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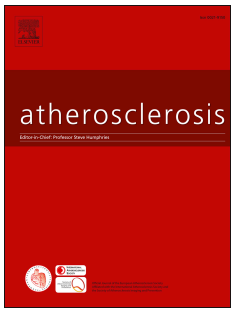

Non-HDL-C goals based on the distribution of population percentiles in ELSA-Brasil: Is it time to change?

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ABSTRACT

Background and aims: Non–high-density lipoprotein cholesterol (non-HDL-C) goals are defined as 30 mg/dL (0.78 mmol/L) higher than the respective low-density lipoprotein cholesterol (LDL-C) goals. This definition, however, do not consider the population distribution of non-HDL-C, which could represent a more appropriate individual goal when both markers are discordant. The aim of this study is to establish non-HDL-C goals at the same population percentiles of LDL-C.

Methods: Non-HDL-C values were assigned at the same percentiles correspondent to the LDL-C treatment goals for 14,837 participants from the Longitudinal Study of Adult Health (ELSA-Brasil) with triglycerides levels ≤ 400 mg/dL (4.52 mmol/L). We, also, assessed the frequency of treatment reclassification, defined as the number of subjects with LDL-C levels in the recommended treatment category, but with non-HDL-C levels above or below the category.

Results*:* The non-HDL-C values, based in correspondent LDL-C population percentiles, were 92 (2.38), 122 (3.16), 156 (4.04), 191 (4.95), and 223 mg/dL (5.78 mmol/L). Among participants with LDL-C <70 mg/dL (1.81 mmol/L), 22.8 % were reclassified according to the guidelines-based non-HDL-C cut-off point and 30.1 % according to the population percentile-based cut-off point; 25.6% and 64.1%, respectively, if triglycerides concurrently 150 - 199 mg/dL (1.69 - 2.25 mmol/L).

Conclusions: Our results demonstrated that non-HDL-C percentiles-based goals were up to 8 mg/dL (0.21 mmol/L) lower than the guidelines recommended goal and had a profound impact in the reclassification of participants, notably when LDL-C was < 100 mg/dL (2.56 mmol/L), the treatment goal for high risk patients. Therefore, non-HDL-C goals should be changed for reduction of residual risk.