

Higher doses of atorvastatin reduce cholesterol more than lower doses

Clinical Question

How effective are various doses of atorvastatin on serum total cholesterol (TC), low-density lipoprotein (LDL)-cholesterol, high-density lipoprotein (HDL)-cholesterol and triglycerides in individuals with and without evidence of cardiovascular disease?

Bottom Line

Atorvastatin 2.5 to 80 mg/d caused a reduction in TC, LDL-cholesterol and HDL-cholesterol, and triglycerides. Manufacturer-recommended atorvastatin doses of 10 to 80 mg/d resulted in 37.1% to 51.7% decreases in LDL-cholesterol. For every two-fold increase in dose, there was a 3.6% and 4.9% decrease in TC and LDL-cholesterol, respectively. The effect was greater in females than in males and was greater in non-familial than in familial hypercholesterolaemia.

Caveat

This review update did not provide a good estimate of the incidence of harms associated with atorvastatin because included trials were of short duration (3 -12 weeks) and adverse effects were not reported in 37% of placebo-controlled trials. At the present time, there is nothing to suggest that one statin is different than another statin in terms of the benefit in reduction of atherosclerotic-related events.

Context

Atorvastatin is one of the most widely-prescribed drugs and the most widely-prescribed statin in the world. This updated review significantly increases the strength of the evidence for atorvastatin's effectiveness.

Cochrane Systematic Review

[Adams SA et al. Lipid-lowering efficacy of atorvastatin. Cochrane Reviews, 2015, Issue 3. Art. No.: CD008226.DOI: 10.1002/14651858. CD008226.pub3.](#)
This review contains 296 studies involving 38,817 participants.