

The Gap Between Guideline Recommendations and Clinical Practice and the Need for a More Intensive and Comprehensive Lipid Management in High-Risk Population - Results of the DYSIS Study



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Atherothrombotic diseases are the leading cause of death in developed countries. Dyslipidemia is one of the modifiable key risk factors for atherosclerosis and cardiovascular disease. In the past decades, a number of large, prospective, randomized, controlled clinical trials have demonstrated the clinical benefits of lipid-lowering therapy, in terms of a significant reduction in fatal and nonfatal cardiovascular events. The main large studies have primarily targeted LDL cholesterol through statin therapy, and have shown a significant relative risk reduction ranging from 30% to 40% in major cardiovascular events and mortality. Based on this large body of evidence, national and international professional societies have been publishing guidelines for the treatment of dyslipidemia recommending target values predominantly for LDL-cholesterol. Data from the EuroAspire Surveys documented that lipid-lowering treatment with statins between 1995 and 2006 improved over time, but persistent dyslipidemia remained prevalent in high risk patients treated for secondary prevention in clinical practice. Therefore residual risk of major cardiovascular events despite LDL-lowering therapy remains high, and can be conditioned by two circumstances: 1) actual optimal levels of LDL-cholesterol cannot be reached through statin therapy, or 2) other lipid abnormalities that are not correctly targeted (mainly high triglycerides and low HDL-cholesterol) are also important contributors to cardiovascular risk. The DYSlipidemia International Study (DYSIS) was an epidemiological cross-sectional study to assess the lipid profile as well as the patients' characteristics of 22,063 consecutive statin-treated patients during a single visit to their physicians (2987 centres) on an outpatient basis in Europe and Canada. DYSIS assessed the prevalence of dyslipidemia by measuring LDL-cholesterol (LDL-C), HDL-cholesterol (HDL-C), and triglyceride (TG) levels of patients aged 45 and older who had received statin therapy for at least three months. Patients in the study also had other cardiovascular conditions, including diabetes, hypertension, family history of premature CV disease or had coronary heart disease, among others. A total of 80% of enrolled patients were at high risk for subsequent cardiovascular events using the ESC SCORE criteria, 39% of the study population had known diabetes. The study found 48% of patients had LDL-C not at goal; 26% had low HDL-C levels; and 38% had elevated triglycerides. Patients with diabetes were a little more likely to reach their recommended LDL-C target, especially those high risk patients with diabetes and additionally known coronary artery disease. However, still about 40% of diabetics were not at goal for LDL-C, one third had low HDL-C and half of them had elevated TG.

DYSIS demonstrates the gap between guideline recommendations and clinical practice and the need for a more intensive and comprehensive lipid management in this high-risk population.