

# HYPERTENSION TREATMENT PROTOCOL

## STEP 1

Measure blood pressure (BP) for all adults and in all consultations by trained personnel, following the recommended protocol and using validated manometers.

## STEP 2

If BP is  $\geq 160 / 100$  mmHg, start treatment immediately.

## STEP 3

After 4 weeks

If persists  $\geq 140$  or  $\geq 90$  persists

## STEP 4

After 4 weeks

If persists  $\geq 140$  or  $\geq 90$  persists

## STEP 5

After 4 weeks

If persists  $\geq 140$  or  $\geq 90$  persists

## STEP 6

After 4 weeks

If persists  $\geq 140$  or  $\geq 90$  persists  
**CONFIRM** that the patient has been taking the medications regularly and correctly. If so, refer the patient to a specialist.

### HEALTHY LIFESTYLE COUNSELING FOR ALL PATIENTS



Stop all tobacco use, avoid secondhand tobacco smoke.



Avoid alcohol consumption.



Increase physical activity to equivalent of brisk walk 150 minutes per week.



If overweight, lose weight.



Eat heart-healthy diet:

- Consume less than a teaspoon of salt a day;
- Eat  $\geq 5$  servings of vegetables / fruits per day;
- Use healthy oils;
- Eat nuts, legumes, whole grains and foods rich in potassium;
- Limit red meat to once or twice a week at most;
- Eat fish or other foods rich in omega 3 fatty acids at least twice a week;
- Avoid added sugars.

### PRECAUTIONS

- ACE inhibitors and ARA
  - ACE inhibitors (and ARBs) should not be given to women who pregnant or may become pregnant.
  - They carry a small risk of angioedema; the risk is greater in people of African descent (not observed with ARBs).
  - Risk of hyperkalemia, particularly if the patient has a chronic kidney disease.
- Calcium channel blockers: the use of calcium channel blockers can cause malleolar edema in up to 10% of patients, especially at high doses, if an ACE inhibitor or an ARB is not being used.
- Diuretics: can produce hypokalemia and can have adverse effects on lipid and glucose values.

### SECONDARY PREVENTION

- Cardiovascular risk
  - Estimate the cardiovascular risk in all patients with hypertension.
  - Patients with diabetes, coronary heart disease, stroke or chronic kidney disease are considered high cardiovascular risk.
- Control goal
  - The goal of BP is  $< 130/80$  mmHg in people with high cardiovascular risk, in patients with diabetes, coronary heart disease, stroke or chronic kidney disease.
  - In patients with Type 2 Diabetes: BP  $< 130/80$  mmHg, HgbA1c  $< 7\%$ , LDL  $< 100$  mg / dl.
- Treatment
  - Add statins in all patients of high cardiovascular risk regardless of their cholesterol or LDL levels.
  - Add statins in patients  $\geq 40$  years with moderate cardiovascular risk, with total cholesterol  $\geq 5$  mmol / L (190 mg / dl) or with LDL cholesterol  $\geq 3$  mmol / L (115 mg / dl).
  - Add statins in patients  $\geq 40$  years with low cardiovascular risk, with total cholesterol  $\geq 8$  mmol / L (320 mg / dl).
  - Consider adding statins in those with moderate cardiovascular risk.
  - Aspirin: Add aspirin to all patients with high cardiovascular risk unless they have specific contraindications.