

Lipid Targets for Diabetes and Pre-Diabetes



This department covers selected points from the 2007 Endocrine Update: A CME Day from the Division of Endocrinology and Metabolism at McMaster University and the University of Western Ontario.
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Diabetes in adults is associated with a two-to-four-fold greater risk of vascular disease than that in individuals without diabetes. CVD is the primary cause of death among people with Type 1 or Type 2 diabetes. Therefore, management of risk factors for CVD, including dyslipidemia, is a top priority.

The Canadian Diabetes Association guidelines for dyslipidemia in adults with diabetes make several important recommendations. A fasting lipid profile (total cholesterol [TC], HDL-C, TG and calculated LDL-C) should be conducted at the time of diagnosis of diabetes and then every one to three years, as clinically indicated. More frequent testing should be done if treatment for dyslipidemia is initiated. The guidelines suggest LDL-C lowering, typically with statin treatment, to a target of < 2.0 mmol/L for any person with diabetes at high risk of a vascular event. However, they also state that clinical judgement should be used to decide whether additional LDL-C lowering is required for patients with an on-treatment LDL-C between 2.0 mmol/L to 2.5 mmol/L. A number of studies have shown that the effects of statins in lowering LDL-C as well as the benefits of lowering LDL-C apply equally well to patients with and without diabetes. In addition, the TC to HDL-C

ratio is recommended as a secondary goal of dyslipidemia therapy. Once the LDL-C goal of < 2.0 mmol/L has been reached, the TC/HDL-C ratio can be targeted to the recommended goal of < 4.0.

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Aggressive treatment of CV risk factors is not recommended in all patients with diabetes, particularly in younger patients with recent onset of diabetes and without other risk factors for vascular disease (e.g., metabolic syndrome, family history of premature CVD, hypertension, smoking) and without other complications of diabetes (including CVD). Lifestyle modifications remain a key strategy to CVD prevention as well as general diabetes management. 

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