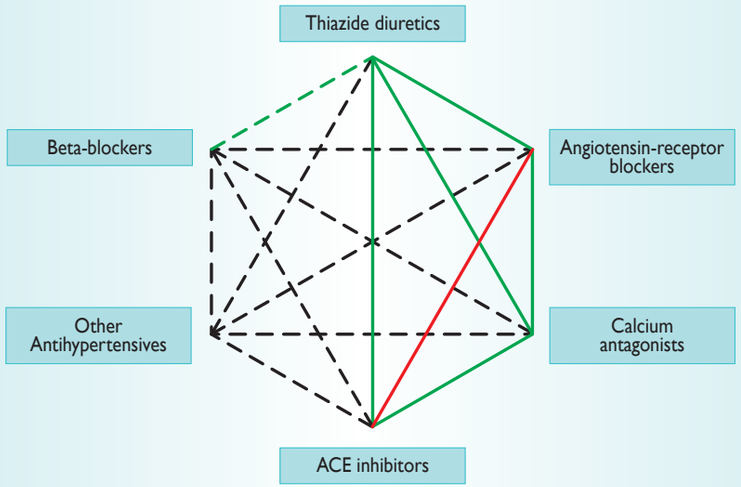
Initiation of antihypertensive therapy with two-drug combination may be considered in patients with markedly high baseline BP or at high CV risk. Among the many possible combinations, some are considered more suitable than others, as outlined in the figure below, in which green continuous lines represent preferred combinations; green dashed line: useful combination; black dashed line: possible combinations; and red continuous line: non recommended combination:



How to treat associated risk factors?

It is recommended to use statin therapy in hypertensive patients at moderate to high CV risk, targeting an LDL cholesterol value <3.0 mmol/L (115 mg/dL), and in patients with overt coronary heart disease, targeting an LDL cholesterol level <1.8 mmol/L (70 mg/dL).

Antiplatelet therapy, in particular low-dose aspirin, is recommended in hypertensive patients with previous CV events, reduced renal function or at high CV risk, provided that BP is well controlled.

In hypertensive patients with diabetes, a HbA_{1c} target of <7.0% is recommended. In more fragile elderly patients with a longer diabetes duration, more comorbidities and at high risk, treatment to a HbA_{1c} target of <7.5–8.0% should be considered.

How to follow-up patients with hypertension in general practice?

Individuals with high normal BP or white-coat hypertension, even in untreated, should be scheduled for regular follow-up, at least annually, to measure office and out-of-office BP, to check the CV risk profile and to reinforce recommendations on lifestyle changes.

After initiation of antihypertensive drug therapy in patients with hypertension, the patient should be seen at 2- to 4-week intervals to evaluate the effects on BP and to assess possible side-effects. Once the target BP is reached, a visit interval of a few months is reasonable. Depending on the local organization of health care, later visits may be performed by non-physician health care workers, such as nurses. For stable patients, home BP monitoring and electronic communication with the physician may also provide an acceptable alternative. It is advisable to assess risk factors and asymptomatic organ damage at least every two years.

The finding of an uncontrolled BP should always lead to a search for the cause(s), such as poor adherence, persistent white-coat effect or use of BP-raising substances. Appropriate actions should be taken for better BP control.

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Why is prevention and treatment of hypertension important?

Hypertension is a major if not the major risk factor for cardiovascular (CV) disease in Europe and worldwide.

The overall prevalence of hypertension is around 30-45% in the adult population at large in Europe.

The general practitioner has a primordial role in the prevention of hypertension, mainly achieved by healthy lifestyle, in the early identification of hypertension and in the management of an elevated blood pressure (BP) by both lifestyle modification and antihypertensive drug treatment.

Lifestyle measures include salt restriction, healthy diet, moderation of alcohol consumption, weight reduction, regular exercise and smoking cessation.

How to diagnose hypertension?

The diagnosis of hypertension is based on at least two BP measurements in the sitting position on at least two visits using of a validated device.

Hypertension in the office is defined as systolic BP ≥140 mmHg and/or diastolic BP ≥90 mmHg.

Out-of-office BP by home BP monitoring or, if available, ambulatory BP monitoring, is an important adjunct to conventional office BP measurement, mainly to exclude normal BP away from the medical environment (white-coat hypertension). The cut-off value for home BP (or daytime ambulatory BP) is 135/85 mmHg.

*From the 2013 ESH/ESC Guidelines on the Management of Arterial Hypertension (European Heart J 2013;34:2159-219 -doi:10.1093/eurheartj/eht151).
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Which other measurements should be performed in hypertensive patients?

Apart from BP measurement, medical history and physical examination, the following laboratory investigations should be performed in all hypertensive patients to determine their future risk of CV disease, to screen for asymptomatic organ damage and secondary causes of hypertension, and to guide patient management:

- Blood: haemoglobin/haematocrit; total, LDL and HDL cholesterol; triglycerides; glucose; sodium and potassium; uric acid; creatinine and estimation of GFR.
- Urine: microscopic examination; proteinuria; microalbuminuria.
- Electrocardiography.

Additional diagnostic tests should be based on findings in the basal work-up.

When to initiate antihypertensive treatment?

Initiation of antihypertensive treatment is guided by the risk category of the patient according to the stratification of total CV risk in low, moderate, high and very high risk, as outlined in the Figure:

Other risk factors, asymptomatic organ damage, or disease	Blood Pressure (mmHg)			
	High normal SBP 130–139 or DBP 85–89	Grade 1 HT SBP 140–159 or DBP 90–99	Grade 2 HT SBP 160–179 or DBP 100–109	Grade 3 HT SBP ≥180 or DBP ≥110
No other RF		Low risk	Moderate risk	High risk
1–2 RF	Low risk	Moderate risk	Moderate to high risk	High risk
≥3 RF	Low to moderate risk	Moderate to high risk	High Risk	High risk
OD, CKD stage 3 or diabetes	Moderate to high risk	High risk	High risk	High to very high risk
Symptomatic CVD, CKD stage ≥4 or diabetes with OD/RFs	Very high risk	Very high risk	Very high risk	Very high risk

BP = blood pressure; CKD = chronic kidney disease; CVD = cardiovascular disease; DBP = diastolic BP; HT = hypertension; OD = organ damage; RF = risk factor; SBP = systolic BP.

Risk factors include age, male sex, smoking, dyslipidaemia, glucose intolerance, obesity and family history of premature CVD. Asymptomatic organ damage mainly involves left ventricular hypertrophy, evidence of vascular damage and microalbuminuria.

Recommendations on the initiation of antihypertensive treatment are as follows:

- High or very high risk: prompt initiation of antihypertensive drugs, together with lifestyle measures.
- Low or moderate risk: antihypertensive drugs should be considered if BP remains >140/90 mmHg after, respectively, several months or weeks of appropriate lifestyle measures, or in case of persistent elevated out-of-office BP after appropriate lifestyle measures.
- In elderly hypertensive patients antihypertensive drug treatment is recommended when systolic BP is ≥160 mmHg; drug treatment may also be considered in the elderly (at least when younger than 80 years and depending on the patient's risk category (see table above)) when systolic BP is in the 140-159 mmHg range, provided that antihypertensive treatment is well tolerated.
- High normal BP and younger patients with isolated systolic hypertension: drug treatment is not recommended.

Which is the target blood pressure during antihypertensive treatment?

Target BP is <140/90 mmHg with few exceptions.

Target BP is <140/85 mmHg in diabetes.

In elderly patients the target systolic BP is 140-150 mmHg, but <140 mmHg may be considered in fit elderly. In individuals older than 80 years it is recommended to reduce systolic BP to 140-150 mmHg if they are in good physical and mental condition.

Which antihypertensive drugs to choose?

Diuretics, beta-blockers, calcium antagonists, ACE-inhibitors and angiotensin receptor blockers (ARBs) are all suitable for the initiation and maintenance of antihypertensive treatment, either as monotherapy or in combination therapy.

Some agents should be considered as the preferential choice in specific conditions, such as

- recent myocardial infarction (beta-blocker, ACE-inhibitor, ARB);
- heart failure (diuretic, beta-blocker, ACE-inhibitor, ARB, mineralocorticoid receptor antagonist);
- diabetes or renal dysfunction (ACE-inhibitor, ARB);
- pregnancy (methyldopa, labetalol, nifedipine).