# Kerala

# Hypertension Protocol



Screen all adults over 18 years.

High BP: **SBP** > **140** or **DBP** > **90** mmHg



# If BP is high

**Check S. Creatinine and Urine Protein** Start on lifestyle modifications for 3 months. Review every month.

If BP is high at monthly review, start on drug treatment



# Review in 3 months. If BP is high

**Start Amlodipine 5mg (CCB)** 



## Review in 1 month. If BP is high

# Add Telmisartan 40mg (ARB)

Along with Amlodipine 5mg



### Review in 1 month. If BP is high

# **Intensify Telmisartan to 80mg**

Along with Amlodipine 5mg



# Review in 1 month. If BP is high

# **Intensify Amlodipine to 10mg**

Along with Telmisartan 80mg



# Review in 1 month. If BP is high

# Add Chlorthalidone 12.5mg (diuretic)

Along with Amlodipine 10mg and Telmisartan 80mg



#### Review in 1 month. If BP is high

Confirm **compliance** to treatment. If confirmed, refer to specialist.

## **Blood pressure measurements**

At least 2 readings at an interval of 2 minutes. If readings differ by more than 5mm Hg, take a third reading. The lower of the readings should be taken as the representative SBP and DBP.

If SBP  $\geq$  180 and/or DBP  $\geq$  110

Refer immediately to higher centre after starting treatment.

#### If SBP ≥ 160-179 and/or DBP ≥ 100-109

- Do basic investigations: ECG, S. creatinine.
- Start on lifestyle modifications.
- Start drug treatment.

If SBP  $\geq$  140-159 and/or DBP  $\geq$  90-99

Start on lifestyle modifications.

## **Measuring blood pressure**

- Use a mercury sphygmomanometer or electronic digital oscillometric device that is validated using a standard protocol and calibrated regularly.
- Patient should relax for 5 minutes before measurement.
- Patient should not have had caffeine in the past hour or smoked in the past 30 minutes.
- Patient should be seated comfortably with back supported, arm at heart level, and legs uncrossed.
- Appropriate cuff size: length of bladder 80% of arm circumference, width 40% of arm circumference.

#### Lifestyle modification

All patients require lifetime lifestyle modification.



#### **Change diet** Salt restricted (<5g/day),

low-fat diet.



#### **Regular exercise** Moderate intensity, 30

minutes, 5 days a week



#### Reduce weight Target BMI 18.5 - 22.9 kg/m<sup>2</sup>



# **Alcohol and Smoking**

Avoid unhealthy intake of alcohol. Stop smoking.