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Strategies for CV Risk Reduction in Complex T2D Patients

ReachMD Announcer:

You're listening to *Heart Matters* on ReachMD. This medical industry feature, titled "Strategies for Cardiovascular Risk Reduction in Complex Type 2 Diabetes Patients," is developed and sponsored by Novo Nordisk, Inc. Here's your host, Dr Jennifer Caudle.

Dr Caudle:

Managing type 2 diabetes after a cardiovascular event can be overwhelming for patients, and implementing strategies for cardiovascular risk reduction is absolutely critical. Fortunately, with a combination of lifestyle changes, medication management, and regular monitoring, patients can take control of their health and reduce their risk of future cardiovascular events. But what do those management strategies actually look like in practice?

This is *Heart Matters* on ReachMD, and I'm your host, Dr Jennifer Caudle. In this program, we'll discuss some approaches for cardiovascular, or CV, risk reduction when managing complex patients with type 2 diabetes.

And joining me to examine those strategies are Drs Yehuda Handelsman and Michael Blaha.

Dr Handelsman is the Medical Director and Principal Investigator at The Metabolic Institute of America in Tarzana, California. Dr Handelsman, welcome to the program.

Dr Handelsman:

Thank you for having me.

Dr Caudle:

And also with us is Dr Blaha, who's the Professor of Cardiology and Epidemiology, as well as Director of Clinical Research at the Johns Hopkins Ciccarone Center for the Prevention of Cardiovascular Disease in Baltimore, Maryland. Dr Blaha, thank you for being with us today.

Dr Blaha:

My pleasure to be with you today.

Dr Caudle:

Both Dr Handelsman and Dr Blaha were compensated for their time by Novo Nordisk.

So let's begin our discussion with you, Dr Handelsman. Can you tell us what types of patients typically present to you, and what your overall treatment approach is?

Dr Handelsman:

Yes, so I see a lot of patients who have both type 2 diabetes and atherosclerotic cardiovascular disease, or ASCVD for short. My patients may present with comorbidities, such as hypertension, or my patients with type 2 diabetes may present with a family history or emerging risk factors for cardiovascular disease, or CVD.

And sometimes patients are overweight or obese, have higher low-density lipoprotein levels, high A1c levels, and lead sedentary lifestyles. Patients may be on a number of medications, including metformin, statins, angiotensin receptor blockers, and/or aspirin.

So with these types of patients, I recommend weight loss through lifestyle modifications, sometimes along with pharmacological or procedural interventions as needed. I want them to achieve an A1c of less than 6.5 percent and reduce CV risk factors to help prevent events like myocardial infarction, or MI, and stroke. However, all regimens should be tailored to the individual patient.

Dr Caudle:

Thank you for those details, Dr Handelsman. Now turning to you, Dr Blaha, how concerned should clinicians be about patients who have both type 2 diabetes and a history of ASCVD?

Dr Blaha:

I'm definitely concerned about patients who have both type 2 diabetes and ASCVD because people with type 2 diabetes who've had an MI or a stroke are at a higher risk of recurrence than those that don't have type 2 diabetes.[1,2]

Take MI for example. MI is the number one cause of mortality in patients with type 2 diabetes.[3-5] In fact, in a large retrospective study, it was shown that people with type 2 diabetes had more than a 40 percent higher rate of recurrent MI compared to those patients without type 2 diabetes.[1]

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Footnote:

Based on a retrospective cohort study of patients with their first MI recorded in the UK. General Practice research database in 1997-2008. A total of 7,411 patients with type 2 diabetes (median age 72 years; 63.4% men) and 48,726 patients without type 2 diabetes (median age 69 years; 65.3% men) were included. The crude incidences (per 1,000 patient-years) in patients with type 2 diabetes vs without type 2 diabetes were 32.8 vs 22.8 for subsequent MI, rate ratio (95% CI) 1.44 (1.35-1.53).

Dr. Blaha:

We should keep in mind that every two minutes, an American adult with type 2 diabetes is hospitalized for stroke,[6] a stark reminder of the serious impact that comorbidities can have on patient outcomes.

In another study of U.S. patients with ischemic stroke three years post-discharge, poorer outcomes were seen amongst patients with type 2 diabetes versus those without, such as higher rate of readmission for ischemic stroke[2] and higher all-cause mortality.[2]

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Footnote:

In a registry study of 409,060 US patients with ischemic stroke, at 3 years post discharge, poorer outcomes were seen among patients with type 2 diabetes vs those without type 2 diabetes such as: higher readmission for ischemic stroke (hazard ratio [HR] 1.22; 95% CI: 1.20,1.24), higher all-cause mortality (HR, 1.04; 95% CI: 1.03, 1.05).

Dr. Blaha:

And people with type 2 diabetes have a 127 percent higher risk of ischemic stroke versus those without diabetes.[7]

So this means that cardiologists—who are in an ideal position to see patients with both type 2 diabetes and ASCVD—can help reduce cardiovascular risk in these patients by using agents that have proven CVD benefit, or a label indication of such, and by working collaboratively with endocrinologists and primary care physicians to actively manage these patients' risk.

Dr Caudle:

Thanks for those important points, Dr Blaha. And with those in mind, I'd like to turn back to you, Dr Handelsman. How do you approach medication management for patients with type 2 diabetes and established ASCVD?

Dr Handelsman:

Well, I generally like to follow medical guideline-directed recommendations for therapies. And at the same time, I address the patient's need based on their presentation and characteristics, taking into account things like history of heart disease and A1c level. And we have several recommendations from multiple medical societies to help us.

Professional organizations like the American College of Cardiology, or ACC, provide guidance on therapeutic decision-making.

Along with lifestyle modifications, the ACC's Consensus Decision Pathway recommended either sodium-glucose cotransporter-2 inhibitor, or a glucagon-like peptide-1 receptor agonist, also known as SGLT-2is and GLP-1 RAs, with proven CVD benefits—meaning an approved label indication—be initiated for adult patients with type 2 diabetes and established ASCVD for glycemic control, and to reduce the risk of major adverse CV events.[8]

If A1c remains uncontrolled, then adding on a GLP-1 RA or an SGLT-2i inhibitor may be warranted[8]

And additional modifications to individualized patient-centered management plans may include medication therapy management to achieve and maintain desired patient outcomes.[8]

Dr Caudle:

For those of you who are just tuning in, you're listening to *Heart Matters* on ReachMD. I'm your host, Dr Jennifer Caudle, and today I'm speaking with Drs Yehuda Handelsman and Michael Blaha about the management of patients with type 2 diabetes and established ASCVD.

Now that we've reviewed some of the guidelines, Dr Blaha, can you tell us more about the use of GLP-1 RAs and SGLT-2 inhibitors in this patient population? What practical considerations should we keep in mind?

Dr Blaha:

Yes, so GLP-1 RAs and SGLT-2 inhibitors have distinct mechanisms of action for glucose management.[13,14] Because of this, the use of GLP-1 RAs with SGLT-2 inhibitors can be used for glycemic control when needed, as is recommended by multiple professional societies.[8-12]

Now GLP-1s for type 2 diabetes act on the pancreas and the gastrointestinal system.[13] In the pancreas, GLP-1 receptor agonists stimulate insulin secretion and suppress glucagon secretion in a glucose-dependent manner, and so they exert their effect on blood glucose when glucose is elevated.[13] And in the gastrointestinal system, GLP-1 RAs cause a minor delay in gastric emptying.[13]

Now, SGLT-2 inhibitors for type 2 diabetes, on the other hand, act in the kidneys to prevent glucose reabsorption.[14]

So, I can't emphasize enough that selecting a therapy based on the patient presentation is critical for individualizing treatment plans to improve patient outcomes.

Dr Caudle:

Thanks, Dr Blaha, those are some great considerations that we can take with us to our own practices. And as we come to a close, Dr Handelsman, do you have any other recommendations you would like to add?

Dr Handelsman:

Yes, I agree with Dr Blaha, and his advice was very clear and helpful in terms of starting these CVD-risk-reducing agents in our eligible patients.

In terms of monitoring, I advise patients monitor their glucose levels at home more closely for the first 4 weeks of therapy, especially if they're on insulin, sulfonylurea, or glinides.[8]

Lastly, if you're a cardiologist with a patient who has CVD and type 2 diabetes, having a multidisciplinary approach may help to reduce disease burden and improve overall prognosis.[15]

Dr Caudle:

Thank you both; those are great points to consider as we bring our discussion to a close. And I'd like to thank my guests, Drs Yehuda Handelsman and Michael Blaha, for sharing their perspectives on reducing CV risk in patients with type 2 diabetes and established CVD.

Dr Handelsman and Dr Blaha, it was great speaking with you both today.

Dr Handelsman:

It was a pleasure being here. Thank you.

Dr Blaha:

My pleasure as well.

ReachMD Announcer:

This medical industry feature was sponsored by Novo Nordisk. If you missed any part of this discussion, visit ReachMD.com/HeartMatters. This is ReachMD. Be Part of the Knowledge.

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