

# **Southern Philippines Medical Center**

# CLINICAL PRACTICE GUIDELINES Title: Guidelines for Patients with Hypertension



**OBJECTIVE**: To provide efficient and cost-effective management choices for the family medicine resident or consultant dealing with patients diagnosed with hypertension.

**SCOPE**: This shall apply for the management of patients with a diagnosis of hypertension.

#### **GUIDELINES:**

#### **HISTORY**

History of Present Illness: ask for the following signs/symptoms:

- **€** Headache
- € Dizziness
- € Blurring of Vision
- € Nape Pain
- € Vomiting
- € Chest Pain
- € Palpitation

#### Past Medical History:

- € If hypertensive, please indicate the highest blood pressure and the usual blood pressure
- € Co-existing chronic disease such as diabetes, dyslipidemia, chronic kidney disease, thyroid disease, congenital blood vessel disorders

## Family History:

- **€** Hypertension
- € Cardiovascular Disease
- € Diabetes Mellitus
- € Hypercholesterolemia

## Personal and Social History:

- € If smoker, ask for Pack Years
- € If alcoholic beverage drinker, ask for Glass Per Day
- € Unhealthy diet (high in sodium)

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€ Physical Inactivity / Sedentary Lifestyle

#### PHYSICAL EXAMINATION

- € Complete Vital Signs: blood pressure, heart rate, respiratory rate, temperature
- € Weight and Height; compute for Body Mass Index (BMI)
- € Waist/hip ratio
- € Circulation and heart: pulse rate/rhythm/character, jugular venous pulse/pressure, apex beat, extra heart sounds, basal crackles, peripheral edema, radio-femoral delay
- € Other organs/systems: enlarged kidneys, neck circumference >40cm (obstructive sleep apnea), enlarged thyroid
- € Fundoscopy: (perform for all hypertensive stage 2 patients)

#### **DIAGNOSTICS**

- € Request for 12-lead ECG, urinalysis, FBS, creatinine, serum K and lipid profile to determine co-morbidities and baseline values
- € After 6-12 months, repeat 12-lead ECG, urinalysis, FBS, creatinine, serum K and lipid profile

### **DIAGNOSIS**

Diagnosis is based on the average of two or more properly measured blood pressure readings from two or more clinical visits taken on two separate days:

- € Normal (SBP <120 or DBP <80 mmHg)
- € Prehypertension (SBP 120-139 or DBP 80-89 mmHg)
- € Hypertension Stage I (SBP 140–159 or DBP90–99 mmHg)
- € Hypertension Stage II (SBP ≥160 or DBP≥100 mmHg)

#### **TREATMENT**

Non-pharmacologic

- € Lifestyle modification remains the cornerstone for the management of hypertension
- € Sodium restriction to as low as 1500 mg/day
- € Dietary Approaches to Stop Hypertension (DASH) meal plan
- € Moderate-to-vigorous exercise 30-60 minutes at least 3-5 times a week

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- € Abstinence from alcohol or moderate alcohol intake
- € Weight loss of ≥ 5% of the baseline weight for those who are overweight or obese
- € Smoking cessation

#### Pharmacologic

- € Hypertension Stage I
  - € ACE inhibitors or ARBs, CCB, thiazide/thiazide-like diuretics, either as monotherapy or in combination
  - € Beta-blockers may be used as initial therapy in hypertensive patients with coronary artery disease, acute coronary syndrome, high sympathetic drive and pregnant women
- € Hypertension Stage II
  - € 2-drug combination for most
    - \*Preferred combinations: ACE-Inh/ARB + CCB, ACE-Inh/ARB + HCTZ
    - \* Patients with hypertension who continue to be uncontrolled on 3 drug combinations one of which is a diuretic are considered to have RESISTANT HYPERTENSION and warrant referral to specialists for work-up or initiation of second line agents
- € Persons with hypertension and diabetes
  - € Low-dose combination of a RAAS blocker (ACE-I or ARB) with a CCB or thiazide/thiazide-like diuretic, preferably using a single-pill combination
- € Persons with hypertension and CKD
  - € ACE inhibitors, ARBs, Thiazide-like diuretics, or Dihydropyridine Calcium Channel Blockers to reduce CV events in patients with CKD
- € Hypertension in pregnancy
  - € Methyldopa, Calcium Channel Blockers or Beta Blockers are first line drugs
  - € ACE inhibitors and ARBs are generally not recommended
- € Hypertension in pediatric population
  - € ACE inhibitors (Enalapril, Captopril), ARBs (Losartan, Valsartan), or calcium channel blockers (Amlodipine)
  - € For children with co-existing CKD, proteinuria or diabetes mellitus, an ACE inhibitor or ARB is recommended



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#### **RECOMMENDATIONS**

- € Evaluate adherence to antihypertensive treatment as appropriate at each visit and prior to escalation of antihypertensive treatment
- € Further investigations for secondary hypertension should be carefully chosen based on information from history, physical examination and basic clinical investigations
- € Follow-up after 1 month until BP target is achieved then every 3-6 months if BP target is already achieved

#### **REFERENCES**

- Executive Summary of the 2020 Clinical Practive Guidelines for the Management of Hypertension in the Philippines
- 2020 International Society of Hypertension Global Hypertension Practice Guidelines
- Clinical Pathways for the Management of Hypertension in Family and Community Practive

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