

Disinfecting vs. Sanitizing: Essential Practices for Hospital Cleaning Staff

Wed, Sep 11, 2024 4:58PM • 1:01:17

SUMMARY KEYWORDS

disinfectants, cleaning, surfaces, hospital, darrel, frontline workers, patient, room, infection, working, job, mentioned, epa, level, probiotics, disinfecting, viruses, industry, cleaners, put

SPEAKERS

Tim Clagg, Darrel Hicks

Tim Clagg 00:01

Janitorial Manager presents the Business of Cleaning Podcast, the podcast that brings you the information you need to be successful in the cleaning industry. The Business of Cleaning Podcast provides in depth interviews with successful personalities from the commercial cleaning industry, as well as discussing the trending topics that matter to you and your organization, welcome into the Business of Cleaning Podcast, your number one source for information on the commercial cleaning industry. We release new episodes monthly, live from the Janitorial Manager studio located here in Toledo, Ohio. I'm Tim Clagg, the Marketing Communications Specialist at Double A Solutions and your host of the Business of Cleaning Podcast, we want to welcome in. Darrel Hicks, owner of Principle of Safe, Clean and Disinfected. Welcome into the show, Darrel. We're so glad to have you as this month's guest expert.

Darrel Hicks 01:02

Thanks, Tim. I count it a privilege to always promote safe, clean, disinfected surfaces. So thank you for the opportunity.

Tim Clagg 01:13

Darrel, you're nationally recognized in experts in infection prevention and control as it relates to cleaning and health. What an appropriate time for us to get together, to link up, to have this conversation, as we prepare for fall and winter, which has become flu covid season, as they're both on the rise again in the United States and globally as well,

Darrel Hicks 01:42

Yes. And they're both viruses, covid and the influenza and so it's time to consider getting those flu vaccinations and trying to promote a healthy lifestyle that your immune system is is boosted. But anyway, those things wind up on surfaces, and people touch them, and then they rub their nose, their eyes or their mouth. And studies have shown that people touch their face like 19 times an hour. And

when they do, it's their nose, their mouth or their eyes, and so that's the entry point, from picking it up on a surface to introducing it into your body.

Tim Clagg 02:35

And I'm guilty of doing all three of those things probably more than 19 times an hour. I want to talk about your background story. You have a background in leadership. It wasn't until 1981 that you were able to come full circle into the industry. What do you remember most about your introduction into the industry, and how did that opportunity come about?

Darrel Hicks 02:58

Well, at the time I was laid off, I had worked outdoors for 10-12, years, doing surveying and construction inspection, and I found myself with three kids, and being unemployed, and so gentlemen from our church worked for service master at the time. And so he recruited me into the company, and this was the one that Mary and Wade founded back in the 70s. And so they provided contract management of the hospitals, environmental services, housekeeping operations. And so I went through eight weeks of training and a lot of well, all of it was hands on and working doing the jobs that I would be leading others to do and to do well.

Tim Clagg 03:57

While there, you learned all the tasks, starting from the ground up. The frontline cleaner, understanding, seeing firsthand what they do to accomplish that goal. How important is it truly to get an understanding everyone's position in industry, to see what they do firsthand experience, follow them and gain that respect and knowledge.

Darrel Hicks 04:23

Yeah, because in our industry, it seems that people in some sort of leadership position rose up through the ranks, and they did a good job. They showed up every day. They didn't make trouble. So they were given more, lead role, and then supervisor, and then maybe assistant manager, evening shift manager, and then director of the department and hospitals. But, starting off at the top, I would always get kind of this jaundiced eye at me, like, you know, what do you know about my job? And I did it, so it's very important that you can do those tasks, because they need to see you in the work lane every now and then, and to let them understand I wasn't born in a tie.

Tim Clagg 05:20

It's all about building and having that common respect. I understand what you do, and you're taking the time to be out here. And I want to go back day one. There's an interesting story about your first day working inside a hospital, and I will let you tell that story.

Darrel Hicks 05:39

Well, started off in cleaning rooms and Service Master had, I don't know if they're the first, but it was the seven steps of cleaning. And so I was working with one of the frontline workers, who got all the new management trainees. And so she put them through the paces and showed them what she did, and then would turn around say, Okay, now the next room you're going to show me like I'm the new guy or the new gal. And so I watched, I observed, and then I get to show her what I know. And so I go into the

bathroom, and, get the Johnny mop and the bowl solution and bend over and start to swab out the toilet, and I dip my necktie in the water, and she just busted out laughing. She said, You guys fall for it every time,

Tim Clagg 06:32

Right. Almost like, kind of setting you up. Hey, you're the new person here, learning. And just, everybody has to go through that, right?

Darrel Hicks 06:42

Right, but she was making a point that we don't clean in ties, and so, the ties got to come off and roll up your sleeves and get next to the employees, because then you understand the challenges that they face. And then I became an advocate for that frontline worker, and was that buffer between them and whoever was challenging them in what they did. And so anyway, it just equipped me to be better informed about what that work really involves. And these people do these strenuous jobs, and it's repetition, and so they could almost do it in their sleep. But think about whenever you first started learning how to drive, you would think about sticking the key in, putting the foot on the brake, all these steps, but now you don't even think about what you're doing when you get in the car. It's just automatic. And so that's the way it needs to be. Not have to think about each step, but eventually it becomes, very much, a repeated pattern.

Tim Clagg 08:04

Yeah. Repetition, muscle memory, reps. One of the things I realized early on in our discussion our introductory call was the enthusiasm and the passion that you share from this industry. Where does the passion for you in infection prevention and hospital cleaning come from? Who you mentioned working for the cleaners, but why do you do it?

Darrel Hicks 08:32

Well, back in 2007 I was the president of the International Executive Housekeepers Association, about 3000 members. And so the Wiley's, people that produce the dummies books, contacted our organization, asked if anyone was capable of writing a book about clean and disinfections role in saving lives. And so I was tagged with that because I just recently gone through something in our family. My daughter in law, for at that time, was about 37 years old, mother of three. The youngest was 16 months, and she was very athletically involved in running half marathons, and so she was doing a lot of working out in the gym, with lifting weights. Had a trainer getting her ready for the next competition then. So she got an infection in her hand, between her thumb and her first finger, and it didn't go away, and in fact, within eight weeks, she was dead. Left my son with those three kids, and he was and is a nurse, anesthetist, so he had to be at the hospital early in the morning. He had to hire a live in nanny to take care of the kids and get the two older ones on the bus and then take care of the little one until he could come home. But, it impacted our family, and that was a health facility, where these people are trying to get healthy, and so I realized that these bad bacteria are out there on surfaces, and, you know, it was an MRSA infection that became a bloodstream infection for her, and sepsis set in, and she was gone in eight weeks. And so, I become champion for preventing the loss of lives through better, more thorough cleaning and disinfection. And if we do our jobs right I always say that prevention trumps secure. And so our job is to prevent those things from happening, to save lives.

Tim Clagg 11:06

Thank you as well for sharing that story. I know it's very personal. Something so difficult, I'm sure that still taking time to get over that, and for listeners, new to the industry, could you provide an overview of why infection and control is so critical to the hospital setting, especially this time of the year, when you mentioned everybody trying to build up the immune system to make sure that they don't encounter these illnesses, these germs that are just at the surface level, if it's not being cleaned and disinfected properly,

Darrel Hicks 11:50

Yeah, what I like to remind those new employees is that the patient's number one fear of coming into the hospital is that They're going to get one of these germs, and they know someone who's gotten MRSA in a hospital, they know someone who's gotten C Diff in a hospital, or a surgical wound infection. And so patients come into hospitals, and first of all, you don't go into a hospital unless you're fairly critical, and has become just like one big intensive care unit. And so the acuity of the patients is so great that if they are not acutely ill, then they're at home being taken care of or somewhere in a skilled nursing facility. But hospitals have become this big petri dish of all these organisms, and it's a little bit daunting to the people cleaning the rooms and working around these sick people, in there. So they have to understand that they have to protect themselves as well as preventing these infections from happening by doing a thorough job of preventing infections through better cleaning and so job number one is not about making it smell good or making it look good. You know, we are cleaning for health, not for for appearance sake. Now what I say is, you know, at the end of the day that a clean hospital may not be sanitary, but a sanitary Hospital is a clean hospital. And so I think that too often we focus on the clean and make it smell good and put a shine on the floors. And I've been enough hospitals with a shine on dirt, and it just appalls me that we go for a shine when it ought to be, you know, clean and then shine, because people do associate cleanliness with appearance. But that's not our number one job, our number one job is to make it safe, clean and disinfected.

Tim Clagg 14:25

You mentioned a word, daunting. Frontline workers and hospitals. It is a high stress level environment, and I don't think I can emphasize that enough, honestly. Can you describe the most common sources of stress with these professionals and how they impact their daily lives, both at work and stepping outside the hospital as well.

Darrel Hicks 14:50

Well, the first place Tim is that these are the lowest paid people in the hospital and so International Environmental Services Worker Appreciation Week was last week. It's the second week of September. And I would in my monthly meetings with my staff, I would tell them how important they are, and I would share with them the patient comments about what their housekeeper did for them. And, we would recognize those people for their customer service, along with providing that cleaning service for people that you know appreciated them. And whenever I would tell them how important their job is, they would say, why don't we get paid like it? And that hurts. And you know, I said, if it was up to me, you'd be making, you know, a living wage, rather than just a decent wage. And so anyway, I think that we need to, back during covid, we called these frontline workers, housekeepers, heroes. And I believe that, if we

truly believe that, that we need to pay them like they're heroes. So first of all, you have the lady who is worried about making rent this week, right? And so that's stressor number one, are she and her two kids going to be sleeping in the car again? And so you have those social stresses of family and making enough money, but at the same time that they're thinking about what they're doing and trying to ensure that they do it right, and if they do it right, it's the accident that never happened. And so they know that. But you know, Tim, I believe that if we're going to make a case for paying them more then we're going to have to certify them to a certain level of knowledge. And the person that was stuffing hamburgers and bags in the drive through last week is now cleaning the OR this week, and what prepared them for that. And so we have to make sure that professionally, that we're preparing them, and then to give them the certification necessary to work around other professionals, and that knowledge is power, and that they have the power to impact patients lives and the lives of the staff members too. They're working around those same sick patients going in and out of the room. And I think that hospitals put too much emphasis on hand hygiene and not enough on clean hands touching clean surfaces. And so that's what's on their mind as they do their daily routines. But, right now, one of the worst four words that we can say in hospitals is, but we're short staffed, you know. So staffing, it puts a burden on people to do things that you cut corners. And this is a business where, would you want the the airplane pilot cutting corners? Absolutely not. And I believe that, just like we think about the importance of the person that packs the chute, the parachute. And back in those days when World War Two and other theaters of war that paratroopers depend on that person that packs their chute, and I think patients and their families depend on the person that does that packing of the chute every day.

Tim Clagg 19:13

That is going to be a big topic in this episode, education, not training. It's education, because we're educating these frontline workers. I want you to, right now, kind of discuss the key differences between we've talked a lot about disinfecting and sanitizing and how each process plays a role in commercial cleaning.

Darrel Hicks 19:40

Well, I believe that, one of the, let me back up. One of the things that I know about cleaning is that we have to do a better job of applying pressure. When we clean applying one to two pounds of pressure is what I call elbow grease. And I was doing a seminar with a bunch of infection prevention nurses. And when I got to this part, and I said it's important that you use elbow grease when you do clean, and this young lady in the back of the room raised her hand and said, where's that? What is that elbow grease? And where do I buy it? And the room kind of chuckled. The older people chuckled with me, and I said, it's not something you buy, it's something you do. And I said, you should ask your grandmother that question about the elbow grease. But a study was done in a hospital operating room, and they're wondering how they improve the outcomes between case cleaning, as soon as the surgery gets done, then you have to swoop in. And everyone's got a job role and cleaning those rooms and getting them ready for the next case. They found out that it's not the dwell time of the disinfectant that was causing the issues. You know, they were using ATP, adenosine triphosphate, ATP, to test these surfaces, and they found that after they have sprayed and wiped disinfectant, that it wasn't reducing the the ATP numbers as much, and they had to reclean things two or three times to get them to an acceptable level. And what they discovered was that they weren't applying enough pressure to the microfiber wiper. And once they learned that, and they began to see their cases of surgical infections go down, and it was by

better cleaning. And so I think that people have a kind of a misunderstanding, and they they conflate cleaning with disinfecting, and they try to do both in in one product. So if hygiene procedures are going to be effective, then we need to do a better job of understanding that what I call fit for purpose disinfection. It's a concept that argues that effective and thorough cleaning with high quality detergents across all these non critical touch surfaces is effective, but our goal isn't to eliminate and get to zero. We need to get it fit for purpose, and the purpose of a telephone in the nurses station isn't as critical as the operating room and the back table in the operating room. So cleaning is the process of removing contaminants from the environment, putting them in their place. Think about emptying the trash in the same symbol of removing the soil from a surface. You know, the two greatest things about or most important things about cleaning, is soil removal and proper pH and so it's getting rid of the dust, getting rid of the soil on the surfaces. The CDC definition for cleaning refers to the removal of dirt and impurities, including germs from surfaces. And cleaning alone does not kill germs, but by removing those germs from the surface, it decreases their number, therefore risk of spreading infection and sanitizing is a different level, and it generally refers to food surface areas, you know, food preparations areas in the kitchen that they use sanitizers there, and not disinfectants like we use in cleaning patient rooms, but sanitizers will get the reduction of maybe 99% or 99.9% but the EPA definition of a disinfectant is that it has. To have a six log reduction. That's a 99.9999% reduction, and we don't get that. And because that's done in a lab, and it's not real world conditions. The real world conditions is that for an environment to be considered disinfected, we remove or make safe the vast majority, and I'm talking about 95% of the harmful substances on that surface. We eliminate the pathogens that are most threatening to humans. A disinfected condition can be achieved, but only with much work. So I think that fit for purpose disinfection, because if we haven't, if we haven't returned that surface, I don't care if you're cleaning restrooms in public areas or if you're cleaning the operating room, that if we don't leave that surface better than when we found it, and when I say better, it has to meet public health sanitation standards.

Tim Clagg 26:18

We're talking with Darrel Hicks, owner of Principal of Safe, Clean and Disinfected. Mentioned, education. How should hospital cleaning staff be educated to ensure there are properly disinfecting those high touch areas? And what are the most common mistakes that you continue to see among those people that may not be educated properly, like you said last week, they might have been somebody that might have been in the fast food realm, fast food industry. This week, they're cleaning hospitals.

Darrel Hicks 26:54

Well, I believe that we need to certify them. And when I say, certify, there needs to be some sort of, you know, the struggle with certifying is that we all have to agree on what the important things are for them to be educated on. And the certification I'm advocating for would be a CEST, and that would be a Certified Environmental Services Tech, but we need to define infection prevention as their number one job of environmental services, then we need to equip the frontline cleaning professional with knowledge of infection prevention as it relates to the daily tasks, so that it's the why behind what they're doing. And so once they understand the why, then we use this product on this surface, and this is how we do it, the how and when and all that makes more sense. When they get the why, but they also need to realize that patient satisfaction, that the government requires that hospitals do patient satisfaction surveys, and

there's only one question on that survey with 25 other questions, but it asks how often during during your stay was your room in your restroom kept clean? Always, most of the time or never. And the only scores that count are the always scores. And believe it or not, the national average of always scores is in the low 70s, like 72-73% of the time. And so patient satisfaction is one of those things that they need to be also trained on that if they're going to make an impact on that patient, that it's going to be when you're done cleaning is say, is the room clean for you? Did I miss anything? And they've been looking at the spot on the wall ever since they came in this morning and you said, goodbye, I'll see you tomorrow. They'll say, Well, they didn't clean the room again, or they didn't clean the room today, because that spot is still there. But if you say, if you could clean that spot, you go, Oh, well, I didn't see that. I'll go over and wipe it. And then ask again, is the room clean for you. They'll say yes, and if they say yes, then they're less likely when they get the survey to say no. It wasn't because they remember that every day they ask, Is the room clean for you? So patient satisfaction is part of it, and we need to give them these practical how to tips about cleaning and disinfecting that makes them more efficient that you know, they typically only spend about 15 minutes in a semi private that's a two patient room and a restroom. So that's 15 minutes to wipe down those high touch surfaces and clean the restroom, empty the trash. And so the problem is the other 23 hours and 45 minutes out of the day, how's that room maintained in this clean environment. So anyway, it's giving them the these strategies for breaking the chain of infection. And this chain of infection is from a sick, infected patient to another unsick patient. And so we have to, this chain has links in it, and there's two places in that chain that with proper clean and disinfection of surfaces and patient care equipment that the chain is broken. So once the chain is broken, then the next person doesn't get what that person had. But what we're finding out is through studies that hospital, if you're admitted to a hospital room where the previous patient, or even three patients backed had one of these superbugs like MRSA ,C Diff, that you're about 60% more likely to get the same infection from that room. And so breaking that chain of infection isn't happening. And so we're getting that chain isn't broken, and so someone else, and it's what I call the room lottery. You can look at two different rooms and they both look clean, but what you don't know is these superbugs that have survived the process. So they have to understand their role in providing, you know, in breaking that chain of infection.

Tim Clagg 32:12

All the technological advancements, research continuously being done, is the industry behind in understanding developmental disinfectants for the future and current?

Darrel Hicks 32:29

I don't think so. I believe that the disinfectants, you know, the EPA came up with a new, they reordered the, what I call the alphabet list of, back during covid, EPA got caught with their pants down with covid that, because disinfectants didn't test against covid virus, which is enveloped virus and is the easiest to kill. If you imagine this pyramid of from the least hard to kill to the most difficult to kill organisms, and at the tip of that pyramid is spores, such as those C Diff spores. So from the least difficult to kill covid is one of those. But anyway, now there's over 700 disinfectants on list in on the EPA list that in particular, has a claim against covid. So to prevent this lag of time between outbreaks or pandemics like we had, they have come up with a classification for disinfectants have been tested against viruses because bacteria is one form, but viruses are typically smaller and non envelope, and so they are more difficult to kill, but anyway, they now have a classification for disinfectants to be tested

for the next, hopefully being prepared for the next pandemic. And these pandemics are coming closer together, and they're being more vicious. So EPA has tried to prepare by getting companies to test their disinfectants. And I believe that there are three levels in these viruses. And the highest level, again, thinking of the pyramid, is the small, non enveloped viruses. And those would be like norovirus, which is what I call the cruise ship sickness. But it's what happens that, I won't mention the Mexican chain restaurant that had a lot of sick people from the green onions or whatever it was. And you know, these food borne illnesses are more impactful. And now with boars head, whatever it was meat

Tim Clagg 35:49

The listeria outbreak.

Darrel Hicks 35:50

Yeah, outbreak. And I think 11 people have died and many hospitalizations. And so these foodborne pathogens aren't as deadly, but they're typical. And so even in, I think that these viruses that they have tested for and have put into this classification, that should be where these disinfectant manufacturers are skating to, you know, Wayne Gretzky, when he was asked about, what made him so great, he said, I skate to where the puck is going to be. And so when we look at disinfectants in the future, then we need to look at viruses and to get certified, get your products on that list. But that becomes the, one of the key tools in the future. And I believe that we weren't prepared for covid, and we're seeming to drift back into the pre covid actions or lack of caring about clean surfaces. And so unless we get people certified and get them educated about their role in preventing infections when they're on surfaces, then we're not ready for the next whatever is coming.

Tim Clagg 37:24

You mentioned something pretty interesting during our initial call. You said that surfaces were destroyed during covid. Can you share that insight for our audience?

Darrel Hicks 37:37

Well, we damaged surfaces with these disinfectants that, we think that stronger is better, you know, stronger is better, but often they're corrosive, and bleach being one of the big destroyers of surfaces, and they're harmful to these surfaces. And once they're damaged, they're irreparable. You cannot repair them. And so then we create this, these crags and crevices and cracks and plastics and other surfaces that spores can fill up, and disinfectants don't reach, wiping doesn't reach. And so back during covid, I witnessed standing in the checkout line at big chain department store, and there's 10 kiosks there, and there's one teenager with a spray bottle and a rag. And as soon as someone steps away from the kiosk, he rushes over and sprays down the screen that everyone touched, and then goes on with the same rag and does the others.

Tim Clagg 38:59

Spreading, cross contaminating.

Darrel Hicks 39:02

These screens were just destroyed by disinfectants that they were never intended to be disinfected as often by. But they they thought that stronger meant that we, you know, it's kind of the atomic bomb that

we're using on this but unknowingly, we were destroying these surfaces but once they're damaged, you cannot repair them. You can only replace them.

Tim Clagg 39:30

PPE was such a big part in protecting the workers, the frontline workers, who you mentioned, the heroes, continuing to work day in and day out during covid 19, and you mentioned that breathing these chemicals is the equivalent of smoking one pack a day of cigarettes. So when the next time and obviously PPE is still hugely important protecting. What has the advancement been? Because, obviously, we ran short sometimes cleaners. In a story you shared, they were having to go spend their own money, and suggested, well, go out and buy a yellow raincoat that you see at the store, right?

Darrel Hicks 40:17

Yeah, and that way it could be wiped down because they they didn't have enough isolation gowns, and you know, this whole supply chain that was disrupted back during those days. And you had whiskey and bourbon distillers starting to make disinfectants. Hand sanitizer.

Tim Clagg 40:39

Right! Yeah Right!

Darrel Hicks 40:45

I mean, it was a bad time. And you know, you're right that this housekeeping director was told to go and buy ponchos for her housekeepers going in and cleaning these rooms and then wiping them down when they were done. And so I think that understanding that you're working in this potentially harmful room with a very sick patient, you see the isolation sign on the outer door, and you're just worried about taking something home to your family. And that happened in a lot of the nursing homes, the staff got sick, their families got sick. Some of their families died. And to have that on your conscience, that you took something home to your children, it just weighed on people's minds. And so you mentioned PPE, and I think that is essential, and we found out that we don't always take it off correctly, we put it on correctly, but taking it off we're contaminating other parts of our uniform or whatever. And so there's a right way and wrong way to put it on and take it off. But you mentioned disinfectants and breathing them. And there's a study that shows that those in the custodial world that when they look at OSHA, looks at, you know, hazards in the workplace, and healing cleaners and disinfectants is one of those things that's high on their list because of the chronic lung disease that's caused by spraying and breathing disinfectants and some of these caustic clean and people don't usually appreciate that quats, quaternary ammonium compounds are one of the biggest offenders, and they're used in a lot of disinfectants, and you'll even see it on cans of spray disinfectants that you buy in the store, but quats are in a lot of disinfectants, and spraying those disinfectants is you know, if you do that every day in a 20 year career of cleaning and think about small bathrooms in a patient room, and the ventilation is terrible, and you're spraying everything down, wiping it down, you're breathing, atomizing those small particles of the disinfectant into your lungs, and that, OSHA says that it's the equivalent of smoking a pack of cigarettes a day. The effect that these disinfectants have on the lungs of the workers using them.

Tim Clagg 44:05

Just to expand upon that we had a prior guest earlier this year that he went to the doctor, and he's been well over 40-45, years in the industry, and they told him that through lack of PPE during the early years, when stuff like that was unheard of, or you were looked at, oh, you're not a man. You're you're not, you're right, machoism, right? That the doctor told him you have more chemicals in your body than an embalmed person.

Darrel Hicks 44:38

Wow.

Tim Clagg 44:39

Which was, just took my breath away in hearing that. pH levels, that's another crucial element when using collegiate cleaning agents in hospitals. Can you expand on how pH levels affect the effectiveness of disinfectants and the potential risks if the proper pH level is not managed for different areas?

Darrel Hicks 45:11

Yeah, the body, blood has a pH level of about 6.7 I believe, so neutral range in the pH scale would be, and you want something closer to what the body, the human body is. And so you have acids on the lower end of the pH scale, and vinegar, or even, lemon juice. Some of those are acidic, citric acids and what have you. So you've got those in the 3-4 range and then all the way up to some of the strippers. And I don't know too many disinfectants, unless they would contain bleach that would be higher pH but where you, the difference between 7 on a pH scale and 10 or 11 that could be in disinfectants is a difference in, because it's exponential. It's not just, Well, seven is one greater than eight, or it's, you know, eight is like, 10 times greater than seven. So by the time you get to 12, then you're at, I don't know, I'm not a math person, but it's hundreds of times greater. Because eight is 10 times greater than seven, well, then nine is 20 times Well, I don't know. But anyway, pH is what is harmful to human skin, to breathing and to surfaces. The corrosivity. And the other thing about chemicals is they should be non toxic. And you know this movement towards green chemicals because people say, Well, if it's plant based, that it's it's safe. But there are some disinfectants that, thymol is one of them that is using some disinfectants, and it's plant based, but, you know, you wouldn't want to drink the stuff. And so anyway, green isn't always. Does not always mean that it's it's non toxic, but we should be looking for chemicals that are either zero or one on the toxicity scale. You know the HMIs hazardous materials information sheet, HMIs, you should look for toxicity and corrosivity of either zero or one, and health same way zero or one. And you know, when you look at the disinfectants being produced out there, there's very few that that hit that, that sweet spot, that means that they're going to be more neutral pH, and so they're non toxic. And they might even get the the EPA is designed for environment DFE label, and those are the ones that you really want to to introduce into your cleaning operation, and people think that you have to give up cleaning power to use these. And it's not true. They are some of the best cleaners and disinfectants out there. And So educate yourself and think about your employees, and not just your employees, but we've seen in hospitals that some of these disinfectants that they're using, you know the staff are getting, you know, nurses and doctors are getting sick from the smell of the disinfectants. And you got patients with chemical sensitivities, or even they may have asthma or COPD now you're going to come in and spray disinfectants in the room. No.

Tim Clagg 49:32

We've had a big influx of temperature this summer. Couple weeks ago here in Ohio, it was down to middle 60s, high 60s at night, down to record breaking temperature in this week, 98 we had 100 degree day. My question is, Can environmental conditions such as humidity, temperature or Surface Material effect how well a disinfectant works. If so, how should these professionals, frontline workers, managers? How should they adjust their approach?

Darrel Hicks 50:12

Well, temperatures and humidity, I mean out you know what you do, and patient rooms, and say, Tucson, Arizona, or Palm Springs, California, you know, those extremely dry conditions can be replicated even in hospitals in the winter time when there's low humidity in the air, the heat has, you know, dried up the air. And so humidity plays a role in, I think, the surfaces, and the temperatures are also affected by those disinfectants. They're sprayed on them or wiped on them, then if they're not giving the drying time that they should, then they may be compromised. And when it comes to drying time, and it may say on the label, on the disinfectant label, the contact time, EPA and CDC say that if a pre clean surface, you know, disinfecting is a two step process, clean it first and then disinfect it and on a pre clean surface, that the maximum kill happens in the first 60 seconds. So EPA and CDC say that if a surface remains wet for at least 60 to 90 seconds. It is disinfected. So you know, in those extremely dry conditions, it may not stay wet for even 60 seconds. So make sure that the humidity and the temperatures in the room, can can affect that dry time. contact time.

Tim Clagg 52:10

Are there any emerging technologies, innovations in the field, disinfecting, sanitizing, that you believe will help shape a breakthrough in the future in the industry at all?

Darrel Hicks 52:27

There are no silver bullets out there. It's still kind of a recipe of several things that will improve outcomes in hospitals, and one of the most important is that the environmental services worker is accepted as being a part of that patient care team. And you know that, if they're certified in there to a level of education, and when we talk about educating the frontline housekeeper. People are worried if I educate them and then they leave, I've wasted my money. And the corollary to that is, if you don't train them and you don't educate them and they stay, are you better off? So education is going to be one of those things, but I believe that we need to get to the point that we understand better the role that cleaning plays. And when I say cleaning is cleaning before disinfecting, but I don't think enough studies have been done to, because what I know is that you know on surfaces, you know bacteria need three things. They need moisture, they need food, and they need oxygen. And if you take one of the three legs out of that stool, if you take their food away, then they they don't replicate as rapidly. So food, if we can do a better job of cleaning these safe cleaning agents and microfiber. And I'm not talking about the microfiber you buy at Sam's Club. I'm talking about quality microfiber that if we remove the soil from the surface, and you can remove 99% of the soil with a good cleaner and a good microfiber, there's not much food left there. And even one of the better, I think, chemistries that I'm aware of is using probiotics on surfaces. And this is something that is not a disinfectant, but it's using bacteria that has been tested and is safe. It's not going to infect anybody. But using probiotics is kind of like your gut when you, people get C Diff because of the antibiotics that they have an infection. They wind up getting stronger and stronger antibiotics, and it kills this natural flora in their stomach that fights the C diff. And

so when you kill the good bacteria, then the bad bacteria take over. And so the, what I would propose is probably on floors more than any place we could use probiotics, and it's kind of The Hunger Games. And if you if the good guys are eating all the food, then there's nothing for the bad guys to survive on. So the idea that we're going to overpopulate the surface with healthy bacteria, then, the bad guys never get a chance to survive. And so I don't think that we're really looking at these sorts of ideas. And in the future, that we need to be smarter about what we're doing, and not just like use a flame thrower on things.

Tim Clagg 56:31

I'm glad you mentioned probiotics. We did a whole episode on it about a year ago, July of 2023 and there were some great information, some new products out there, and everything you documented there was in that conversation. And one more thing is to in this era, we're living in 2024 sustainability, and it's a big advocate. Everything that has been tested in these probiotics is going to help us sustain for a better future to come.

Darrel Hicks 57:06

I agree. And they're using them in a lot of animal production, like turkey farms, chicken, poultry, and pork where they're crammed into these smaller confines, and they're using probiotics to clean the floors with, and what they're finding is that they don't wind up catching the avian flu And don't wind up having, you know, you remember h5n1? And so, zoonotics means that there are these organisms that come from animals and jump over to humans. And so, I think that probiotics in animal production, the food chain, will eventually, and we don't want to pump them full of antibiotics, but why don't we do it with probiotics? And if it works for the animal world, and it ought to work for humans, as well as just to produce a healthier environment, surface wise. But anyway, I'll get off my soapbox about that.

Tim Clagg 58:32

Very, very interesting, innovative things that continue to develop and provide options for a safer future for everybody. Darrel, thank you for sharing your expertise. I think there's been a lot of insightful and eye opening conversation pieces here for our listeners here today and so many crucial topics in frontline cleaners working in healthcare facilities, especially this time of the year, when, as we mentioned, things are ramping up. We're getting interesting things happening. Where can people follow you, whether it's social media, email, if they have any further burning questions, where they would like to reach out for your expertise and your knowledge?

Darrel Hicks 59:16

Well, I welcome any emails and that email address is Darrel D, A, R, R, E, L, at Darrel Hicks, H, I, C, K, S .com, and I'll answer your questions. But anyway, on LinkedIn, I'm Doctor Clean, and so you can see my profile on there as Darrel Hicks LLC. But anyway, you'll see my posts there. But I believe that we need to be better guardians. And in closing, I would just say that one educated housekeeper given the right tools, the right, training and the right amount of time to clean a room will prevent more infections, and a room full of doctors can cure.

Tim Clagg 1:00:31

And I think that is all very, very helpful, very beneficial for everybody involved. That's the whole point, to be able to help one another in these facilities. Darrel, appreciate your expertise, your knowledge. Follow him on LinkedIn. I'm telling you great articles, great resources that engage and get your mind going and create a lot of awareness. We appreciate you coming on. That will complete this month's episode of the business of cleaning podcast. Be sure to subscribe to us on Spotify, Apple Podcast, Amazon or wherever you get podcasts from. Also be sure to check out the YouTube portion, the video portion on youtube leave us a five star review and your comments from everyone at janitorial manager, our guest, Darrel Hicks, I'm Tim Clagg saying, So long until next time.