

Objectives

- To understand the new ACC/AHA lipid guidelines
- To compare and contrast with CCS dyslipidemia guidelines
- To understand implications for care delivery

Measurements of LDL-C and Non-HDL-C

Recommendations for Measurements of LDL-C and Non-HDL-C		
COR	LOE	Recommendations
I	B-NR	In adults who are 20 years of age or older and not on lipid-lowering therapy, measurement of either a fasting or a nonfasting plasma lipid profile is effective in estimating ASCVD risk and documenting baseline LDL-C.
I	B-NR	In adults who are 20 years of age or older and in whom an initial nonfasting lipid profile reveals a triglycerides level of 400 mg/dL (≥ 4.5 mmol/L) or higher, a repeat lipid profile in the fasting state should be performed for assessment of fasting triglyceride levels and baseline LDL-C.

Risk assessment

Risk Assessment Tool	Variables included	Outcomes predicted	Derivation sample	Features
Pooled Cohort Equation http://tools.aacc.org/ascvd-risk	Age,sex,race TC, HDL-C, SBP Anti-HT Rx DM Smoking	Hard ASCVD (CHD death, non-fatal MI, stroke)	5 community based cohorts of white and black participants	Sex and race specific equation for 4 groups
Framingham Total CVD risk profile https://reference.medscape.com/calculator/framingham	Age,sex TC, HDL-C SBP Anti-HT Rx DM Smoking	Total CVD (CHD death, non-fatal MI, stroke, ACS, claudication, heart failure)	Single community based on 2 generations	Sex specific equation for Whites Validated in Canada

Selected Examples of Candidates for CAC Measurement Who Might Benefit From Knowing Their CAC Score Is Zero

CAC Measurement Candidates Who Might Benefit from Knowing Their CAC Score Is Zero

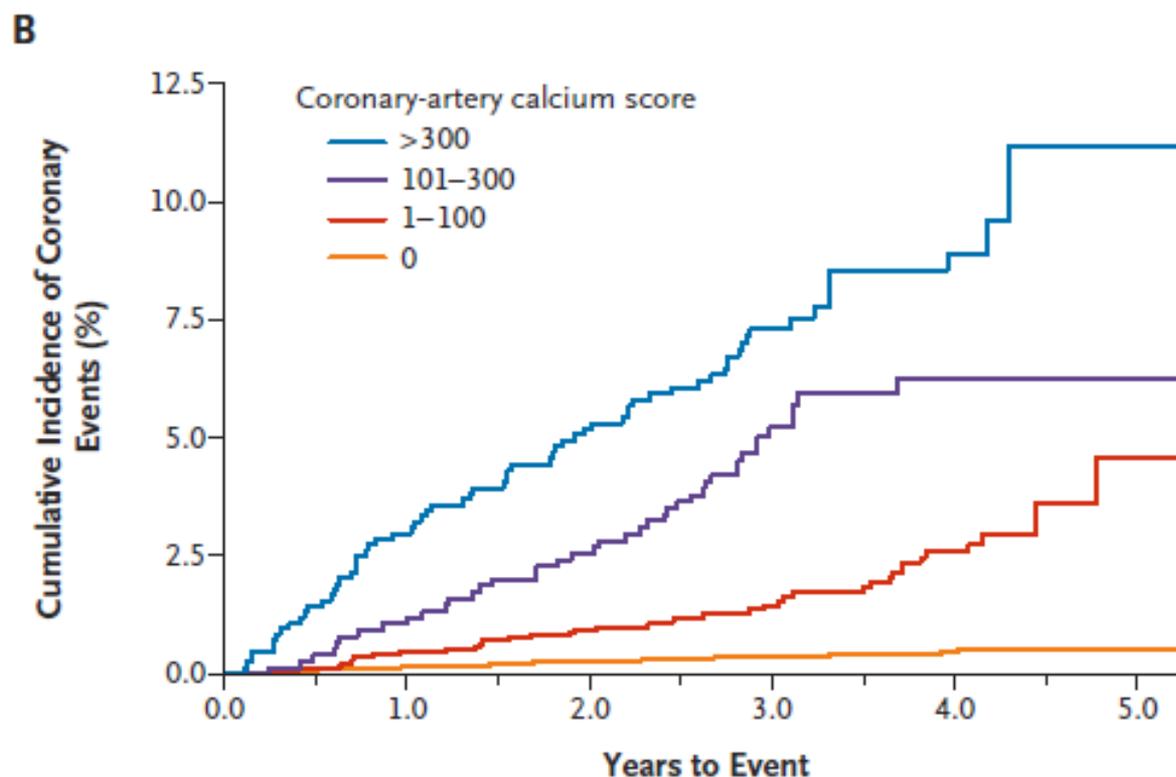
- Patients reluctant to initiate statin therapy who wish to understand their risk and potential for benefit more precisely
- Patients concerned about need to reinstitute statin therapy after discontinuation for statin-associated symptoms
- Older patients (men, 55-80 y of age; women, 60-80 y of age) with low burden of risk factors who question whether they would benefit from statin therapy
- Middle-aged adults (40-55 y of age) with PCE-calculated 10-year risk of ASCVD 5% to <7.5% with factors that increase their ASCVD risk, although they are in a borderline risk group

Coronary calcium score - Prognosis

MESA – 6722 subjects

162 events

**HR 7.08 for major
Coronary event
With CAC >100**



Top 10 Take Home messages

In patients with clinical ASCVD, reduce low-density lipoprotein cholesterol (LDL-C) with high-intensity statin therapy or maximally tolerated statin therapy.

The more LDL-C is reduced on statin therapy, the greater will be subsequent risk reduction.

Use a maximally tolerated statin to lower LDL-C levels by $\geq 50\%$.

Top 10 Take Home messages

In very high-risk ASCVD, use a LDL-C threshold of 70 mg/dL (1.8 mmol/L) to consider addition of nonstatins to statin therapy.

- Very high-risk includes a history of multiple major ASCVD events or 1 major ASCVD event and multiple high-risk conditions.
- In very high-risk ASCVD patients, it is reasonable to add ezetimibe to maximally tolerated statin therapy when the LDL-C level remains ≥ 70 mg/dL (≥ 1.8 mmol/L).
- In patients at very high risk whose LDL-C level remains ≥ 70 mg/dL (≥ 1.8 mmol/L) on maximally tolerated statin and ezetimibe therapy, adding a PCSK9 inhibitor is reasonable, although the long-term safety (>3 years) is uncertain and cost-effectiveness is low at mid-2018 list prices.

Secondary Prevention

