2018 AHA/ACC cholesterol clinical practice guidelines

In 2018, new guidelines were published by the AHA/ACC (35). These guidelines defined high-risk patient groups for treatment with high-intensity statin therapy, as well as groups who would benefit from moderate-intensity statins. They acknowledged new CV endpoint data for ezetimibe and PCSK9-inhibiting monoclonal antibodies by formally endorsing these statin adjuncts. They also recommended calculation of the 10-year risk in patients with diabetes and no history of ASCVD. In addition, these guidelines recommended the consideration of risk-enhancing factors and CAC scoring to further define risk and/or aid decisions about the initiation of statin treatment or intensification of therapy. The guideline's "Top 10 Take-Home Messages" are:

1. In all individuals, emphasize a heart-healthy lifestyle across the life course.
2. In patients with clinical ASCVD, reduce LDL-C with high-intensity statin therapy or maximally tolerated statin therapy.
3. In very high-risk ASCVD, use an LDL-C threshold of 70 mg/dL (1.8 mmol/L) to consider the addition of nonstatins to statin therapy.
4. In patients with severe primary hypercholesterolemia (LDL-C level ≥190 mg/dL [4.9 mmol/L]), without calculating 10-year ASCVD risk, begin high-intensity statin therapy.
5. In patients 40 to 75 years of age with diabetes mellitus and LDL-C ≥70 mg/dL (1.8 mmol/L), start moderate-intensity statin therapy without calculating the 10-year ASCVD risk.
6. In adults 40 to 75 years of age evaluated for primary ASCVD prevention, have a clinician–patient risk discussion before starting statin therapy.
7. In adults 40 to 75 years of age without diabetes mellitus and with LDL-C levels ≥70 mg/dL (1.8 mmol/L), at a 10-year ASCVD risk of ≥7.5%, start a moderate intensity statin if a discussion of treatment options favors statin therapy.
8. In adults 40 to 75 years of age without diabetes mellitus and a 10-year risk of 7.5% to 19.9% (intermediate risk), risk-enhancing factors favor the initiation of statin therapy.
9. In adults 40 to 75 years of age without diabetes mellitus and with LDL-C levels ≥70 mg/dL to 189 mg/dL (1.8 to 4.9 mmol/L), at a 10-year ASCVD risk of ≥7.5% to 19.9%, if a decision about statin therapy is uncertain, consider measuring CAC.
10. Assess adherence and the percentage response to LDL-C–lowering medication and lifestyle changes with repeat lipid measurement 4 to 12 weeks after statin initiation or dose adjustment, repeated every 3 to 12 months, as needed.

The guideline also states that in patients with a 10-year risk of ASCVD at 5% to 7.5% (borderline risk), risk-enhancing factors may favor statin therapy.

The 2018 ACC/AHA guidelines on cholesterol management are compared (and provided in chronological order below) to existing guidelines from other organizations in the United States, Canada, and Europe.

National Lipid Association Recommendations for Patient-Centered Management of Dyslipidemia: Part 1 – Full Report (2015)

These guidelines, the first published post-2013, stressed treatment goals, noting that the authors did not agree with the AHA/ACC 2013 guidelines (23). The National Lipid Association (NLA) report utilized 4 risk categories, and in sharp contrast with the AHA/ACC 2013 guidelines, recommended treatment goals for each category.

The NLA guidance also differed from the 2013 AHA/ACC guidelines by using levels of non-HDL-C as the primary treatment goal and both LDL-C and apoB levels as secondary goals. For low-, moderate-, and high-risk groups, the primary goal was non-HDL-C <130 mg/dL (3.4 mmol/L), with secondary goals of <100 mg/dL (2.6 mmol/L) for LDL-C and <90 mg/dL (0.002 mmol/L) for apoB. For the very high-risk group, NLA recommended a non-HDL-C goal of <100 mg/dL (2.6 mmol/L), with LDL-C and apoB goals of <70 mg/dL (0.001 mmol/L) and <80 mg/dL (0.002 mmol/L), respectively. The NLA guideline combined populations with T1D and T2D together regardless of age, duration of disease, or presence or absence of microangiopathy. The NLA participated in the development and publication of the 2018 AHA/ACC guidelines and supported them fully, although some features of the 2015 NLA guidelines were not addressed in the new 2018 AHA/ACC guidelines (35).

2016 Canadian Cardiovascular Society Guidelines for the Management of Dyslipidemia for the Prevention of Cardiovascular Disease in the Adult

This is an update of their 2012 guidelines, and the major recommendations include CVD risk assessment every 5 years for adults ages 40–75 years using a Framingham Risk Score modified by family history or a Cardiovascular