

Hypertension Management Protocol

Single Pill Combination as First-line Treatment

Telmisartan 40 mg¹/Amlodipine 5 mg² Single Pill Combination³ Regimen

Screen all adults

Step 1

If BP ≥ 140 or $\geq 90^4$

Prescribe half pill per day

Step 2

Review after 4 weeks. If still ≥ 140 or $\geq 90^5$

Increase to single pill per day

Step 3

Review after 4 weeks. If still ≥ 140 or $\geq 90^5$

Increase to 2 pills per day

Step 4

Review after 4 weeks. If still ≥ 140 or $\geq 90^5$

Add chlorthalidone 12.5 mg⁶

Step 5

Review after 4 weeks. If still ≥ 140 or $\geq 90^5$

Increase to chlorthalidone 25 mg⁷

Step 6

Review after 4 weeks. If still ≥ 140 or $\geq 90^5$

Check that patient has been taking drugs regularly and correctly. If this is the case, refer patient to a specialist.

Provision for Specific Patients

- Manage diabetes as indicated by national protocol
- Aim for BP target of $<130/80$ for people with diabetes or otherwise at high risk
- Start statin and aspirin in people with prior heart attack or ischemic stroke
- Start beta blocker in people with heart attack in past 3 years
- Consider statin in people at high risk

Advice for lifestyle modification for all patients



Stop all tobacco use, avoid second-hand tobacco smoke, and avoid unhealthy alcohol intake.



Increase physical activity to equivalent of brisk walk 150 minutes per week. If overweight, lose weight.



Eat a heart-healthy diet:

- Eat less than 1 teaspoon of salt per day
- Eat ≥ 5 servings of vegetables/fruit 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 food rich in omega 3 fatty acids at least twice a week
- Avoid added sugar

1 Telmisartan 40 mg can be replaced with any once-daily Angiotensin receptor blocker (ARB) (e.g., losartan 50 mg) or once daily Angiotensin converting enzyme inhibitor (ACE-I) (e.g., lisinopril 20 mg, ramipril 5 mg, perindopril 4 mg). **ACE-I and ARB should NOT be given to women who are or who may become pregnant.** Before initiating and several weeks after starting ACE-Is or ARBs check serum creatinine and potassium if possible.

2 Amlodipine can be replaced with another once-daily dihydropyridine calcium channel blocker. Alternatively, amlodipine can be replaced with chlorthalidone 12.5, indapamide 1.25 mg, or indapamide SR 1.5 mg. If neither chlorthalidone nor indapamide is available, hydrochlorothiazide 25 mg can be used. If a diuretic is used instead of amlodipine, check serum potassium if possible and see 6 below.

3 Medications can be used as individual agents if single-pill combinations are not available.

4 If BP ≥ 160 or ≥ 100 , start same day and consider initiating entire tablet daily. If 140-159 or 90-99, check on a different day, and if still elevated, start.

5 If systolic BP repeatedly <110 , consider going to prior, less intensive regimen.

6 If a diuretic is used initially instead of amlodipine, then amlodipine or another once-daily dihydropyridine calcium channel blocker would be used at this step.

7 Hypokalemia is more common using full-dose diuretic – consider regular lab monitoring. If a diuretic is used instead of amlodipine in the initial treatment, this consideration would apply earlier in the protocol.