

## **HYPERTENSION RISK FACTORS & RECOMMENDED INTERVENTIONS**

The following risk factors for hypertension-related complications have been stratified to help our program prioritize the education and assistance provided to the members. Also included are recommended interventions based on national standards. The care management nurse reviews and emphasizes the provider's recommendations for hypertension treatment and utilizes the member's assessment responses to suggest additional discussion with the provider, if clarification may be needed.

### **Risk Factors for Hypertension-Related Complications**

- Systolic blood pressure  $\geq$  160 mm Hg
- Diastolic blood pressure  $\geq$  100 mm Hg
- Obesity: BMI  $\geq$  30kg/m<sup>2</sup>
- Systolic BP > 140 mm Hg and age > 50 years of age
- Physical inactivity
- High sodium intake
- Alcohol consumption > 3 ounces 80 proof distilled alcohol per day for males, 1.5 ounces per day for females
- Smoking

The absolute risk of non-fatal and fatal cardiovascular diseases in members with hypertension increases progressively with the number of non-hypertensive cardiovascular risk factors and the severity and extent of hypertensive target organ damage.

### **Cardiovascular Risk factors: Hypertension and Comorbid Conditions/Diseases**

- Age (55 years or older for men; 65 years for women)
- Diabetes mellitus
- Elevated LDL cholesterol
- Low HDL cholesterol
- Estimated GFR less than 60ml/min
- Microalbuminuria
- Family history of premature cardiovascular disease (men < 55 yrs or women < 65 yrs)
- Obesity (BMI  $\geq$  30 kg/m<sup>2</sup>) and waist circumference > 40 inches for men, >35 inches for women)
- Tobacco usage, particularly cigarettes
- Non-adherence: Medications and treatment plan.

### **Hypertensive Target Organ Damage**

#### **Heart**

- Left ventricular hypertrophy
- Angina/prior MI
- Prior coronary revascularization
- Heart failure

#### **Brain**

- Stroke or transient ischemic attack
- Dementia

#### **Chronic Kidney Disease**

**RECOMMENDED INTERVENTIONS\***

- **The recommended intervention is a BMI 18.5 – 24.9 kg/m<sup>2</sup>:** When indicated, weight reduction should be an initial step for BP control, which may also improve antihypertensive drug efficacy and improve CV risk status.
- **The recommended intervention is reduction of dietary sodium intake:** Dietary sodium intake should be limited to 2.4 gm/day. Members should be counseled to read labels for sodium content and utilizing substitute seasonings.
- **The recommended intervention is regular aerobic physical activity:** For blood pressure control, CV risk management, and to aid in weight loss, when appropriate; 30 – 45 minutes of aerobic activity most days of the week is recommended.
- **The recommended intervention is moderation of alcohol consumption:** Members with hypertension should limit their alcohol intake to no more than 3 ounces of 80 proof distilled alcohol per day for men and 1.5 ounces per day for women.
- **The recommended intervention is thiazide diuretics:** Thiazide-type diuretics are considered preferred initial therapy for most members. In the presence of comorbidities such as CHD, CKD or heart failure, alternative drugs, such as beta-blockers, ACEIs or ARBs, may be preferred for initial treatment.
- **The recommended intervention is additional antihypertensive medications if BP goal is not reached:** For most members, two or more antihypertensive medications will be needed to achieve control of blood pressure. ACEIs, ARBs, beta-blockers, calcium-channel blockers and alpha-adrenergic blockers are used most frequently in combination with a diuretic. Comorbid conditions or diseases may dictate which class of medication would be recommended.
- **The recommended intervention is treatment of non-hypertension-related CV risk factors:** Treatment to achieve control of co-existing cardiovascular risk factors is essential to prevent cardiac events. Members with diabetes, hypercholesterolemia and kidney disease should receive the appropriate therapy to reduce CV risk.
- **The recommended intervention is smoking cessation:** Medication and/or behavioral modification program should be strongly considered if the member is a current smoker.
- **The recommended intervention is stress management:** Stress management or relaxation technique classes may benefit members with hypertension and associated CV risk factors. Consider referral to a local program.

*\*The above recommendations were adapted from the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure and The Institute for Clinical Systems Improvement Health Care Guideline for Hypertension Diagnosis and Treatment.*