

# Introduction

Assessing the cardiometabolic health of individuals involves the identification of cardiometabolic risk factors based on information relating to cholesterol, blood pressure, smoking, blood glucose, overweight/obesity, physical inactivity, and family history.<sup>1</sup> Lifestyle modification, including a healthy diet, weight loss, exercise or physical activity, and smoking cessation, continues to be the cornerstone of treatment for individuals with cardiometabolic risk factors. Advances in the development of pharmacologic therapies, however, provide clinicians with various treatment approaches that can be useful in such areas as lipid management, weight reduction, management of hypertension, and glycemic control.

This supplement of *Clinical Cornerstone* presents 3 articles that discuss advances in cardiometabolic health, with a special focus on the needs of individuals with multiple cardiometabolic risk factors.

The first article by Dr. Christie Ballantyne describes interventions for individuals with metabolic syndrome who typically have atherogenic dyslipidemia, which is characterized by increased concentrations of triglycerides, reduced concentrations of high-density lipoprotein cholesterol (HDL-C), and increased concentrations of small dense low-density lipoprotein particles. This article reports on study findings relating to the usefulness of lipid-regulating therapy with agents, such as statins, fibrates, niacin, and omega-3 fatty acids, as well as treatments that target insulin resistance and adipose tissue, such as pioglitazone, a thiazolidinedione, and rimona-bant, a CB<sub>1</sub> receptor antagonist.

The second article discusses the role of HDL-C and residual cardiometabolic risk in metabolic syndrome, including the mechanisms by which HDL protects against cardiovascular disease. In this article, I describe the role of HDL-C with respect to reverse cholesterol transport and the modulation of endothelial function, and discuss the antioxidant, anti-inflammatory, and antithrombotic effects of HDL-C. A review of recent study findings relating to pharmacotherapies that may help raise HDL-C concentrations is also provided.

The third article by Dr. Luc Van Gaal examines the role of the endocannabinoid system and its effects on the regulation of food intake, lipid metabolism, and glucose metabolism. This article also summarizes several studies on CB<sub>1</sub> receptor antagonism and its clinical utility as a treatment for obesity and other cardiometabolic risk factors associated with metabolic syndrome.

All of these articles provide useful information for clinicians to consider when determining appropriate treatment strategies for patients with multiple cardiometabolic risk factors. With adequate attention, these patients may be able to reduce or reverse the progression from obesity to insulin resistance, type 2 diabetes mellitus, and cardiovascular disease.

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**Guest Editor**

## REFERENCE

1. American Diabetes Association. Diabetes, Your Heart & Your Health. What is your cardiometabolic health? Available at: <http://www.diabetes.org>. Accessed February 23, 2007.