Occupational Safety and Health Administration (OSHA) Bloodborne Pathogens Standards: What You Need to Know

Recorded August 23, 2021

Presenter: Kathleen Weissberg, OTD, OTR/L

- Hello, everybody. Welcome to today's session. My name is Jessica Lewis and I'm very happy to welcome you to Occupational Safety and Health Administration or OSHA Bloodborne Pathogen Standards: What You Need to Know. We are very excited to welcome back to Kathleen Weissberg to share her knowledge and expertise with us today. Dr. Kathleen Weissberg in her more than 25 years of practice has worked in rehabilitation and long-term care as an executive researcher and educator. She provides continuing education support to over 17000 therapists, nurses and administrators nationwide as national director of education for select rehabilitation. She also serves as the Region One director for the American Occupational Therapy Association, political affairs affiliates and as an adjunct professor at both Chatham University in Pittsburgh, Pennsylvania and Gannon University in Erie, Pennsylvania. Welcome everybody, we are so glad you're here. Kathleen, I'm gonna turn it over to you now.

- Thank you so much for that introduction. And thank you for those who are tuning in to hear this information. You know, as I put this together I was thinking to myself, "What do I really need to know to do my job in a clinic or a hospital or what have you?" And so that's kind of how I focus this. That's why we called it, What You Need to Know. And what we're gonna be talking about in this session are the OSHA health standards related to bloodborne pathogens, applying to all occupational exposure to blood or other potentially infectious materials. And the standard number that we are reviewing, if you care to know is 1910.1030. So we're gonna be looking at all of those details.

So before we get in to the nitty gritty here are disclosures. So you can read these right along with me on the slide. I am receiving an honorarium for presenting this course. I have no other relevant relationships to disclose. The learning here does not focus exclusively on a specific product or service and there is no external sponsor. Okay. So the learning outcomes for today's session. After this course you should be able to define key concepts related to bloodborne pathogens and to occupational exposure.

Identify the minimum standards to which employers must comply related to bloodborne pathogens and infection control. And I think some of those may surprise you what employers are technically required to do. There's some interesting things in there.

To list then the four main methods of compliance as defined by the Occupational Safety and Health Administration, OSHA their bloodborne pathogen standards. And then finally identify some best practices with regard to personal protective equipment. So PPE, hand washing, handling contaminated items that we may come in contact with in our day-to-day work and then record keeping. And most of that record keeping is really on the part of the employer but again, what they are going to be required to do. So let's start off by going through some definitions. And I think some of these are intuitive. But these definitions come right out of the standard and just to make sure that we're all speaking the same language as we go through this today.

The first definition is a really easy one, I think, blood. That means human blood. So human blood components, products made from human blood. So as we go through the standard, it's very specifically human not anything else that you may con come in contact with in your daily practice, maybe blood from an animal if you have animal assisted therapy or something like that. We're really looking at human blood here. Bloodborne pathogens. These are microorganisms that are transmitted through the bloodstream that can cause diseases in humans. And these are including but are not limited... There's a lot of these. But the ones that you hear most commonly and that are really talked about most frequently in the standard are those related to hepatitis B virus.

So HBV, the abbreviation there. Hepatitis C or hep C, HBC and then the Human Immunodeficiency Virus or HIV, which I'm sure most of you are familiar with as well. Next definition is contaminated. This means the presence of... Or the reasonably anticipated presence of blood or some other potentially infectious materials, either on

an item that we might be handling or on a surface where we might be working. So for example, if we're speaking of laundry or of a surface that's being contaminated, it's reasonably anticipated or we know that it's been soiled with blood or again, some other potentially infectious material. Or again, in the case of laundry there could be sharps rolled up in the laundry. So, you know, you're working with somebody's bedside and, you know, somebody didn't remove the needle when they did, you know, some procedure and there's sharps in there.

Contaminated sharps... And we're not gonna talk a lot about sharps, 'cause I don't think a lot of us really work with those so much. But that means any type of object that is carrying infectious material that could puncture the skin. And it doesn't just have to be a needle. So it could be a needle. It could be a scalpel. It could be broken glass. It could be exposed ends of dental wires. Again, if you're, you know, doing a feeding with somebody and there are dental wires perhaps in their mouth. Now, obviously these surfaces can and should be decontaminated using physical or chemical means to inactivate or otherwise destroy those pathogens that are sitting there that they contain.

Again, to a point where those pathogens are no longer capable of transmitting some sort of an infection. Okay, continuing on. You'll hear us talk about engineering controls. These are controls or just things, if you will, that we do in our place of employment. And, you know, this could be sharps, disposal containers, self sheathing needles, maybe that our nurses or our physicians might use. Safer medical devices, sharps with engineered sharps, injury protections. And we'll talk about what that means here in a second. Needleless systems, those types of things. Just anything that we're doing in our place of employment that isolate or otherwise remove the bloodborne pathogen hazard from that workplace. Next thing you'll hear us talk about are exposure incidents.

So this means a specific eye, mouth or other mucus membrane non-intact skin or parenteral contact with blood or again, other potentially infectious materials. And you

may see that... I don't know if I abbreviated it or not but other potentially infectious materials, you oftentimes see that abbreviated as OPIM, just so you know to look for that. But anyway, contact with that that would result from the performance of our occupational, of our employees duties. Now, some part of you is open, if you will. You came in contact with infectious material. Now, if that's the case, you actually came in contact, that's an actual exposure versus an occupational exposure. So occupational exposure means that in the course of your daily work it's possible, it's expected that you'll come into contact with infected blood, body fluids, et cetera.

But an actual exposure means that you did. So one is potential, one is you did. Hopefully that makes sense. Hand washing facilities and we'll talk about hand washing here in a few minutes. It means that a facility where you work needs to provide an adequate supply of running water, potable water, soap, single use towels, air drying machines, et cetera. And again, we'll talk about washing here in just a few minutes. I'm gonna give you this definition but again, I am not positive that we are actually doing these types of things in our place of employment or in our actual work duties. But needleless systems means that a device does not use needles. And it's not using needles for the collection of bodily fluids or withdrawal of bodily fluids after initial venous or arterial access is established.

Not using needles for administration of medication, or fluids. Not using needles for, again, any other type of procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps. So you might see, again, your nurses or physicians, somebody from the lab potentially using a needleless system. And so there I go. I did actually abbreviated it. Other potentially infectious materials or OPIM. So this could mean... This is a lot of different things. This could mean unfixed tissues. It could mean organs from a human living or dead or cells that contain HIV, HBV, HCV, what have you. Again, in our roles in what we're doing in

our occupations, we're probably not gonna come into contact with those types of things on a regular basis.

So for us, when we look at other potentially infectious materials, we're looking at body fluids. So this could be... You know, and you can read right on the slide with me, the following human body fluids things like semen, vaginal secretions, cerebral spinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic, saliva, potentially in dental procedures. Any body fluid that is visibly contaminated with blood. All body fluids in situations where it's difficult or it's impossible to differentiate between body fluids. So again, some of those you're probably never gonna come in contact with, but you may come in contact with something else and there's visible blood in there. Or you're not entirely sure what is that fluid.

That is other potentially infectious materials. Again, we're not gonna come in contact with a lot of these, but some of these it is likely. I'm an occupational therapist by background and I think about, you know, if I'm in doing an ADL, or perhaps if I'm a physical therapist and I'm doing maybe sharps debreavement or something like that with wound care, if I'm doing, you know, a feeding, if I'm a speech language pathologist or even if, you know, I'm working with somebody I'm having a conversation, I'm a social worker, I'm a nurse, I'm, you know, whomever and maybe there's an open wound or something. So it is very possible that you might come in contact with this.

So PPE, personal protective equipment and we're gonna be talking about this in a lot more detail. But this is specialized clothing equipment that we're gonna wear, worn by an employee, for protection against a hazard. And when you look at your general work clothes, whether you wear a uniform, you wear scrubs, you wear, you know, a skirt and a blouse, trousers, whatever you're wearing, those are not intended to function as protection against hazards. They are not considered as we know to be personal

protective equipment. Things like gloves, gowns, face shield, shoe covers, head coverings, those sorts of things, eye shields, all of those would be considered personal protective equipment. And as I said, we'll talk about that a little bit more.

Next is regulated waste and we'll talk about this. This is either liquid or semi-liquid blood or other potentially infectious materials or contaminated items. Now these need to be disposed of in a very specific way. And we'll talk about what that looks like. Okay, one more slide of definitions. And this one is sharps with engineered sharps injury protections. I mentioned that on a previous slide. This again, it's just means a non needle sharp or a needle device used for withdrawing body fluids, accessing a vein or an artery, administering medications or other fluids. But what it has is this built-in safety feature or built-in mechanism that effectively reduces the risk of an occupational incident or an occupational exposure.

So again, probably not something that we're gonna be dealing with, but know that they're out there. We'll be talking about universal precautions. I think actually coming up in two slide. We're gonna talk about this. But this is an approach to infection control that we all should be doing. Now, according to the concept of universal precautions, all human blood and certain human body fluids are treated as if they are known to be infectious with HIV, HBV, other bloodborne pathogens and the like. And then finally work practice controls. Again, these are controls. These are things that we're gonna do in our day-to-day environment, in our day-to-day job that will reduce the likelihood of exposure.

And what they do is they reduce that exposure because we've changed how a task is being performed. So for example, in the case of sharps, you know, there's a policy and procedure that prohibits recapping of needles by a two handed technique, it has to be a one handed technique. Or maybe something else that we've changed how a task is being performed so that we in effect protect ourselves. Okay. So with the definitions

out of the way, let's really start now talking about the standard. The standards requirement, for the most part, state what employers are required to do to protect us, to protect workers who are occupationally exposed to blood or other potentially infectious materials. So that is the standard protects workers who can reasonably... I mean, we can anticipate coming in contact with something, blood or OPIM, just as a result of doing our job.

And it's our employers response to us and then how to protect us. Now, in general and we're gonna go through a lot of these details but the standard does require employers to establish an occupational or excuse me, an exposure control plan. So that is a written plan to eliminate or minimize occupational exposures. They have to, the employer meaning, they have to prepare an exposure determination that contains a list of all job classifications and which workers might have occupational exposure. They also have to have a list of job classifications in which some workers have occupational exposure along with a list of tasks and procedures that are performed by those workers that result in their exposure.

So really what we're saying here is this plan, it tells you these are the jobs, these are the functions, these are the things that could be going on in the workplace that potentially have exposure to blood, or other potentially infectious materials. Additionally, the employer is required to update that plan annually to reflect any changes in tasks that are going on in the place of employment, any procedures, any positions that have changed, anything that may affect occupational exposure. Any sort of technological changes as well that eliminate or reduce occupational exposure. Now, in addition, they are required to annually document in the plan that they have considered, and that they have begun to use appropriate, commercially available effective, safer medical devices, that's a long phrase, designed to eliminate or minimize occupational exposure.

So again, what it's saying is that they need to look at all avenues, you know, of technology, of commercially available products, whatever it is on an annual basis to see if there's anything out there that may reduce exposure. And again, there may not be but they are required to look at it on an annual basis. They are also required to document that they have solicited input from frontline workers in identifying, evaluating and selecting effective engineering and work practice controls. And just a few other things about that exposure control plan, and this is really important. So again, they need to document the procedure too for the evaluation of circumstances surrounding exposure incidents. So how are exposure incidents actually evaluated?

What's the process for that? Employers they have to make sure, they are required to make sure that a copy of the exposure plan is available and accessible to all employees that are working in that site. Again, this is not always the case, but typically you'll find that maybe in a policy and a procedure manual or perhaps, you know, if you go through state survey or those sorts of things, you may find it in their binder or something. But it has to be available to you. Now, I mentioned on the previous slide about soliciting feedback. And again, I find this really interesting. In soliciting feedback about identifying and evaluating really looking at those engineering and those work controls, that feedback has to come from non-managerial employees responsible for direct patient care, the folks who are out on the floor doing the day-to-day work, those individuals who are potentially exposed to contaminated materials.

They can't just rely... And they could certainly include managerial, but they have to make sure that they get that from the frontline workers as well. And then we talked about exposure determination just a little bit. But when we talk about exposure this is again really important, that needs to be made without regard to the use of personal protective equipment, PPE. Meaning if I didn't have my PPE on, would I be exposed? So it's asking the question, you know, in your day-to-day work clothes, would you be exposed? Okay. So we promised you four methods of compliance. Methods of

compliance refer to the techniques, the procedures. You know, again, what the employer is gonna do, what do they need to follow in order to minimize the risk of exposure to bloodborne pathogens.

The four basic approaches and we're gonna be deep diving these a little bit more. The first one is universal precautions. The second is engineering and work practice controls. The third is personal protective equipment and finally housekeeping practices. And there's some bullet points underneath each of those that we'll be going through. Now, we talk about these different methods of compliance again important to know that, in the exposure plan or in the OSHA standards, these are written very generically so that they would be applicable to most job classifications with any potential exposure. So let's start with our first one, universal precautions. And I'm pretty sure that we are very familiar with this. The OSHA standards are very, very clear about practicing universal precautions.

We should be observing these at all times to prevent contact with blood or other potentially infectious materials. Again, when you're not sure you can't differentiate between fluids, you just don't know, treat all body fluids as potentially infectious materials and take the appropriate universal precautions. So again, this is that approach to infection control. Just to again, consider everything as if possibly it contains bloodborne pathogens or some other potentially infectious material. Now, when we look at universal precautions and I think a lot of this is probably intuitive to us, but it bears repeating, it includes a few things. First of all, using disposable gloves, I mean, we're all familiar with that. And any other types of protective barriers, maybe while we're examining patients.

We're doing something that maybe is a little more invasive than not invasive. And while we're handling things that, again, potentially have infectious material on them, needles, scalpels, other sharp instruments, things that have come in contact potentially with

those areas of the patient that potentially could have those types of fluids. So semen or vaginal secretions, again, the saliva, et cetera. Washing our hands, we're gonna talk about hand washing here in a second, and other skin surfaces that are potentially contaminated with blood or body fluids. And we wanna do that immediately after a procedure, immediately after an examination. In between patients, anytime we need to wash our hands. Changing gloves between patients and never reusing gloves. Now, I just wanna make a comment on reusing gloves.

When we say reusing gloves, we're talking about the disposable latex gloves. There are also gloves out there... And again, I don't think we're probably using these in our day-to-day practice. But there are gloves out there that can potentially be reused. Almost like a dish washing type of glove that's intended for that, or a gardening glove. We're not talking about that. When we say not reusing we're talking about those disposable latex gloves. So kind of underneath all of this, we have... Well that's the first, excuse me, the first method of compliance. The second method of compliance is engineering and work practice controls. We're gonna go through those in just a little bit. Or it's just a little bit of detail, excuse me, what I meant to say.

We already kind of hit on this. But these are those controls the things, again, that an employer is gonna put in place to make sure that we are eliminating or minimizing exposure. Where even after controls have been instituted, occupational exposure remains that's when we use the PPE. So we've done everything we can to make this task safe. And if there still might be the possibility of exposure, that's when you bring in your PPE. So what does an employer required to do? And we already talked a little bit about this. But they are required to review, to examine, to maintain, to replace these engineering or work practice controls on a regular schedule to make sure that they remain effective.

And I think most probably do that on an annual basis, but if it needs to be done more frequently because there has been an exposure, of course, they would do that. Now in addition to all of this, they need to provide hand washing stations. Now if for some reason, depending on the community, the facility, you know, wherever you're working, that a sink or hand washing station is absolutely not feasible, they are required to provide either an appropriate antiseptic hand cleanser. So meaning like a hand sanitizer type of thing. In conjunction with clean cloths or paper towels or antiseptic towelettes. And again, probably not too common that we don't have washing stations, but that's what we would do in the absence of those.

Now I just mentioned hand sanitizer and it's great, it's good. But remember it doesn't take the place of appropriate hand-washing. And if we're gonna use hand sanitizer... I don't have it in here because it's outside of the scope of what we're talking about here, but it does need to have a certain alcohol base to it in order for it to be effective. Remember too, that if you are gonna use hand sanitizer and I think a lot of us carry it with us sometimes too, and there's hand sanitizer stations throughout the facilities, you should wash your hands with soap and running water as soon as possible. Remember that hand hygiene is your first line of defense.

Hand washing is generally considered the single most important procedure for preventing the spread of nosocomial infections, other types of infections. So we wanna use hand-washing in conjunction with those universal precautions that we already talked about. So when do we hand wash? I mean, gosh, there's always a good time to wash your hands and it is. It's so important for preventing the spread of infection but generally speaking upon completion of any required tasks, if you happen to be working in a clinic, in a lab, you know, whatever you're doing with your patient as soon as you're done with that task. Immediately after you remove your gloves. Immediately after you take off your PPE. Anytime you've come in contact or where there is visible contamination with, again, blood or other potentially infectious material.

Before and after patient contact. Before eating, drinking, smoking, applying cosmetics, handling contact lenses. And then again, after doing all of those same things. Before and after using the restroom. And again, before or after any activities in which hand contact is made with mucus membranes, the eyes, breaks in the skin. So again, that could be cuts, that could be abrasions, that could be wounds. So again, there's always a good time to wash your hands. And I think now more than ever, we probably all are very much aware of the proper hand washing techniques. So wet your hands with water. Apply enough soap to cover all of the surfaces. Thoroughly wash all the parts of hands and fingers up to the wrist, rubbing together nice and vigorously for at least 20 seconds.

And, you know, you'll hear people do in the alphabet or the happy birthday song or whatever. Rinse your hands with water, dry thoroughly with paper towels. And then use the paper towels to turn off the faucet before discarding those towels in the waste receptacle. This actually comes, I think, from the CDC but I see a lot of people to using those same towels to open up the door to leave the restroom. And a lot of our doors now even have foot stops that you can use your foot to do the same. Now we need to make sure that we're washing our hands again, immediately or as soon as feasible. After you take off your gloves. After you take off your PPE.

And again, anytime, you know, we've come in contact. So we wash, or we flush those mucous membranes with water if we've come in contact with any body areas or with blood or any other potentially infectious materials. Now continuing on, you know, some other engineering and work practice controls, and again, maybe not applicable to us but to review. Contaminated needles and other contaminated sharps, they should not be bent, recapped, removed. There's a few limited exceptions but again, for the most part, we don't wanna reuse them or bend them. Sharing them, breaking off those contaminated needles, absolutely prohibited. If for some reason they need to be bent,

recapped or the needle removed for some reason... Again, we're not doing this... But that needs to be done through a mechanical device or a one-handed technique.

If sharps are going to be reused, they need to be in an appropriate container until they're reprocessed. And that container needs to be puncture resistant, labeled, color-coded, leak-proof on the sides and on the bottom. And again, not probably our domain but I can almost guarantee, you know, at least a few of you listening into this, somewhere in your day-to-day work you've seen a needle that was forgotten that didn't get put where it was supposed to be and we may have to alert someone to that. So it's again, important to know what the rules are. Okay. Just a few more of the engineering work practice controls before we move on.

Eating, drinking, smoking, applying cosmetics, lip balm, anything like that, handling contact lenses, strictly prohibited in work areas where there's reasonable likelihood of occupational exposure. Not only part of the standard but that's kind of gross, right? Food and drink should not be kept in refrigerators or freezers, shelves, cabinets, countertops, any place where blood or other potentially infectious material is present. Again, that's pretty gross. All procedures involving blood or other potentially infectious materials need to be performed in a manner to again, minimize splashing, spraying, spattering, you know, and any generation of droplets of these substances. Specimens that might contain blood or other infectious materials need to be placed in an appropriate container. Again, that prevents leakage. I'm not gonna get into this again in a lot of detail 'cause it probably doesn't apply to us, but just to be aware.

And remember too, that these standards as we're going through them also apply to equipment that we use. So you want to examine, you know, the equipment that you use if you are a therapist. You know, and again, maybe you're using an ultrasound machine or you're using a mat table or something like that. Equipment needs to be decontaminated as needed. And again, unless for some reason that is not feasible and

we need to be aware of that. And again, we wanna make sure that we're examining that stuff before we use it to make sure that it is clean and it is free of anything that could be contaminated. Okay. Third method of compliance is personal protective equipment.

So what does the standards say? Well, there's a few things in the standards. First is provision. Now when there is occupational exposure, the employer shall provide at no cost to the employee appropriate, personal protective equipment such as but not limited to, gloves, gowns, lab coats, face shields or masks, eye protection, mouthpieces, resuscitation bags, pocket masks or other ventilation devices. And again, I think that's gonna be, you know, very customized, if you will, to the place where you work, your level of intervention or involvement with a patient and the types of patients, obviously, that you're seeing. Now, personal protective equipment is considered "appropriate" only if it does not permit blood or other potentially infectious materials to pass through or reach your work clothes, your street clothes, your undergarments, your skin, your eyes, your mouth, other mucus membranes under normal conditions of use and for the duration of time, which the PPE is gonna be used.

So we wanna make sure that while we're using it nothing gets underneath, is essentially what it's saying. So that's the first thing, is provision. Next is use. The employer needs to ensure that the employee actually uses appropriate PPE. Unless the employer shows that the employee temporarily and briefly declined to use the PPE, when under rare and extraordinary circumstances it was the employee's professional judgment that in that specific instance its use would have prevented the delivery of healthcare or public safety services, or would have posed an increase hazard to the safety of the worker or the coworker. Again, probably not typical that that's gonna happen but when that employee does in fact make that judgment, the employer then needs to go back and investigate the circumstances, document those circumstances again, in order to determine whether changes should be instituted.

This is again that review to prevent such occurrences from happening in the future. Okay. The next piece related to PPE is accessibility. The employer needs to ensure that appropriate PPE, in the appropriate sizes, in the appropriate areas, readily accessible at the work site or it's issued over to employees. So that could be a lot of different things. Hypoallergenic gloves, glove liners, powderless gloves. You know, similar alternatives are readily accessible, you know, just as an example to those employees who are allergic to the gloves that are normally provided. And again, if it's a gown that it's in the right size, et cetera. The next piece of the standard they're pieces, cleaning, laundering and disposal. The employer shall clean, launder and dispose of all PPE as needed, at no cost to the employee.

And then finally repair and replacement. The employer shall repair if that's appropriate and applicable, or replace PPE as needed to maintain its effectiveness. Again at no cost to the employee. So a few things about PPE. First, if a garment, you know, something underneath it is penetrated by blood or other potentially infectious materials, get that garment off as soon as possible. Immediately, or as soon as that is feasible for you to do. We also know that all PPE should be removed prior to leaving the work area. So that's not just the workplace, but that's also the treatment area. You know, you're working in a patient's room doing something and you have PPE on, you remove that before you walk out.

When PPE is removed we need to place it in an appropriately designated area. A specific type of container for storage, washing, decontamination or disposal. And I think for most of us, we're gonna follow whatever our facility, policy and procedure is. But we'll talk about, you know, red bagging and things here in just a second. So let's get into some detail about what this PPE is. Gloves is the first. I mean, we're very familiar there. Gloves should be worn when it can be reasonably anticipated that you're gonna have contact with blood or other potentially infectious materials, mucus

membranes, non-intact skin. And again, that could be very common in our day-to-day work. And when handling or touching any sort of contaminated item or contaminated surface.

Now, disposable or single use gloves as we already said, should be replaced as soon as practical when contaminated. Or as soon as feasible if they're torn, they're punctured or for whatever reason their ability to function as a barrier has somehow been compromised. They should not be rewashed. They should not be decontaminated for reuse. And again, utility gloves. We already talked about that. Those can in fact be decontaminated for reuse, if the integrity of the glove is not compromised. So sometimes those rubber gloves, you know, you'll get a puncture or the maybe the finger thing will rip off or something, obviously those can't be reused. So how do you put them on, take them off? I mean, I think putting them on is pretty easy.

You're just obviously gonna put them on your hands. Removing them is a different story. So you're gonna pinch and hold the outside of the glove near the wrist area and peel downward away from the wrist, turning the glove inside out. Because again, anything that's on the surface of that glove, let's go back to universal precautions, that is contaminated. So we don't want to come in contact with that. So we pull the glove away until it is completely removed from the hand and you hold that inside out glove with your gloved hand. Then with your ungloved hand, the one that you just took out, slide your fingers under the rest of the remaining glove, taking good care, not to touch the outside of the glove.

Remember, it's considered contaminated. Peel downward away from the wrist, turning that glove inside out. Continue to pull over the inside out gloves, so that they are both kind of balled up, if you will, together. This will ensure that both gloves are inside out. One glove is enveloped inside of the other glove and that there is no contamination of those gloves on your bare hands. Okay. So pretty simple stuff. Next are masks, eye

protection and face shield. So again, do you have to wear these all the time? No. You would wear masks in combination with eye protection, goggles, glasses, solid side shields, chin length face shields, whatever those would be worn whenever splashes, spray, spatter or splatter, droplets, something, blood other potentially infectious materials could be generated and eye nose or mouth contamination can be reasonably anticipated.

So again, if we're not anticipating splashes or spray that that might possibly be overkill. So again, it's knowing what the task is and what our level of possible exposure might be. Surgical caps, hoods, shoe covers, boots, et cetera. Again, are those necessary all the time? Not necessarily. Again, follow your facility policies and procedures, 'cause I'm sure they have them related to these. But these are again just generally considered when gross contamination would be anticipated. Gowns and aprons, other protective body clothing we may see this a little more commonly. Appropriate protective clothing, again, gowns, aprons, lab coats, clinic jackets, other similar types of outer garments. You would wear those in occupational exposure situations. Again, the type, the characteristics are really gonna depend on the task that you are performing, the degree of exposure that you anticipate.

If you are going to wear a gown and I think a lot of us have been wearing these probably more frequently in our current environment, but you gotta make sure that it does in fact fully cover your torso from neck to knees to your arms, all the way to the, you know, to your wrists and then the glove would take over and it wraps around the back. It's fastened in the back at the neck and at the back. So basically what we're saying is it's got a fit. So let's make sure that that is the case. Oftentimes some of our failures are just that they don't fit. They're too short or the sleeves are too short.

It won't wrap all the way around the back. So we just wanna make sure that they fit appropriately. So very similar to taking off our gloves. When we remove a gown,

remember that the gown front, the gowns sleeves, maybe even the gown back, depending on what you were doing that outside surface is considered contaminated. So you wanna unfasten those gown ties, probably with your gloves still on. Taking care of that the sleeves don't contact your body when you're reaching for the ties. You're gonna pull the gown down away from your neck and your shoulders, touching the inside of the gown only so not the outside. If you have your gloves on, I probably wouldn't touch the inside.

But if you don't have your gloves on you would go on the inside. Hopefully that made sense. Because again, your gloves are probably contaminated as well and you don't want that contaminated surface on your body. But then you're gonna turn the gown inside out, fold it, roll it into a bundle and then discard it into the appropriate waste container. So again, what we're talking about here is the outside is contaminated, the inside is not. Making sure that the two don't touch, however you're going about doing that. Okay. So let's finish up by talking about our final method of compliance before we get into recordkeeping. Final method of compliance is housekeeping. So in general, employees need to make sure that the work site is maintained in a clean and sanitary condition.

They need to determine and implement appropriate written schedules for cleaning and a method of decontamination based on the location within that facility, the type of surface that's being cleaned, the type of soil that might be present and any tasks or procedures that are being performed in that area. Okay. So what does that mean for us? What does that mean? All equipment, environmental working surfaces they need to be cleaned and decontaminated after contact with blood or other potentially infectious materials. Contaminated work surfaces need to be decontaminated with an appropriate disinfectant after completion of procedures immediately, or as soon as feasible when surfaces are overly contaminated. And at the end of the work shift, if the surface may have become contaminated since the last cleaning.

So that means in your department, in your clinic you wanna make sure you have a regular cleaning schedule. You have appropriate cleaner that will also disinfect. And that your cleaning equipment, your cleaning surfaces as needed if they're contaminated but definitely at the end of the day. And I think for most of us, we're cleaning in between patients and then, you know, depending on the equipment that we're using that might be right after the patient, or that could be all at the end of the day. All bins, pales, cans, similar receptacles that are intended for reuse, which have a reasonable likelihood of becoming contaminated with blood or other potentially infectious materials, those need to be inspected and decontaminated on a regular scheduled basis.

Cleaned and decontaminated immediately, or as soon as feasible upon visible contamination. Again, this isn't just housekeeping's responsibility. We obviously need to have eyes on that as well. Now if we do have broken glassware that could potentially be contaminated, we don't pick that up with our hands. And I think we would know that anyway. But we wanna use mechanical means there. So maybe it's a brush and a dust pan, a broom, tongs, forceps, whatever that happens to be. And I mentioned early on the concept of regulated waste. So contaminated sharps discarding those containing those, a lot of that is gonna be within our regulated ways. Again, maybe something that we don't have to deal with but super-important.

Contaminated sharps need to be discarded immediately, or as soon as feasible in containers that are closable, they are puncture resistant, they are leak-proof on the sides and on the bottom and they're labeled, they are color-coded. So containers need to be again, accessible, located as close as feasible to the immediate area where the sharps are being used. Maintained upright and replaced routinely and not be allowed to overfill. Now, we talked about regulated waste and we'll talk about this more on the next slide too. This needs to be placed in containers, which are very similar. They're

closable. They are constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping. They're labeled.

They're color-coded. And closed prior to removal to prevent spillage or protrusion when they're being handled, stored, transported, or shipped. Now once regulated waste is in fact ready for disposal, super important, it cannot go into the regular trash. Generally speaking, facilities will contract to a waste management type of company that will specialize in regulated medical waste. And they take it off site, they destroy it because there is potential harm there. Now regulated waste, you may sometimes hear this referred to as red bag waste. Red bag waste is biohazardous. It's wast that is potentially infectious, also known as biohazardous waste. So you hear a bunch of different names. And you might wonder, you know, what goes in there?

Again, anything that has had contact with a potential infectious agent. So blood-soaked items, gauze, bandages, specimen cups, anything that has blood or body fluids on it. Gloves, gowns, intravenous bags, soft paper items, table paper, personal protective equipment, all might go into a red bag. Now, the next part of housekeeping is laundry. Contaminated laundry needs to be handled as little as possible. It needs to be bad or containerized at the location where it was used. It should not be sorted or rinsed in the location of use. It's also transported in bags or containers again, that are color coded. There's very little likelihood of soak through or leakage from the bag or the container. And if there is that likelihood, it needs to be transported in something that will prevent soak through or leakage.

If we're coming in contact with any sort of contaminated laundry, we wanna make sure that we wear PPE. Now, I didn't even put a slide in here. But I will just mention very quickly, in the OSHA standards, there's a lot of information in there about HIV and HPV research labs and production facilities. Again, I'm not going into detail about that 'cause I don't think it applies to us. But just know that there are some very specific

requirements related to that. Also in there is about hep B and post-exposure. So generally speaking, the employer needs to make available the hep B vaccine and vaccination series to all employees who have occupational exposure. And post exposure evaluation follow up to anyone who's had an exposure incident.

These are made at no cost to the employee. Available at a reasonable time in place, performed by or under the supervision of a licensed physician, by or under the supervision of a healthcare practitioner or professional. And providing according to the recommendations from the United States Public Health Service. All lab tests are conducted in an accredited lab, again at no cost to the employee. Now with the hep B vaccine, this needs to be made available after the employee has received training and within 10 days of working their initial assignment. And to all employees who've had occupational exposure, again, unless the employee has previously received the hep B series antibody testing, or has revealed that they've been immune by antibody testing, or the vaccine is contra-indicated for some reason.

Now, pre-screening is not a prerequisite for receiving the hep B vaccination. It's also important to know that if the employee initially declines the vaccination but on a later date while they're still covered under the standard decides to accept it, it needs to be made available at that time. For someone who does decline it, there are required to sign a statement. And if a routine booster is recommended at some future date, that booster dose also needs to be available. So what if you were exposed? That's the other piece of this, the post-exposure evaluation follow up. Following a report of an exposure incident, the employer needs to immediately make available to the exposed employee a confidential medical evaluation and follow up.

And it needs to include, and it's on this slide and the next, documentation of the root or the roots of exposure, the circumstances under which it occurred, identification and documentation with the source individual. Unless for some reason that it's not feasible

to give that, or it's prohibited by state or local law. The source individual's blood should be tested as soon as feasible after consent is obtained in order to determine if they have HPV or HIV. If consent is not obtained, the employer shall establish that legally require consent cannot be obtained. Now, when that consent is not required by law, the source individual's blood, if it's available, is tested and the results are documented. When we already know that somebody is infected with HPV or HIV or et cetera, that test doesn't need to be repeated.

Results of the source individual's testing does need to be made available to the exposed employee. And then the employee is informed of applicable laws and regulations concerning disclosure of the identity and the infectious status of that source person. The exposed person's blood needs to be collected and tested. Once again, consent is obtained. And if the employee consents to baseline blood collection, but doesn't give consent for HIV testing, that sample needs to be saved for 90 days. And then if within those 90 days the employee actually asked to have it tested, it needs to be tested. The employer also has to give post-exposure prophylaxis when medically indicated, counseling and then evaluation of reported incidences. Now, there's information that has to be provided to the healthcare professional who does the follow up and, or the vaccine.

And that includes a copy of the regulations, a description of the exposed employees duties as they relate to the incident. Documentation of the root of exposure. Circumstances, we already talked about that. The results of the source individual's blood testing, if that's available, and then all medical records relevant to the appropriate treatment. After that, the healthcare professional gives a written opinion back. So the employer has to obtain and provide the employee who was exposed with a copy of the evaluating healthcare professional's written opinion within 15 days of that evaluation. The written opinion is limited though. So the healthcare professional is

limited to whether the hepatitis B vaccination is indicated for that employee, and if the employee has actually received that vaccination.

The written opinion and follow up again, is limited to the employee being informed of the results of the evaluation and that the employee has been told any medical conditions resulting from exposure, which might require further evaluation and treatment. And then that's it. Everything else is confidential and cannot be included in that report. So again, there's just that reporting piece and it's very much limited to, "Do you need the vaccine? Should you get the vaccine? This is what you need to be concerned about in follow up." And that's really about it. Now, along with this is, you know, one piece kind of in housekeeping, if you will, is communication of hazards to employees. And we've been talking about labeling, but let's look at that.

Warning labels do need to be a fixed to containers of regulated waste to refrigerators, freezers, anything that contains blood or other potentially infectious material and other containers that might be used to store, to transport or ship blood or other potentially infectious materials. Labels required in this section of the standard need to include the legend that you see right on this slide. It says, "Biohazard." Now, additionally you'll find that these labels are fluorescent orange or orange red, or predominantly orange red. They have lettering and numbers or symbols, excuse me, in contrast in color. Labels, again, need to be fixed as close as feasible to the container, and that can be string, wire, adhesive. Anything that prevents their loss and unintentional removal.

We wanna make sure that it stays there. Now, red bags or red containers, and we see those very frequently may in fact be substituted for labels. But even when we see those red containers or those red bags, they also have the biohazard symbol on them. I'm sure you've seen that. Regulated waste that has been decontaminated does not need to be labeled or color coded. So again, it's just the contaminated waste. And with regard to signage, again, just gonna mention this in passing, there's very specific

signage that needs to be posted. If in fact it is a workplace where there's HIV or HPV research or production facilities or very specific clientele. So there's signage that would be in place there as well.

And again, I don't think that applies to the vast majority of us. So in our last couple of minutes here, we have about 10 minutes or so, I do wanna talk a little bit about information and training. The employer is required to train every employee with occupational exposure in accordance with the standards. That training needs to be provided again at no cost to the employee. It needs to be done during working hours. Or if it's not during working hours, sometimes it's done preemployment and I think folks oftentimes are paid for that. The employer does need to institute a training program and ensure that employee participation is there in that program. That training needs to be provided at a minimum at the time of initial assignment, i.e at new hire and at least annually thereafter.

But I think sometimes we do training as well if in fact there was an occupational exposure, or maybe there was a citation from, you know, Department of Health or something like that. Annual training for all employees needs to be provided within one year of previous training. Additionally, training would be provided when any changes occur like a modification of a task, or a procedure, or maybe we've instituted a new task or a procedure that may affect occupational exposure. And with that additional training, if that happens, that can be limited to just addressing the new exposures or the new tasks. You don't have to redo the whole training. Now, keep in mind too that all training needs to be appropriate to somebody's language, their literacy, their education level, and to their level of occupational exposure, to their role in the facility.

The person who is conducting that training does in fact need to be knowledgeable in the subject matter covered by the elements that are contained in the training program, again, as it relates to the workplace. And keep in mind too that if in any sort of situation

with HPV or HIV, there's a lot of additional types of training requirements. This training at a minimum needs to include the following elements. Again, keep in mind that the vast majority of this is gonna be facility specific to where you are actually working. So a copy of the regulations again, or where they can be found. A general explanation of the epidemiology and the symptoms of bloodborne diseases, an explanation of the modes of transmission, of bloodborne pathogens, an explanation of the employer's exposure control plan.

We talked about that. And the means by which the employee can obtain a copy of that written plan. An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood or other potentially infectious materials. An explanation of the use and the limitations of methods that will produce or prevent, excuse me, or reduce exposure, including engineering controls, work practices, PPE. Information on the types, the proper use, the location, the removal, the handling, the decontamination, the disposal of PPE. An explanation of how we select PPE based on the task. Information on the hepatitis B vaccine including efficacy, safety, method of admission or administration, benefits of being vaccinated and if the vaccine and the vaccination are offered free of charge.

Information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM. An explanation of the procedure to follow if there was an exposure incident, including how we report that, what's the medical follow up. Information on post exposure evaluation, and follow up that the employer is required to provide to the employee. An explanation of signs, labels, color coding and then finally an opportunity for interactive questions and answers with the person who does the training. Or if it's conducted online, who do I contact if I have questions? So again, that's the minimum standard. And along with that, there's record keeping. So we'll talk about the training records here in just a second.

But medical records are important. The employer does need to maintain an accurate record for every employee with occupational exposure. And that record needs to include, the name of the employee, a copy of their hep B vaccination status, a copy of results of examinations, medical testing and any follow up procedures, a copy, again, of that written opinion from the healthcare professional and a copy of the information provided to the healthcare professional. Confidentiality is critically important. The employer needs to ensure that those medical records are in fact, kept confidential. They're not disclosed, reported without the employees express written consent to any person within or outside of the workplace, except as required by the standard or as maybe required by law.

And those records must be maintained for at least the duration of employment plus 30 years. I mentioned training records. The training records, so we talked about what's included in the training, but we have to keep records on those. So it's the date of the training session, the contents or a summary of the training sessions. That could just be an outline or that could be a copy of the handout that's used. The names and the qualifications of persons conducting the training, and then the names and the job titles of all persons who are attending those training sessions. So that's the minimum standard. But again, I know that a lot of times employees will or employers, excuse me, will also, you know, keep attestation statements.

Maybe they do post tests or quizzes, those sorts of things. And again, a lot of times, you know, assigning record would meet this requirement as well. The training records do need to be maintained for three years from the date on which the training occurred. And that would also include any additional training that was done. So followup training needed to be done when we change a task or procedure. Additionally records do need to be made available, and of course, employers would know this, upon the request of an authority. So maybe it's the assistant secretary, or it's a director, it's by law for

examination and copying. And again, that would include employee training records and those medical records.

One other final record that they are required to keep. And again, probably not pertinent to us, but the employer does need to keep a sharps injury log. And it's just what it sounds like. So any information on the log needs to be maintained to protect confidentiality of the injured employee, and at a minimum that sharps injury log would include the type and the brand of the device that's involved in the incident, the department or the work area where the exposure incident occurred. And then finally, how did the incident occur? What was going on that we had that incident? Okay. So just to wrap it up, and it's a lot of information... I think probably a lot of this we were all aware to very, very familiar with.

But it's a good review just to make sure that we are doing what we need to do and that we are in fact compliant. And again, as I said, the vast majority of the standard really relates to what the employer is required to do. So I think we do need to know what is expected in our places of employment and also, you know, how to use our PPE and how to wash our hands and such. But in general, the standard does require the employer to establish that exposure control plan and make sure that it is updated annually, whereas often as needed if there was an exposure. And again, that's typically when we'll see annually and if there was an exposure incident, and it does need to be made available to us.

It requires employers to implement the use of universal precautions, which we talked about, to identify and use engineering controls, to identify and ensure the use of work practice controls. So again, those things that they would put in place to make a task safer for us. And again, that requires review on a regular basis to make sure that whatever we're being asked in our clinics or in our place of employment does put our safety paramount. That they are providing personal protective equipment again, that is

appropriate for the job that we are doing. And I continue to say that it's appropriate for the task that we're doing or the job that we're doing. Because, you know, I've been places where folks are like, "Well, I need X, Y, and Z, and I need all this stuff, but the task didn't really involve that."

I was having a conversation with a patient. You don't need to necessarily... You know, again, I guess it really depends on the patient, but you have to look at what you're performing as to what that PPE would be. And we talked about hep B just very quickly, but again, making available the hep B vaccination to all workers who have any sort of occupational exposure, who have that potential to be exposed. If I am in fact exposed, they make available any post-exposure evaluation with an appropriate healthcare professional, any follow up to an occupationally exposed worker who has an exposure incident. So remember the difference. Occupational exposure means I could potentially have something happened. An exposure incident means I did in fact have something happen.

Employers are required to use labels and signs and all of that to communicate any hazards that exist in the workplace, providing information and training to workers on a regular basis, and then to maintain those worker medical and training records. And again, those are things too that you as an employee can certainly ask for. You can certainly ask for copies of those if those should ever be needed. So with that I think we are really right up about time, which is perfect. These two slides here just show you the references that were used utilize to put this session together. And you can see they come directly from OSHA and the CDC, and a few journal articles that also talked a little bit about OSHA and what those standards are.

So with that, I wanna thank you for joining in this session. I hope if nothing else, it was a good review for you. And I'm gonna turn it back over to Jessica. Thank you so much.

- All right. Thank you, Kathleen. We really appreciate your time and effort today and putting together this course on OSHA bloodborne pathogens and standards that we must follow. It's not always the most exciting topic, but we really appreciate you sharing this great information. And as you said, it may be a review for some people. But for others, there may have been some great new info. Thanks everybody for joining us. Thank you again, Kathleen. Everyone have a great day.