Environmental Cleaning Webinar  
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[Please stand by for real-time captions]Good afternoon ladies and gentlemen thank you for waiting welcome to that CHAIN presentation. All lines are in the listen only mode and the floor will be open for questions following the presentation. It is my pleasure to introduce Mr. Bruce Johnson. Mr. Johnson the floor is yours.

Thank you, Kelly. This is Bruce Johnson from Stratis Health and on behalf of CHAIN we are producing a quarterly webinar. This one is for environmental cleaning. We have a story from Allina health and just a couple housekeeping issues. There is a chat feature. If you have any questions please feel free to put it in the chat and we will try to review the questions in a question and answer session. The other thing I would like to say is we are pleased to have two speakers discuss the journey at Allina regarding environmental cleaning and with a focus on CDI. Cindy Larson is the current director of quality and safety and the medical staff department. She has a PhD in epidemiology and Masters in Public health and IBA in biology and laboratory sciences. Kim Sorbel has a long history at Allina and is the current director of operations and they are here to describe their journey. Kim and Cindy can you take it over?

Can you hear us?

Yes we can.

Alright this is Cindy Larson and we first want to say thank you for inviting us to share Allina’s experience regarding our environmental cleaning project. We learned a lot during the course of our project that we will share with you and we hope the participants on this call find our experience helpful for them. This afternoon we are going to start revealing the evidence that links contamination in the environment to the infection transmission risk. We are also going to talk a little bit about the key members we included in our project. Then we will describe the role of our senior leadership who supported our improvement efforts and then finally we will describe the best practices we put into effect for environmental cleaning and monitoring.
There certainly has been an increased focus on the role of the environment in transmission of hospital acquired infections. Patients who are colonized or infected with resistant organisms such as methicillin-resistant mursa, VRE, Clostridium difficile and more recently the gram-negative bacilli[ Indiscernible - low volume ] patience with those organisms shed them into the environment and if they are not removed during the cleaning process they can live in the environment for many weeks too. It is also important to note that the more immediate are close to the patient the surface is the greater number of organisms that are found so we refer to the area right around the patient as the hot zone or the most -- dirtiest part of the room. So I would refer you to the picture on this slide. In 2001 Haydn published one of the first abstracts which highlighted how organisms from a patient can contaminate surfaces of an ICU room. In this picture all the green axes are locations where the VRE was isolated after the discharge of a patient who was positive for VRE and it provides evidence of the risk of hand contamination and then of course transmission if the surfaces are not -- surfaces are not cleaned. Dr. Otter and his colleagues summarized some of the literature regarding transmission from the environment in their review published recently in the supplement of the American Journal of infection control they cite several other studies that provide similar evidence of spread of organisms via the contaminated surfaces.

Many studies also suggest that there is an increased risk to patients admitted to rooms where the previous patient was in fact did with the resistant organism. If you think about the picture we saw in the previous slide it is easy to visualize how the surfaces messed during the cleaning process could potentially contribute to transmission of infection. Contaminated surfaces when combined with low hand hygiene compliance and locum alliance with content precaution isolation they work together to increase the risk of infections. The contributions of hospital environment to transmission of Clostridium difficile infections was recognized almost 20 years ago. Dale Gerding one of the national experts in C. difficile was one of the first to recognize the spores in the environment creased the risk of acquiring antibiotic associated see difficile diarrhea and he suggested that new and innovative approaches to infection prevention were needed. The spores can live in the environment for a month and they have to be physically removed during the cleaning process because any spores left on surfaces can be picked up on hand and then in advert dentally undigested and then colonization of the got. A line of environmental cleaning project resulted from work to reduce the risk of Clostridium difficile infections in our hospitals.

There are a number of excellent resources which provide guidance to our project team as we developed our cleaning standards and processes. The 2003 CDC environment of care and 2008 infection guidelines outlined consensuses knowledge and provided evidence for products and Pratt does in the healthcare environment. Other professional organizations such as a HE for environmental services and for the operative settings those standards as well as guidelines created in Canada were also used as reference documents.

Hospitals are certainly impacted many ways by the focus on the environment and hospital acquired infections regulatory bodies such as joint commission and CM asked come in and examine cleaning protocols and questions to ask on disinfection processes and quiz them on required wet time during hospital surveys. Patients are also asked to rate hospital kindliness cleanliness and these along with infection rate have a direct impact on our financial reimbursement. Public reporting of certain rates can also impact consumer perception and then willingness to utilize the facilities so hospitals have many infected -- to ensure we have clean environments and that we use best practices and that we have interventions in place to minimize the risk of infection.
In Allina it just so happened that we had two separate projects that were going on at the same time. They were both related to improving environmental cleaning. One of them was being driven through infection control with a focus on close tritium difficile reduction and the other through operations with the goal of improving the patient's experience and perception regarding hospital cleanliness so it was a natural partnership for us to merge the two projects and then collaborate across disciplines to meet our mutual goals.

The first step was to form a core project team and that team consisted of operations environmental service managers and infection prevention. That team was charged with merging the two projects and coming up with a project plan. Our first task was to conduct an assessment of the cleaning practices we had across all of the 11 hospitals. And then do a gap analysis when compared to best practices. It was quite amazing that the variation we found. Our overall goal was to increase patient experience scores and reduce RCD IR C difficile infection rate. -- C. difficile infection rate. So our project plan looks like this. We first have to finalize our Analysis and then we expanded that core team to a larger multi-disciplinary team that included not only infection prevention but not in operations education and performance improvement. The overall goal was to create a system standard that would be on cemented across all of our hospitals so that we could ensure that no matter what hospital you went to we were using the same processes that met back -- best practice standards. Any barrier or resource needs or support that we identified during the project were brought to our senior leaders for discussion and they helped us to find solutions and resolutions. Because the project supported to Allina goals senior leadership support was particularly important to drive for success.

At this time I'll turn the next portion over to Kim who is going to share our experience from the operations perspective.

Thank you Cindy. As Cindy mentioned the environmental services team across our 11 hospitals had been working with our patient experienced team and researching the perception of the patient as it related to her cleanliness scores on our survey. Overall system was struggling with moving the force. We hadn't gauged our patient advisory councils and avatar who were our vendor who administers the surveys to really help us out look at best practices. We currently -- we quickly record highs that it was not only the hospitals that were concerned about creating an environment that would reduce the risk of factions but that patients were very concerned as well. This came out loud and clear in our patient experience data. Once we emerged the initiatives with our inspection prevention professionals we recognize the first step was to get our EVS (Environmental Services) staff who cleaned our patient rooms on board. We took a deeper dive to train over 400 environmental service aides on their role as part of the team and the outcome of that patient. We talked about what can happen when they do not do their job right -- that patients can come to our hospitals and become sicker if they are not doing their work the way that they need to ensure that they are removing those infections and the bacteria from the patient rooms. We taught them that each individual patient counted on them to do their job to ensure that they were -- the work was done in the best and most complete way possible. We encouraged them to visually put a loved one in the bed and do for them as they would want done for their own mother, son or daughter. So really what we were saying to them is you are not just a janitor anymore. Some of our hospitals really the environmental service aides told us we don't know a lot about infection stuff we just go in and clean. So we really felt that we needed to really elevate their role as part of the care team and although all of this work is very important this is part that if you do not do this it will not happen. Employees in Allina at this point you will never hear person and housekeeping say I'm just a housekeeper.
The next thing we did as Cindy mentioned we recognize that we had many different processes when it came to cleaning patient rooms. There was no consistency no training and we knew we needed to change that so we created a comprehensive for our instructor led training program. Three hours of that was classroom training in one hour with hands-on demonstration in patient rooms. We had an RN who had some educational background who agreed to travel around the 11 hospitals and do this training for us. We incorporated staff at those hospitals high-performing environmental service aides who could actually work with us to participate in the demonstration of the cleaning up the patient rooms so we really had a lot of IEN at the site from the staff because we included them in the process. The curriculum included infection control concepts which again we really pushed and focused with us group of people. We wanted them to really understand a much deeper level what infection control means and how it relates to the outcome of the patient. Basic cleaning and disinfection techniques chemical utilization, high touch surfaces, room zoning and will talk more about that later, isolation and special cleaning procedures are so no protective devices equipment procedures and quality control. As you can imagine implementing this in 11 hospitals was challenging. What their product was completed we brought together the infection prevention us at each site EVS leaders operation leaders from all 11 hospitals for a formal kickoff. This was attended and supported by the senior Reckitt ups and clearly led the expectation that this was our new model. I will briefly talk about some of the specifics of our analysis that led to the design of our program later.

The third step was really to close the loop and create an Allina certification program for those employees who completed the program. We really wanted to ensure that this was a big deal for the employees to go through that for our -- in order to receive certification you had to complete the four-hour classroom training, pass up a test, pass a supervised return Dimmitt's duration of cleaning and occupied room and a discharge patient room and then successfully passed to unannounced UV lack light testing. So for an employee to get through all of that when previous training was sketchy at best was a pretty big deal for them. We recognize that we needed to make sure the training was not just the next new thing or program of the month but this was the new deal. We wanted to create tried in the work that they do, we wanted them to be proud of completing all of that and what that really did drive as we were hoping his ownership of the work.

So our competency statement was that the employee can perform patient room cleaning using standardized process tools and chemicals in order to create a clean and disinfected environment for the safety of our patients. Senior leaders also recognized EVS staff for the completion by sending a personal letter to their home congratulating them on their effort and really thus helping them understand the importance of their work to our patient population. Additionally many hospitals have certification ceremonies and presented the staff with their completed certificate and a pen. These were attended by the entire EVS department our hospital practitioners are nursing leadership sling senior leadership we try to make those the big deal. I think it's important to note that this particular initiative was not a one time deal. Is each employee received their certification we have since then created an annual recertification program which is an abbreviated mandatory annual training program hitting the most important aspects of cleaning and infection control in the patient room and at that time we can add any new process changes that we might want to implement. If we have new tools are chemicals during that annual training. Ongoing monitoring of their competency is done through unannounced testing on an annual basis for every employee.

This slide shows an example of the certificate that we gave to staff and we also had a little silver pin said that set EVS certified you can walk through our hallways we implemented this in 2011.
that you can see staff wearing those pants. They're very proud of them and when someone loses one you better believe they are letting us know so we get them another pin. A were very honored to be able to complete all the competencies and training so they could receive these awards and they were very proud.

So part of the process in the early days was to decide how we want to the work to be trained how to create tools that would resonate with staff who in our system represent at least 20 different cultures and where English may not be the first language. We used slides diagrams photos and videotapes in our training. This is an example of one of the diagrams that was used in our training. As you can see we talked about starting at the bed which we refer is the hot zone the areas close this to the patient being the dirtiest bed rails call lights and then proceeding around the room and being at the bathroom. It was really interesting because one of the off on moment as we were putting this together was that touching the bed while the patient was then that was an almost nonexistent process in the daily cleaning of the patient room. Our new training incorporated starting at the bed with the bed rails is a high touch surface. Think about how many people in a day reason lower the bed rails. Environmental service staff although they engage discussion with the patient they just never really felt comfortable coming over and saying to the patient I'm going to wash your bed rails. This is where we start cleaning in your room to make sure your bed rails are clean and we are keeping you safe from infection. As you can see the steps were specific regarding the number of rags and specific color of rags which we traded in our process to avoid double dipping of rags. Also the separation of room and bathroom to ensure there was no cross-contamination with rags or which area needed to be cleaned first.

Some of the elements within our new training program were consistent process every time. This was extremely important although we knew we had housekeepers who were cleaning the room we recognized that the way they were doing it was so different every day that it landed self -- a perfect opportunity for missing things. So it also gives the patient took good sense that there is a process. They see the housekeeper doing something the same every single day. Everyone follows the same process every day, day after day and in doing that they are more likely to hit every area in high touch surface because it becomes automatic. High touch areas were new to our dialogue with our staff. The IP group of forward evidence of areas in the room that were more likely to be touched more frequently. We added those in the must-haves each and every clean. Standardize chemicals and tools which I will speak to in the next few slides we looked at what we had and what we were going to need. Saturation nation and kill time Cindy mentioned that during regulatory visit the surveyor will ask about saturation and kill time. I'm tried to tell you that has occurred a number of times over the last several here at my hospital and in those instances that United are EVS passed with flying colors. If you can ask in EVS about saturation in the chemicals that they use and why kill time they need for saturate station and they can answer that that is an awesome thing. Are joint commission survey are actually spoke about that in their summary sessions. I will talk about rags a little bit later and we already talked about high touch services so as part of our competency assessment for the training and quality assessments we did at the end announced UV gel black-white testing. Cindy will talk more about that a little bit later.

As part of the process we reviewed all of the different chemicals in products that were being used for room cleaning. We realize that not only were we reusing different products at different sites but that even within the hospital employees use different chemicals to clean. We were still using the old string mop system which allowed for patient rooms to be cleaned with one bucket of chemical and a fresh string mop. The process was after for rooms they were to change the bucket of chemicals to a new bucket do the next for rooms. As you can imagine this was very difficult to monitor compliance. For rags to clean patient rooms we were using old cotton rags that the linen
rooms made from old bath blanket or the typical washcloths that we used for patient care. It was amazing how many patients commented on the state of our cotton rags and the assumption that they used the same rate that they used to clean the toilet as the rate that cleaned their bedside table or that the rag was filthy when actually it may just abandon old rag. When we inventoried our hearts we recognize that we did not have the right cards to support the new process and that each cart was set up for whatever that reticular EVS aid wanted on their card. There was no consistency at all.

At the same time we were looking at our chemicals and tools we needed to look at our current product test of the actual work. We brought together the leaders of every EVS department across the system and reviewed and evaluated the current crosses used for daily and terminal room cleaned as wide as isolation room cleans. We were reviewed every hospital training program which ranged from simple on-the-job training to PowerPoint on a computer to read this pamphlet. We did find some best practices of some of our sites related to their training which we incorporated into the new program. Although EVS aides were following processes that were outlined in our guidelines he recognized that the work was not as prescriptive and consistent as we would like therefore allowing for the interpretation of the EVS aid to do the work they thought that -- best. We wanted to call out specific high touch areas saturation and other that we found if this very to ensure the reduction of hospital acquired factions. I will turn this back to Cindy for the next segment of her presentation.

During our project one of the things we had to do with research some of the new products and technologies that suggested an improved cleaning surfaces so although microfibers becoming the industry standard today at the time of our project there were not many hospitals using them. The team conducted an extensive review of the literature and tried to find evidence of effective enough so we could justify the cost associated with the implementation of microfiber. Several studies indicated that microfiber was superior to cotton rags especially the cotton rates that Kim described and string mops in removing physical soil and bacteria from surfaces. There was also some evidence that microfiber alone with water might perform better than cotton with disinfectant. We also learned that not all microfibers created equal. It is very important to understand the properties when you are considering purchase. We also identified that it is very important to understand your water quality because if you are using concentrated disinfectant that requires dilution with water hard water and pH can affect the amount of chemical available to get to the surface for disinfection. We also made sure that we were using EPA approved hospital grade disinfectants and that we were following manufacture recommendations for use and ask him talked about that we were very clear what those contact or kill times were. We consulted the guidelines and standards that I talked about earlier in the presentation to develop our new processes and procedures and also moving from clean to dirty as the traditional cleaning method our protocol starts at the bed which is the dirtiest part of the room so that we could allow for that adequate contact or kill time for disinfectants. The particular disinfectant that we used requires 10 min. of contact. So starting with the bad also assure that the bed is dry before replacing linens on it. We found that either linens were being put on wet beds or that disinfectant was actually being wiped off the mattresses before the linens were put on it in the 10 min. contact time was not met. We focused on determining the number of gloves that were needed to effectively clean the room and then color-coded the cloths and that created consistency of practices. Dr. Philip Carling develop several studies on the effectiveness of providing evaluation and direct feedback to staff on improving the cleaning of surfaces and these methods were adopted as our standard for ongoing monitoring and I will cover that our detail later in the presentation.
There were several significant outcomes from our project. I think the single weakest one was a standardized duration of our environmental procedures and all of the work that went into that for inpatient room cleaning up. We also replaced the cotton rags and string mops with microfiber color-coded clause and microfiber mop heads. We standardize the cart and the tools used by staff. We developed educational materials and standardize training in the certification program which improved consistency and that consistency from a single person doing the cleaning within the hospital to across the hospitals and then we implemented an ongoing monitoring program that sure that the new processes are hardwired and that gives us the ability to measure the quality of our cleaning. The Mac the cleaning process is monitored using fluorescent gel. This method was first described by Dr. Carling in his work suggested that it was effective in improving the effect is this of -- fluorescent gel or UV blacklight allows either the environmental service managers are the and faction prevents to provide immediate feedback to the staff on their performance. We identified the specific high touch surfaces through literature review and those are marked randomly -- in a random selection inpatient rooms. The gel is applied to the surface after the patient is discharged in before the clean without the staff knowing that the monitoring is happening. After the room is claimed then the manager or the infection prevention must uses a blacklight to see whether the gel was removed. You can see on this pitch are on the light switch what it looks light if the gel is not removed. So if the gel is removed and there is no fluorescent or it is clear that the surface was wiped with a cloth the surface is counted as the pass. If there is no evidence of why such as what is on the slide the surface is counted as a fail. So for her room to pass our threshold is 80% so we say if 80% of the high touch surfaces in the room are clean the room has been passed.

So was our project successful? Our data suggests that it was.

So I think this chart really speaks volumes regarding the improvements that we believe is a direct correlation with the training and implementation of both our customer service training and our standard cleaning program. We implemented in the spring of 2011 patient's immediately realized the difference in the way that the state staff stayed connected with them and recognize they were using the same process each time when they came in to clean their rooms. All 11 site at Allina saw improvement in scores year for year. -- Year over year.

We also have sustained meeting are 80% success threshold for cleaning those high touch surfaces. The data on this slide shows the percent of the time each of the various high touch surfaces past UV testing from January to June of this year and you can see that the majority of the surfaces are cleaned successfully more than 90% of the time.

We do record highs at reducing hospital acquired C. difficile infections require a multimodal approach which includes managing cleanliness of the environment. As you can see on this graph line of rates have been steadily decreasing son implementing our cleaning protocols in 2011.

There are several key learnings from our project. First I think it's very important to recognize that environmental service staff are important infection prevention partners in their key to improving patient safety. Also providing immediate feedback helps to improve performance and environmental service staff appreciates knowing that they do a good job. Also having consistent processes is more important than the type of disinfectant used. We had a lot of discussion about whether or not -- was adequate to clean us see different woman whether we needed to lose use bleach or other sporicidal but when it comes down to it if you do not touch a surface it just does not matter what chemical you are using. It's also important to have the right tools for the job. The microfibers and color coatings really work well for reducing the risk of re-contamination or
cross-contamination during the cleaning process. Leadership support as we went through the project helped to remove their ears and make resources available. And then finally hardwiring consistent best practices provided a triple benefit for us. It improved employee satisfaction, patient satisfaction and lowered their risk of hospital acquired infections.

Our cleaning project continues to evolve. Phase 1 involved in patient rooms and to ensure that processes remained hardwired we implemented an ongoing monitoring program. The cleaning process continues to be assessed using the EV gel described earlier and when 80% of the rooms tested passed with 80% of the high touch surfaces successfully cleaned then infection prevention will use ATPs swabs to evaluate the effectiveness of the cleaning. This helps to measure the amount of organic material dead or alive left on surfaces after cleaning and that allows for feedback on the quality of the cleaning. In addition to the UV ATP monitoring managers continue to do visual cleaning quality audits. We recognize also that many staff other than environmental services are involved in environmental and equipment cleaning. Phase 2 of our project is moving standards cleaning protocols to procedure areas such as radiology, AED and OR and then creating processes and workflow for that cleaning of patient care equipment.

ATP technology has been used in the food industry for many years and the challenge we had when implement tank as part of our project was to determine reasonable thresholds because there were no venture marks in the literature. We used 250 relative light units as a cut point for passing and 500 for sale and then gave the grace zone of 251 two right around 500 as a cautionary zone. New recommendations now after a number of organizations starting to use ATP have now been 250 light units as the definitive threshold and fail anything over that at 251 and over so it's important to recognize that ATP is not relative to microorganisms. Other substance those such as dried juice on a surface will cause readings to be high so that is why we determine that we need to assure that 80% of the surfaces were actually cleaned before we implemented ATP effectiveness monitoring. It is important to not test services that are obviously soiled.

There is a lot of alternate knowledge that continues to be tested in the healthcare setting that augment the manual cleaning methods. Unfortunately they do not eliminate the need for traditional room cleaning and they cannot be used during a patient's stay so the daily cleaning would not be affected here.

We do not want to confuse the UV gel but the UV radiation technology or ultra-violet Radiation tech knowledge he is being used in two of our hospitals. There are a number of advantages and disadvantages to consider including cost and at this time there are no studies direct the linking UV to hospital acquired infection rates.

However EUV technology has been demonstrated to remove back carrier and spores from surfaces when used in conjunction with routine cleaning so it does seem reasonable to assume there is an associated lower risk of transmission to patients. Hydrogen peroxide vapor can also remove C-diff spores from the environment. However it is really important that all the door gaps are sealed and that you turn off the ventilation system because if you do not do so the air comes in and dilutes the vapor and then will reduce its effectiveness. It also requires a very long cycle time anywhere from 2 1/2 to 5 hours which is probably not reasonable for most hospitals. There are studies to support association with reduced reduction in hospital acquired affections but it also comes with a significant equipment cost.

So in summary we reviewed the evidence linking environmental contamination and hospital acquired faction transmission and I think that was something that really drove our project at the
beginning. Then we emphasized the need for collaboration between environmental services and infection prevention. We reviewed the role of our senior leadership in the project and how that helped to make it successful. We talked about our line of standardized nation of processes and procedures and projects and tools and how that has helped us to create a consistency across the organization. We shared our or ongoing quality monitoring programs and briefly touched on other tech knowledge bases available if your infection rates are not declining after implementing standardized best practices.

We’d like to recognize the members that were involved in our teams and then thank you again for the opportunity to share experience and we will now open up the presentation for questions.

The floor is open for questions. Please press the number seven on your telephone keypad. Questions will be taken in the order received. If you're using a speakerphone we ask that you pick up your hands site set to provide quality. Please hold for the first question.

We do see a question what is the amount of time allowed to clean unoccupied patient room how much time for discharge patient room?

So generally we allow 10 to 12 min. for a daily patient room. On an average 40 min. for it just charge never under 30 min. charge never under 30 min. And 60 min. for in isolation or see different that will require using a bleach or a different chemical for that cleaning.

If you the question press seven on your telephone keypad.

Did you purchase UV gel from a chemical vendor or did you buy it directly?

We actually used a couple of different products. In the end we did not purchase from a chemical vendor and we bought directly.

I also want to add what we were looking at the high touch service passing rate for Allina we did a baseline and right now most of our areas are passing it over 90%. I believe our baseline was pretty dismal before we started any of this training are the UV gel testing and I think Cindy can comment on that Dierks

Correct. It ranged anywhere from Rob ugly 30 Rob ugly 38 to 47% of our high touch services passing when we initially did our baseline.

Yes there is another question do you use scripted environmental messages to explain the why and how of cleaning rooms? I am assuming does that mean with the patient we do use the scripted methods of talking to the patient about what we are doing it and why we're doing it. That's part of our training and certainly when we are working with our staff we are using direct the why and how for our staff.

Next question what is the cost each firm microfiber wipe? Is it better to rent or purchase the wipes? We are using disposable -- we are using reusable microfiber cloths to do the environmental cleaning. We do use disposable wipes to clean you know the nursing staff will use that to clean equipment and so forth. We found that using the reusable wipes and washing those in our laundry system was far more economical than going to a complete disposable system.
You might want to mention that we also are a member of the [Indiscernible - low volume] and so that affects their ability to get good pricing.

We were able to get our co-op linden does the linen for all the hospitals across the Twin Cities. We were able to meet with the co-op and get them to standardize to one type of microfiber rag and that drove down our cost.

Question what product do you use for C diff cleaning?

We are using 1 to 10 bleach[Inaudible - static] we are not diluting it we are using bleach wipes.

The next question would you share your post test questions?

I do not see any reason why we would not. If you could maybe perhaps e-mail the host with your e-mail address. I am not sure they would make much sense if you do not have the whole cleaning procedure but we would certainly show you the question.

This is Mary[Indiscernible - low volume] if you send it to me I can send it out to the group registered for this call.

Did you add any of TE is to EBF staff specifically to in prove scores?

We did not as most of you know in the hospitals adding staff is generally -- were not able to do that and we are generally fighting to keep the staff we have so really did have to look at the way we do our work and how we do our work and we have been able to move those age Scores without any additional staff.

Somebody said we used TDI bleach wipes for C diff cleaning.

And I will say we also use PDI bleach wipes the nursing -- the nursing staff uses those for equipment. We use Clorox wipes with her environmental service staff.

What is the challenge to keeping the surface wet for 10 min. or better how much time is a surface to remain wet?

That is dependent on the product you are using because there are some disinfectant that do not need to be 10 min. that do not need to be 10 min. It's just that hours had to be left for 10 min. because that's how we went through the HPE approval process. There are some chemicals that have 2 to 5 min. 2 to 5 min. Of course I think saturation of the cloth is important so you get enough of the product on the surface so that it stays wet for the required contactor kill time. That is all based on your manufacturer’s recommendations and EPA claims.

So the challenge is to train the employees to properly saturate. That is the key is proper saturation. How do you figure your environmental service staffing class --?

So Allina contracted with national productivity group to look at all of the components of the environmental service department not just staff but other departments within our company but specifically for environmental services that process then was to have all the hospitals sit down together and agree an established the times it takes to clean patient rooms daily discharges looking at how many OR turns. All of those indicators plus then your square footage and then
basing our staffing against national averages to determine what it should be where we were so as long as we are within that range then we are good.

I see someone is saying approximately 1 FTE per 10,000 ft.². I've never calculated that -- it that way because one FTA for 10,000 ft.² of office space would be certainly much less time to clean than 10,000 ft.² of clinical or OR space so that indicator is may be a very high level I but in a hospital there is so much clinical space versus office space versus conference rooms or corridors are that kind of thing.

Any other questions?

I have one Mrs. Bruce. Did you do a return on investment for this project? There would seem to be some cost in the training you provided and cost in change of supplies. Was there much increase in cost or can you talk about that a little bit?

You know we never really did an ROI on this. When we started looking at this we certainly did when we went to ask for the money because we did have an initial investment in the program. Certainly we had to come up with money for the training time, the trainer, the new cards, the new rags, all of that. There was a dollar amount placed on that but I think we were talking about when hospital acquired infection is --

That is actually how we did the business case to do the implementation is due that analysis upfront to see and try to approximate the number of and factions we would avoid and then give a value to that and then balance it against the cost for implementation so that is how we did our return on investment and I would have to go back and resurrect the actual dollars but that is the process we used.

I think the program itself, it was all the right things and so also we could not really come up with the exact we will save this much money if you give us as much money. It was so all the right things. Improving patient experience and certainly there is a penalty to the hospitals if we are not meeting the 50th percentile for the patient scoring us at the top box level for cleanliness so there is some money there that the hospitals are held back from reimbursement to the hospital so we never put it together but I think the view from our senior leadership team was that it was all the right things to do. There was really no argument at all about it.

We are coming to the end of our time and I want to personally thank Kim and Cindy for this excellent presentation. Mary will be sending out a link for an evaluation of this so if you can look for that man we will have a certificate of participation. Again this was outstanding information. It helps the hospitals understand the process. Nice job to Allina and a big thank you.

Thank you .

All right thank you very much.

This concludes today's teleconference. We thank you for your participation. You may now disconnect.

[Event concluded]