



Hypertension Protocol

Measure blood pressure of **all adults over 18 years**

High BP: **SBP \geq 140** or **DBP \geq 90** mmHg

Check for compliance at each visit before titration of dose or addition of drugs

- Step 1** If BP is high*
Prescribe Amlodipine 5 mg and lifestyle management
- Step 2** After 30 days[#] measure BP again. If still high:
Add Telmisartan 40mg
- Step 3** After 30 days measure BP again. If still high:
Increase Telmisartan to 80mg
- Step 4** After 30 days measure BP again. If still high:
Increase Amlodipine to 10mg
- Step 5** After 30 days measure BP again. If still high:
Add Chlorthalidone 6.25mg
- Step 6** After 30 days measure BP again. If still high:
Increase Chlorthalidone to 12.5mg
- ... After 30 days measure BP again. If still high:
Refer patient to a specialist.

Women who are or could become pregnant

▲ DO NOT give Telmisartan or Chlorthalidone.

- ACE inhibitors, angiotensin receptor blockers (ARBs), thiazide/thiazide like diuretics and statins should not be given to pregnant women or to women of childbearing age not on highly effective contraception.
- Calcium channel blocker (CCB) or labetalol can be used in consultation with specialist.

Diabetic patients

- Treat diabetes according to protocol.
- Aim for BP target of <140/90.

Heart attack in last 3 years

- Add beta blocker to Amlodipine at initial treatment.

Heart attack or stroke ever

- Begin low-dose aspirin (75 mg) and statin.

Chronic kidney disease

- ACE inhibitor or ARB preferred if close clinical and biochemical monitoring possible after specialist opinion.

Diabetic Nephropathy patients

- Start treatment if SBP \geq 130 and/or DBP \geq 80. Aim for BP target of <130/80.

* If SBP \geq 180 or DBP \geq 110, refer patient to a specialist after starting treatment. If SBP 160-179 or DBP 100-109, recheck BP >30 mins. Start treatment on same day. If SBP 140-159 or DBP 90-99, recheck on next day and if still elevated, start treatment.

If SBP \geq 160 and/or DBP \geq 100, ask to revisit in 15 days.

Recommended investigations at initiation of therapy: Haemoglobin, CBC, blood urea, creatinine, HbA1C, lipid profile, ECG, urine routine.

Optional investigations: Liver function tests (if patient obese BMI \geq 25), PCV (if Hb \geq 16gm/dl or if advised by medical officer), electrolytes (before starting 2nd dose of Telmisartan &/or patient age \geq 60), ultrasound (to r/o liver and kidney involvement), fundus examination.

Refer to specialist if young patient (<25 years); pregnancy; family history of renal disease; BP not controlled even after step 6; Hypertensive emergency SBP \geq 200 &/or DBP \geq 110; any complications detected.

Lifestyle advice for all patients



Eat less than 1 tsp of salt per day: avoid papads, chips, chutneys, dips, pickles, etc.



If overweight, lose weight.



Exercise regularly: 2.5 hours per week



Avoid alcohol and tobacco

- Limit intake of fried foods.
- Avoid foods with high amounts of saturated fats (e.g. cheese, ice cream, fatty meat).
- Avoid processed foods containing trans fats.
- Avoid added sugar.
- Adequate sleep for 6 to 8 hrs.
- Eat 5 servings of fruits and vegetables per day.
- Use healthy oils, e.g. sunflower, mustard or groundnut.
- Reduce fat intake by changing how you cook: remove the fatty part of meat; use vegetable oil; boil, steam or bake rather than fry; limit reuse of oil for frying.