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 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.

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 HbA1c 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 HbA1c target of 7.5–8.0% should be considered.
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 do we 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.

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.

Which other measurements should be performed in hypertensive patients?

When to initiate antihypertensive treatment?

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 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).

Which is the target blood pressure during antihypertensive treatment?

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.

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.

BP ≥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.

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