ABSTRACT

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 total 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 triglycerides (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 CHD, 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.
He was the National Coordinator of the Project “The vulnerable plaque” of the Italian Government Units of the Project “Fisiopatologia dell’ Infarto Miocardico” of the Italian Government (MURST-COFIN 1997).

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In 1976 he received the “Vittorio Emanuele II Prize” for the best curriculum vitae at the University of Bologna. In 1977 he received the Francesco Schiassi Award of the Society of Medicine of Bologna for the early part of his career was spent at the University of Bologna as Professor and Corresponding Editor of the American Heart Journal. In 1981, he moved to London, at the Cardiovascular Unit, Royal Postgraduate Medical School, University of London, where he worked as Research Fellow. He returned to Italy in 1985 upon his appointment as Assistant Professor in the Department of Medicine and Head of the Coronary Research Group of the University of Bologna. In 1990 he became Associate Professor in Internal Medicine and Associate Professor of Cardiology at the University of Bologna.  In 1992 he was appointed as Director of the Coronary Care Unit of the Department of Medicine at St. Oelio Hospital (University of Bologna), and in 2001 as Director of the Division of Cardiology at Indaco Hospital (University of Bologna). From 2004 he is a Full Professor of Cardiology at the University of Bologna. He is Chair (2008-2010) of the Working Group on Coronary Pathophysiology and Microvascular Ischemia of the European Society of Cardiology. He serves as a Chairman of the Congress for the Italian Society of Cardiology (from 2007 to 2011).

University Committees

Professor Bugiardini is author of over 400 articles and some book chapters. His book chapter entitled “Metabolism coronary flow and the anisotropy of the microcirculation” was published in Complex Coronary Lesions Workshop Series, Vol. 1, 1984. He also has been a member of the International Board of the University of Bologna (2004-2008). He has been a member of the Scientific Advisory Board of the University of Bologna (1997-2004). He was a member of the Advisory Board of the University of Bologna (1997-2004). He was a member of the Scientific Board of the University of Bologna (1997-2004). He was a member of the Scientific Board of the University of Bologna (1997-2004).

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Membership of Medical Societies

He is a member of the Editorial Board of the American Heart Journal, of the Circulation, of the Journal of the American College of Cardiology, of the European Heart Journal, of the European Journal of Clinical Investigation, of the Journal of Cardiovascular Pharmacology and Therapeutics, of the Journal of the American College of Emergency Physicians, of the Journal of Vascular Research, of the Journal of the American Society of Hypertension, of the Journal of the American College of Cardiology, of the Journal of the European Society of Cardiology, of the Journal of the European Society of Hypertension, of the Journal of the European Society of Hypertension, of the Journal of the American College of Cardiology, of the Journal of the American College of Cardiology, of the Journal of the American College of Cardiology.

Scientific Councils and Grants

She has authored and co-authored in more than 200 articles in peer-reviewed journals and collaborated in many epidemiological studies.

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Educational and Professional Career

In 1983 he joined the University of Texas Medical Branch in Galveston. In 2003, she received her Doctorate from the University of Texas in Houston and held a position as a Research Fellow of the NIH & NHLBI & the American Heart Association in Bologna. In 1992 he became Associate Professor of Internal Medicine and in 1995 Associate Professor of Cardiology at the University of Bologna. In 1997 he was appointed as Director of the Coronary Care Unit of the Department of Medicine at St. Oelio Hospital (University of Bologna), and in 2001 as Director of the Division of Cardiology at Indaco Hospital (University of Bologna). From 2004 he is a Full Professor of Cardiology at the University of Bologna. He is Chair (2008-2010) of the Working Group on Coronary Pathophysiology and Microvascular Ischemia of the European Society of Cardiology. He serves as a Chairman of the Congress for the Italian Society of Cardiology (from 2007 to 2011).

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