

Diagnosis, Prevention and Management of Coronary Artery Disease

| Initial Assessment of Risk Factors - Beginning at Age 20 to Include | |
|--|---|
| <ul style="list-style-type: none"> Family History Smoking Status and Readiness to Change Blood Pressure (goal <120/80) Fasting Lipid Panel Dietary and Physical Activity Assessment | <ul style="list-style-type: none"> BMI Calculation Past Medical History Assessment (including history of atrial fibrillation and diabetes) Waist Circumference |
| Clinical Identification of Metabolic Syndrome – Any 3 of the Following: | |
| <ul style="list-style-type: none"> Waist Circumference >40" (men), >35" (women) Blood Pressure >130 / >85 mm/Hg Fasting Glucose \geq110 mg/dL | <ul style="list-style-type: none"> Triglycerides \geq150 mg/dL HDL Cholesterol <40 mg/dL (men), <50 mg/dL (women) |
| Assess and treat underlying causes. | |
| Blood Pressure | |
| <ul style="list-style-type: none"> 120-139/80-89: Counsel on lifestyle changes, recheck 3 months. Hypertension: \geq140/90 (\geq130/80 for those with diabetes, chronic kidney disease, CAD or high CAD risk; \geq120/80 for those with Left Ventricular Dysfunction (LVD)): Promote lifestyle changes, begin drug therapy (See Figure 1), and agree upon blood pressure goals with patient. Monthly follow-up until blood pressure is stable, then follow-up every 3-6 months. | |

Figure 1

Algorithm for Treatment of Hypertension

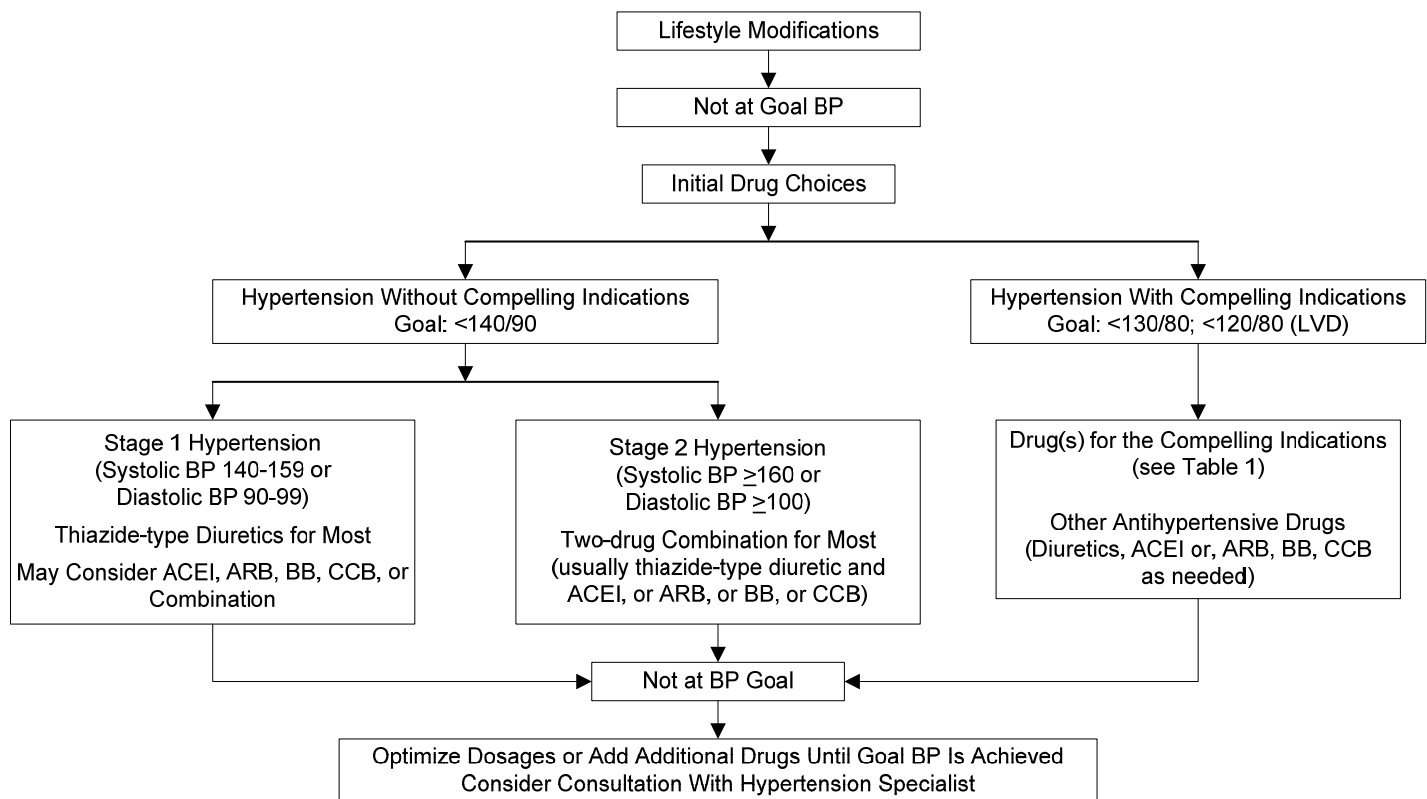


Table 1

| Compelling Indications for Individual Drug Classes | |
|--|--------------------------------|
| *Compelling Indications | Initial Therapy Options |
| Heart Failure | THIAZ, BB, ACEI, ARB, ALDO ANT |
| Post Myocardial Infarction | BB, ACEI, ALDO ANT, ARB |
| High CVD Risk | THIAZ, BB, ACEI, CCB, ARB |
| Diabetes | THIAZ, BB, ACEI, ARB, CCB |
| Chronic Kidney Disease | ACEI, ARB |
| Recurrent Stroke Prevention | THIAZ, ACEI, ARB |

Key: THIAZ = thiazide diuretic, ACEI = angiotensin converting enzyme inhibitor, ARB = angiotensin receptor blocker, BB = beta blocker, CCB = calcium channel blocker, ALDO ANT = aldosterone antagonist

| Lipid Management | | | |
|---|---|---|--|
| Primary Prevention | Use the risk calculator at www.nhlbi.nih.gov/guidelines/cholesterol to determine LDL goal and if therapeutic lifestyle changes or drug therapy are indicated. | | |
| Secondary Prevention | LDL <100 mg/dL | LDL 100 – 129 mg/dL | LDL ≥130 mg/dL |
| | Goal: LDL <100 mg/dL Optional Goal: <70 mg/dL (in patients with very high CV risk) | | |
| | <ul style="list-style-type: none"> Consider LDL-lowering therapy if patient is still at very high-risk for future CVD events Consider fibrate, omega-3 fatty acids, or niacin if low HDL or high TG | <ul style="list-style-type: none"> Intensify LDL-lowering therapy Fibrate or niacin (if low HDL or high TG) Consider combined drug therapy if low HDL or high TG | <ul style="list-style-type: none"> Intensify LDL-lowering therapy Add or increase drug therapy with lifestyle therapies Consider referral to a specialist |
| | Consider pill splitting or generic equivalents as available to increase patient compliance. | | |
| Risk Intervention and Goals | | | |
| Lifestyle Modifications | | | |
| <ul style="list-style-type: none"> Physical activity, of moderate intensity, for at least 30 minutes on most days of the week. Dietary Intake: Decrease cholesterol, saturated fat, trans fatty acids and increase fiber, fruits and vegetables Weight Management to achieve and maintain BMI at 18.5 – 24.9 Kg/m², waist circumference at iliac crest level ≤40” in men & ≤35” in women. Complete smoking cessation. No exposure to environmental smoke | | | |
| Blood Lipid Management | | | |
| <ul style="list-style-type: none"> Initiate therapeutic lifestyle changes and consider drug therapy | | | |
| Diabetes | | | |
| <ul style="list-style-type: none"> Initiate appropriate therapy to achieve an A1c <7% | | | |
| Chronic Atrial Fibrillation | | | |
| <ul style="list-style-type: none"> Anticoagulation with INR 2.0 – 3.0 | | | |
| ASA Therapy | | | |
| <ul style="list-style-type: none"> 2 or more risk factors, especially those with CHD 10yr risk of ≥10%, and no contraindications—prescribe 81-162 mg/QD | | | |
| Depression Screening | | | |
| <ul style="list-style-type: none"> Screen for Depression | | | |
| Vaccines | | | |
| <ul style="list-style-type: none"> Yearly flu vaccine Pneumococcal vaccine for patients >65 yrs | | | |
| Disease Management Support | | | |
| <ul style="list-style-type: none"> One to one interaction for personal education and support Resource tools to assist with self management of chronic conditions | | | |

REFERENCES:

- The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure (JNC VII) May 2003
- The Third Report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation and Treatment of High Blood Cholesterol in Adults (ATP III) May 2001
- Implications of Recent Clinical trials for the NCEP ATP III Guidelines, Circulation. 2004; 110:227-239.
- AHA Guidelines for Primary Prevention of Cardiovascular Disease and Stroke: 2002 Update
- Annals of Internal Medicine. Narrative Review: Lack of Evidence for Recommended Low-Density Lipoprotein Treatment Targets: A Solvable Problem. 2006.145:520-530
- AHA/ACC Secondary Prevention for Patients with Coronary and Other Vascular Disease: 2006 Update.