

In November 2018 the ACC/AHA released a dyslipidemia guideline endorsed by multiple groups to reduce the risk of ASCVD. This guideline replaced the highly controversial 2013 guideline that introduced a new risk assessment tool and significantly downplayed treating to targets. In the last 5 years much research has been done in this area and numerous RCT have advocated for more aggressive reduction in LDL-C in the very highest risk groups.

The current guideline has continued to recommend the Pooled Cohort Equation risk engine which assesses risk for hard CV events. Thus the intermediate risk category of 5-20% corresponds to an intermediate Framingham Risk of 10-20+%. The PCE model has been solidly validated in the past 5 years and on-line tools make calculation straightforward. Lifestyle intervention is the backbone of therapy for risk reduction. In primary prevention, shared decision making is stressed but moderate intensity statins are recommended for those with a risk above 7.5%. This is particularly so for individuals with risk enhancers which reduce the number needed to treat. In this risk group an LDL-C reduction of at least 30% is recommended, but as risk increases the goal is > 50% reduction. For those with LDL-C levels above 5 mmol/L risk assessment is not required and goal levels of < 2.6 mol/L are advised on statin therapy. In secondary prevention, individuals at *very high risk* including recent ACS should be considered for add on therapy to statins with an LDL-C above 1.8 mmol/L. A specific target is not suggested, with the focus instead on threshold for dual therapy.

In subjects in primary prevention where treatment is not clear, coronary artery calcium scoring has greater prominence in the guideline. Calcium scores above zero might prompt statin therapy, however, zero CAC would move patients to non-treatment. This is a diversion from the recommendation from the CCS group. Recent epidemiology would suggest that this a valid approach. Patients with CAC of zero are at low risk regardless of baseline PCE risk.

The guidelines have many similarities with the CCS guidelines. The risk engine is different as the PCE has not been validated in Canada. The trend towards combination therapy was highlighted in the 2016 version of our guidelines as well. The ACC/AHA guidelines represent the most recent literature and will likely influence the upcoming update to the CCS document.