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Canadian Longitudinal Study on Aging
Étude longitudinale canadienne sur le vieillissement

CLSA Approved Project

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Project Title
Comparison of LDL cholesterol calculations in an older Canadian population using Martin, Sampson and Friedewald methods

Project Summary
In many parts of the world, including Canada, cardiovascular disease (CVD) continues to be the main cause of death. Low-density lipoprotein cholesterol (LDL-C), also known as "bad cholesterol," is directly linked to an increased risk of heart disease. Therefore, it is necessary to measure LDL-C accurately and identify abnormal LDL-C concentrations. Since measuring LDL-C directly is labor-intensive and expensive to be used for all patients, indirect estimates of LDL-C is preferred among many laboratories. For a long time, the Friedewald equation—an old equation with many drawbacks—has been used to estimate LDL. To get around some of the Friedewald equation's primary limitations, two new equations known as the Martin and Sampson (NIH) equations have recently been developed. In this study, we will determine the agreement between estimated LDL-C values obtained by the Friedewald, Martin, and Sampson (NIH) equations and evaluate the degree of clinical reclassification.

Keywords
LDL-C, geriatric, Friedewald