

"Wisconsin Collaborative Lipid Communication Initiative 2003"
PREVENTING CV EVENTS IN PATIENTS AT HIGH RISK or WITH ESTABLISHED
CHD/RISK EQUIVALENT¹ FOR CHD

Adapted from the AHA/ACC 2001 Scientific Statement , NCEP ATP III and JNC 7

Goals	Intervention Recommendations		
Smoking: Complete cessation	Assess tobacco use. Strongly encourage patient and family to stop smoking and to avoid secondhand smoke. Provide counseling, pharmacological therapy, including nicotine replacement and bupropion, and formal smoking cessation programs as appropriate.		
BP Control: Normal <120/80 <u>Prehypertension</u> 120-139/80-89 <u>Hypertension, Stage I</u> 140-159/90-99 <u>Hypertension Stage II</u> ≥160/100	Initiate dietary referral and lifestyle modification (weight control, physical activity, alcohol moderation, moderate sodium restriction, and emphasis on fruits, vegetables, and low-fat dairy products) in all patients with BP >120-139/80-89. Add BP medication, individualized to other patient requirements and characteristics (i.e. age, race, need for drugs with specific benefits) for BP <140/90 or for BP <130/80 for individuals with heart failure, diabetes or renal insufficiency.		
Lipid Management: Primary goal is LDL-C<100 <i>(If LDL-C cannot be calculated due to elevated triglyceride level², may obtain LDL-D value via direct measurement of LDL cholesterol-CPT 83721)</i>	<p>Dietary referral for all patients (diet consisting of <7% saturated fats and <200 mg/dl of cholesterol) and promote physical activity and weight management. Encourage increased consumption of monounsaturated fatty acids. Assess fasting lipid profile in all patients, and within 24 hours of hospitalization for those with an acute event. If patients are hospitalized, consider adding drug therapy on discharge.</p> <p>Add drug therapy according to the following guideline:</p>		
	<table border="1"> <tr> <td><u>LDL < 100 (baseline or on-treatment)</u> Further LDL-lowering therapy not required. Consider fibrate or niacin if HDL low or triglycerides high</td> <td><u>LDL 100-129 (baseline or on-treatment)</u> Therapeutic options: <ul style="list-style-type: none"> Intensify LDL-lowering therapy with statin or resin Fibrate or niacin (if low HDL or high Triglyceride) Consider combined drug therapy (statin + fibrate or niacin if low HDL or high triglyceride) </td> <td><u>LDL > or equal to 130 (baseline or on-treatment)</u> Intensify LDL-lowering therapy (statin or resin¹) Add or increase drug therapy with lifestyle therapies</td> </tr> </table>	<u>LDL < 100 (baseline or on-treatment)</u> Further LDL-lowering therapy not required. Consider fibrate or niacin if HDL low or triglycerides high	<u>LDL 100-129 (baseline or on-treatment)</u> Therapeutic options: <ul style="list-style-type: none"> Intensify LDL-lowering therapy with statin or resin Fibrate or niacin (if low HDL or high Triglyceride) Consider combined drug therapy (statin + fibrate or niacin if low HDL or high triglyceride)
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Lipid Management: Secondary goal if triglyceride ≥ 200, then non-HDL ⁴ should be < 130	<p>If triglyceride ≥150 or HDL <40: Emphasize weight management and physical activity.</p> <p>If triglyceride level is 200-499: Consider fibrate or niacin <i>after</i> LDL lowering therapy</p> <p>If triglyceride ≥500: Consider fibrate or niacin <i>before</i> LDL lowering therapy</p> <p>Initiate dietary referral and consider omega-3 fatty acids and lifestyle modification</p>		
Physical Activity: Minimum goal 30 minutes 3-4 days/week. Optimal goal daily	<p>Assess risk, preferably with exercise test to guide prescription.</p> <p>Encourage minimum of 30-60 minutes of activity, preferably daily, or at least 3 or 4 times weekly. supplemented by an increase in daily lifestyle activities</p> <p>Advise medically supervised programs for moderate-to high-risk patients.</p>		
Weight Management: Goal BMI 18.5-24.9 kg/m ²	<p>Calculate BMI. BMI=kg/m² or (wt in pounds x 704.5 ÷ Ht in inches²)</p> <p>Monitor response of BMI and waist circumference to therapy.</p> <p>Start weight management and physical activity program. Desirable BMI range is 18.5-24.9 kg/m²</p> <p>When BMI ≥25kg/m², goal for waist circumference is ≤40 inches in men and ≤35 inches in women</p>		
Diabetes Management: Goal HbA1c <7%	Appropriate hypoglycemic therapy to achieve near-normal fasting plasma glucose as indicated by HbA1c. Treatment of other risks factors.		
Metabolic Syndrome⁵ Management: Goal is modification of root causes and treatment of metabolic risk factors	<p><i>Abdominal obesity, atherogenic dyslipidemia, elevated BP, insulin resistance, prothrombotic state and proinflammatory state are generally accepted as being characteristic of metabolic syndrome</i></p> <p>Initiate Dietary referral and lifestyle modification</p> <p>Clinical management of dyslipidemia to Lipid Management primary and secondary goals</p> <p>Reduction of insulin resistance through Weight Management and Physical Activity goals</p> <p>Risk reduction by lowering blood pressure to BP Control goal</p> <p>Treatment of prothrombotic state with Antiplatelet agents (aspirin)</p>		
Antiplatelet agents/anticoagulants	Start and continue indefinitely aspirin (ASA) 75-325 mg if not contraindicated. Consider clopidogrel 75mg or warfarin if ASA contraindicated. Manage warfarin to INR=2.0-3.0 in post-MI patients when clinically indicated or for those not able to take ASA or clopidogrel.		
ACE inhibitors:	Treat all patients indefinitely post MI; start early in stable high-risk patients (ant. MI, prior MI, Killip class II [S3 gallop, rales radiographic CHF]). Consider chronic therapy for all other patients with coronary or other vascular disease unless contraindicated.		
β-Blockers:	Start in all post-MI patients and acute ischemic syndrome. Continue indefinitely. Observe usual contraindications. Use as needed to manage angina, rhythm, or BP in all other patients.		

¹ Risk equivalents for CHD have been established by ATP III & JNC 7 as the presence of clinical atherosclerotic disease including:
• Clinical CHD • Peripheral arterial disease • Abdominal aortic aneurysm (AAA) • Symptomatic carotid artery disease

Diabetes is regarded as a CHD risk equivalent with or without the presence of clinical atherosclerotic disease

² Triglyceride values exceeding 400mg/dL are generally considered too high to calculate LDL-C, but laboratory thresholds may vary.

³ The use of resin is relatively contraindicated when triglyceride is > 200

⁴ Non-HDL cholesterol=total cholesterol minus HDL cholesterol

⁵ The presence of metabolic syndrome accentuates the risk accompanying elevated LDL cholesterol. Modification of atherogenic dyslipidemia, hypertension and the prothrombotic state will reduce the risk for CHD

This practitioner's tool was developed to provide guidance to providers and is not intended to replace or preclude clinical judgment