

15.6 Risk Reduction for Coronary and Other Vascular Disease Clinical Practice Guideline

This guideline is intended to assist the practitioner in clinical decision-making and attempt to define clinical practices that apply to most patients in most circumstances. The treating practitioner should make the ultimate decision regarding the care of a particular patient.

Goals	Recommendations
<p>Smoking: Goal: Complete cessation. No exposure to environmental tobacco smoke.</p>	<p>Ask about tobacco use status at every visit. In a clear, strong and personalized manner, advise every tobacco user to quit. Assess the tobacco user's willingness to quit. Provide counseling, pharmacotherapy, including nicotine replacement and bupropion, and formal smoking cessation programs. Urge avoidance of exposure to secondhand smoke at work or home.</p>
<p>BP control: Goal: <140/90 mm Hg or <130/80 mm Hg if Chronic Kidney disease or diabetes is present.</p>	<p>For all patients: Assess blood pressure at every visit. Promote healthy lifestyle modification: Advocate weight reduction; reduction of sodium intake; consumption of fruits, vegetables and low-fat dairy products; moderation of alcohol intake (advise against alcohol usage for those with no history of intake); and physical activity. For patients with blood pressure \geq 140/90 mm Hg (or \geq 130/80 mm Hg for individuals with chronic kidney disease or diabetes): Add blood pressure medication as tolerated, beginning with β-blockers and/or ACE inhibitors, with addition of drugs such as thiazides to achieve goal blood pressure.</p>
<p>Physical Activity: Minimum Goal: 30 minutes 5 days per week Optimal Goal: Daily</p>	<p>Assess risk, preferably with exercise test, to guide exercise prescription. Encourage minimum of 30 to 60 minutes of activity, preferably daily, or at least 5 times weekly (walking, jogging, cycling, or other aerobic activity) supplemented by an increase in daily lifestyle activities. Advise medically supervised programs for moderate- to high-risk patients.</p>
<p>Weight Management: Goal: Body Mass Index 18.5-24.9 kg/m² Waist circumference: men <40 inches, women <35 inches</p>	<p>Calculate BMI and measure waist circumference as part of evaluation. Monitor response of BMI and waist circumference to therapy. Start weight management and physical activity as appropriate. Desirable BMI range is 18.5-24.9 kg/m². When BMI \geq25 kg/m², goal for waist circumference is \leq 40 inches in men and \leq35 inches in women.</p>
<p>Lipid Management: Primary Goal: LDL <100 mg/dl</p>	<p>Initiate dietary modifications in all patients (<7% saturated fat and cholesterol <200 mg/dl) and promote weight management and physical activity. Encourage increased consumption of omega-3 fatty acids and adding plant stanol/sterols (2 g/d) and viscous fiber (>10 g/d). Assess fasting lipid profile in all patients, and within 24 hr of hospitalization for those with an acute event. If patients are hospitalized, consider adding drug therapy on discharge. Add drug therapy according to the following guide:</p> <p>LDL <100mg/dL (baseline or on-treatment)</p> <ul style="list-style-type: none"> • Further reduction of LDL-C to <70 mg/dl is reasonable. • Consider fibrate or niacin (if low HDL or high TG) <p>LDL 100-129 mg/dL (baseline or on-treatment)</p> <p>Therapeutic options:</p> <ul style="list-style-type: none"> • Intensify LDL-lowering therapy (statin or resin*) • Fibrate or niacin (if low HDL or high TG) • Consider combined drug therapy (statin+fibrate or niacin) (if low HDL or high TG) <p>LDL \geq130 mg/dL (baseline or on-treatment)</p> <ul style="list-style-type: none"> • Intensify LDL-lowering therapy (statin or resin*) • Add or increase drug therapy with lifestyle therapies

Lipid management: Secondary Goal: If TG \geq 200 mg/dL, then non-HDL** should be <130 mg/dL	If TG \geq 150 mg/dL or HDL <40 mg/dL: Emphasize weight management and physical activity. Advise smoking cessation. If TG 200-499 mg/dL: Consider fibrates or niacin <i>after</i> LDL-lowering therapy*. If TG \geq 500 mg/dL: Consider fibrates or niacin <i>before</i> LDL-lowering therapy*. Consider omega-3 fatty acids as adjunct for high TG.
Antithrombotic agents/ anticoagulants:	Start and continue indefinitely aspirin 75- 162 mg/d if not contraindicated. Consider antithrombotic agent or warfarin if aspirin contraindicated. Manage warfarin to international normalized ratio = 2.0-3.0 in post MI patients when clinically indicated or for those not able to take aspirin. Aspirin should be started within 48 hours after CABG in the range of 100 - 325 mg/d. Aspirin in combination with clopidogrel 75 mg/d should be given for up to 12 months in patients that have acute coronary syndrome (ACS) or percutaneous coronary intervention with stent placement (PTCA). >1 month for bare metal stent, >3 months for sirolimus-eluting stent, and >6 months for paclitaxel-eluting stent. Patients that have had PTCA should receive higher-dose aspirin at 325 mg/d for 1 month for bare metal stent, 3 months for sirolimus-eluting stent, and 6 months for paclitaxel-eluting stent. Use of warfarin with aspirin and/or clopidogrel can cause increased risk of bleeding and should be monitored closely.
Diabetes management Goal: HbA1c <7%	Appropriate hypoglycemic therapy to achieve near-normal fasting plasma glucose, as indicated by HbA1c. Treatment of other risks (eg, physical activity, weight management, blood pressure and cholesterol management).
ACE inhibitors:	Treat all patients with left ventricular ejection fraction \leq 40% indefinitely; start early in stable high-risk patients (anterior MI, previous MI, Killip class II [S ₃ gallop, rales, radiographic CHF]). Consider chronic therapy for all other patients with coronary or other vascular disease unless contraindicated.
Angiotensin Receptor Blockers (ARB):	Use in patients who are intolerant of ACE inhibitors and have heart failure or have had a MI with left ventricular ejection fraction <40%. May consider use in combination with ACE inhibitors in systolic-dysfunction heart failure.
Beta Blockers:	Start in all post-MI and acute ischemic syndrome patient. Continue indefinitely. Observe usual contraindications. Use as needed to manage angina, rhythm, or BP in all other patients.
Influenza Vaccination	Patients with cardiovascular disease should have an influenza vaccination annually.

Key: BP= blood pressure; ACE = angiotensin-converting enzyme; MI =myocardial infarction; TG = triglycerides; CHF= congestive heart failure; BMI = Body Mass Index

* The use of resin is relatively contraindicated when TG >200 mg/dL.

** Non-HDL cholesterol = total cholesterol minus HDL cholesterol.

Based on the American Heart Association/American College of Cardiology Guidelines for Preventing Heart Attack and Death in Patients with Atherosclerotic Cardiovascular Disease: 2001 AHA/ACC Guidelines for Secondary Prevention for Patients With Coronary and Other Atherosclerotic Vascular Disease: 2006 Update

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