

## Updated ACC/AHA Cholesterol Guidelines

In late 2018, the American Heart Association (AHA) and American College of Cardiology (ACC) released an update on the 2013 guidelines for the treatment of blood cholesterol. The 2013 guidelines focused on statin intensity and relative reduction in LDL compared to baseline instead of achieving certain LDL goals.

Due to emerging evidence suggesting the relationship between LDL and atherosclerotic cardiovascular disease (ASCVD) risk tracks down to very low values of LDL, the 2018 update brings the numbers back and advocates for use of LDL treatment thresholds in certain risk categories. (1)

### Key Points from the updated guidelines:

A heart healthy lifestyle is emphasized across all age levels.

One of the most notable changes to the 2018 guidelines is the support for selective use of adjunct non-statin medications for LDL reduction in high-risk patients. The new guidelines continue to break down statin benefit into the 4 major categories listed below. Statins remain 1st line therapy for patients in any of these categories. [Notable changes follow:](#)

- 1) Those with clinical ASCVD (i.e. stroke, transient ischemic attack (TIA), documented coronary artery disease (CAD) with stable angina, acute coronary syndromes (ACS), coronary or other arterial revascularization, peripheral vascular disease with or without claudication, and aortic aneurysm)
  - Reduce LDL with high-intensity statin or maximally tolerated statin therapy.
  - For those patients with very high ASCVD risk (history of multiple major ASCVD events or 1 major ASCVD event and multiple high-risk conditions), new guidelines recommend the addition of ezetimibe (Zetia) if the LDL remains  $\geq 70$  mg/dL after a patient is on maximally tolerated statin therapy. For those already on maximally tolerated statin and ezetimibe, a PCSK9 inhibitor (alirocumab or evolocumab) can be considered if the LDL remains  $\geq 70$  mg/dL. Note: Long term safety ( $>3$  years) of PCSK9 inhibitors has not been established and they can be costly.
  - Each reduction in LDL by 40 mg/dL is associated with approximately 20-25% relative reduction in ASCVD risk. (2)
- 2) Those with LDL  $\geq 190$  mg/dL
  - Updated guidelines recommend use of a high intensity statin without need to calculate ASCVD risk. If LDL remains  $\geq 100$  mg/dL, encourage consideration of ezetimibe. PCSK9 inhibitors may also be considered for those patients with persistently elevated lipids.
- 3) Those with diabetes mellitus (DM) aged 40-75 years old with LDL  $\geq 70$  mg/dL
  - New guidelines suggest starting out with a moderate intensity statin without need for the 10-year ASCVD risk estimation.
- 4) Those with no diabetes but with LDL  $\geq 70$  mg/dL and  $\geq 7.5\%$  10-year ASCVD risk
  - Start a moderate-intensity statin if discussion of treatment options favors statin therapy (see guidelines for more specifics).

The 2018 guidelines recommend checking the LDL 4-12 weeks after prescribing lipid-lowering therapy or dosage adjustments to assess LDL percent-reduction and to monitor adherence to medication and lifestyle changes.

#### References:

- 1) 2018 ACC/AHA/AACVPR/AAPA/ABC/ACPM/ADA/AGS/ APhA/ASPC/NLA/PCNA Guideline on the Management of Blood Cholesterol: A Report of the American College of Cardiology Foundation/American Heart Association Task Force on Clinical Practice Guidelines. J Am Coll Cardiol 2018;Nov 10
- 2) Cholesterol Treatment Trialists' (CTT) Collaboration, Baigent C, Blackwell L, et al. Efficacy and safety of more intensive lowering of LDL cholesterol: a meta-analysis of data from 170,000 participants in 26 randomized trials. Lancet 2010;376:1670-81.