

# WHO Hypertension Guidelines

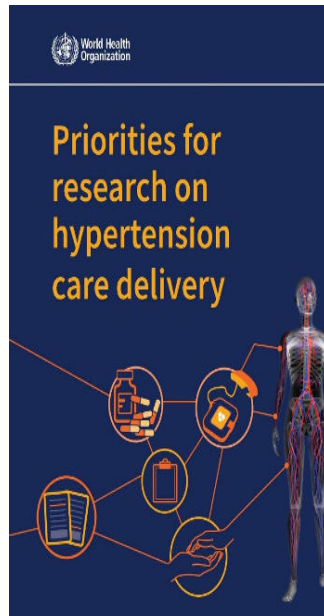
How the guideline can be used for integration at the service delivery level?

**CQUIN Integrating non-HIV Services into HIV Programs Meeting**

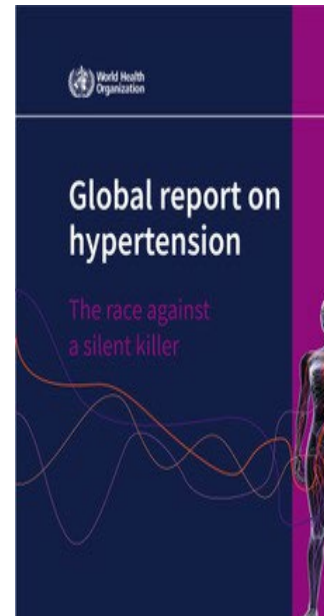
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# The new products that WHO has to offer guidance on hypertension programs



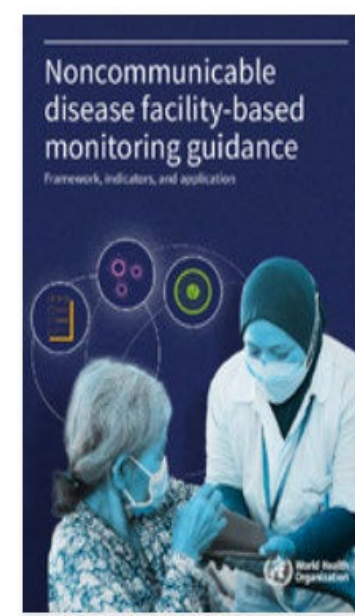
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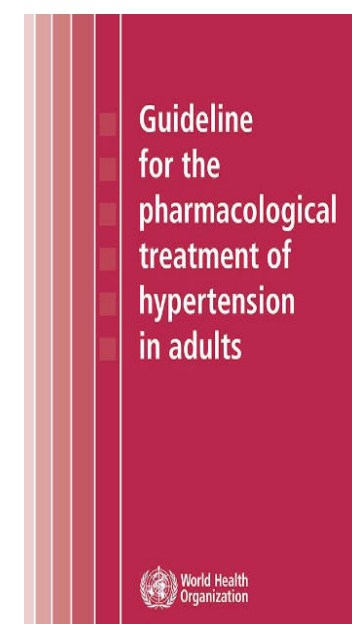
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# HEARTS technical package

**The HEARTS technical package provides cost-effective strategies that can be implemented at the primary health care level to control blood pressure and prevent heart attack, stroke and other complications. It was launched in 2018, since then we have updates with the products demonstrated on the slide above.**



# Guideline for pharmacological treatment

**Includes recommendations on:**

**Blood pressure threshold for initiation of pharmacological treatment**

**Laboratory testing**

**CVD risk assessment**

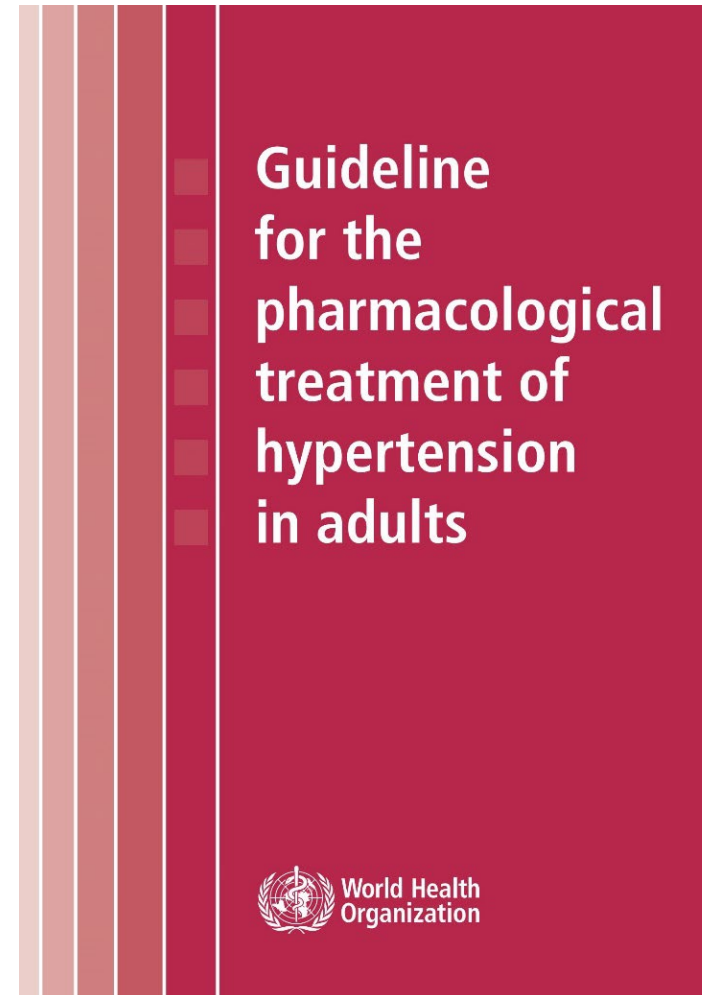
**Drug classes to be used as first-line agents**

**Combination therapy**

**Target blood pressure**

**Frequency of assessment**

**Treatment by nonphysician professionals**



## **1. Recommendation on blood pressure threshold for initiation of pharmacological treatment**

WHO recommends initiation of pharmacological antihypertensive treatment of individuals with a confirmed diagnosis of hypertension and systolic blood pressure of  $\geq 140$  mmHg or diastolic blood pressure of  $\geq 90$  mmHg.

WHO recommends pharmacological antihypertensive treatment of individuals with existing cardiovascular disease and systolic blood pressure of 130–139 mmHg.

WHO suggests pharmacological antihypertensive treatment of individuals without cardiovascular disease but with high cardiovascular risk, diabetes mellitus, or chronic kidney disease, and systolic blood pressure of 130–139 mmHg.

## **2. Recommendation on laboratory testing**

When starting pharmacological therapy for hypertension, WHO suggests obtaining tests to screen for comorbidities and secondary hypertension, but only when testing does not delay or impede starting treatment.

## **3. Recommendation on cardiovascular disease risk assessment**

WHO suggests cardiovascular disease risk assessment at or after the initiation of pharmacological treatment for hypertension, but only where this is feasible and does not delay treatment.

## **4. Recommendation on drug classes to be used as first-line agents**

For adults with hypertension requiring pharmacological treatment, WHO recommends the use of drugs from any of the following three classes of pharmacological antihypertensive medications as an initial treatment:

1. thiazide and thiazide-like agents
2. angiotensin converting-enzyme inhibitors (ACEis)/angiotensin receptor blockers (ARBs)
3. long-acting dihydropyridine calcium channel blockers (CCBs).

## 5. Recommendation on combination therapy

For adults with hypertension requiring pharmacological treatment, WHO suggests combination therapy, preferably with a single-pill combination (to improve adherence and persistence), as an initial treatment. Antihypertensive medications used in combination therapy should be chosen from the following three drug classes: diuretics (thiazide or thiazide-like), angiotensin-converting enzyme inhibitors (ACEis)/angiotensin-receptor blockers (ARBs), and long-acting dihydropyridine calcium channel blockers (CCBs).

## 6. Recommendations on target blood pressure

WHO recommends a target blood pressure treatment goal of <140/90 mmHg in all patients with hypertension without comorbidities.

WHO recommends a target systolic blood pressure treatment goal of <130 mmHg in patients with hypertension and known cardiovascular disease (CVD).

WHO suggests a target systolic blood pressure treatment goal of <130 mmHg in high-risk patients with hypertension (those with high CVD risk, diabetes mellitus, chronic kidney disease).

## 7. Recommendations on frequency of assessment

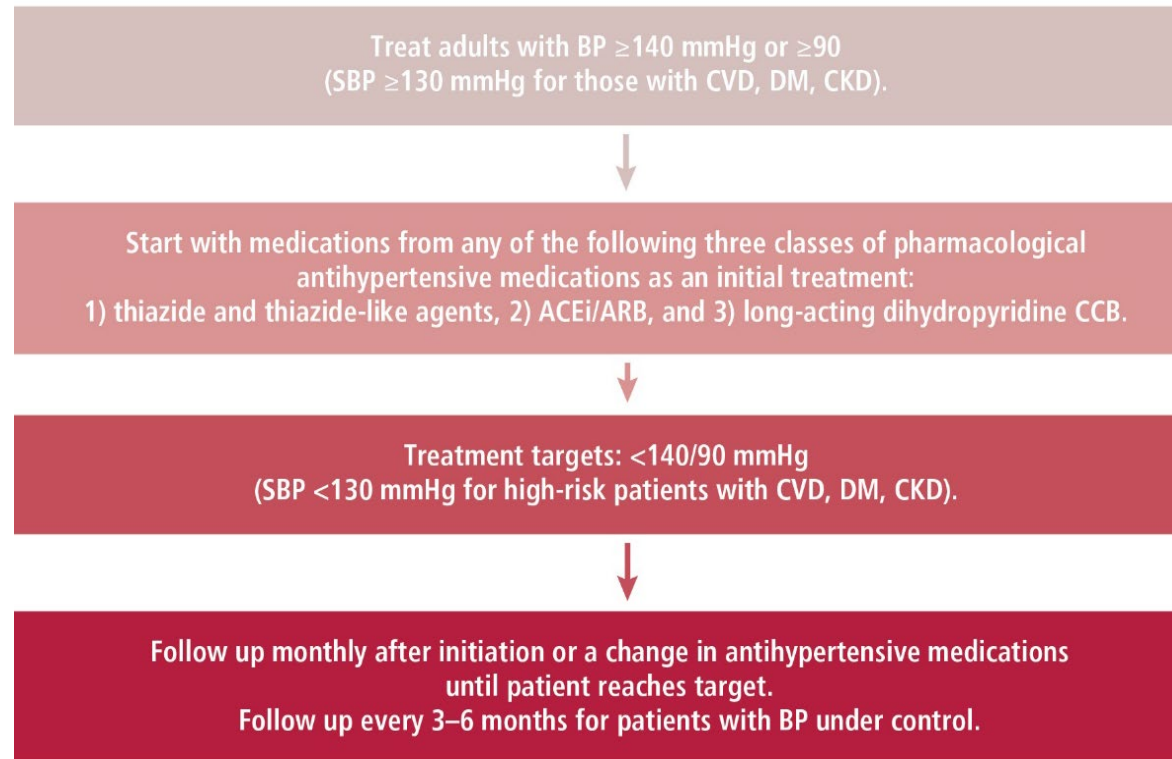
WHO suggests a monthly follow up after initiation or a change in antihypertensive medications until patients reach target.

WHO suggests a follow up every 3–6 months for patients whose blood pressure is under control.

## 8. Recommendation on treatment by nonphysician professionals

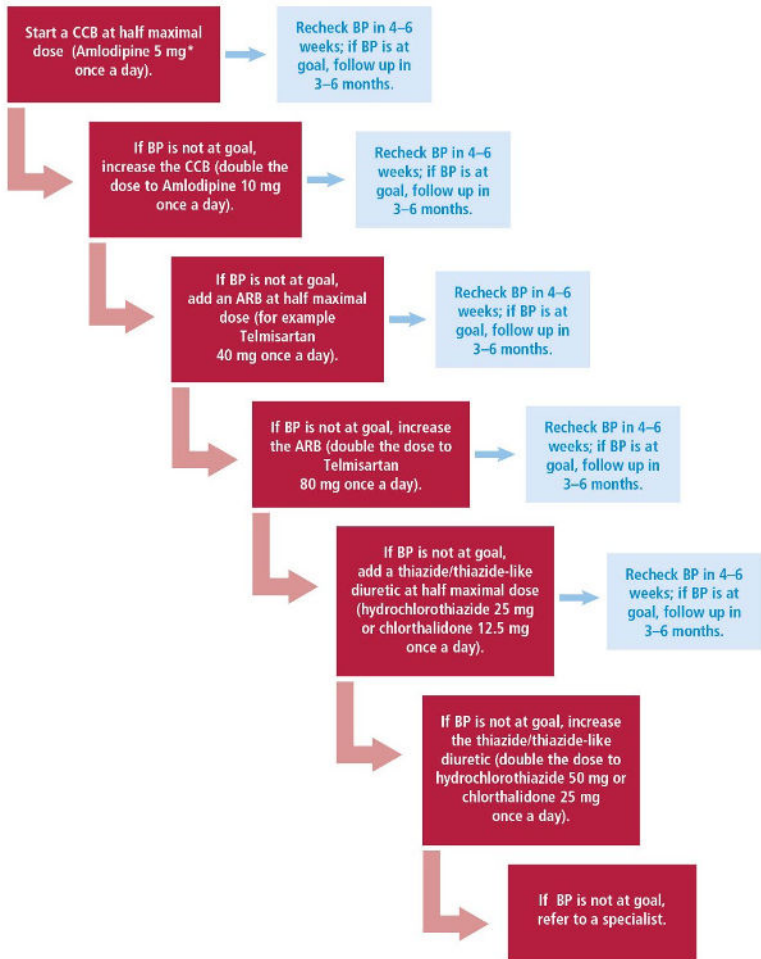
WHO suggests that pharmacological treatment of hypertension can be provided by nonphysician professionals such as pharmacists and nurses, as long as the following conditions are met: proper training, prescribing authority, specific management protocols and physician oversight.

# Recommended patient-care pathway: *not* using single-pill combination



- Pharmacological treatment to be initiated when:
  - A diagnosis of HTN has been made
  - BP level is high or there is accompanying evidence of end organ damage
- Patient should be counselled about starting medication
- Basic lab testing and CVD risk assessment to take place only if it does not delay treatment.
- Consider using diuretics or CCB in patients 65 years or older, or those of African or Afro-Caribbean descent, beta-blockers (BBs) post MI, ACEis/ARBs in those with diabetes, heart failure or CKD.

# Protocol 2: Initiation of treatment *not* using a single-pill combination



- A CCB, rather than a thiazide-type diuretic or ACEi/ARB, was selected as first-line medication if one agent is used, to avoid the need for electrolyte measurements or to alleviate concerns regarding potential change in glomerular filtration rate.
- Drugs affecting the renin–angiotensin system (ACEis, ARBs, and aliskiren) have been associated with serious fetal toxicity, including renal and cardiac abnormalities and death; they are contraindicated for use during pregnancy.





Thank You!

