Top Ten Things To Know

Update on Prevention of Cardiovascular Disease in Adults With Type 2 Diabetes in Light of Recent Evidence

1. Diabetes mellitus (DM) is a major risk factor for cardiovascular disease (CVD) and stroke. Cardiovascular disease is the leading cause of death among adults with diabetes mellitus.1

2. Based on national survey data collected 2009-2012, an estimated 21.1 million adults in the U.S. have diagnosed diabetes. Further, 8.1 million adults are estimated to have undiagnosed DM and 80.8 million adults in the U.S. have prediabetes. In 2010, DM accounted for 5.2% of all deaths worldwide.1

3. The authors summarize the findings from recent key clinical trials pertaining to lifestyle, blood glucose, blood pressure, and cholesterol for the primary prevention of cardiovascular disease in diabetes mellitus. Additionally, they provide a summary table for the current recommendations for managing several CVD risk factors (nutrition, obesity, blood glucose, blood pressure, and cholesterol) in type 2 DM.

4. Screening for glycated hemoglobin A1c (A1c) can be used to identify individuals with DM when A1c is greater than or equal to 6.5% or as prediabetic with A1c in the range of 5.7% to 6.4%. People with prediabetes are at greater risk of developing DM. In patients with DM, targeting A1c levels below 7.0% may help reduce incidence of microvascular disease and more or less stringent A1c targets may be appropriate for selected patients.

5. Lifestyle factors can contribute to managing CVD risk in patients with DM. Results of recent trials have found that the types of exercise may be as important as the amount of exercise in DM. Additionally, maintaining a nutrient-dense diet and healthy body weight are lifestyle factors for reducing cardiovascular disease in adults with DM. Data from recent RCTs have supported three approaches (lifestyle, pharmaceutical, and surgical) to weight management in DM. Low-dose aspirin is reasonable in some patients with DM with elevated 10-year CVD risk.

6. Increased blood pressure is a major contributor to higher risk of CVD events in diabetes mellitus. A vast majority (70%–80%) of patients with type 2 diabetes mellitus have hypertension. The presence of hypertension in patients with type 2 diabetes mellitus increases the risk of MI, stroke, and all-cause mortality. Currently, most individuals with diabetes mellitus are recommended to achieve a blood pressure goal of <140/90 mm Hg.

7. In adult patients with diabetes mellitus, lipid levels should be measured at least annually for compliance with recommended treatment. The lifestyle modifications listed above for managing CVD risk in patients with DM, especially weight reduction, have been shown to improve most components of the lipid profile in patients with diabetes mellitus. Current guidelines suggest that most patients with type 2 diabetes mellitus should be on a statin.

8. Chronic kidney disease (CKD) and Diabetic Kidney Disease (DKD) contribute to CVD risk in patients with DM.

9. Identification of asymptomatic CAD may allow the opportunity for more aggressive lifestyle or pharmacological interventions to prevent clinical events or, when disease is advanced, the pursuit of revascularization. However, the findings from these randomized trials do not support the routine use of screening in patients with type 2 diabetes mellitus for subclinical disease CAD assessment.

10. There are key unanswered clinical research questions in the areas of antihyperglycemic therapy, hypoglycemia, bariatric surgery, blood pressure and cholesterol lowering, and imaging for subclinical CVD assessment.