Hypertension Management

Created by Kyle Fischer, P4 (Kfischer_10)
(KGFischeRx)

Reference: Hypertension. 2018;71(6):e13-e115.

Blood Pressure Treatment Algorithm

Normal BP
BP < 120/80 mmHG

Healthy lifestyle habits

Elevated BP
BP 120-129 / < 80 mmHG

Non-Pharmacological therapy

Stage 1 HTN
BP 130-139 / 80-89 mmHG

Clinical ASCVD or estimated 10-y CVD risk ≥ 10%

NO

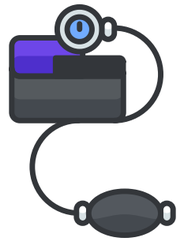
Non-Pharmacological therapy only

Goal < 130/80 mmHG
Reassess in 3-6 mo

YES

Stage 2 HTN
BP ≥ 140 / 90 mmHG

Non-Pharmacological therapy + Pharmacologic therapy
Goal < 130/80 mmHG



First Line Antihypertensive Agents

ACEi or ARB	Preferred in CKD or DM w/ albuminuria Monitor SCr. and K+
Calcium Channel Blocker	Preferred in black patients Monitor for edema & avoid Non-DHP CCBs in pts w/ HFrEF
Thiazide-Type Diuretic *Chlorthalidone or Indapamide preferred*	Preferred in black patients Monitor Na+, K+, Ca2+, and uric acid

Causes of Hypertension

- Genetic Predisposition
- Environmental Risk Factors
  - Overweight and Obesity
  - Sodium Intake
  - Physical Fitness
  - Alcohol

Medications / Substances that may elevate BP

- Alcohol
- Amphetamines
- Antidepressants (eg, MAOIs, SNRIs, TCA)
- Atypical antipsychotics (eg clozapine, olanzapine)
- Caffeine
- Recreational drugs (eg, "bath salts", cocaine)
- Systemic corticosteroids (eg, dexamethasone, fludrocortisone, prednisone, methylprednisolone)
- Decongestants (eg, phenylephrine, pseudoephedrine)
- Herbal supplements (eg, MA Huang [ephedra], St. John's wort [w/ MAOI, yohimbine])
- Immunosuppressants (eg, cyclosporine)
- Oral contraceptives
- NSAIDs
- Angiogenesis inhibitor (eg bevacizumab)
- Tyrosine kinase inhibitors (eg, sunitinib, sorafenib)

Non-Pharmacological Intervention	SBP Reduction Approximation
Weight loss	1 mmHg per 1 kg
DASH diet	11 mmHg
Sodium reduction (<1500 mg/d)	5 mmHg
Enhanced Potassium intake (aim for 3500-5000 mg/d)	4 mmHg
Physical activity (90-150 min/week)	7 mmHg
Alcohol reduction (men ≤ 2 drinks daily & women ≤ 1 drinks daily)	4 mmHg