

## **Contemporary Approaches to Secondary Prevention in the High-Risk Diabetes Patient**

*Shaun G. Goodman, MD, MSc*

Patients with type 2 diabetes mellitus (T2DM) have a 2-4-fold greater risk of developing cardiovascular (CV) disease; for example, myocardial infarction (MI) occurs 15 years earlier in those with diabetes. Further, life expectancy is substantially reduced (e.g., by 6 years in a 60-year-old with T2DM and by 12 years in a similar patient who has experienced a previous MI). Heart failure (HF) is also more frequent in the patient with T2DM and portends a worse prognosis than in an individual without diabetes. A large residual risk for CV mortality (the most common cause of death in T2DM), MI, stroke, and HF exists for the patient with T2DM and established CV disease. This is in part due to suboptimal use of established secondary prevention therapies in T2DM, including antiplatelet, renin-angiotensin-aldosterone system (RAAS) inhibitor, and lipid-modifying therapies.

Recent subgroup analyses of randomized clinical trials of therapies in CVD patients with and without diabetes have demonstrated consistent benefits of antithrombotic and lipid-lowering agents, including similar relative but greater absolute risk reductions in patients with diabetes.

Several glucose-lowering therapies have now demonstrated CV protection with significant reductions in adverse CV outcomes in T2DM patients with established CVD, including mortality and heart failure. These benefits have led Diabetes Canada (formerly the Canadian Diabetes Association) to provide specific recommendations in the updated Clinical Practice Guidelines, including the addition of an antihyperglycemic agent with demonstrated CV outcome benefits (such as empagliflozin or liraglutide) as a “top priority” in choosing add-on treatment regimens for patients with clinical CVD and T2DM if glycemic targets are not met.

With the support of the patient’s primary care provider and endocrinologist, the cardiologist needs to play a complementary role in vascular protection, including potential prescription for, and/or recommendation of, specific glucose-lowering agents to maximize the potential for CV morbidity and mortality reduction.