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Speaker 1

Hello everyone, and welcome to this episode of The Forefront 2022 ADA guideline expansion on CGM recommendations and the impact to patients with type two diabetes. My name is Jody Lavin-Tompkins, and I'm a nurse and Certified Diabetes Care and education specialist and Director of Accreditation and Content Development at the Association of Diabetes Care and Education Specialists. Joining me today is Dianna Isaacs, an endocrine clinical pharmacist and the remote monitoring program coordinator at the Cleveland Clinic Diabetes Center.

00;00;49;18 - 00;01;16;03

Speaker 1

And we'll be talking about the importance of continuous glucose monitoring, how it is beneficial to people with type two diabetes and its impact on hypoglycemia prevention, preparedness and treatment. I'm excited to be talking with Diana today. As she runs the robust CGM Shared Medical Appointment Program and also sits on the ADAs Professional Practice Committee, which updates the standards of care.

00;01;16;23 - 00;01;18;00

Speaker 1

So welcome, Diana.

00;01;18;14 - 00;01;20;04

Speaker 2

Thank you so much for having me.

00;01;21;14 - 00;01;24;17

Speaker 1

Could you tell our audience more about your background?

00;01;24;26 - 00;01;55;00

Speaker 2

Sure. So I'm a clinical pharmacist and I do have a collaborative practice agreement that allows me to start new medications to titrate them as well as start people on new technologies like CGM. And so a lot of what I do is I start patients we actually have a shared medical appointment program where we start multiple patients on CGM and we show them how to use that data to really understand the impact of medications.

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Speaker 2

Activity, stress on their glucose levels. And so that's a big part of what I do. And I manage adults with Type 1 and type 2 diabetes.

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Speaker 1

Thank you for that overview. Now, I'm especially excited to talk with you today because in 2022 I understand there were some changes made to the recommendations for CGM use. So could you outline for us the changes and how they came about?

00;02;24;02 - 00;02;52;10

Speaker 2

Sure. So yeah, I mean I've had the honor of serving on this committee, so I can tell you that we've had a lot of robust discussions about what should these changes be and really it's come from the fact that we have new clinical data, we have new randomized control trials. Really supporting the benefits of CGM at things like reducing A1C increasing time spent in target range as well as reducing hypoglycemia events.

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Speaker 2

So kind of backing up even before this year, right. The CGM was recommended for people on intensive insulin regimens so that those are people on insulin pumps or multiple daily injections. And that includes people with type one or type two diabetes that CGM should be offered to these these patients What has really changed in this this past year for 2022 is that we have new data from, for example, the mobile study that was actually done in a primary care population.

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Speaker 2

So people with type 2 diabetes managed in primary care on a basal insulin only so not on mealtime insulin and then they could also be on other non insulin agents like metformin, GLP-1 agonist, other types of agents and this study showed the powerful benefit of increasing time in range. This was compared to a control group and showed a point 4% overall A1C difference between the groups favoring the CGM.

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Speaker 2

So this type of robust evidence has really changed the guidelines to advocate that people with type two diabetes, even just on basal insulin, should also really be offered CGM. Now there are some differences between the types of CGM. So we have what's considered real time CGM, which is CGM. That's always basically updating. You don't need to interact with it at all to be able to see the glucose readings and that type of CGM has alerts as well as often predictive alerts.

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Speaker 2

And then there's also what's called intermittently scan, which does require the person to scan either with a smartphone or with their reader. They scan the sensor to see the glucose levels. And these devices also have alerts, but they typically they don't have a predictive alerts. So the guidelines they advocate for both there are slight differences in the grading.

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Speaker 2

There's a little bit more robust evidence, randomized control trial data with the real time CGM, which is why you see that level a little bit higher. But both are definitely advocated in our guidelines. And in terms of thinking about, you know, one of the challenges that we would have is that there are so many people now that would benefit from CGM.

00;05;16;08 - 00;05;41;27

Speaker 2

We have so many patients out there that are on on insulin. It's part of the natural progression of diabetes that over having diabetes for 20 years or more, people often do progress to requiring insulin that we have so many people out there eligible for. CGM is kind of figuring out, well, how can we systematically, especially in primary care settings, make sure that we are providing this valuable tool to all the people that would benefit from it?

00;05;43;03 - 00;06;01;08

Speaker 1

Yeah, that would be very beneficial if we could expand the use of CGM in primary care. I agree Can you outline for our audience how the changes that were made are beneficial for people with type two diabetes in relation to the management of hypoglycemia?

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Speaker 2

Yeah, I mean, I have a couple examples that come to mind. So recently I had a patient who is is taking metformin and as well as a sulfonylureas. So we know sulfonylurea can, can cause low blood sugars and this patient started wearing CGM and her A1C was above target. And so by wearing the device she was able to see how different food choices really impacted her glucose levels.

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Speaker 2

And I often I try to educate my patients about, you know, which foods have carbohydrates in them. And for example, breakfast is notorious for spiking people's glucose levels and we know foods like cereal or oatmeal can spike. But somehow the difference between actually seeing wearing the device and seeing what happens leaves a much more profound impact than me just saying, oh, by the way, oatmeal will raise your glucose levels.

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Speaker 2

So what happened was she experimented a little bit. She ate cereal one day, she ate oatmeal and she thought her oatmeal was very, very healthy. But it turned out her oatmeal was spiking her up to 300 at breakfast. Then she played around and had a hard boiled egg with whole wheat toast and noticed that she was actually able to stay under 180.

00;07;25;22 - 00;07;53;01

Speaker 2

So it was so she said it was so enlightening for her to see the impact of these different foods. Other things that she played around with were activity. So she noticed that when there were times where maybe she did eat a little bit more carbohydrate heavy foods, like she had pasta, she would go for a walk after the meal, she'd go for a 20 minute walk and notice that she was actually able to prevent it from spiking up as high.

00;07;53;10 - 00;08;18;18

Speaker 2

So I'm happy to say that by seeing and experiencing all of this in real time, she actually made tons of lifestyle changes. She even lost about 10 pounds And we were actually I was able to deprescribe I was able to take her off of the sulfonylurea, which was replaced by just very positive lifestyle changes. So that was a very powerful impact of how CGM was really able to help her.

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Speaker 2

Now, another example I want to share is how the alerts can really help with hypoglycemia. And we know anyone who is taking insulin or taking a drug like a sulfonylurea is at risk of hypoglycemia, whether they have type one or type two diabetes. Right. So recently I had a patient who was on a long acting insulin with other non insulin agents and this patient, he reported that he was worried about going low.

00;08;53;28 - 00;09;30;11

Speaker 2

And so one of the things that he found himself doing was eating an extra snack before bedtime because he was worried that he was going to drop overnight. Well, it turns out when we put CGM on him, he was not wrong. He was dropping pretty significantly overnight. We were able to capture that through the CGM and able to actually de-escalate decrease his insulin dose a little bit to get him to a point where he wasn't dropping so much overnight and not having to snap because usually people don't need to eat extra snacks.

00;09;30;11 - 00;09;58;05

Speaker 2

Usually we're trying to maintain weight or even lose weight. And so I never want my patients to have to eat extra food at bedtime just to maintain their glucose levels. So we were able to make that change as well. As he also learned about a lot of the lifestyle changes during the day so that we are still able to manage those glucose levels during the day and they stayed within Target despite the fact that we actually ended up decreasing the insulin dose.

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Speaker 2

And I do find that I do find a lot of times with CGM, I end up actually deprescribing. So and of course the alerts the other big thing was the alert, the fact that we could customize that low alert because he knew we set it actually for 80 because that's where he felt comfortable he could take action before he got below 70.

00;10;21;21 - 00;10;43;05

Speaker 1

You know patient stories always give us great examples. I mean you make it come to life. So thank you for sharing how do you think the changes that were made will help clinicians in their daily practice specifically for helping manage hypoglycemia and people with type two diabetes yeah.

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Speaker 2

So definitely there's obviously there's huge advantage for the person living with diabetes, having the real time alerts and being able to see things in real time. But in terms of the health care professional and the diabetes care and education specialist, the reports are really priceless. It provides so much information about what is happening and so much more than what we had before with just finger sticks.

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Speaker 2

I mean, we were lucky if someone would check four times a day with finger sticks and then if we had four daily readings to work off of we're like over the moon because most people come in with maybe one reading a day. And now we have readings every 5 minutes, which allows us to assess the percentage of time a person spends in their target as well as their time above the target and below the target.

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Speaker 2

And we can utilize that ambulatory glucose profile report to really see the patterns for example, is someone having wide variability. And if they're having a lot of variability honing in on, well, what's what is causing that variability especially being able to see are there certain patterns like certain meals where maybe glucose levels rise a lot more than others or patterns of is there hypoglycemia happening at a certain time that we are able to address?

00;12;06;13 - 00;12;37;26

Speaker 2

And really this leads to data driven discussions where we can talk about what is happening, especially if we compare it up with with food and with medication taking behaviors and physical activities, we can really get to the heart of things. One of my favorite things to do actually is to talk about time in range and focus on when time in range is the highest and what is working well and how can we really replicate that.

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Speaker 2

I find that that's a really motivating approach and we all can learn from it because if something's working well, yes, we want to repeat that. So that is I like to spend a lot of my time really focusing on that but also the importance of hypoglycemia because hypoglycemia is a major safety issue. A lot of people don't realize that people with type two diabetes can experience quite a significant amount of hypoglycemia.

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Speaker 2

A lot of times people, clinicians may mistakenly think, Oh, well, it's more of like a type one diabetes problem, but actually it happens a lot in our patients with type two diabetes. And so the report really allows us to hone in in general, we're aiming for less than 4% at the time below 70 with less than 1% of the time below 54.

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Speaker 2

So we're really trying to limit that level two hypoglycemia. And so this report allows us to see it get a proper assessment, which we never had before. I mean, if someone just does finger sticks or just does an A1C when you really have no idea when or how much hypoglycemia they're having. So by seeing this data, we can address that.

00;13;48;10 - 00;14;16;05

Speaker 2

And why that's so important is because hypoglycemia often leads to rebound hyperglycemia and just more overall glucose variability. And we know increased variability is not good overall for clinical outcomes. And usually people don't feel good if they're going up, down up, down all the time. They feel tired, they just don't feel good. So we really we try to address that and CGM allows us to be able to do that.

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Speaker 1 Copy 01

Well, Diana, having given us all that background, what are your thoughts on the best way to prepare people with type two diabetes who are at risk for severe hypoglycemia?

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Speaker 2 Copy 01

Well, the first step is to consider, well, who is most at risk of hypoglycemia? And there's definitely some certain characteristics. So first of all, anyone who is prescribed insulin or a secretagogue like a sulfonylureas or a glinide can be at increased risk. Versus many of our other medications, like GLP-1 agonists, SGLT2 inhibitors through their mechanism of action when used alone.

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Speaker 2 Copy 01

We don't typically expect to for a person to experience hypoglycemia. But then there are some additional risk factors. We do know that older people living with diabetes are at higher risk. Also, those that have more comorbidities, more conditions like cardiovascular disease and heart failure and kidney disease also have more risk, as well as people who have had a history of having hypoglycemia in the past and hypoglycemia that can actually be categorized into three categories.

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Speaker 2 Copy 01

So level one hypoglycemia is a glucose level between 54 and 70. Level two hypoglycemia is a glucose less than 54. And having level two hypoglycemia puts a person at increased risk of level three hypoglycemia or severe hypoglycemia, which is requiring the assistance of another person to resolve the hypoglycemia episode. And also can result in passing out to even result in severe seizure and death, all those scary things.

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Speaker 2 Copy 01

So we of course want to avoid that level of hypoglycemia as much as possible. So we have technology like continuous glucose monitors which can definitely help us to reduce hypoglycemia by being more aware of

what's happening with glucose levels and allowing the team to make adjustments, as well as allowing the person with diabetes to make adjustments as well as those alerts to be alerted or even predictive alerts.

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Speaker 2 Copy 01

But even with all of the best technology, we are not in a place where we can completely eliminate hypoglycemia. The reality is that even with the best technology, even with automated insulin delivery, there is still some hypoglycemia that occurs with our current therapies. And for that reason, people with diabetes that are at risk of hypoglycemia should be prescribed a glucagon product.

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Speaker 1 Copy 01

Well, Diana, I have personal experience with what you just said because my brother has diabetes and I advised him to get a rescue glucagon medication and of course he delayed. And then one evening he reversed his short act, his rapid acting and his long acting insulin. And of course, it was a dangerous situation. So now he's making sure to get that prescription filled So thank you so much for taking the time to join us for this episode of The Forefront and sharing your knowledge and experience with our audience.

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Speaker 1 Copy 01

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Speaker 1 Copy 01