



Tips for General Practitioners in Managing Hypertension

Hypertension management requires a comprehensive approach that includes accurate diagnosis, risk assessment, lifestyle modifications, and appropriate medication. Here are key tips for general practitioners (GPs) to effectively manage hypertensive patients.

1. Accurate Diagnosis & BP Measurement

- ✓ Use proper technique:
 - Patient should be seated for 5 minutes, feet flat on the floor, and arm supported at heart level.
 - Avoid caffeine, smoking, or exercise 30 minutes before measurement.
 - Use an appropriately sized cuff (too small = falsely high readings).
 - Take at least two readings on different occasions to confirm hypertension.
- ✓ Consider Ambulatory Blood Pressure Monitoring (ABPM):
 - Helps diagnose white coat hypertension or masked hypertension.

2. Risk Stratification & Individualized Treatment

- ✓ Assess cardiovascular risk factors:
 - Check for diabetes, smoking, high cholesterol, kidney disease, family history of CVD.
 - Use risk calculators like ASCVD Risk Score to guide treatment intensity.
- ✓ Look for target organ damage:
 - ECG for LVH, arrhythmias.
 - Fundoscopy for hypertensive retinopathy.
 - Kidney function tests (serum creatinine, eGFR, urine albumin) for hypertensive nephropathy.
- ✓ Identify secondary hypertension causes if:
 - Sudden onset or severe hypertension (<40 years).
 - Resistant hypertension despite 3+ drugs.
 - Suspicion of hyperaldosteronism, renal artery stenosis, pheochromocytoma.
- 3. Lifestyle Modification Counseling (First-Line for All Patients)
- ✓ Dietary changes:





- DASH diet (Dietary Approaches to Stop Hypertension): High in fruits, vegetables, whole grains, low in sodium.
- Reduce salt intake (<2.3g/day) and processed foods.
- Increase potassium intake (bananas, oranges, spinach).

√ Weight management:

- Aim for BMI <25 kg/m².
- Even 5-10% weight loss can lower BP significantly.

✓ Physical activity:

 Encourage 30–45 minutes of moderate exercise (walking, cycling) 5 days a week.

✓ Limit alcohol & smoking:

- Men: ≤2 drinks/day, Women: ≤1 drink/day.
- Strongly advise smoking cessation.

√ Stress management:

• Teach relaxation techniques, meditation, and sleep hygiene.

4. Pharmacological Treatment: Choosing the Right Drug

- ✓ Follow guideline-based therapy: (e.g., AHA/ESC/ISH guidelines)
 - First-line choices:
 - ACE inhibitors (Lisinopril, Ramipril) or ARBs (Losartan, Telmisartan) → Best for diabetes, CKD, heart disease.
 - Calcium channel blockers (Amlodipine, Nifedipine) → Best for elderly, isolated systolic hypertension.
 - Diuretics (Hydrochlorothiazide, Chlorthalidone) → Good for saltsensitive hypertension.
 - Beta-blockers (Metoprolol, Carvedilol) → Best for post-MI, heart failure.

✓ Combination therapy for better control:

• Two-drug therapy (ACEI/ARB + CCB or Diuretic) if BP >150/90 mmHg.

✓ Adjust treatment for special populations:

- Pregnancy: Use Labetalol, Methyldopa, or Nifedipine. Avoid ACEIs & ARBs.
- Resistant hypertension: Add Spironolactone or consider Renal Denervation.





- ✓ Monitor for side effects:
 - ACE inhibitors → Cough, hyperkalemia.
 - CCBs → Edema, headache.
 - Diuretics → Electrolyte imbalances.
- 5. Regular Monitoring & Patient Engagement
- ✓ Follow-up every 2–4 weeks after starting treatment, then every 3–6 months once BP is controlled.
- ✓ Encourage home BP monitoring for better compliance.
- ✓ Educate patients about medication adherence—common reason for treatment failure.
- 6. Recognizing Hypertensive Emergencies (Immediate Referral) BP >180/120 mmHg with target organ damage (chest pain, breathlessness, confusion, kidney failure).
- ✓ Urgent hospital referral for IV antihypertensives (e.g., Labetalol, Nicardipine).







Adult Hypertension Pathway Therapeutic Management Hypertension despite lifestyle measures^(a) Confirmed using 24 hr ABPM or home average

IF Home Average BP≥150/95mmHg (clinic≥160/100mmHg) DIRECT TO STEP 2

> Treat to Target <135/85mmHg^(b) (clinic <140/90mmHg)

Referral to a hypertension specialist may be necessary in some cases^(c). This pathway should not be used in pregnancy, malignant hypertension or hypertensive emergencies^(d).

Step 1 Monotherapy



Age < 55

ACEi or ARB (start dose) Age 55+ or Black

CCB (start dose)

Step 2 Dual therapy Ideally SPC*



4-6 weeks

4-6 weeks

Combine ACEi or ARB with CCB

Step 3 Increase doses Ideally SPC*



Increase dose of
ACEi or ARB and/or CCB
depending on BP reduction needed

(A)

Angiotensin Converting Enzyme Inhibitor (ACEi)⁽ⁱ⁾ Perindopril 4-8mg OD Lisinopril 10-20mg OD

OF

Angiotensin II Receptor Blocker (ARB)⁽ⁱⁱ⁾ Losartan 50-100mg OD Candesartan 8-16mgOD

Ensure recent
electrolytes and
creatinine. Recheck in 46 weeks and at regular
intervals. If eGFR
decreases by >25% or
creatinine rises by >30%
STOP ACEI or ARB and
recheck electrolytes and
creatinine.

Step 4 Triple therapy Ideally SPC*

Add Thiazide-like Diuretic



Dihydropyridine Calcium Channel Blocker (CCB) Amlodipine 5-10mg OD Lercanidipine 10-20mg OD

+A+C+D

Apparent resistance to 3 drugs:
Confirm resistant hypertension with
HBPM/ABPM. Discuss adherence^(e) and
consider a SPC*. Consider other causes^(f).
Consider referral for specialist advice & initiate
spironolactone 12.5mg OM(c).



Thiazide-like Diuretic Indapamide 2.5mg OD Indapamide SR 1.5mg OD Chlortal Idone 25mg OD

Check electrolytes and creatinine within 2 months and at regular intervals. In case of electrolyte disturbance consider stopping the drug and recheck electrolytes and creatinine.

Step 5 Quadruple therapy Spironolactone 12.5mg OM^(c)

<u>Further Options</u>

Amiloride 5-10mg OD

Doxazosin XL 4mg OD^(h)

Bisoprolol 2.5mg OD⁽ⁱ⁾

Kankvali





Conclusion:

- ✓ Accurate diagnosis, lifestyle modifications, and tailored drug therapy are key to effective hypertension management.
- ✓ Patient education & regular follow-ups improve long-term outcomes.
- ✓ Early recognition of complications (LVH, kidney disease, stroke risk) is crucial.