

PDB45

COST AND BURDEN OF HYPERCHOLESTEROLEMIA IN PORTUGAL

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OBJECTIVES: Hypercholesterolemia is a risk factor for circulatory diseases. This study estimates the impact of hypercholesterolemia on populations' health levels and its economic impact in Portugal. **METHODS:** The impact on health status is measured by the loss of life years adjusted for disability (DALYs - Disability Adjusted Life Years). The economic impact analysis includes two components. The first estimates the direct costs generated by hypercholesterolemia including consumption of health care, social support, and other associated costs (e. g. transport). The second estimates indirect costs, those related to the losses of productivity. The disease burden and the costs of illness attributable to hypercholesterolemia include also the complications attributable to this risk factor, namely ischemic stroke and ischemic heart disease. In order to estimate the attributable fractions to hypercholesterolemia (total cholesterol ≥ 200 mg/dL or statin use) of the diseases considered, a microsimulation approach was employed by using Framingham equations on the national database (VALSIM). In a counterfactual scenario hypercholesterolemia was eliminated from these observations and the resulting proportional change in the probability of CV events was taken as the hypercholesterolemia attributable fractions. These fractions were used to estimate the contribution of hypercholesterolemia to the burden and the annual costs of the aforementioned circulatory diseases. **RESULTS:** 1,689 deaths can be attributed to hypercholesterolemia, which corresponds to 1.6% of the total deaths in Portugal in 2010. The DALYs resulting from disability and premature deaths caused by hypercholesterolemia in 2010 totaled 12,174. The estimated direct cost attributable to hypercholesterolemia in 2013 prices is €320 million (€32 million for in-patient care and €288 million for ambulatory care). Indirect costs generated by disability attributable to hypercholesterolemia add up to € 198 million. The overall costs of disease are therefore estimated at €518 million, about 0.3% of Portuguese GDP. **CONCLUSIONS:** In Portugal, we observed substantial burden and costs associated with Hypercholesterolemia.