Clinical Practice Committee

Target LDL in Patients with Ischemic Vascular Disease

Clinical Question:
Does the adoption of a target LDL < 100 mg/dL for all patients with ischemic vascular disease (IVD) result in improved patient-oriented outcomes?

Clinical Definition:
Ischemic Vascular Disease (IVD) includes coronary heart disease (CHD), peripheral vascular disease, cerebral vascular disease, carotid artery disease, renal artery sclerosis, or abdominal aortic aneurysm.

Bottom Line:
The key finding of the meta-analysis referenced above was that the statin trials consistently demonstrate that the relative risk reduction (RRR) in recurrent cardiovascular events is directly linked to the absolute magnitude of LDL reduction achieved for each patient, not to any pre-specified LDL target goal. For this reason, clinicians treating IVD patients should consider the NCEP ATP-III recommended LDL target of less than 100 mg/dL as a minimum therapeutic goal. Lowering LDL cholesterol further below 100 mg/dL may result in even greater reductions in the risk of future coronary events. In general, statin therapy for secondary prevention should be increased as much as possible toward maximal doses.

Synopsis:
The Cholesterol Treatment Trialists’ Collaborators performed a meta-analysis of 14 trials of statin therapy that included 90,056 subjects. During a mean follow-up of 5 years, there were 8,186 deaths and 14,348 individuals had major vascular events (i.e. a major coronary event, non-fatal or fatal stroke, or coronary revascularization).

Figure 1.
Using data from 14 statin trials of secondary prevention, a regression line was plotted to demonstrate the event rate reduction per mg/dL cholesterol reduction. (Adapted from Baigent, et al.) LDL cholesterol (mg/dL)

Source: