**SCREENING FOR CVD IN METABOLIC SYNDROME AND DIABETES**

**N.D. Wong**

Heart Disease Prevention Program, Division of Cardiology, University of California, Irvine, CA, USA

While metabolic syndrome and diabetes are frequently considered high risk conditions for cardiovascular disease, with diabetes customarily considered to be a coronary heart disease (CHD) risk equivalent, recent evidence suggest these conditions are characterized by a wide variation in risk. Recent outcomes studies and clinical trials show many persons with diabetes are at only half the risk of future CHD as those with pre-existing CHD. Further, global risk assessment demonstrates many do not reach CHD risk equivalent status, or >20% estimated 10-year risk of CHD. Recently, screening modalities for subclinical atherosclerosis, namely carotid ultrasound screening and coronary calcium screening by CT have been shown to be effective in risk stratification of these groups. Of interest, the Multiethnic Study of Atherosclerosis shows that those with low levels or no coronary calcium (approximately 40%) have CHD event rates as low as many persons without diabetes. Recently, the 2010 AHA/ACC Guideline on Cardiovascular Risk Assessment in Asymptomatic Adults gave both carotid ultrasound and coronary calcium testing a class IIa level of evidence B recommendation for assessment in intermediate risk persons (which would include many with metabolic syndrome). In addition, recommendations were given for coronary calcium testing (IIa-B) and nuclear myocardial perfusion testing (IIb-C) in those with diabetes. Such testing and subsequent “visualization” of atherosclerosis may better identify patients in need of more aggressive risk factor modification, and in particular, may motivate individuals to better adhere to lifestyle and pharmacologic therapy recommendations.