

Hypertension

Definition of Hypertension

Patients **less than 60 years of age**: start pharmacotherapy at 140/90 mmHg.

Patients with **diabetes**: start pharmacotherapy at 140/90 mmHg.

Patients with **CKD**: start pharmacotherapy at 140/90 mmHg.

Patients **60 years of age or older**: start pharmacotherapy at 150/90 mmHg.

GOAL blood pressure

Patients **less than 60 years of age**: less than 140/90 mmHg.

Patients with **diabetes**: less than 140/90 mmHg.

Patients with **CKD**: less than 140/90 mmHg.

Patients **60 years of age or older**: less than 150/90 mmHg.

Medication recommendations:

- **Non-black less than 60 years of age:**

First-line: ACEI or ARB

Second-line :(in addition to the above): CCB or Thiazide

Third-line: CCB plus ACEI or ARB plus thiazide

- **Non-black 60 years of age or older:**

First-line: CCB or thiazide preferred, ACEI or ARB

Second-line :(in addition to the above): CCB, Thiazide, ACEI or ARB

Third-line: CCB plus ACEI or ARB plus thiazide

- **African American: including those with diabetes**

First-line: CCB or Thiazide

Second-line :(in addition to the above): ACEI or ARB

Third-line: CCB plus ACEI or ARB plus thiazide

Recommendations for patients with comorbidities:

- **Diabetes:**

First-line: ACEI or ARB (can start with CCB or thiazide in African Americans)

Second-line :(in addition to the above): CCB or Thiazide (can add ACEI or ARB in African Americans)

Third-line: CCB plus ACEI or ARB plus thiazide

- **CKD:**

First-line: ACEI or ARB (ACEI for African Americans)

Second-line :(in addition to the above): CCB or Thiazide

Third-line: CCB plus ACEI or ARB plus thiazide

- **CAD :**

First-line: BB plus ACEI or ARB

Second-line :(in addition to the above): CCB or Thiazide

Third-line: BB plus ACEI or ARB plus CCB plus Thiazide

- **Stroke history:**

First-line: ACEI or ARB

Second-line :(in addition to the above): CCB or Thiazide

Third-line: CCB plus ACEI or ARB plus thiazide

- **Heart Failure :**

ACEI or ARB plus BB plus diuretic plus aldosterone antagonist. Amlodipine can be added for additional BP control. (Start with ACEI, BB, diuretic. Can add BB even before ACEI optimized. Use diuretic to manage fluid.)

- **Pearls:**

Thiazides no longer given preference as initial therapy

African Americans have high stroke risk. CCBs provide better stroke prevention blood pressure reduction in African Americans vs ACEI's.

African Americans tend to be "salt sensitive" This may explain their relatively poor response to ACEIs. Encourage sodium restriction.

Most African Americans will need at least two antihypertensives to control blood pressure.

Do NOT use an ACEI plus an ARB-no added benefit. More risk for side effects such as hyperkalemia.

Encourage lifestyle changes even in patients with prehypertension (120 to 139/80 to 89 mmHg)

- Sodium restrictions
- Regular exercise
- Smoking cessation
- Weight loss

Commonly used medications:

ACE inhibitors: Lisinopril, Enalapril or Benazpril

ARB: Losartan, valsartan

CCB: Amlodipine, Diltiazem

Thiazide: Hydrochlorothiazide (HCTZ), Chlorthalidone

BB: Metoprolol, Atenolol or Coreg

Aldosterone receptor blocker: Spironalactone

References

PL Detail-Document, Treatment of Hypertension: JNC8 and more. Pharmacist's letter/Prescriber's letter. February 2014.