2021 Position Statement on Lipid Treatment Targets in Individuals at High Cardiovascular Risk

New Zealand Regional Committee, Cardiac Society of Australia and New Zealand.

The 2018 Cardiovascular Disease Risk Assessment and Management for Primary Care recommendations included lipid-lowering drug treatment to a low density lipoprotein cholesterol (LDL-C) target below 1.8mmol/L for individuals with a five-year cardiovascular disease (CVD) event risk of ≥15%.[1] Since publication of these New Zealand recommendations the 2019 European Society of Cardiology/European Atherosclerosis Society (ESC/EAS) Guidelines for the Management of Dyslipidaemias: Lipid Modification to Reduce Cardiovascular Risk have been published. These recommend for individuals at very-high risk, an LDL-C reduction of > 50% from baseline and an LDL-C goal of < 1.4 mmol/L.[2] In these guidelines the definition of very high risk included documented atherosclerotic cardiovascular disease or a calculated Systematic Coronary Risk Estimation (SCORE) > 10% for 10-year risk of fatal CVD.

Currently in New Zealand CVD risk assessment and management for people aged 30 to 74 years without prior CVD is now based on five-year CVD risk prediction equations from the New Zealand PREDICT study.[3] Prior CVD or risk equivalent is assumed to have a 5-year CVD event risk > 15%. A 5-year CVD events risk of ≥15% as used in the New Zealand risk prediction calculators is approximately equivalent to a SCORE (10-year fatal CVD) risk of ≥ 10% used in the ESC/EAS guidelines.[2]

Although randomised controlled trials have not examined different LDL-C goals systematically the totality of the evidence including results from multiple large meta-analyses confirms the dose-dependent relationship with the greater the absolute LDL-C reduction, the greater the CVD risk reduction[4-7] These studies have demonstrated no level of LDL-C below which benefit ceases or harm occurs.[8-10] Therefore, it seems appropriate to reduce LDL-C to as low a level as possible, at least in patients at high CVD risk.

The New Zealand Regional Committee, Cardiac Society of Australia and New Zealand recommend that in individuals with a five-year CVD risk of ≥ 15%, lipid-lowering drug treatment is used, in addition to dietary changes, with an LDL-C treatment target of < 1.4

mmol/L. Achieving these lowered targets will require intensive dose statin therapy and wider availability of more potent statins and additional lipid lowering agents including ezetimibe and proprotein convertase subtilisin/kexin type 9 (PCSK9) inhibitors. The current PHARMAC special authority criteria for accessing additional therapy such as Ezetemibe include that the patient has not reduced their LDL cholesterol to less than 2.0 mmol/litre with the use of the maximal tolerated dose of atorvastatin. Given the evidence of additional treatment benefit in individuals with baseline LDL-C levels less than 2.0mmol/L[8-10] the PHARMAC funding threshold of LDL-C 2.0 mmol/L should be revised downward to improve access to special authority funded LDL-C lowering therapies.

References

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