

Intro:

You are now listening to MedEdTalks in Cardiology, a Vindico Medical Education production. The following podcast series is titled, Cardiovascular Risk Reduction in Patients With Diabetes, Coordinating Efforts Between Cardiologists and Endocrinologists, and is supported by an educational grant from Merck & Co., Inc.

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Now, here is your host, Dr. Deepak Bhatt.

Dr. Bhatt:

Hi. I'm Dr. Deepak Bhatt, here with Dr. Peter Toth, and today we will be discussing a very important topic, blood pressure control and optimizing care coordination and medication management. So, those are both important topics, at times interrelated ones. So, maybe I could just start off asking, Peter, if you could just review the latest American Diabetes Association (ADA) guidelines for blood pressure control.

Dr. Toth:

Sure. The latest ADA guideline, which was published in 2018, on hypertension management recommended that blood pressure in patients with diabetes mellitus be reduced to less than 140 over 90. They felt that the evidence was not robust enough to recommend less than 130 over 80. They felt that in patients who are diabetic and had a prior history of stroke or had a history of microalbuminuria or retinopathy, perhaps less than 130 over 80 was advisable, but less than 140 over 90 was the target they came up with.

The American College of Cardiology/American Heart Association (ACC/AHA) guideline was a little different. They recommended less than 130 over 80 in the face of comorbidities, including diabetes as well as chronic kidney disease and anyone with stable ischemic heart disease, secondary stroke prevention, or someone with peripheral arterial disease. So, a little bit of a difference. But I think that the ADA felt that the incremental risk reduction was a little bit questionable apart from patients with microangiopathy. And hence, they went with a looser target.

Dr. Bhatt:

Yeah, that's really very, very useful perspective on those guidelines. I think you distilled them quite nicely. There's something that I think has been an issue really for a while in

medicine that blood pressure doesn't get all the respect it deserves. That is everyone knows—obviously healthcare professionals, but even just lay people know—that blood pressure is important. But then when you look in registries, the numbers are always high.

That is, there's just a lot of undertreatment of it. So, you know, hopefully a care coordination will be one of the things that can help treat blood pressure better. And, you know, that's one specific area, but maybe you could just discuss, Peter, the importance of coordinating care among primary care physicians, Cardiologists, Nephrologists, and Ophthalmologists in treating people with diabetes in general. And I might have thrown in Podiatrists in there as well.

Dr. Toth:

Yeah, you know, it's very interesting you mentioned the registry data, which clearly demonstrates that a very large percentage of patients with established coronary disease or diabetes, their blood pressure is not well controlled at all. And I think we need to reemphasize the need to couple pharmacologic intervention with sustained lifestyle intervention. It's amazing to me how much blood pressure reduction you can obtain, not just through issues like weight loss and exercise, but also the DASH diet or increasing the amount of potassium in the diet.

The guideline writers were very careful to point out just how much of a blood pressure reduction you can expect to see with some of these interventions and it varies between 4 mm Hg and 11 mm Hg. Now, if you add that on top of what you see with pharmacologic intervention, you would see a huge improvement in the percentage of patients with hypertension reaching their blood pressure targets.

So, there's a lot of care coordination that has to happen, because number one, you want to make sure that a patient is treated with an appropriate blood pressure lowering agent. In the case of patients with diabetes, if they warrant an angiotensin-converting enzyme (ACE) inhibitor or an angiotensin receptor blocker (ARB), of course, you want to make sure that they've got that on board—beta-blockade in the setting of, say, arrhythmia or established coronary disease, someone has had an event.

You get the picture here. And hence, the role of the primary care physician is often not only making sure that they're on the right medication, but they are sustaining adherence to the medication. The Cardiologist, of course, will institute appropriate beta-blockade, calcium channel blockade, ACE

[inhibitor] or ARB, and the like, depending upon the cardiovascular status of the patient. But again, the Cardiologist may only see the patient once a year, and it's going to be largely on the primary care physician to ensure that the patient is adherent in the long term.

And this requires reinforcement on every patient visit, making sure that an inventory is taken of the patient's medications, that the patient is asked whether or not they are in fact taking their medication every day. And cross-checking, is the blood pressure well-controlled, are the lipids controlled, et cetera. And certainly, if the patient is experiencing adverse side effects that is preventing them from being adherent to their medication, they have to be addressed pretty aggressively.

Of course, the Endocrinologist plays a role in all this because all endocrinologists, of course, understand the importance of controlling blood pressure, but sometimes they may have a different opinion on what needs to happen and there has to be clear communication between the various caregivers for a given patient. The role of the Podiatrist, of course, can be very important in assessing whether or not the patient has small vessel disease or peripheral vascular disease, which could impact a choice of medication.

And then, of course, the Nephrologist plays a huge role in this because if the patient has developed evidence of chronic kidney disease or microalbuminuria, this may require intensification of renin-angiotensin-aldosterone system (RAAS) axis inhibition, may require the addition of spironolactone in the setting of significant albuminuria, proteinuria. We know that it's really contraindicated to combine ACE inhibitors and ARBs, but it is highly efficacious to add spironolactone to an ACE [inhibitor] or an ARB in the appropriate setting.

This can get very complicated, and lines of communication can often get crossed. But there is evidence that when there is a team approach to the care of patients with diabetes, especially among the various specialties, care improves, and these patients do better. But obviously there's a long way to go because there are many issues here. The lines of communication between systems may not often be clear because computer systems don't necessarily communicate with one another. There can be delays in information being relayed to different members of the team just because of administrative issues. But I think all in all, we agree that clear lines of communication, team effort are very important. It does improve care, Deepak.

Dr. Bhatt:

Yeah, that's really a beautiful, beautiful synthesis of the state of the art. I would add that the cardiovascular outcome trials that we've been engaged in as a community have really helped, I believe in terms of improving patient care. So even though it was research, it got Cardiologists, Nephrologists, and Diabetologists and Endocrinologists all working together. And while that was in the context of research, I believe there's been a spillover effect even to patient care in that regard. So, a byproduct of the cardiovascular outcome trials other than just finding lots of good stuff about some new diabetes drugs, including reductions in cardiovascular events, has just been getting these different types of physicians in these different specialties more coordinated.

Dr. Toth:

I love the word coordinating because, I think, in many ways the primary care physician is the quarterback—because they are the ones who need to be making sure that the patient is undergoing appropriate screening for the albuminuria annually, making sure that the patient is having their dilated retina exams to rule out retinopathy or macular issues. They're the ones who need to make sure that the patient is adherent with medication, that they're reaching guideline driven targets for risk factors, such as their blood pressure, their A1C, their LDL. So, lot of coordination. It's critical that the primary care physician engaged in all the appropriate defined screening approaches that are in the guidelines.

Dr. Bhatt:

Yes. Very, very well said. Well, I hope that this discussion has been useful to our audience. Really a lot going on in the world of diabetes and lots of interplay with cardiovascular disease and cardiovascular risk reduction. Lots of different aspects to consider. Lots of different lifestyle interventions in terms of healthy diet and physical activity and weight maintenance and tobacco cessation. That has to be coupled in many cases with some of the most recent advances in pharmacology across a variety of different therapeutic classes. So, this really does call for care coordination more than perhaps anything else right now going on in the larger world of medicine. Well, thank you very much for joining me in this conversation, Peter, and thank you to the audience.

Dr. Toth:

Thanks, Deepak.