



Clinical Champion Update

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Subject: Hyperlipidemia/Lifestyle

When to Consider a Statin for Primary Prevention of Cardiovascular Disease

The US Preventive Services Task Force (USPSTF) recommends that adults without a history of cardiovascular disease (CVD) (i.e., symptomatic coronary artery disease or ischemic stroke) use a low- to moderate-dose statin for the prevention of CVD events and mortality when all of the following criteria are met: (1) age 40 to 75 years; (2) presence of one or more CVD risk factors (i.e., dyslipidemia, diabetes, hypertension, and/or smoking); and (3) calculated 10-year risk of a cardiovascular event of 10% or greater. However (per NNT.com), 104 patients need to be treated for five years to prevent a single nonfatal MI, and 154 to prevent a CVA – yet of those treated, one in 10 people may develop muscle damage and one in 50 may develop diabetes. The latter appears more likely in individuals with multiple preexisting risk factors for diabetes.

The USPSTF, as well as the American College of Cardiology (ACC), American Heart Association (AHA), and the editors of UpToDate, recommend lifestyle modifications such as weight loss in overweight patients, aerobic exercise, smoking cessation, adequate blood pressure control, and eating diets lower in saturated fats. “Dietary patterns associated with CVD mortality include—sugar, low-calorie sweeteners, high-carbohydrate diets, low-carbohydrate diets, refined grains, trans fat, saturated fat, sodium, red meat, and processed red meat (such as bacon, salami, ham, hot dogs, and sausage). All adults should consume a healthy plant-based or Mediterranean-like diet high in vegetables, fruits, nuts, whole grains, lean vegetable or animal protein (preferably fish), and vegetable fiber, which has been shown to lower the risk of all-cause mortality compared to control or standard diet,” according to the ACC. Lifestyle modification also reduces diabetes risk.

If, after a trial of lifestyle modification, you and your patient determine together that more LDL reduction is still needed, which statin to choose? For LDL 70-189, one or more risk

factors, and 10-year risk 10-20%, consider a low- to moderate-intensity statin. Patients at lower risk and without additional risk factors should focus on lifestyle modification. For LDL \geq 190, consider a high-intensity statin. Recheck lipid panel and fasting glucose in three months.

High-, Moderate-, and Low-Intensity Statin Therapy*

Table 3

	High-Intensity	Moderate-Intensity	Low-Intensity
LDL-C Lowering [†]	\geq 50%	30% to 49%	<30%
Statins	Atorvastatin (40 mg [†]) 80 mg Rosuvastatin 20 (40 mg)	Atorvastatin 10 mg (20 mg) Rosuvastatin (5 mg) 10 mg Simvastatin 20–40 mg [§]	Simvastatin 10 mg
	–	Pravastatin 40 mg (80 mg) Lovastatin 40 mg (80 mg) Fluvastatin XL 80 mg Fluvastatin 40 mg BID Pitavastatin 1–4 mg	Pravastatin 10–20 mg Lovastatin 20 mg Fluvastatin 20–40 mg

*AHA/ACC 2018 Guideline on the Management of Blood Cholesterol

--Lisa Appleton, FNP, clinical champion for hyperlipidemia and lifestyle medicine