

USPSTF Recommendations for Statin Use in Primary Prevention

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The following are key points to remember about the US Preventive Services Task Force (USPSTF) Recommendation Statement on Statin Use for the Primary Prevention of Cardiovascular Disease (CVD) in Adults:

1. Approximately 400,000 adults die of coronary heart disease (CHD) each year. CHD accounts for approximately 20% of deaths among adults ages 45-65 years, and 25% of deaths among those ≥ 65 years. Thus, primary prevention of risk factors including dyslipidemia is of public health importance.
2. The USPSTF commissioned two systematic reviews in the process of updating the 2008 recommendations. A total of 71,344 participants from 19 randomized controlled trials were included in the reviews.
3. Low- to moderate-dose statin therapy is recommended for adults between the ages of 40-75 years for primary prevention if they meet the following criteria: the presence of one or more CVD risk factors (dyslipidemia with low-density lipoprotein [LDL] >130 mg/dl and/or high-density lipoprotein [HDL] <40 mg/dl, diabetes, hypertension, or smoking) and have a calculated 10-year risk of a CV event of 7.5-10%.
4. The Pooled Cohort Equation (2013 American College of Cardiology/American Heart Association guideline) may overestimate actual risk, as observed in several external validation cohorts. This risk equation is significantly influenced by age, such that some patients without CV risk factors may have a 10-year calculated risk $>7.5\%$ or 10%. Given this, the calculated risk should be used as a starting point for discussion of the benefits/risks of statin therapy.
5. For primary prevention, use of low- to moderate-dose statins is not associated with serious adverse events (e.g., cancer, severely elevated liver enzymes, or

severe muscle-related harms). Association between statins and diabetes mellitus is mixed. The USPSTF believes that there may be a small increased risk of developing diabetes with the use of high-dose statins.

6. Myalgia is a commonly reported adverse effect of statins, but placebo-controlled trial data do not support the conclusion that statin use has a major causative role in its occurrence. The USPSTF found no clear evidence of decreased cognitive function associated with statin use.
7. These recommendations do not apply to patients with known familial hypercholesterolemia or an LDL cholesterol above 190 mg/dl.
8. There is inadequate evidence to conclude there is a benefit of statin therapy among primary prevention patients who are ≥ 76 years. The USPSTF found inadequate evidence on the harms of statin use for the prevention of CVD events in adults ≥ 76 years without a history of heart attack or stroke.
9. Screening for dyslipidemia is recommended approximately every 5 years for those ≥ 40 years. Shorter intervals may be needed for patients who are borderline in one or more CV risk factors. For younger patients (20-39 years of age), there are a lack of data regarding lipid screening; thus, the USPSTF recommends clinical judgment regarding a decision to screen patients < 40 years old.

Clinical Topics: Diabetes and Cardiometabolic Disease, Dyslipidemia, Prevention, Lipid Metabolism, Nonstatins, Novel Agents, Primary Hyperlipidemia, Statins, Hypertension, Smoking

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