



Safe Use of Fingertick Devices

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March 2014

Ty Reidhead:

So my name is Ty Reidhead. I just want to start out first by saying it's an honor. It's a privilege to be on the call with you all and I appreciate the invitation, Jan. You and Melanie just run a great ship. I'm impressed continuously by the way the Adobe Connect works, and it's good to see all the people on the phone or joining by their computer. So I'm currently the Chief Medical Officer in the Phoenix Area Indian Health Service. Previously, I was the Director of the Improving Patient Care Program for a number of years and I also spent about twelve years working as a primary care internist at Whiteriver Service Unit, and now living in Phoenix. So I guess that's probably enough of a background.

As far as I'm concerned, as far as my portions of the presentation, we'll trying to be watching for chats and maybe we'll have the opportunity as we go to address some of the questions, if there are any.

I wanted to begin just to orient you to what we're talking about today. The CDC has known or issued a while back some reminders about the use of fingertick devices. Actually they came back in 2010, gosh it's already been four years since they gave us the reminder about this, that the use of these devices on more than one person poses a risk for transmitting bloodborne pathogens. Basically, I just took this quote from one of their websites that they're concerned about the risk for transmitting Hepatitis B virus and other bloodborne pathogens to persons undergoing fingertick procedures for blood sampling. This was, for instance, in persons with diabetes who require assistance monitoring their blood glucose levels.

The big key to this is just that this is really a reminder. We wanted to make sure everybody was reminded that this can be a big issue and that we want to just raise the level of concern or discussion about it. This is just the site. I'm sorry; I've pushed the wrong button there. I'm trying to get rid of that again. To remind us, the IHS priorities that we have is: to renew and strengthen the partnership with tribes and improve the tribal consultation process, to bring reform to the IHS in the context to the national health insurance reform, to improve the quality of and access to care, and to have everything we do be as transparent, accountable, fair and inclusive as possible.

These are key to our mission and how we should be delivering care. This whole discussion is really essential and core to improving the quality of and access to care. It's hard to provide quality care if we're not providing safe care. This goes all the way back to -- I guess it was Hippocrates and Hippocrates' oath that talks about "Primum non nocere," which is just "first, do no harm." This is so key to everything we should do in medicine to make sure that we're not putting people at undue risk.

This is just a slide of really what we should think about any time we do a test or try to make a decision in treating patients, really deciding on the utility. We have to weigh the safety and the benefits, or the cost and the benefits to patient when we decide whether we want to take a test.

I wanted to pause here and get you to think about the self monitoring blood glucoses that we're assisting patients with. This is something that we should think about or at least hesitate and think about



what we're doing when we're actually performing this test. We have to weigh – is the benefit less? Is this test really safe? If it is, then we just need to balance these two things when we make decisions.

For the most part, assisted blood glucose monitoring is safe and it can be beneficial and so, as you decide whether this is the thing that you want to be doing in your community and with your patients, then hopefully they'll both weigh out to be on the positive side and it's something that you would be pursuing and thinking about.

But this is just a sort of a balancing concept that I was thinking about when I was thinking about decisions on whether we should be doing Accu-Chek testing or assisted blood glucose monitoring in the community. With that, I'm kind of at the end of my part, I think that Dr. Redd will lead us into some more details and comments about the self monitoring blood glucose and the safety.

Dr. Redd, are you there?

John Redd:

Yes, right here. Hi, everybody! This is John Redd; I'm a clinical internist at the Santa Fe Indian Hospital. In terms of my background, I started off my career at Shiprock, New Mexico, back when Dr. Reidhead was still in the nursery school. I ended up getting some CDC training and then working with the IHS Division of Epidemiology for some years. In that capacity, some of you may even remember me.

What we're going to talk about today is safe use of blood glucose monitoring devices. I wanted to go over first on some of the background in terms of self monitoring of blood glucose. We want to make very clear that you understand that especially in somewhere like IHS where we have so many diabetic patients, that we consider that self monitoring of blood glucose is a crucial tool for diabetes. It aides in adjustment of therapeutic regimen in response to people's blood glucose values. It helps individuals be aware and when they're aware they're able to better adjust their dietary intake, physical activity, and even sometimes their insulin doses and improve their glycemic control. Self monitoring, of course, has been recommended by all of these agencies, most notably the ADA.

Now, first, I want everyone to think about where is glucose monitoring taking place. And I want everyone to please consider that it's taking place in a lot of locations. So there are peoples' homes, whether they're hogans or more developed reservation homes. Also, it's taking place in tribal clinics, tribal venues such as wellness centers, and even at schools. So the bottom line of this slide of course is that glucose monitoring, especially in our population is taking place in a lot of different locations and we've got to keep all those locations in mind when we think of ways to make sure that glucose monitoring is safe.

So let's go ahead and look at our votes on where glucose monitoring is taking place. And you can see, look at the wide variety of places that it's taking place. Of course, most notably it's in the clinic, but just behind that is 85% in people's homes. It is interesting to see that we've got a lot of what I would assume is screening activity. Both answers D and E are fitness centers and health fairs. Boy, that's interesting, I have to say that that's even a higher response for things such as health fairs than I would have thought. Dr. Reidhead, any comments?

Ty Reidhead:

But that's exactly what I was thinking. That's a high percentage. I would have expected the high percent like that in peoples' homes doing their self monitoring blood glucose. But yeah, high percent in the health fairs.

John Redd:

But that's really something to consider and I think that that's the major reason why we wanted to talk today, is to make sure that this activity is safe no matter where it's taking place.

Ty Reidhead:

I guess I would just add, Dr. Redd, is if people who are putting other places might put in a comment, just where some of those other places that we didn't list. It would be interesting to see those too as they go --

John Redd:

I would make one additional comment about the location at schools, is everyone remember that that can be either boarding schools or public schools. Right next to our facility here, the Santa Fe Indian School which has both boarding and day students. So even within the venues such as schools, there can be a lot of different places.

Assisted monitoring of blood glucose, which is sometimes abbreviated as AMBG, refers to blood glucose monitoring that's performed for one or more people by either a healthcare provider or other caregiver. The important thing being that the patient who's been monitoring requires assistance to do it.

It's typically performed serially for multiple persons. I spent this morning in our outpatient clinic and we must have checked 30 fingerstick blood glucoses this morning. Unfortunately, we do have to bear in mind that there's a risk of infection transmission; most notably HIV, HCV or Hepatitis C virus, and HBV Hepatitis B virus, if the people who are helping patients have their blood glucose monitored fail to select the appropriate equipment, and if they fail to follow basic infection control. So the key feature about assisted monitoring of blood glucose is that it means one meter for multiple people. This can either be for therapeutic reasons or as we just saw on our poll, at screening or educational venues.

Let's consider some different places where this type of monitoring is taking place. First, consider living facilities. Remember, we're talking about meters here, so individual meters are generally given out to patients on a one by one basis at our clinics, but you've got to consider use by multiple family members and I think even though we always tell patients that it's supposed to be one meter per person, it happens all the time that multiple family members end up using the same meter. One might be in the vehicle, one might be in the car and in the home, I mean, and the battery runs out, whatever it may be, that's a pretty common scenario. In living facilities such as group homes, nursing homes, prisons, dorms or camps, the people generally won't be allowed to keep their own meter on hand. So there will be multiple persons on one meter.

In medical venues, in hospitals, so that means outpatient facilities and clinics, this is going to happen. In physicians' offices, remember this is a CLIA waived test, so it indicates a common practice. And in pharmacies, we frequently have pharmacist-directed diabetes self-management and education programs, and the pharmacist-directed testing is becoming -- with modification to insulin dosing is becoming more and more common.

Now, in terms of other locations, consider work sites for the purposes of screening, education, and sometimes therapeutic decision making. At schools, it's usually to make therapeutic decisions including a sliding scale short acting insulin regimen. But remember that a student at a school may have a personal meter. And at diabetes education and screening programs, such as at malls, convention centers, faith-based locations and community centers, this may happen too.

So what we're talking about? Particularly, we talk about a meter, and including other fingerstick material, is indirect contact transmission. What that means is the transfer of an infectious agent, the one that's easiest to conceptualize is Hepatitis B virus, from one patient to another to a contaminated intermediate object. So in our examples today, that could be either a blood glucose meter or reusable fingerstick devices, or a person including healthcare personnel hands. So if the healthcare worker, him or herself, is acting as the transmission vehicle, then in this case the person is contributing to indirect contact transmission.

So in terms of the schematic, this is what happens if there's person-to-person transmission of bloodborne viruses or conceivably other pathogens during blood glucose monitoring. In this case, again, keep in mind Hepatitis B. So the patient that's being monitored is infected with the agent, and he or she, in the course of having their fingerstick tested, contributes to blood contaminated equipment or supplies, and then this blood contaminated equipment or supplies ends up coming into contact with susceptible hosts. That's what can cause transmission, in this case, indirect contact transmission and that's what we want to stop.

Yes, go ahead, please.

Ty Reidhead:

Just a question on that, if you go back. Maybe it's just the way that I heard you say it, but this first person that's infected with the agent isn't anything we're doing here. This is just somebody who comes in and already has an infection, is that right?

John Redd:

You're exactly correct. So a couple of common examples would be HIV. In IHS in general, we actually don't have a very high prevalence of HIV relative to the rest of the country. We have a Hepatitis C prevalence that is probably higher than the rest of the country, and we used to have plenty of Hepatitis B but thankfully we do such a good job at vaccinating that chronic Hepatitis B is getting to be less and less prevalent. But in any of those cases, you're absolutely correct. This infected person is the diabetic person, in this case, who's walked into the clinic and is tested. Does that answer the question, Ty?

Ty Reidhead:

Yeah, thank you. I think you said it that way, maybe I cut my earphone and I just want to make sure I got it clarified.

John Redd:

No, no worries. Let's go into a little more detail just in case anyone in the audience is skeptical that this could really happen, which is pretty common for people not to think this happens very often. But in terms of indirect transmission of Hepatitis B during diabetes care, Hepatitis B is stable in the environment for at least seven days and most people think it's longer. That includes on what appears to be a clean uncontaminated stainless steel surface such as is found in a lot of our settings. So it's amazing but Hepatitis B can really stay stable in the environment for a long time.

In addition, Hepatitis B in someone who's chronically infected has a very high viral titer. The virus is present in the person's secretions even in the absence of visible blood. What that can lead to, both of those features can lead to transmission by contaminated surfaces or equipment, and it happens a lot more easily than you might think. That's what we want to stop. This slide shows recent outbreaks

subsequent to 1990 of Hepatitis B infection that have been associated with monitoring of blood glucose. So as you can see this is not a trivial issue and it's not uncommon either. Look at the right side of this graph, the recent Hepatitis B virus outbreaks associated with blood glucose monitoring have all been recently in assisted living facilities.

Part of the reason why we think that that previous slide may be an underestimate is that the reported outbreaks, we are certain, represent just the tip of an iceberg for several reasons. First, in the case of Hepatitis B, there is under reporting of cases. Hepatitis B has an incredibly long incubation period for clinical disease, which means up to six months long. So it's actually relatively common when you investigate Hepatitis B outbreaks to have a hard time finding out where the person got it. The majority of infections, around 50% to 70% are asymptomatic. So therefore, many, many people go undiagnosed. There's also under-recognition of healthcare as a risk for acquiring viral Hepatitis. Traditionally, we all thought that these were rare events in the United States. In investigations, it's been shown that sometimes the investigators don't ask the right questions, such as "Have you been in a hospital or a clinic?"

In addition, older adults have multiple healthcare exposures, different locations; they may be in and out of nursing homes, different clinics. So the identification of a single healthcare encounter as the venue of transmission is really hard. Unfortunately, there's under-investigation of cases, there are frequently limited resources at health department levels, and the investigations are time consuming, expensive, and usually involve patient notification and screening.

This is addressing any other potential skeptics in the audience. So can the meter really be the source of transmission? At first, you think it might be unlikely. It's far away from the patient sometimes, or at least it's not right next door to the patient. It's not the fingerstick device that we know is coming directly into contact with blood, but the meter absolutely can be a source of transmission. There are several lines of evidence for this. So first, there's a high prevalence of blood contamination of meters that's been shown by CDC. So in a survey of twelve hospitals, they sampled 609 meters and they were tested for the presence of hemoglobin. So this was just to see if they're actually is blood contamination. Around a third, 30.2% with a range of zero to 61% of the meters had blood contamination on them. You could find hemoglobin on the meter, and these are meters that had been in standard care. 31.4% were shown for on meter versus 26.6% for off meter test strip dosing. So that's a technical difference in where the test strip comes into contact with the blood, whether or not it's in the meter. There were multiple outbreak examples where fingerstick devices were not shared, so were single-use fingerstick devices.

In particular, there was an outbreak in a nursing home in North Carolina in 2003, where this nursing home only used single-use lancets and they also never shared insulin vials, which eliminates two common sources. A single blood glucose meter was used for all patients, but was not routinely cleaned between patients. So we can see from examples such as this that it really is quite possible for the meter itself to be a source which is a big reminder about why we need to take the standard precautions when using these meters.

How might this assisted monitoring lead to transmission? Please bear in mind all of these potential sources. So number one is the use of fingerstick devices on multiple persons and that even happens sometimes where it is a fingerstick device that is single person only, which is the standard for IHS. Secondly, there may be a failure to clean and disinfect the blood glucose meters between each use. Lastly, healthcare personnel might have failure to change their used gloves, or they may fail to perform hand hygiene between procedures.

Now, we have an emerging problem with new devices, which of course have improved our diabetes care, but may lead to potential issues. We would like for everyone to take a look at these two questions and then we'll let these answers come in while I'm talking about this slide and then we'll go over these

results. The two questions are, “Does your pharmacy have insulin pens for outpatients?” and “Do you specifically advise patients that insulin pens are for one person only?”

The new devices that we wanted everyone to be aware of is, number one, our multi lancet fingerstick devices. This is where the fingerstick device stays in use and the lancets switch out. Sharing of multi lancet fingerstick devices has been reported as a cause of a Hepatitis B outbreak in a nursing home. Secondly, of course there’s a multi dose insulin pen which patients really like. More and more IHS facilities are getting multi dose insulin pens, and without question there’s been reported sharing of these. Look at these results on the questions, specifically in terms of the insulin pen, the majority of folks in the audience have them at pharmacy. I think that this number which is currently 66%, over time is going to increase. So insulin pens are becoming more and more in demand.

Secondly, “Do you specifically advise outpatients that insulin pens are for one person only?” The vast majority there is 72.8% are giving this advice which is proper. But the point we want to make here is that despite the fact that insulin pens are common and despite the fact that outpatients are being advised that they’re only for one person and one person alone, we know that sometimes they’re shared. In fact, I have someone, a patient at Cochiti clinic on Monday tell me as much. He said he’d run out of his insulin and used his father’s. Dr. Reidhead, any further comments on that question?

Ty Reidhead:

No, I don’t. Good job.

John Redd:

Let’s go over specifically what are some of the CDC infection prevention recommendations are, and as Dr. Reidhead mentioned, this is a potential source of transmission that is getting a lot of attention. When we look at risk factors in healthcare, you’ve always got to keep in mind the balance of how likely transmission is, but secondly how common the activity is.

So of course, it may be true that in any individual fingerstick blood glucose monitoring event that the likelihood of transmission is low. But in the United States, of course, we’ve got tens of millions of diabetics and it’s very, very common at IHS facilities. So despite the fact that the individual risk at any one time is low, there are countless events taking place all the time so that’s why this is an important issue. So first and foremost, please remember hand hygiene. This is something that is actually surprisingly easy for staff to forget during blood glucose monitoring. I’ll get to one issue that is even more frequently forgotten in a second. But everyone should wear gloves during blood glucose monitoring, and that’s the standard everywhere now. And of course, during any other procedure that involves potential exposure to blood or body fluids.

But it’s also important to change gloves between patient contacts and that’s the part that I found that staff are more likely to forget, especially if someone, for example, is seeing multiple patients on an inpatient unit and has a monitor that’s being used in different rooms. It can be pretty easy if you’re rushing to not change gloves. So please remember to change gloves between patients even if all you’ve done is check the blood glucose.

Change gloves that have touched potentially blood contaminated objects or fingerstick wounds before you touch a clean surface, that’s in order to avoid transmission of blood from the glove to the surface. Perform hand hygiene, which is either washing or using antiseptic waterless wash immediately after removal of gloves and before touching other medical supplies that are intended to be used on other patients.

Let's talk about fingerstick devices and we're also going to have some questions here. Again, we're going to repeat this and we really want everyone -- this is probably our bottom line for the presentation today. The fingerstick devices that include lancets and lancet holder devices should never be used for more than one person, and facilities should select and use single-use auto disabling lancing devices for each patient. That's certainly the standard in our outpatient and inpatient units. Let's refer to these questions and we'll give this a minute to be answered.

Question four is, "Does your pharmacy provide single patient multiple use fingerstick devices for outpatients?" Question five, "Does your pharmacy provide single-use only fingerstick devices for outpatients?"

Ty Reidhead:

I have to read this, Dr. Redd, a couple times to make sure I got the questions right, but the single-use only fingerstick devices that I saw in the previous chat, some people are mentioning that those are -- you click them once and they self destruct, sort of and then you throw them away, is that correct?

John Redd:

That is absolutely right, and most of them have auto retractors, so they actually cannot be used on more than one patient. That's what we have at Santa Fe Indian Hospital for our clinics.

So that would be referred to in question five here, "Do you have single-use only fingerstick devices for outpatients?" In other words do you give those to your diabetics when they're off at home? Question four refers to single patient but multiple use devices. We give those to our outpatients and that would be something where the lancet itself is switched, but the fingerstick device can be used more than once.

I have a couple comments. You can see that these of course are not mutually exclusive answers. But the majority of people who are answering today have responded, around 62%, that what they use are single patient multiple use fingerstick devices. So those are the ones in which the lancet gets switched out and they're the ones that are susceptible to mistaken use on multiple patients, even if the lancets are switched, and that's a mistake.

Then, in terms of question five, we had about 32% respond that they provide single-use only fingerstick devices for outpatients. That's actually higher than I expected. What do you think, Dr. Reidhead?

Ty Reidhead:

Yeah, it blows me away. I think that would be interesting to hear, maybe in the comments, from some of those folks, what might have made them make that decision because it is one that we've considered, but haven't taken the step to actually do that.

Instead, we've opted for the most part to have education and making sure people know that they should only be using one device for one patient when they take them home.

John Redd:

So I would say IHS in general then, that's a nice response to have that high of a percentage to have single-use only devices.

Ty Reidhead:

I agree.

John Redd:

We can probably touch on that there a little bit more later. So CDC has considered this so important they've issued clinical reminders. Number one is that insulin pens must never be used for more than one person. I'll tell you, I have been scared about this issue since we got insulin pens, and I think it is a huge potential issue. We really try to harp on it with our patients and I want everyone to remember this, too.

Now, going back to blood glucose meters, whenever possible, the blood glucose meter itself should be assigned to an individual patient and should not be shared. So our standard here is to give blood glucose meters. In some of our households we may have six of them, and pharmacy helps them to be identified as on a per patient basis. So blood glucose meters should only be for individual patients, it should never be shared. If they have to be shared, the device should be cleaned and disinfected after every single use as per the manufacturer's instructions. But I really prefer very strongly bullet one here, not bullet two.

Now, if you're going to have one that is going to be cleaned like in our outpatient area, make sure you select the device that's intended for use in healthcare settings. So those are more robust and kind of tougher meters than we usually send home with patients, and if they're capable of withstanding frequent cleaning and disinfection. And if the manufacturer cannot specify how the device should be cleaned and disinfected, then it should never be shared.

In summary, education is key for this issue, and this refers to education of both staff and patients. So we do want to increase awareness of the history of outbreaks that have been related to assisted monitoring of blood glucose and to the CDC infection prevention recommendations. Everyone should review the infection control policies and the FDA recommendations for infection prevention with any point-of-care blood glucose testing devices in settings where multiple use may happen. So not just nursing homes, as we've mentioned. Then, folks should review the status for Medicare and Medicaid services recommendations for cleaning and disinfection of these glucometers. Now, please make sure that you're using the correct cleaning agents.

So let's go over these results which are coming in nice and quickly. Question six is, "Do you specifically advise outpatients that single patient multiple use fingerstick devices are for one person only?" The vast majority are answering "yes" to that one, so that's good. Then, question number seven, "Do you use single-use only fingerstick devices for patients seen at your facility?" You'll note that that is high, 91%, not a hundred percent but quite high, and that's much higher than the percentage of single-use only fingerstick devices that are sent home with patients. So that's what we're getting at with this question.

Ty Reidhead:

I would be interested to see if the ones that are saying "no" are folks that don't even use, or aren't checking assisted blood glucose monitoring in their clinics because I have heard a couple of those, they prefer to completely eliminate that test from their regimen.

John Redd:

Yeah, that would be interesting because I would expect that the single-use only for patients seen at the facility really has become the standard. I'm very glad to see the high response, around 89% to the

question about, "Do you specifically advise outpatients that single patient multiple use fingerstick devices are for one person alone?" So that's good.

Ty Reidhead:

That's nice.

John Redd:

Then, in terms of CDC prevention resources, and I'm giving you the link here. This slide shows you a summary of how settings are supposed to plan around their infection prevention. So in terms of point-of-care testing such as blood glucose meters and INR monitors, which is a separate but related issue. These are our standards so, "Do you use a new single-use auto disabling lancet device for each patient? If it is used for more than one person, is it cleaned and disinfected properly?"

Then, here are couple links which of course will be in the shared slides that refer to the infection prevention recommendations, and then there is a great set of FAQs regarding both assisted monitoring of blood glucose and insulin administration. That's all I had. I did want to acknowledge three separate divisions at CDC, all of which helped me with this talk. They're very helpful and this reflects the great awareness that CDC has about this issue. That's all I had. Thank you.

Ty Reidhead:

Thank you! Dr. Redd, I couldn't help but notice Ms. Stuart's comment that they only provide single-use lancets to a few patients who are unable to manage the other device that comes with the glucometer. That's just interesting to me, that would be something that I guess would drive also sending people home with the single-use devices.

John Redd:

Yeah, that really is a good idea. I'm not diabetic, I mean I have checked my fingerstick a few times, but patients do report different amounts of pain with both types of the fingerstick monitoring devices. So that can be a reason that someone gets switched also. I'm glad to see the comments from Theresa that the public health nurses use the single-use devices for home visits.

Ty Reidhead:

Yeah, absolutely. I think Mr. Bradford is going to be leading us right into my next portion, which is considering the inaccuracy of random fingerstick glucose readings quoting 10 plus or minus 20% in the increased risk of bloodborne pathogens -- it snuck off the top there for me -- what are your recommendations for facilities with onsite lab services and non-emergent situation? I think I'm going to get to that, coming up next, because I think that -- Dr. Redd, you may have a comment, but really it's an individual clinic decision that you need to make. You need to assess the pluses and minuses, the benefits that you might think about with the glucose readings.

I'm going to go ahead and move ahead, and maybe check a couple of the questions because I want to make sure I have enough time to get to Ms. Dahozy as well. But I think I should be able get through mine fairly briefly. If you recall, I started out the talk with needing to really consider the utility of assisted monitoring of blood glucose in the community. It's not without risk, but as long as you're following standard protocols, guidelines, and making sure the appropriate people are doing them, it's going to be very safe. The question really becomes, what is the benefit? I think with the comment before, we're starting to get to see some of that. There are really, I think, three categories that we need to think

about when we're assessing benefits of community screening for diabetes, and these are in education, interpretation of the results, and follow-up.

The education I think, people tend to understand very well because this is, I think, what drives a lot of the community screening. It's a tool to increase awareness of diabetes. It can encourage people to get screened in the clinic. It can encourage people to change their behavior. Hopefully, after this talk, maybe it will help us to encourage people to also get their Hepatitis B vaccination because if they're in that category, we definitely want people to get their Hepatitis B vaccines done.

The trick is in the interpretation of the results. You have to make sure you understand how to interpret it and as was mentioned before it can have a wide variability in the monitors that we're using or we're having patients sent home to use. The published standards that are out there for testing is really for plasma glucose, so it's not the capillary glucose or blood glucose that we're seeing with the self monitoring blood glucose.

Then, there are issues around quality control. Facilities or clinics have to be very careful of quality control. If you're not paying attention to that in the community when you're doing this, it can cause wide ranges or wide swings in the results that you're getting. Also, probably, it's important to identify appropriate people for testing. Do you want to just be testing everybody that comes in? Then, lastly, I think the important category to really think about is, what are you going to do with follow-up of these tests? If you're going to be doing testing in the community, you need to have ways to make sure that you follow-up on abnormal test results, that you coordinate follow-up with the primary care team in the clinic to get retesting and follow-up of the testing. Also, hopefully including the results in the continuum of care so that the clinic, the primary care team is getting the results so that they can weigh those results in the ongoing care of the patients or the people, and then lastly is just confidentiality. It's important to ensure confidentiality of the results.

I'm going to probably just get through these last three because I want to make sure that we have enough time if there's question down there to hit and then also get to Ms. Dahozy.

I guess, I will make a comment on this that the diabetes best practices, it is addressed in there as far as community diabetes screening. It does provide some guidelines on the IHS website to do the community diabetes screening. I will leave you with one other source that Dr. Redd didn't mention, the One & Only campaign that's also a CDC product. As we start moving and seeing more insulin devices, then, this is something that might be a source for you to use if you want to educate your staff workers and also the community. Then, lastly, I just listed the Hepatitis B vaccination indications and they're here. The ones I listed are the CDC recommendations and then the diabetes best practices also added one other for a little bit more information about when you should consider Hepatitis B vaccination for folks who are over 60.

I'm going to move right into Ms. Dahozy. I'm honored to get Ms. Dahozy to join us here. She's our Nurse Consultant for the Area. She's been with us in the Indian Health Service for over 36 years and we are getting her in her last week before retirement. So if some of you know Ms. Dahozy, I know she's got a lot of friends out there and I'm glad you're able to join us, Carol, as you're on your way out you get to say hello to everybody and just address some training competencies that I think are important if we're going to be doing this community screening for diabetes. Are you there?

Carol Dahozy:

Yes, I am, Ty.

Ty Reidhead:

Thanks, Carol.

Carol Dahozy:

Okay. Thank you everyone and hello to everybody. I've been going through participant list to see if I know people and there are a few, I recognized your names and your email addresses. So it's really good to see people on the list.

But anyway, Ty had asked me if I would put together some slides to go over training and competency. I think these slides would really be focused more on your healthcare facilities and your healthcare facility staff on training and competency.

So to start off with and I was thinking about how I was going to present this, I think there are basically two questions that you should be asking in regards to training and competencies of your staff. The first question would be, did your staff receive adequate training on the use of glucometers and your fingerstick devices?

Then, the second question would be, are you sure your staff is using the devices and performing the test accurately? This relates to the competency.

As you all know, the actual test itself, using the glucometer, and using the fingerstick devices are really, they're very simple. However, you do need to make sure that your staff has received adequate training for the use of them and some of the things that we don't always think about, but it's so important, is that you're providing your staff with adequate training.

Some things that I was thinking about for the glucometer training would be training on making sure that they know how to correctly prepare the patient to get a fingerstick. Ty talked about quality control. Do your staff even know how to do that, and are they receiving the adequate training to do quality controls? Calibration of those meters, are they receiving the adequate training to correctly calibrate their meters? And then I think what has been talked about quite a bit over in the previous presentation is just the care of the instrument and the maintenance of the instrument. So some of these things, you don't think about. Sometimes you think it's kind of automatic, but these are some things that you really need to think about and make sure that you're providing your staff with adequate training when it comes to glucometers and fingerstick devices.

There are a lot of resources that you have available to start maybe preparing, if you don't already have a training program for your staff on glucometers, and I've just listed some resources that are already or should already be available from the manufacturer. All of your glucometers and even your fingerstick devices should be coming with an owner's manual. A lot of times the manufacturer will include a first time guide. They'll include a first reference guide. They've even got instructional videos available for your staff or instructional DVDs for your staff. I know some of you are using the manufacturer's staff themselves to come out and do on site training by the vendor themselves. So there are resources that you can use to set up a training program specifically for glucometers and your fingerstick devices.

That brings us to the second question that I was talking about, are you sure that your staff is using a device and performing the test correctly? In other words, are you sure that your staff knows what they're doing? That is the competency, you really have to make sure that your staff is competent and they're doing everything correctly. This slide has two categories: Competence is an individual's capacity to perform his or her job functions, which is monitoring blood glucose using the glucometers, and then the competency part of it is the individual's actual performance in a particular situation.

So all of you nurses on the call, you know that in the nursing world, all nursing staff have to have competency assessment completed on all of procedures that they do and all of the new equipment, all of the processes that they do -- as supervisors, this is a really big deal for nursing that we're making sure that our nurses are verifying the competence of the staff on new procedures, like I said equipment or processes. This would include the glucose monitor and even the fingerstick devices.

So verifying competence is really critical. It's one thing to give them education, but you've got to make sure that they understood that, and they're proceeding to do it correctly, and that's what we call verifying their competence. It's really just making sure that they have the capabilities that they are performing up to defined expectations.

In nursing, I've listed a few of the verification methods that nursing programs use for competency verification. Generally, you can have a return demonstration after the employee has gone through the training, then you can have them do a demonstration and you watch to make sure that they're doing it correctly.

You can have them verbalize the process. You can have them verbalize the policy to make sure that they had a good understanding. We also use written tests after they've gone through the training, give them a written test to make sure that they understood a lot of the details in the training.

Then, for nursing, one way to do this is the use of a competency skills checklist. What that list is, it's just basically a checklist that outlines the required skills for the employee, and then also the level of competence, or the level of performance that is expected for each skill. I think Dr. Redd touched on this a little bit when he showed you the CDC slides talking about some smaller version of a competency.

What I did is, I did a screenshot, and I'm sorry you can't really see this, but this is a competency that we use in the Phoenix Area on just the glucometer itself. It looks like a very busy slide and it is, but it really is a good tool to use to make sure that the staff is competent. It goes over the dimensions of what is expected, if they're expected to use critical thinking, if they're expected to have interpersonal skills or if it's just a technical skill.

It also goes over the validation method that you use with the direct observation. So it's got details like that and then the competency skills checklist that we use, and it starts going down the various skills that is required. So I just put this in there just to kind of show you and give you an example of a competency skills checklist. This is just the second page. It actually has pictures of the procedure itself. Then, it also has an area that if an employee is not able to pass the competency, then you can take a look and see where you need to focus more training or a better demonstration. Then, there's a space for the employee to sign off on it and the evaluator that actually monitored the employee, which can be the supervisor, it can be another employee.

In listening to the presentation and a lot of your work is dealing with patients and teaching the patients how to use the monitor and making sure that they're using that single stick device, the competency could also be set up on how the staff is able to teach because I think that's really important, is making sure that the staff are using the correct language, very simple so that the patients have a good understanding. Those kinds of things could be put into your competency on patient education, patient family education. But I think the main point that we wanted to get across is just making sure that your staff has the adequate training and that they actually are doing things correctly and they know what they're doing.

This is just another example of a competency assessment. It's just a quick ten-question quiz after the employee goes through the training, then, you can give them a quiz just to assure that they understood and they've got concepts down.

Ty Reidhead:

Thank you, Carol. Thank you! I really appreciate you're showing this because that whole competency checklist that the nurses, we go through in the clinic in our hospitals to make sure nurses have their competencies. I'm hoping that folks, at least, think twice now about the benefits and the safety of glucose monitoring in the community. If you are going to decide to do this in the community, you probably should have some sort of competency checklist like you've shown us because you really need to make sure that you go through the process so that people are really safe in performing this.

So I appreciate you're pulling this together for us, Carol, because sure enough it's going to be important if people make that decision. Really, I think people should think maybe twice about whether we should be doing it in the community at all, but if we do, we need to make sure we're going through these steps.

Carol Dahozy:

Yeah. Just a couple of more slides, Ty, and then I'm done. As you know, it's also an accreditation requirement, but one of the big things that we tend to not think about is the risk management area. Heaven forbid if there's an adverse outcome because of the use of the glucometer or the fingerstick device. Usually, it will call for an investigation and reviewers come in, and investigators come in to see what happened. A lot of times, the first thing they will look at for your employees, was that employee trained adequately and did they have the necessary competencies?

So all of these things kind of roll together and have to come together when you're providing patient care. Again, the whole goal is just providing the quality and safe patient care to our people. So that's all I have and thank you.

Ty Reidhead:

Thank you, Carol.

Jan Frederick:

Thank you, Carol, Dr. Reidhead and Dr. Redd.