so, daily review of the lines, does the patient need the line, can this line come out, and prompt removal.

On this slide, we will detail the line maintenance components of the bundle, including hand hygiene, line care and skin and site care. And this fiscal year 15, nurses across the house were reeducated on CLABSI mechanisms and CLABSI prevention. We had also had a number of practices that went from being piloted to going house-wide. And so, the focus really it was on practice standardization regarding product use, making sure that dressing changes were done uniformly and in a standardized way whole house using the products that we have selected in our central line dressing kits and our port kits. And, looking at line manipulation, we wanted to make sure that all nurses house-wide were assessing the lines in a standardized manner. We also had expanded the audit process, the nurse-driven CLABSI accountable education and peer feedback process to be house-wide. So, patients with central lines are audited to assess compliance with documentation, dressing changes, cap compliance and chlorhexidine baths. And these are really bundle components that we had wanted to ensure that the practice is not only being adopted but it is actually being implemented and used house-wide. And we have high compliance rates with these audits that are then fed back to the units.

This slide details our blood culture drawing procedures at Rush, so obtaining blood cultures. Here, we really do peripheral only blood cultures, and this started in August 2013. And one of the key drivers in this was eliminating central line blood cultures as an option in the electronic medical record. However, there are exceptional cases where the patient for whatever reasoning to have a central line blood culture, they really are the exception and not the rule. And so, there are special circumstances where those can

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be ordered. We also require a reason for culture to be indicated when a blood culture order is put in place. And, in fiscal year 14 through 15, this practice saw an 87 percent decrease in central line blood culture, which corresponded to a 73 percent decrease in CLABSI. And, we do occasionally see blood cultures drawn from central lines house-wide. These are few and far between. And so few and far in between that we are actually able to drill down to this event and have a discussion one on one with the care team to determine why do these patients required a central line blood draw.

Alexander Tomich:

So, on the next slide, we'll talk about what are our next steps in terms of sustaining our gains throughout the organization.

This slide shows us some of those next steps. One of the things we really stress at Rush was building the proper infrastructure where we can increase reliability while the interventions into our day to day practice of our frontline staff. Additionally, how do we introduce any education or any new intervention in a reliable manner so that it is – so that it can be adopted and become sustainable? One of the key tenets is we want to champion improvements in central line and urinary catheter maintenance. For example, one of the interventions we piloted, are in the process of spreading, as it relates to CLABSI is our medical intensive care unit went over 11 months without a central line bloodstream infection. One of the basic tenets they had was they had a dedicated staff member that every morning would inspect every central line dressing on the unit, and making sure that it was done in a standardized manner. That is something that we did a train the trainer model with some of our other units that we're now in the process of spreading that, so the goal is to eventually have every central line dressing be checked daily to ensure that it has been placed and dressed in a standardized manner. Additionally, we really want to highlight our successes and reward our good performing units. We've had, you know, unit level pizza parties or cake. We've had organizational efforts where we would have ice

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cream socials and public acknowledgment of better performing units. In our monthly dashboard, as we spread that to the – or share that, disseminate that to the organization, we highlight units that had been great performers. And, it's really just to reward them and our frontline staff, to let them know that because of their efforts, we have come a significant way in the past couple of years in terms of reducing the incidence of these events.

I'd like to take a moment and thank everyone for taking time out of their day to listen and allow us to share some of our successes at Rush University Medical Center. So, thank you very much.

Melissa Janes:

Thank you. Hello, my name is Melissa Janes and I'm the Infection Prevention Manager for Kaweah Delta Health Care District. It's a pleasure and an honor for Kaweah Delta to be recognized by CMS' Value-Based Purchasing Program, and to have this opportunity to highlight all of the great efforts of our Kaweah Delta team. We're excited to be able to share with you our team successes, which led to such notable rates.

First of all, I would like to introduce you to our organization. Kaweah Delta Health Care District is located in Visalia, California situated in between Los Angeles and San Francisco. Visalia is an urban city surrounded by the rural agricultural area of San Joaquin Valley or Central Valley, sometimes considered the food basket of the world. Kaweah Delta is an eight-campus, 581 bed health care organization. We offer a full spectrum of services within our acute care facility, as well as skilled nursing services, psychiatric services, in addition to a variety of clinics, outpatient and inpatient dialysis, and urgent care centers. We care for over 26,000 inpatients and almost 600,000 outpatients per year. Kaweah Delta has over 4000 employees.

Now let's move on to outline the efforts of our team highlighting the Value-Based Purchasing data on CLABSI and CAUTI, which led us to take our initial action.

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Our first slide features our CLABSI, central line associated bloodstream infection rates. We outlined them using the CDC expected number and the actual observed amount. Notice in the year 2011, our observed or actual CLABSIs were six, compared to our expected rate of 8.5. And then subsequent CLABSIs were reduced to 3, 1, and 1 in the years 2012, 2013, and 2014. This represents the great work of our CLABSI subcommittee.

As with the previous CLABSI rates, our CAUTI, catheter associated urinary tract infection rates reduced as well. Notice, we reported six CAUTI's in 2012 with an expected rate of 8.1, and reduced that number to 2 and 1 in the years 2013 and 14. This, again, represents the great work of our CAUTI subcommittee. So, how did we reduce our rates? It started with the executive team buy-in, taking action, and laying the foundation for success at the executive and board levels.

Early on in the process, our executive team led the way for reduction of health care associated infections. An overall steering committee was developed with many stakeholders, including administrative level members, physicians, advanced practice nurses, unit managers, infection preventionists, staff nurses and other health care professionals as determined. The steering committee had an overall goal and mission. But, the overall purpose of the HAIPS committee was; number one, to establish subcommittees for CLABSI and CAUTI and others, select committee chairs, which they did; two, to establish standardized strategies to decrease device associated infections; three, to coordinate efforts, share strategies and establish a reporting structure for each subcommittee; and four, to decrease and prevent healthcare associated infections related to CLABSIs and CAUTIs. The committees report their overall action plans and results to the steering committee, the HAIPS steering committee, which is chaired by infection prevention. Emma and Sabrina will now share their interventions and steps that led to the success of the

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subcommittees and the reduction of CLABSI and CAUTI infection. Emma will start first with CLABSI.

Emma Camarena:

Thank you, Melissa. My name is Emma Camarena and I will be presenting Kaweah Delta's CLABSI strategies, CLABSI prevention strategies.

In 2011, the CLABSI subcommittee was formed. In 2012, our CLABSI rates had not really improved but the work of a patient observation strategy was in place, and we moved forward with this idea. In preparation for the observation, we reviewed the central line care policy with our nurses reminding them about scrubbing the hub of, not only central lines, but all IV ports. After that initial reminder, we then educated them on the patient observation process. There were a couple of staff nurses who helped with poster boards and, when it was time to begin the education portion, those nurses also helped to disseminate the education to the nurses. The patient education was a responsibility of the nurse managers or charge nurses when they ask them to observe the nurses. We placed the accountability of central line care back on the nurses. Another thing we did, we also implemented mandatory charting so the nurses would be prompted to ask the physicians daily about line necessity. Tegaderm dressing was introduced and accepted by nursing and our Central Logistics Department made up central line dressing kits with necessary components as a pick and go item. We also handed out CLABSI bundle cards during what we call a show on the road. We educated staff on the CLABSI definition and prevention strategies. The pocket card included nurse sensitive indicators to help reduce CLABSI rates, such as hand hygiene, before accessing central lines, scrubbing the hub of all IV access ports, dedicated dressing and cap change days, use of aseptic technique with dressing changes, and daily review of line necessity with physicians.

The PICC nurses were instrumental in helping to reduce CLABSI. They conducted PICC audits, observed nurses during dressing

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changes to ensure compliance. We began looking at utilization rates and ways to decrease line days. The education department helped with education blasts whenever new processes were initiated. Our home health and NICU were invited and joined the subcommittee, so that we could help support each other. We also asked our IT department to develop a CVAD indwelling urethral catheter report, which was sent out every morning to all nurse managers and charge nurses. This report contained unit information on patient name, admit date, IUC, CVAD insertion dates, white count, and temperature. This information was then used to review CVAD and IUC necessity during daily rounding with physicians.

The hospital engagement network provided a series of questions. The Joint Commission could ask about the different devices. We included a questionnaire using the HEN questions and distributed it to the med-surg and ICU nurses. There were only about 24 nurses who completed the survey, but the results were much different than what we expected.

Here are the results of our CLABSI survey and samples of questions asked. We asked nurses to describe training about their CLABSI prevention strategies. We asked if they had a standardized protocol for central line insertion. We asked if there was a protocol, which described when to discontinue central lines. We asked if they had daily line rounds or huddles. And, as you can see, the few nurses who were interviewed let us know that we still had a lot of work to do.

In response to the survey, we asked more nurses to join this CLABSI subcommittee. We educated everyone who would listen. We asked nurses to talk to their patients about their lines and how we take care of them. We focused on educating each other with staff nurses on the committee, we were able to get a better perspective on what needed to be done and what was the best way to disseminate the information and education. We also asked

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nurses to bring forth suggestions, complaints, comments to all who would listen, the committee members of the executive team, the PICC nurses and the infection prevention department. Now, Sabrina will continue with CAUTI prevention.

Sabrina Orique:

Thank you, Emma. This is Sabrina, and I will be speaking on the interventions we implemented to reduce CAUTI.

Following the development of the HAIPS committee, a multidisciplinary team consisting of performance improvement, infection prevention, education, advanced practice nurses, nursing leadership, and staff nurses formed our CAUTI subcommittee. In early 2012, the committee implemented the CDC CAUTI toolkit. In collaboration between nursing and physicians, a standardized procedure was developed to facilitate the discontinuation of unnecessary Foley catheters. This standardized procedure outlines the appropriate CDC catheter indication removal plan and steps for managing retention post catheter removal. We have also emphasized the CAUTI bundle and incorporated observations and documentation workflow. We educated staff on employing alternative measures, such as condom catheters with bladder scanning, as well as in and out catheterization. We initially purchased two bladder scanners for our post-surgical unit, and most recently have purchased an additional scanner for our medical unit. All new hire and current staff are in service on the use of these scanners, and this process has continued for all new hires during their orientation date. Since 2012, the committee has conducted quarterly prevalence studies. During prevalence studies, we examined the entire population of patients with a Foley catheter. This extends to our short term, long term rehabilitation, our sub-acute and transitional care service department. During these studies, we examined the charted indication, as well as make bundle observations with in-the-moment teaching. This allows us to examine trends at a unit specific and organizational level. All nursing leadership receives a report on these findings to share at

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staff meetings and councils. Based on the result, units develop an action plan for bundle elements with a compliance of less than 80 percent.

As my colleague, Emma, discussed earlier, each unit receives a morning report that list patients with central lines, as well as Foley catheters. Our charge nurses use these as tools when rounding to facilitate the discussions regarding early removal. Although there is always room for improvement, we have seen a large decrease in utilization over the past three years. These results are due to informal rounds on the units by members of the CAUTI subcommittee and staff nurses, which includes in-the-moment teaching. Rounds also include troubleshooting when there are concerns or questions regarding the standardized procedure, indications, and bladder scanning. During rounds, we learned that our new nurses and experienced nurses did not fully understand the retention portion of the standardized procedure post-catheter removal. It was a learning opportunity for us as well as the staff nurses. Our infection prevention team provides us monthly utilization trends. And, when we observe an upward trend, either myself or my co-chair attends the unit staff meeting to discuss utilization rates, as well as conduct focused rounding.

In early 2000 – in late 2013, early 2014, we began to standardize supplies on our medical surgical unit. As part of the CDC and SHEA guidelines for standardizing insertion technique, our Foley catheter kits outlined the steps needed to maintain aseptic insertion. We also ensure that each unit had condom catheters, as well as in and out catheters, as well as in and out kits. To maintain workflow, we have these stocked in all our par levels as part of the annual competency education, all our nurses review the standardized procedures and complete an online exam. For follow-up education, communication bundles are sent to staff, as many in services, which are covered during unit safety huddles. In 2013, we sent a survey to staff asking them about the familiarity and knowledge

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with the nurse driven standardized procedure. This led to further in-the-moment teaching regarding Foley catheter utilization and evidence-based practice measures. For physician education, we initially conducted in services at department meetings, provided flyers in physician lounges and sent educational e-mails.

So what are we doing now? We have recently added female urinals to all our unit par levels on our medical surgical units with success. We have also standardized the supplies in the emergency department intensive care areas and our OR setting. In doing so, we have been more cost effective and have seen a reduction in the waste of supplies as well as bundle compliance. For CAUTI and CLABSI, when an infection has been identified, the unit received an investigation report from their IP liaison and is completed at either the unit base councils or staff meeting. We recently revised the investigation form to include comprehensive unit safety program questions. The nurse manager or staff nurse present the investigation findings to the committees and receive feedback. In addition, we have recruited the assistance of physician residents for both our CAUTI and CLABSI campaigns. With our advanced practice nurses, the residents assist in CAUTI rounds and CLABSI rounds. Our education has extended to members of the interdisciplinary team to just physical therapy and transport. Our prevention infection committee are also partners in the educational process. During new hire orientation, the infection Prevention Department covers both CAUTI and CLABSI initiatives. Thank you.

Debra Price:

Thank you. And hi, this is Debra Price, the CE manager for the team. If you intend to receive any credit for this webinar, please go over slides 52 through 58 on your own, since they will walk you through the entire CE process. We do not have time to cover these slides today because we do want to go over a couple questions with you. And now, Kristen Woodruff will go over a couple questions. Kristen?

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Kristen Woodruff: Thank you, Deb. We had a lot of great question come in today, and we will get to all of them eventually, but for today, on this webinar, I'd like to go ahead and ask Rush University one of the questions that first came through. It is: you mentioned having physician involvement, is there a particular physician, such as infectious disease, on your team; and also, how many physicians were involved?

Alexander Tomich: So, as it relates to each initiative, for CLABSI and for CAUTI, we have, you know, in our HAI committee or workgroup, we have our assistant chief medical officer. It's kind of the physician for the overall, for all of our quality initiatives. We have our infection control medical director or infectious disease physician by training as well. And then, for each of our unit initiatives for CAUTI and CLABSI, for CAUTI, we have one of our urologists as the physician lead in that initiative. And, for the CLABSI initiative there, we have our medical intensive care unit. One of the intensivist up there, that's the physician lead for that initiative as well. So, with any of our HAI initiatives, we try to partner a leader from the physician aspect, as well as from nursing to kind of help drive the change through the organization.

Kristen Woodruff: Thank you very much. Now a question for Kaweah Delta. How did patients contribute to your efforts? Do you involve former CLABSI patients in your PFAC?

Emma Camarena: Hi, this is Emma. No, what we did was we had a little survey card that we passed out to each of our – to a select group of patients who are alert and oriented and could answer questions. So, what we did was we passed out those cards, and then they would observe nurses as they took care of their central lines, and we wanted to know if they were actually scrubbing the hub and then once the nurses were done with those, with their IV line, they would answer the questions and turn those questions back – the cards back into the charge nurse and we kind of looked at that just

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to make sure that our nurses were actually doing what they said they were doing. So, that's how we involved our patients.

Kristen Woodruff:

Great. Thank you so much. And a follow-up question for you, Kaweah. Are you a teaching hospital and how do you provide education for residents and students, if so?

Sabrina Orique:

Hi, this is Sabrina answering from Kaweah. Yes, we are a teaching hospital and what we do is, Emma for CLABSI and me and my co-chair, Alicia Sandage for CAUTI, we actually have residents involved in our CAUTI campaign. They actually are part of our committees. They round with us during our rounding time. And, we also go educate them at their specific department service lines. So, we're actually very involved with them at the same time. They work closely with us here.

Melissa Janes:

And this is Melissa. And another way that we make sure that our residents are also educated is that we provide a very extensive orientation for them at the beginning of their residency on infection prevention, which includes the bundles.

Kristen Woodruff:

Thank you so much. And I'd just like to thank the Rush University participants, Alexander, Marcelina, as well as the Kaweah participants, Melissa, Emma, and Sabrina. Thank you so much for your time. And thank you for all the attendants that came today. And this will be posted at a later date. Everyone have a wonderful weekend. Thank you.

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