Welcome and thank you for joining this podcast on health disparities and diagnosis and treatment of patients with type 2 diabetes at risk for cardiovascular disease. The purpose of this ongoing series is to reduce cardiovascular deaths, heart attacks, strokes, and heart failure in people living with type 2 diabetes and is 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 am Dr. Eduardo Sanchez, chief medical officer for prevention at the American Heart Association, and joining me is Dr. Robert Gabbay, chief scientific and medical officer at the American Diabetes Association.

So why don't we get started, Bob? I'm just going to throw a question out for us to talk about. Why do people living with diabetes have worse outcomes with COVID-19?

That's a great question, Eduardo. You know, it really is almost as if we have superimposed, in essence, a triple pandemic, COVID, diabetes, and obesity. Because as you know, most people with type 2 diabetes are obese, and we know obesity is a risk factor. So is hypertension. So is cardiovascular disease. All of those things together in the same person multiply out to putting these individuals at very high risk for poor outcomes.

And I'll add to that, and we'll come to it later, is that there's a set of socioeconomic realities that also play a role. And one of the things that gets talked about a lot is the disproportionately adverse effect that COVID-19 has had on persons who are Black, Latino, Hispanic, and Indigenous Americans in the United States. I think that as I listen to what you just said about type 2 diabetes, obesity, and other cardiovascular risk factors, there's no doubt why or seeing some disproportionality of COVID-19 and the groups that I just mentioned.

Very true. And really, to your point, I think in many ways, COVID has exposed some health disparities we've all known have existed for quite some time, but that has just been dramatized on the front page of newspapers as we see the impact of COVID on the populations you just described.
Eduardo Sanchez: 02:44

Yeah. And as you mentioned when we look at the prevalence of obesity, just to start, there is a difference between particularly African American persons, Latino, Hispanic persons, Indigenous Americans in the United States, and those persons who are white or Asian, very marked disparities and prevalence, much higher among Black persons, Latino, Hispanic persons, and Indigenous Americans. The same is true for type 2 diabetes, the same sort of pattern that might be feeding on itself. And with hypertension, it's a little bit different, but there's an outsized higher prevalence among African Americans.

Eduardo Sanchez: 03:28

And when I think about the fact that the CDC has told us that the groups of persons who have underlying medical conditions in the following categories are, A-R-E, are at increased risk of complicated COVID, that list includes obesity and type 2 diabetes. And then the secondary list, which is the underlying conditions that may increase the risk of complications of COVID-19, hypertension is on that list. So when you add up or multiply, whatever is the right mathematical operation, when you multiply or add that up, there are groups that, because of the variation and prevalence of these underlying medical conditions, are finding themselves at higher risk of complicated COVID-19.

Robert Gabbay: 04:20

Yes. And I'll throw one more log on that fire because it really is disturbing in some recent data that I saw. So you layer on that poverty. And if you look at, for example, there's some recent data on people with diabetes that live below the poverty line, their mortality rate is double those that are not below the poverty levels. And we know poverty obviously is not uniformly distributed across the population. And so it's these same groups that sadly are affected.

Eduardo Sanchez: 04:56

Yeah. And I think to that same point, what we hear about are, again, poverty being one of the socioeconomic factors, sometimes described as a social determinant of health, for good reason. There are characteristics that go with being low income, whether you're on the edge of poverty, whether you are at two times poverty, and maybe even as high as three times the poverty level, which just for the purposes of context, approximately a household income of $50,000 for a family of four is 200% of poverty. So about $25,000 for a family of four is the poverty level, below that is poverty.

Eduardo Sanchez: 05:32

There were some other things that go along with that. These are individuals in this country who are more likely to be in those jobs that are characterized as essential worker jobs. They are the jobs that, A, are the support services in our healthcare settings. They are the jobs that are the folks who are, as I've heard it stated before, picking, plucking and packing the food that we eat. They are the folks that are working in the supermarkets. They are the folks that are driving
buses. And then they are folks who, unlike you, Bob, or me probably, who can do 99% of my job without ever leaving my house and just having a computer and good bandwidth.

Eduardo Sanchez: 06:18
So the kind of job you have, which goes with poverty, which goes with higher likelihood of some of the conditions that we talked about, because poverty is another predictor of a higher prevalence of obesity, type 2 diabetes and hypertension, particularly uncontrolled hypertension, you've got this confluence of factors.

Robert Gabbay: 06:40
Yes, very much so.

Eduardo Sanchez: 06:42
So, talk a little bit about some of the other complications of diabetes which are also on the list of conditions that increase the risk for severe COVID-19.

Robert Gabbay: 06:52
Yeah, well, we talked about obesity, and that really is a major factor. The outcomes are far worse. Hypertension, cardiovascular disease, all of these things independently increased the risk of poor outcomes with COVID, and therefore it's not terribly surprising that people with diabetes are disproportionately affected. And in fact, a statistic I saw recently that was quite sobering is that if you look at the COVID-related deaths in the US, almost 40% of them are in people with diabetes.

Eduardo Sanchez: 07:25
Yeah. I can't say that I'm surprised, because the other thing that you and I know is that diabetes likes to hang around with other diseases. There's just other things that are happening. Talk a little bit about chronic kidney disease.

Robert Gabbay: 07:38
Yes. Well, as you know, diabetes is the leading cause of kidney failure in the US, and so chronic kidney disease increases the risk of vascular disease, many other comorbidities, and also makes for worse outcomes in connection with COVID. In a weird kind of way, it's almost as if diabetes sort of pulls together all of these different strands that we know are problematic in terms of COVID outcomes all in one person.

Eduardo Sanchez: 08:10
And those are the medical ones. Hopefully everyone on the podcast recognizes a few things. One, hypertension plus diabetes is leading causes of chronic kidney disease and end stage renal disease, but the other is that the list I talked about, the CDC list of those who are at increased risk and those who may be at
increased risk, that chronic kidney disease is on the already increased risk list. So yet another condition very much related to type 2 diabetes and/or a cardiovascular risk factor or cardiovascular-related condition, hypertension.

Eduardo Sanchez: 08:46
I'll say one more thing and then maybe it's time to start talking about what we can do about it. There are some other nonclinical factors that increase, at the very least, the likelihood of infection. And then if you increase the likelihood of infection, but also have an increased likelihood because of the reasons that Bob and I have been talking about, an increased likelihood of severe COVID-19.

Eduardo Sanchez: 09:07
Again, those two things, when you put them together, cascade into a bad situation for persons who come from certain race, ethnicity groups. But some of the additional non-clinical factors, I talked about type of work, essential work is generally work that's going to put you at higher risk than work that you can do from home, but there's also living situations. And folks who are in low income households may be people who are living in more crowded conditions than folks who are more affluent. And so, the ability to even maintain a safe distance from others if someone in the household has been in contact with somebody who may be spreading COVID-19 is somewhat limited.

Eduardo Sanchez: 09:50
So that becomes a little bit of a challenge. You have little super spreader opportunities inside the home. And one can do only so much when you're sort of crowded in a small space, sharing a small number of rooms, and maybe sharing a small number, if even more than one bathroom.

Eduardo Sanchez: 10:06
But then there's some other factors. Insurance status, so having insurance versus not having insurance, I live in a state, Texas, where there's a very high uninsurance rate. That results in delayed care. It results in people fearing what that bill might be and they don't get care. And that's true in this time of COVID, fear of a bill and fear of COVID is keeping people from getting care.

Eduardo Sanchez: 10:29
And then citizenship residency status is a big deal. I live in Dallas, Texas, and there's a fairly high percentage of undocumented individuals. And then families where one person in a family may be undocumented, and that creates a fear, not only for that individual, but sometimes for the entire family.

Eduardo Sanchez: 10:49
But maybe now that we've talked about all the challenges that might be explaining the disproportionate adverse effect that COVID-19 might be having on some persons as related to type 2 diabetes and disparities, let's talk about what we can do about it, Bob.
Yeah, I think that would be great because this first part is quite sobering. It is the reality, but I think everyone on the podcast, I'm sure we all want to be able to address this for our patients. And fortunately, there are a number of things we can do.

And Dr. Gabbay, I'm going to talk to you as a doctor now, what are some of those things that we ought to be doing that we should encourage our colleagues to be doing?

Yeah. Well, I think at the broad level, it's really a focus on what we often call the ABCs, A1C, blood pressure and cholesterol. And although we've been hearing about that for years, we know that even under the best of times pre-COVID, only about a quarter of people with diabetes are at goal for those three things. So there's a real opportunity to make improvements, and we can talk a little bit about some strategies in a moment.

I think the other big story over the last two or three years, that I know you've been following closely, is for the first time, really, just over these last few years, we have drugs to treat glucose that significantly reduced cardiovascular risk and mortality, and the SGLT2 drugs and the GLP1 drugs really have led to a paradigm shift in how we approach management of diabetes.

I think that incorporated in that is that patients need to be in care to be able to do these things. That's one. Two, I think, while we really do not have the science yet that tells us that this is the case, I think, Bob, you would agree with me that the degree to which A1C is controlled, blood pressure is controlled, and lipids are being appropriately managed, and let's throw weight management in there as well, that the degree to which one can be at a better place than they might've been is the degree to which they may, and may is the operative word, may fair better with COVID-19. We don't know that for sure, but intuitively, I can't help but believe that that's the case.

Yeah. I think that's very true. And particularly around glucose, there's now more and more emerging data. Certainly there's a lot of associative data, so there's already data to say that higher blood sugars in the hospital predict worse outcomes for people with diabetes. I think the opportunity and where there are some early studies that are promising, is that controlling blood glucose in the hospital more effectively can reduce those risks of poor outcomes.
Eduardo Sanchez: 13:34
Now, one of the things that The American Heart Association for sure, and I suspect that the American Diabetes Association has been very concerned about two things. One is that people have lapsed, and that's the best word I could think of, lapsed on their continuity of care on the management of their chronic conditions, the diabetes, the high blood pressure, the lipids, the weight management. That's one.

Eduardo Sanchez: 13:59
The other is that when people are having complications of certainly cardiovascular-related complications, but I bet if we looked, high blood sugar evaluations in the emergency rooms probably went down for at least a while, if not still down, we are trying to convey the message connect back with your doctor. And we would like to convey a message to clinicians, connect back with your patients. There are things that it is time for at least touching base.

Eduardo Sanchez: 14:26
And as it relates to these emergencies, our message has been, and I think I would want to stress, call 911 if it's a medical emergency, either signs of a heart attack, stroke, or markedly elevated blood glucose, get to the emergency room, that's the place to be evaluated. They will do everything in their power to protect you. You're probably safer in the emergency room than you're in the supermarket. So get taken care of because that's going to save your life.

Robert Gabbay: 14:57
Very important messages. Absolutely. I think the other shift I think we need to be thinking about is, in March and April, we were dealing with an acute situation and people deferred to care, and okay, maybe that sort of made sense. And we didn't know how long this was going to last. Now, we're months later, and that lapse of chronic management of diseases like diabetes are now going to become a really big issue.

Robert Gabbay: 15:26
And you're absolutely right, using telehealth where that's available and can reach out to people I think is one of the bright spots of COVID that has become more available, but I would suggest something, I was going to say relatively simple, but it sort of depends on how your practice is organized. But really, the basic idea is of population health. Look at the people in your practice if you can identify who has diabetes and who has a high A1C and has not been in for six months. There are probably those kinds of people in your practice and those would be the ones to do some kind of outreach.

Robert Gabbay: 16:05
And again, as you know, Eduardo, this is not necessarily that the doctor needs to make that call, but it's someone on the team. It's engaging the team in your
practice to do the outreach to those people that are missing care and really would benefit from being re-engaged.

Eduardo Sanchez: 16:23
That's an important point, that is, that there is a team of people in any given practice, and each has a set of things that they can do that maybe they haven't done in the past. And I think reaching out to patients is one. I would add that right now in the time of influenza season, this would also be a really, really good time to reach out to all your patients with chronic disease, A, to check on them, and B, maybe bring them into the practice if you're giving a flu vaccine, and if you're not, to encourage them to go get a flu vaccine. Bob, talk a little bit about how that flu can be if you've got an underlying chronic medical condition.

Robert Gabbay: 17:00
Yeah, the mortality rate is significantly higher, particularly for people with diabetes. This is the year that we really need to be careful about ensuring that we all get our flu vaccine. I'm happy to say I did mine two or three weeks ago, but everybody who's listening to this should make sure that they've been vaccinated, and particularly for our patients because their outcomes can really be catastrophic. And it's simple stuff, but the vaccination rates, as you know, are not as high as they should be. And so that is a very important message.

Eduardo Sanchez: 17:35
The vaccination rates aren't even close to what they should be, and that's sobering, but it's an important reminder that sometimes we don't make the best use of the tools we have right in front of us. So I will repeat, encouraging folks with type 2 diabetes to go get a flu vaccine may be one of the most important pieces of advice we provide our patients. Your corner grocery store and corner pharmacy are probably offering flu vaccine at no cost. I went to my corner pharmacy, no cost, very little wait, very safe. I wore a mask. I was put in a private place, and the pharmacist also wore a mask and did a really nice job of giving me a shot in my arm, no pain with the shot, no pain the day after. Go get a flu vaccine.

Eduardo Sanchez: 18:33
One thing that I think is really important, Bob, that we convey, you cannot get the flu from a flu vaccine. It's just impossible. If that were to happen, it would be basically a Frankenstein model. You'd be creating life from something that isn't alive. So really, really important that people understand that you cannot get the flu from flu vaccine, that you should get the flu vaccine. It will protect you from flu. It will keep you from having the complications associated with flu if you have an underlying medical condition, mortality being one of them, but a higher incidence of heart attacks and strokes being among the other things you want to avoid. Really, really, really important.
The one other thing, from the perspective of what we talked about earlier, the socioeconomic factors, I live in a city, Dallas, Texas, where the health department has run out of flu vaccine. And what I want to say to you is, if you don't have the resources in your community, wait until that vaccine is available for free. Think hard about whether you want to wait or not. I suspect you can get a flu vaccine for $20. Not suggesting that $20 is not a burden right now in this time of COVID where some folks have lost their jobs, some folks have lost their jobs and their insurance, but that 20 bucks may prove to be a very, very, very, very lucrative investment if it keeps you from having a really bad situation occur.

I just want to state that in your communities, if you are providers, you should at least alert your patients that the local health department may have places and ways to get flu vaccine to people at no cost.

Robert Gabbay: 20:18
Yeah, it literally could save some people's lives.

So, we're coming up at the end and I do want to close a loop. We'll hand it off to you, Bob, to completely close us out. So we started and mentioned COVID-19, and those of you who are hearing this, so this is October, 2020. I believe that still in October, 2021, COVID-19 will be a thing. Perhaps not. If it wasn't, that would be fantastic. But realistically speaking, it is likely to still be amongst us. And there's three practices that are critically important every day. They actually protect you from COVID-19. They will also protect you from influenza.

Those three things are the three W's. Wash your hands like you are somebody who's obsessive compulsive about washing your hands. Better to be OCD than it is to be RIP. I'm not meaning to make fun, just washing your hands really can protect your life. Watch distances. Stay six feet away from people who are not in your household who you don't know what their status may or may not be. And then lastly, wear a mask. Wearing a mask, watching your distance, washing your hands, plus all of the other things we've talked about, managing your diabetes, blood pressure, cholesterol, weight. We didn't talk about eating healthy, being physically active, really important, and getting a flu vaccine. That's the package. That's the package for health to protect yourself, to get better health, and to not get COVID-19 or influenza. Dr. Gabbay?

Yes. I couldn't agree more with all of those things. I think from the healthcare provider perspective, it's really reaching out to your patients now. And for people living with diabetes, it's reconnecting with your healthcare team.
Because this is going on longer than we had hoped, and the things that were important pre-COVID are only more important now. And so being on the right treatments, preventing disease. Again, we can't overemphasize enough the simple effort of getting a flu vaccine and the benefit that that has. So please everybody, be safe, wash your hands, stay distant, wear a mask. Those simple things really work. They really do.

Eduardo Sanchez: 22:50

Dr. Gabbay, thank you so very much. This was really, really terrific. Thank you very much for listening and stay tuned for upcoming podcasts.