

LDL cholesterol levels in patients with coronary artery disease in real word: data from Cardiovascular Registry of Trieste

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Background: From the literature we know that less than 50% of patients with coronary artery disease (CAD) reaches the target LDL cholesterol <100 mg/dl in clinical practice. The 2012 European Guidelines on Prevention lowers the target to <70 mg/dl in very high risk patients.

Methods: We analyzed the clinical data, levels of LDL cholesterol, the statins prescription and the medium term outcome in patients with chronic coronary artery disease in 5,106 patients with CAD enrolled from November 2009 to December 2012 in Cardiovascular Registry of Trieste (CVRT). Clinical data were derived from the E-data chart for outpatient clinic (Cardionet®) of Cardiovascular Center of Trieste, Italy.

Results: At the first clinical evaluation only 59.7% of patients with CAD had the level of LDL cholesterol available; they were younger (age >75 yo 42% vs 46%, $p=0.002$), had more cardiovascular (CV) risk factors, comorbidities (Charlson index >5) and statins prescription (70% vs 61%), but less frequent stroke or TIA. In the group with LDL available,

17% had LDL cholesterol <70% and 53% LDL ct <100 mg/dl. The patients at target level of LDL cholesterol were more frequently males, with more frequent CV risk factors and history of CV events, more frequent comorbidities and ≥ 5 drugs prescribed. The level of LDL cholesterol influenced the prescription of statins: in the group with LDL cholesterol ≥ 100 mg/dl, the cardiologists started, increased the dosage or changed the statin therapy in more than twofold of cases, even if only in about 30% of cases. The group of patients at target LDL cholesterol on statin therapy had the best prognosis (survival free from death and/or hospitalization 75% at 3 years). On the other hand, the group of patients with low LDL cholesterol level not on statin therapy (older with more advanced CV and not CV disease) had the worst prognosis (survival free from death and/or hospitalization 45% at 3 years, $p < 0.001$).

Conclusions: In our population of outpatients with CAD enrolled in CVRT, the target LDL cholesterol <70 mg/dl and <100 mg/dl was reached by 17% and 53% of cases. The availability and target level of LDL cholesterol influenced the statins prescription, but there is still a large room to improve proactive cardiology intervention in very high risk patients. The medium term outcome is strongly related to the target

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