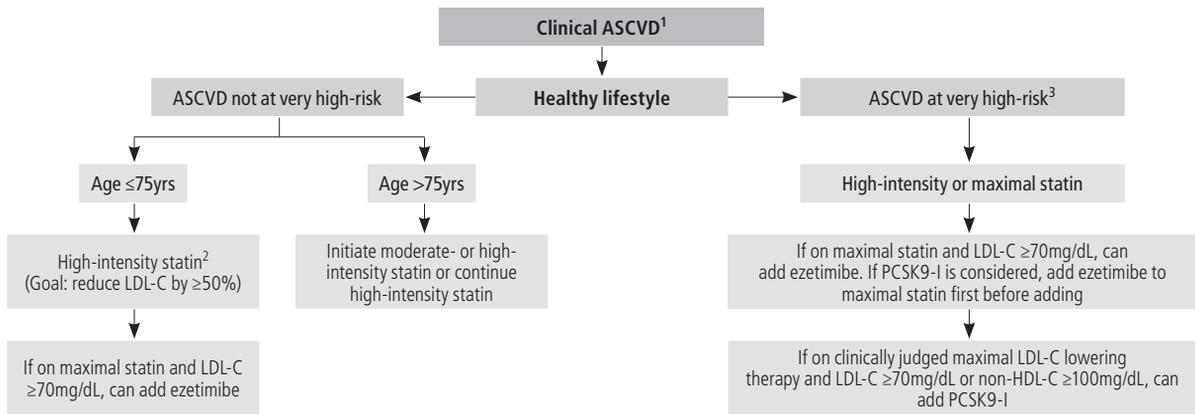
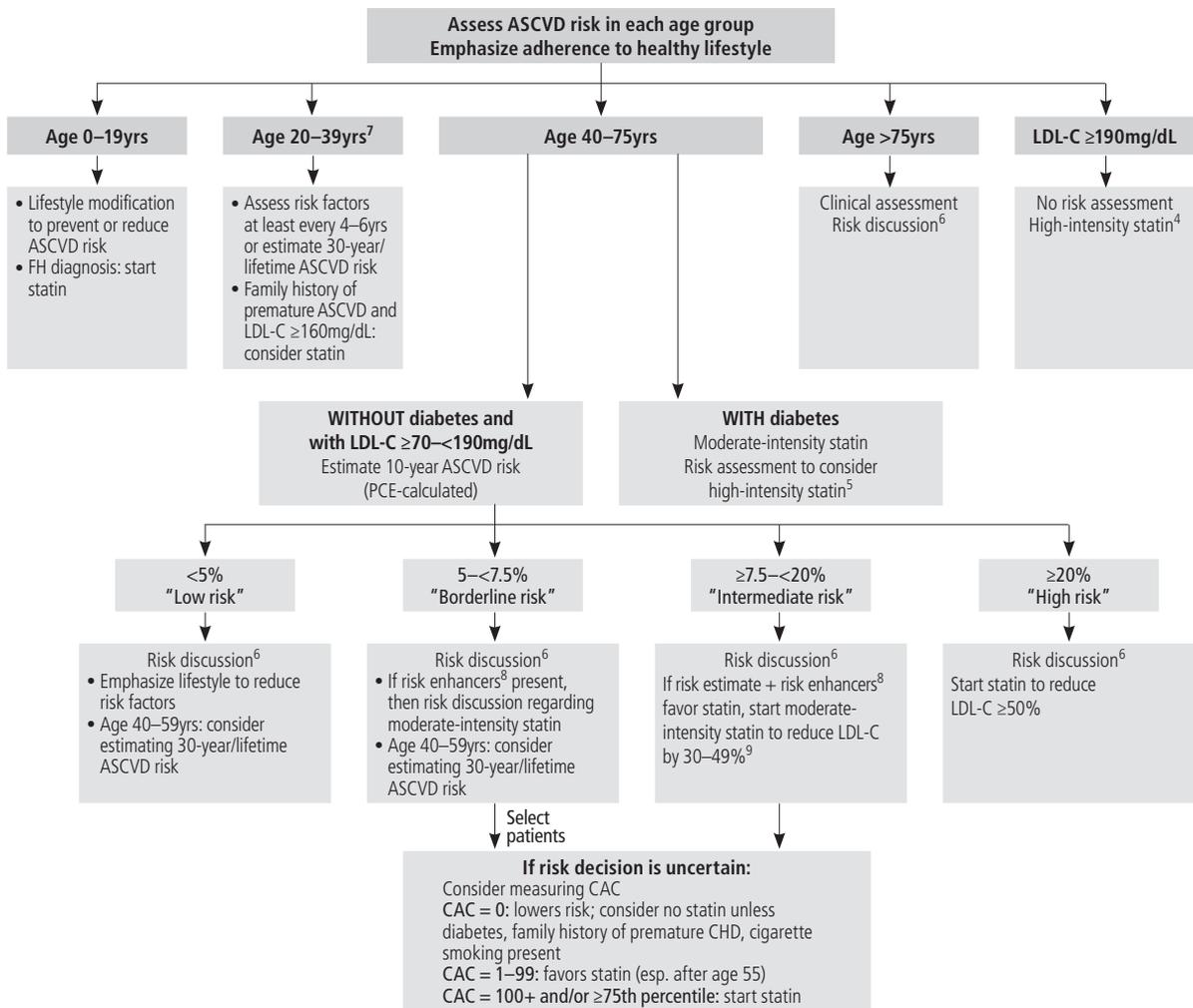


**SECONDARY PREVENTION IN PATIENTS WITH ASCVD**



**PRIMARY PREVENTION OF ASCVD**



**STATIN THERAPY**

**High-Intensity**

Daily dose lowers LDL-C by approx.  $\geq 50\%$ <sup>10</sup>

- atorvastatin 40–80mg
- rosuvastatin 20–40mg

**Moderate-Intensity**

Daily dose lowers LDL-C by approx. 30–49%<sup>10</sup>

- atorvastatin 10–20mg
- rosuvastatin 5–10mg
- simvastatin 20–40mg
- pravastatin 40–80mg
- lovastatin 40–80mg
- fluvastatin XL 80mg
- fluvastatin 40mg twice daily
- pitavastatin 1–4 mg

**Low-Intensity**

Daily dose lowers LDL-C by approx.  $< 30\%$ <sup>10</sup>

- simvastatin 10mg
- pravastatin 10–20mg
- lovastatin 20mg
- fluvastatin 20–40mg

**NONSTATIN THERAPY**

- Bile acid sequestrants: cholestyramine, colesevelam, colestipol
- Ezetimibe
- PCSK9 inhibitors: alirocumab, evolocumab

**NOTES**

**Key:** ACS = acute coronary syndrome;

ASCVD = atherosclerotic cardiovascular disease;

CAC = coronary artery calcium;

CHD = coronary heart disease;

CKD = chronic kidney disease;

FH = Familial Hypercholesterolemia

LDL-C = low-density lipoprotein cholesterol;

HDL-C = high-density lipoprotein cholesterol;

MI = myocardial infarction;

PCE = pooled cohort equations;

PCSK9-I = proprotein convertase subtilisin kexin type 9 inhibitor

Assess adherence and percentage response to LDL-C lowering medications and lifestyle changes with repeat lipid measurement 4–12wks after statin initiation or dose adjustment, repeated every 3–12mos as needed.

<sup>1</sup> Clinical ASCVD consists of ACS, history of MI, stable or unstable angina, coronary other arterial revascularization, stroke, transient ischemic attack (TIA), or peripheral artery disease (PAD) including aortic aneurysm, all of atherosclerotic origin.

<sup>2</sup> If high-intensity statin contraindicated or not tolerated, use moderate-intensity statin (Goal: reduce LDL-C by 30–49%).

<sup>3</sup> Very high-risk includes a history of multiple major ASCVD events or 1 major ASCVD event and multiple high-risk conditions (eg,  $\geq 65$  yrs, diabetes, hypertension, CKD [eGFR 15–59 mL/min/1.73m<sup>2</sup>], smoking, CHF, heterozygous familial hypercholesterolemia, prior CABG or PCI outside of major ASCVD event, persistently elevated LDL-C  $\geq 100$ mg/dL).

<sup>4</sup> If  $< 50\%$  reduction in LDL-C and/or LDL-C remains  $\geq 100$ mg/dL on maximally tolerated statin, can add ezetimibe. If  $< 50\%$  reduction in LDL-C and fasting triglycerides  $\leq 300$ mg/dL on statin and ezetimibe, may add bile acid sequestrant. If heterozygous FH and LDL-C remains  $\geq 100$ mg/dL on statin and ezetimibe, may add PCSK9-I.

<sup>5</sup> In adults with multiple ASCVD risk factors, initiate high-intensity statin to reduce LDL-C by  $\geq 50\%$ . In adults with 10-year ASCVD risk  $\geq 20\%$  who are on maximally tolerated statin therapy, may add ezetimibe to reduce LDL-C by  $\geq 50\%$ .

<sup>6</sup> Risk discussion should include a review of major risk factors (eg, cigarette smoking, elevated blood pressure, LDL-C, hemoglobin A1C [if indicated], and calculated 10-yr risk of ASCVD); the presence of risk-enhancing factors (see note #8); the potential benefits of lifestyle and statin therapies; the potential for adverse effects and drug-drug interactions; consideration of costs of statin therapy; and patient preferences and values in shared decision making.

<sup>7</sup> If diabetes mellitus present in this age group, consider diabetes-specific risk enhancers (eg, long duration [ $\geq 10$  yrs for T2DM or  $\geq 20$  yrs for T1DM], albuminuria  $\geq 30$ mcg albumin/mg creatinine, eGFR  $< 60$  mL/min/1.73m<sup>2</sup>, retinopathy, neuropathy, ankle-brachial index [ABI]  $< 0.9$ ) to determine if initiation of statin therapy is appropriate.

<sup>8</sup> ASCVD risk enhancers: family history of premature ASCVD, persistently elevated LDL-C  $\geq 160$ mg/dL, CKD, metabolic syndrome, conditions specific to women (eg, preeclampsia, premature menopause), inflammatory disease (esp. rheumatoid arthritis, psoriasis, HIV), ethnicity (eg, South Asian ancestry). Lipid/biomarkers: persistently elevated triglycerides ( $\geq 175$ mg/dL). In selected individuals if measured: hs-CRP  $\geq 2$ mg/L, Lp(a)  $> 50$ mg/dL or  $> 125$ nmol/L, apoB  $\geq 130$ mg/dL, ABI  $< 0.9$ .

<sup>9</sup> In patients who would benefit from more aggressive LDL-C lowering and in whom high intensity statins are advisable but not acceptable or tolerated, it may be reasonable to add nonstatin drug therapy (eg, ezetimibe or bile acid sequestrant) to a moderate-intensity statin.

<sup>10</sup> Percent reductions are estimates from data across large populations and reductions should be expected to vary in clinical practice.

**REFERENCES**

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