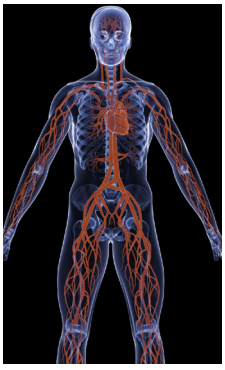
CARDIO-METABOLIC SYNDROME:
NEW INSIGHTS, EDUCATIONAL AND RESEARCH OPPORTUNITIES FOR CARDIOLOGY AND THE MEDICAL COMMUNITY

By William J. Oetgen, MD, MBA, FACC

Several recent publications have emphasized the importance of the cardio-metabolic syndrome for practicing cardiologist. In the Feb. 14 issue of the *Journal of the American College of Cardiology* (*JACC*), **Scott M. Grundy, MD, PhD,** of the University of Texas Southwestern at Dallas, provided a comprehensive review of the concept of pre-diabetes, the metabolic syndrome and the assessment of cardiovascular risk. Grundy concluded that pre-diabetes, as defined by the presence of either impaired fasting glucose or impaired glucose tolerance that does not reach the threshold for the diagnosis of diabetes, is commonly associated with both the metabolic syndrome and obesity. Pre-diabetes also has only a minor association with microvascular disease, but it is a stronger predictor of macrovascular disease. The recommended therapeutic approach to these conditions is to aggressively treat all identified metabolic risk factors. Lifestyle interventions, blood pressure normalizations, and lipid level reductions are the goals.

In 2007, **Apoor Gami, MD, FACC,** and colleagues from the Mayo Clinic published a review in *JACC* of the evidence linking metabolic syndrome and the risk of cardiovascular events including death. In 37 eligible studies that included more than 170,000 patients, increased risk remained after adjustment for traditional risk factors for cardiovascular disease.

A few years later in 2010, **Salvatore Mottillo, BSc,** and colleagues published a study in *JACC* that extended these observations to 87 studies including more than 950,000 patients. They found that metabolic syndrome was associated with double the risk of cardiovascular events and 1.5 times the risk of all-cause mortality.



The American Heart Association estimates that **up to 35 percent of all adults in the country have metabolic syndrome.** The prevalence in children is also increasing, and the fear is that the consequent increase in cardiovascular events will soon be discernible in population health statistics.

There is general agreement that the number of patients with metabolic syndrome is increasing within the U.S. population; however, partially because of differing definitions of the disease, the actual prevalence is difficult to measure. The American Heart Association estimates that up to 35 percent of all adults in the country have metabolic syndrome. The prevalence in children is also increasing, and the fear is that the consequent increase in cardiovascular events will soon be discernible in population health statistics.

In an effort to address this growing clinical problem, the ACC is forming the "Cardio-Metabolic Quality Care Alliance" (CMQCA) in partnership with the American Association of Clinical Endocrinologists (AACE) and the National Minority Quality Forum (NMQF). The Association of Black Cardiologists is also joining this effort and other interested organizations will be invited as well. The mission of the CMQCA is fourfold:

1. To accelerate the translation of cardio-metabolic science into patient benefit
2. To develop and communicate consensus positions on high quality cardio-metabolic care
3. To develop and implement unique data analysis solutions that support CMQCA activities
4. To advocate for better access to high quality cardio-metabolic care

The CMQCA, as approved by the ACC's Board of Trustees, will be led by national experts in cardio-metabolic disease serving under leaders appointed by the ACC, AACE and NMQF. The assembled experts will have the requisite expertise in clinical science, health system design and health economics to devise authoritative guidance to the clinical, public policy, payer and patient communities on practical, evidence-based strategies for managing cardio-metabolic disease. The CMQCA leadership is supported by professional staff and the large scale analytics resources of the NCDR®. Over time with the collaboration and efforts of many, it is our hope to eventually ameliorate the emerging cardio-metabolic disease epidemic.

Oetgen is the ACC's senior vice president of science and quality.