

### KDBH Podcast #3: COVID-19 – Managing Patients with T2D and CVD

Anne Peters: 00:04

Welcome, and thank you for joining this podcast on COVID-19 and the implications in the management in patients with type 2 diabetes and cardiovascular disease. The purpose of this ongoing series is to reduce cardiovascular death, heart attacks, strokes, and heart failure in people living with Type 2 diabetes and it's based on the collaborative initiative between the American Heart Association and the American Diabetes Association, Know Diabetes by Heart™.

This series is brought to you by founding sponsors Boehringer Ingelheim and Eli Lilly and Company Diabetes Alliance and Novo Nordisk, and national sponsors Sanofi and AstraZeneca, and Bayer. I'm Dr. Anne Peters, an endocrinologist, diabetes, and metabolism specialist. And joining me is Dr. Diana Isaacs, an endo clinical pharmacy specialist. Welcome Dr. Isaacs.

Diana Isaacs: 01:04

Thanks, it's great to be here today.

Anne Peters: 01:06

So, what we're going to discuss really is the management of patients who have type 2 diabetes, cardiovascular disease, and are in many ways more vulnerable right now during this COVID-19 pandemic. And I've seen a number of these patients in my practice. And I think hopefully that what we can discuss during this podcast is really how we perceive this epidemic, how it affects our patients, and how we can help them have better outcomes.

So, if you'd like to start discussing something about the epidemiology of cardiovascular disease and the coronavirus at least as we know it today.

Diana Isaacs: 01:49

The coronavirus, COVID-19, is a global pandemic. And we've learned some things since it first came out in China. So there was actually a recent meta-analysis of eight studies from China that included over 46,000 infected patients and it showed that the most prevalent comorbidities were hypertension that occurred in over 17% of them, diabetes which occurred in over 8%, and then followed by cardiovascular diseases in over 5%. We don't know the exact mechanism of why this happens, but we know that that is the data.<sup>1</sup>

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Diana Isaacs: 02:25

So, with over 34.2 million people in the United States with diabetes, that definitely raises a concern when we hear information like that.<sup>2</sup> The CDC data actually showed that approximately one third of COVID-19 patients had at least one underlying condition or risk factor. And the most common conditions were diabetes at 10.9%, chronic lung disease at 9.2%, and cardiovascular disease at 9%.<sup>3</sup>

And then data from the outbreak in China showed that 10.5% of people that died had cardiovascular disease, 7.3% of those with diabetes, 6.3% of those with respiratory disease, 6% with high blood pressure, and 5.6% of those with cancer. And then among patients who died from COVID-19, substantial cardiac damage was observed. So, I think what we get from all this is that we know that people with diabetes and with cardiovascular disease are having disproportionate outcomes compared to people that don't have these diseases. And so, it definitely raises the concern for people with these conditions.<sup>1</sup>

Diana Issacs: 03:32

So those are really good points. And I think that a lot of our patients with cardiovascular disease and diabetes hear all of this and they get understandably really frightened. And so, one of my jobs, and I'm sure yours is too, is to try to comfort patients talking about how to reduce their risk. And one of the things is that the CDC has come out with the people that they think are at higher risk. And that includes people 65 years and older, people who live in a nursing home or long-term care facility, and the CDC lists other high-risk conditions which include chronic lung disease or moderate to severe asthma, serious heart conditions. They don't specifically list cardiovascular disease and hypertension, but we know those are risks. People with some sort of weakened or compromised immune system, patients who are severely obese, and they define that as a BMI of greater than 40. And then they talk about underlying medical conditions, particularly if not well controlled, such as diabetes, renal failure, or liver disease.<sup>4</sup>

Anne Peters: 04:37

Now one of the things about the data that's come out of China and some of the early data out of Italy is that we don't actually have A1C's available. So, in the patients admitted into the ICU's who are obviously very sick, we don't know if having a higher A1C makes you more at risk for doing poorly and contracting the disease versus a lower A1C. But one of the things I start with in terms of my patients is really talking about glucose control, because obviously that's something they can be aware of. And we know from other studies that higher glucose levels can impair white cell function and healing. So one of the tools that I give patients to work with is the fact that now that they're under home quarantine, everyone's staying home, that they can use that as a time to positively impact their blood glucose levels and bring them down.

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Whether or not that's going to reduce their risk of doing badly in the event they become hospitalized is unclear, but to my way of thinking, it's at least something that we can give them to help them with.

Anne Peters: 05:39

And then I also talk, and I think you can speak to this even better than I can, about the need to take their medications. So, I have patients who say to me, should I stay on my Statin, should I do whatever it is to reduce my risk of doing badly? And again, I don't know that staying on your Statin is going to do anything if you get very sick, but saying on your Statin, to me, is a good idea under these kinds of circumstances. So maybe you'd like to comment on your perspective on the medications here. And the other caveat that I add is that any of my patients on an SGLT2 inhibitor, I have stopped that at the first sign of sickness, because I've already had one patient on an SGLT2 inhibitor who was a lean type 2, she went into euglycemic DKA when she got COVID-19. And I actually stopped it the day she got sick, but that wasn't soon enough to prevent her from going into DKA.

Diana Isaacs: 06:35

Yeah, I think you bring up some really great points. Especially about the SGLT2 inhibitor and stopping that because of the risk. I think it makes sense intuitively that glycemic management and having A1C closer to goal and with CGM data, increased time and range will hopefully yield better outcomes. When it comes to taking the medications, I think now is actually a great time, most people are home. And so, it's easier to reach them and a great time to discuss medications. And also optimize the dosing if they are not achieving their targets.

Diana Isaacs: 7:08

Routines have changed a lot with what's going on. Many people are out of work or they're working from home. They're less active, they're eating differently, people are under a lot of stress. And so, the doses that someone needed a month or two ago, may not work for them now. And I think that's all the more reason to follow up and really optimize the medications and to be able to achieve the targets, just to guarantee it. I think the best success that if a person does get sick, they have the energy and their body is able to fight it off.

Anne Peters: 07:39

Now there's been some concern about whether or not angiotensin converting enzyme inhibitors or angiotensin receptor blockers, in terms of their effect on outcomes in patients with COVID-19. Some of what I've seen says they make outcomes worse, some of the data says that maybe it's helpful. In general, I've been telling patients to stay on their

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medication because I think that there's likely a benefit. But do you have a take on what this means?

Diana Isaacs: 08:08

Yeah, that patients have been calling very alarmed what to do with their ACE inhibitor, should they stop it? And I think we've had multiple organizations come out saying don't stop the medication. Because it's really complicated, the mechanism of action with how ACE works, and so at this time, we don't really have a great handle on is people taking ACE inhibitors, do they have an increased risk of contracting COVID? And we know the benefits for people with ACE inhibitors and ARBs.

Diana Isaacs: 08:35

So, at this time, we're continuing, we're encouraging people not to stop their medication, especially if they recently had a heart attack or a stroke, we know the benefit is going to far outweigh the risk at this time.

Anne Peters: 08:47

So I think in terms of practical advice, we obviously have touched on the need to discuss with patients their role in all of this and that keeping themselves healthy by taking their medications is really important with the exception of the SGL2 inhibitor, which again, at the first sign of sickness I had a patient stop. I don't stop it in advance, but I certainly do stop it if people get sick.

Anne Peters: 09:14

There are some other diabetes medications that may not be as good in terms of symptoms. So, the patients I've had with COVID-19, when they get sicker, they tend to become somewhat anorexic, they're feverish, they're dehydrated. Some of them have trouble maintaining their volume status. And so, I've actually in some cases reduced the Metformin in case that's causing some GI distress on top of every other symptom they have. And in some cases, I've held the GLP1 receptor agonist that has less of an impact when there's a weekly administration. But some of the GI side effects have been present. And I just want to make sure patients stay hydrated and stay as nutritionally replete as possible because for at least two weeks for most patients who get this, they're not feeling like their normal selves and not eating as much as they might.

Anne Peters: 10:06

But again, diabetes management needs to be along with everything else that's going on with the patient. The other thing that I've seen and goes along with this is I've seen a number of patients with Type 2 diabetes, instead of getting that insulin resistance and hyperglycemia you see

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with illness, I've seen patient's glucose levels get lower. It may be in part because they're eating so much less. But in patients who are on insulin and or an insulin secretagogue, I've actually had to significantly reduce the dose.

Anne Peters: 10:35

So, the things I tell patients to do to prepare for all of this is one, make sure they have a good supply of the medications they need. But secondly, to make sure that they have their meter and their strips, because in somebody who can develop hypoglycemia, I want to know what their sugars are so that they can reduce their medications as needed. I also encourage patients to have on hand some sort of electrolyte containing beverage so that they can drink that as they feel worse. And obviously the goal of all of this is to keep people out of the hospital unless the COVID-19 is so bad that they have to be in an ICU sort of setting. But I really try to work with patients to prepare in case they do get sick. And obviously when I tell people this, don't go out, don't get sick, but we know that we'll see patients who do develop this illness and I think preparation is important.

Anne Peters: 11:25

That then leads me to the notion of telehealth and what's happening for all of us with regards to switching our patients relatively quickly from a model where we see them in the clinic to now interacting with them with telehealth. Do you have any comments about this or how that's affected how you've dealt with patients?

Diana Isaacs: 11:46

Oh, we are doing lots and lots of telehealth right now. So, we have converted most of our outpatient visits to telehealth visits. And I would say it's been working very well in terms of being able to have that close follow up with patients out of the convenience from their home. And Medicare has lessened some of their initial restrictions, making it easier for people to have access to telemedicine. And so, we are using it for our patients. There have been some things that we've learned through this process to make it more efficient.

Diana Isaacs: 12:18

So, a big thing is, when we're doing these visits, it helps to have the data ahead of time. Otherwise you could be asking someone to scroll through their meter or trying to teach them how to upload their CGM data or pump data. So we actually, we have a team of people, our diabetes educators have do pre-visit planning to teach people if they don't already know how to upload their respective devices or if they need to write down their numbers in advance to really make the most out of the visit.

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Diana Isaacs: 12:46

We've also been trying to take a team approach. People that we've identified that are maybe higher risk, have recent A1Cs over 9%, we're trying to get to proactively getting them in with the dietician, with the pharmacist, and with the physician proactively so that we're taking care of them. Because I think a lot of people are really feeling isolated in this time. And we want them to know that their team is still behind them, we're just we're going to do it from a distance to keep them safe and to keep everybody safe.

Diana Isaacs: 13:17

Okay, so I'll just, I'll talk about that okay. So Medicare has relaxed a lot of the rules related to telehealth and so one of that is the 1135 CMS waiver. And this makes it so basically telehealth can be delivered in more locations; it can be done from the comfort of a person's home. It also expands the healthcare professionals that can deliver telehealth. And very importantly, it allows diabetes self-management education and support to be delivered through telehealth, where previously it was very limited in that capacity.

Diana Isaacs: 13:46

So that's really allowed for increased reimbursement, which allows for more sustainable services to be done. And so, the hope is that we'll continue to have that even beyond this. One of the things that is helpful to know though is that it limits the different providers that can offer that. So, for example, for the DSMES, the Diabetes Self-Management Education and Support. Dietitians, nurse practitioners, physician assistants can deliver that type of service. But pharmacists and nurses currently can't. And so that's something people are working on to see if we can convince CMS to expand that even further. But I think the point is we're seeing a lot of really forward movement in how care is being delivered.

Anne Peters: 14:28

Yes, those are incredibly good points because the key to telehealth with diabetes and frankly hypertension, and anything else you can do is getting the data in advance for the visit. And so many of my seniors have trouble. They have trouble with the visits on telehealth, I'll FaceTime with them or just talk to them on the phone, but getting the technical aspect of acquiring whatever data you can get and then reviewing it at the visits is it truly takes just as long as the actual visit seems to.

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Diana Isaacs: 14:59

Right, yeah, no that was a problem that we were facing and so we figured out we had to do something in advance. Because especially our endocrinologist visits, the virtual visits are 20 minutes long. So, you can't be spending 20 minutes trying to get the data. So this approach, we do it mostly through the electronic medical record through MyChart and then we call patients if needed to follow up, but it's worked tremendously well to really maximize that visit and quickly go into whatever adjustments are needed and everything.

Diana Isaacs: 15:28

Also, the other thing with telehealth is we can use it as a time to make sure people have active prescriptions. The last thing we want is a prescription to expire, and then someone doesn't have access to their medications, their insulin. Also, it's a good time to ensure people have access to glucagon, making sure there's an active prescription, someone has it at home because if a person can maybe treat hypoglycemia glucagon and prevent having to go to the emergency room or the hospital. The idea is we really want to try to keep people away, out of the hospital, out of the emergency room, as much as possible.

Anne Peters: 16:03

I have a question that's just a clinical one to you, so most of my patients, because I'm a diabetologist have meters and strips at home. And I love the point about glucagon, but what a lot of my patients don't have is a blood pressure cuff. And in a number of cases, I want to know what their blood pressure is. Do you set up most of your patients in advance with a home blood pressure meter or how have you dealt with that?

Diana Isaacs: 16:27

I wish I could say that we gave everybody a blood pressure meter. Actually, when I used to work at the VA we did. That's not currently in our practice right now. But I think that is something in light of the less frequent visits and we really do need that blood pressure data. So, I think that's a good point that we should ensure patients have that.

Anne Peters: 16:44

Yeah, for the next pandemic, all of my patients will be able to tell me their blood pressures from home. But it's just been interesting because I think about what do I miss in a visit. Well I can get their data, I can see them, and they can weigh themselves by and large. But the one vital sign that I really often want is blood pressure. And it's been harder to get that. And obviously we'll measure their blood pressures again when we can do it in person.

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Anne Peters: 17:08

So, one of the diabetes vital signs I lack is an A1C, but in patients who are on continuous glucose monitoring, I can get the data from the CGM, a GMI. Which is basically an estimate of the A1C over the past two weeks. And I use that to guide patients and their management. But a lot of my patients, particularly patients with type 2 diabetes don't have a continuous glucose monitor. There are some of the over the counter A1C tests that people can get, but they may not necessarily be reliable. And someone might have to go to a pharmacy to get, and I don't want anyone going to the pharmacy to do that.

Anne Peters: 17:47

But I think increasingly, there are going to be companies that will actually mail you a A1C test where you can just do a finger stick and then send it back and we've used those for research in the past, so that kind of tool might be helpful going forward. And again, some of this is just preparing for the next pandemic. But when you switch to telehealth, there are certain physical findings that we like to find, one of them being blood pressure, another, if we can and don't have CGM and A1C.

Anne Peters: 18:16

And then the final thing is looking at feet. And I wish I had a handout to give people as to how to show me their feet. Because when people are trying to show you their feet on FaceTime, it is unbelievable how hard it is to actually get a good view of someone's foot. I don't know Dr. Isaacs if you have any better way to do a foot exam on telehealth, but it's not been easy in my experience.

Diana Isaacs: 18:40

Yeah. I think it comes to the video quality and unfortunately with the different platforms, it's not, I think often the quality's not good to see the details you need. So, you raise a lot of good points about it's definitely not always perfect. And I think it just reinforces that I think we at least need some usual care. I mean I do miss seeing my patients in person. I really enjoy that. So hopefully the pandemic won't last forever. But I think what we have all adapted to is that we know we've learned that we can do virtual visits.

Anne Isaacs: 19:11

And what I've been really impressed by is even my seniors are most of them have smartphones, so they've been able to do the FaceTime, which has been new for them, but they've been able to adapt to that, which I've been very pleased by. And sometimes our platform crashes, but we know we have the phone as a backup. So that at least gives us an opportunity to still be able to connect.



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Anne Peters: 19:32

Well yes, I always have everybody's phone number in front of me. The one place where I have not been able to use telehealth as effectively is in the underserved communities where I work. Part of the time because many of those people actually don't have smartphones and they need to come in to access some portion of their care. So, the clinic I work in, in East Los Angeles, which is an underserved area still, has inpatient visits even though we try very, very hard to do everything via telehealth.

Anne Peters: 20:02

But I think basically what this is teaching us is exactly what you said. Is that telehealth is more doable than I think we all thought. I was doing telehealth before, but in a more limited way. And then I think that as time passes and we revert back to our more routine practices as the COVID-19 pandemic sort of ebbs, whenever that is, is that we'll be able to use these lessons that I'll be able to make sure everyone has a blood pressure cuff at home that I'll figure out a way to get people to show me their feet more effectively, but that we'll be able to have tools that enhance telehealth, that will give it to use to have as an option. Obviously, things like reimbursement down the line matter, because historically when I did telehealth, I didn't get much reimbursement. So, all of those things have yet to be worked out.

Anne Peters: 20:52

But I certainly know that I'm smarter at doing it, I know how to prepare for the visits, and I know the tools that would be useful like a finger stick A1C that can just be sent off and a blood pressure cuff and those sort of things that would help me going forward.

Anne Peters: 21:07

And I think in terms of the immediate issues, we just really need to tell patients to reach out to us. Because the one thing we don't want is for people to get sick from their diabetes that we can prevent, that puts them in the hospital in addition to having COVID-19. And I think that the fact that people can connect with us, that we can talk about fluids, we can talk about adjusting medicine, adjusting insulin. Because the hospitals need to be really focused on those very sickest patients with COVID-19. We can't take away the fact that having Type 2 diabetes, being older, having cardiovascular disease and hypertension increases your risk for worse outcomes with COVID-19, but I think we can do a lot to help the people who are more moderately sick where we can really coach them through and keep them healthy.

Diana Isaacs: 21:55

I really like or appreciate the point that you brought up about the health disparities. So, I didn't get the opportunity to mention earlier, but

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there's actually data coming out saying that certain populations are being disproportionately negatively impacted by COVID-19. Data from Louisiana showed that approximately 70% of people who died from COVID-19 in Louisiana are African American, yet only 32% of the population are African American.<sup>4,5</sup> So that really highlights a huge health disparity, and it's not just in Louisiana. We're seeing statistics like that in other places, like Chicago. And so, I think it really begs the question, why is this happening? And I think you brought up one good point, some people they don't have phones, they don't have computers at home. And so how do we reach those people? And I think that's, it's a very important issue that will go even beyond this pandemic.

Anne Peters: 22:44

Yes. And I think that's something we really need to think about, we're going to learn a lot more about how this virus affects people and everything else, but right now, obviously we need to outreach to people who don't have the access to the technology that others have and really making sure that they get the same health messages and stay safe.

Anne Peters: 23:05

That being said, in terms of resources from at least the diabetes perspective, I know that the American Diabetes Association had put together a very informative site, it's a link on their website that talks both to professionals and to patients about all of the most cutting edge research, what we think, what people are doing. And I think it's very good resources. There are a number of other resources in the diabetes community, I know that there's resources available through the American Heart Association. Everybody is really trying to provide right away as much as we can regarding what we know about COVID-19, and some of the best practices for helping our patients.

Diana Isaacs: 23:46

Yeah, I agree. I think those are all excellent resources. And I've also noticed in the pharmacy world, there's new list serves, I've seen that with ADA as well. List serves where people can exchange ideas about how they're treating COVID. In addition to that, ADCES, the Association of Diabetes Care and Education Specialists has a lot of good resources. Especially as the ever-changing rules about telehealth progress. They have the most updated information on their website, so that's another great resource to access.

Anne Peters: 24:15

Yes, I've actually been following it. It's almost more than I can handle at some point, it's like I just have to get through all these calls and help

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people. But there is an incredible world of what's happening, what's happening with regulation, what's happening with Medicare and how many forms do I have to fill out from home because I need to get a patient their strips. I mean there's a lot of change happening.

Anne Peters: 24:36

And hopefully some of the good change will stay so we can continue to help our patients and maybe enhance how we care for them.

Diana Isaacs: 24:46

Yeah, I agree. I mean there's been some impressive changes with things like the cost of insulin and decreasing co-pays and I really hope things like that will be here to stay.

Anne Peters: 24:56

So, I think there are many takeaway lessons that we have from all that's happening around us. And I think we obviously have seen how quickly our healthcare system can change when extraordinarily stressed. And I'm really hopeful that some of the things we're learning will continue to be part of the healthcare system for a long time to come, especially if they're effective. But one of the things that I deal with all the time is fear. And my patients are reading about all of the people who die, and they're reading about cardiovascular disease and its role in all of this, and that just brings me back to talking to patients about what they can do. And they can take their medications, they can monitor their blood sugars and their blood pressures. They can exercise and eat healthy even if they're confined to a relatively small space.

Anne Peters: 25:46

And I also told people is that I've actually had a number of patients now who have come down with COVID-19, and most of those patients have had cardiovascular disease, hypertension, and all of them have diabetes because that's all the patients I treat. And none of my patients have ended up in the hospital and none of my patients have died. So I do think that the message is that this is a very serious problem, but that most patients are going to be fine and that these are the things you can do to help your health, which obviously in general helps outcomes in the long run.

Anne Peters: 26:20

So, I'm a positive force and I try to be comforting because these are scary times for our patients and frankly it's scary times for healthcare

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providers and the whole rest of the world because of everything that's happened so quickly.

Diana Isaacs: 26:32

I think those are all really great points. And keeping a positive outlook on everything is really, really important. And I like that about empowering the individual to do the things that they know that they can do. I think just to add to that is I kind of look at it like the virus is coming, the virus is here, so let's just try to be as healthy as we can so we can face it head on and have the best outcome. And I'm so glad to hear that your patients are doing well and have been able to recover. So, I just use that to focus on why we want to achieve the targets and really keep a good mental outlook. And stay connected with the team, stay connected with other people, and really be able to get through this together.

Anne Peters: 27:15

Well thank you for those wonderful points, and I love the partnership of all of us together, all of the organizations, everybody who really cares about their patients and the way that we can do more to help them, even though some of the most difficult times.

Anne Peters: 27:35

So, thank you very much for listening and stay tuned for upcoming podcasts.

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