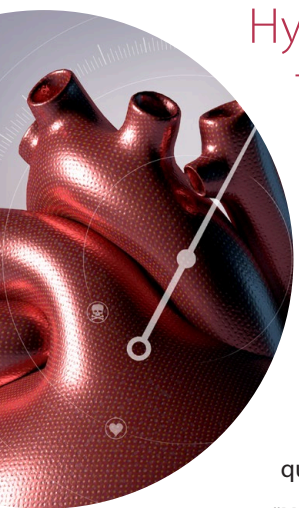



## Hypertension in adults: the silent killer



The following questions can be used as discussion points for peer groups or self-reflection of practice. The questions for this peer group discussion relate to the diagnosis and management of hypertension in adults.

 It is strongly recommended that the linked article is read before considering the questions:

- **"Hypertension in adults: the silent killer"**

Hypertension is the most prevalent modifiable risk factor for cardiovascular disease and associated mortality. However, the majority of people with raised blood pressure are asymptomatic, giving rise to the moniker "silent killer" due to its insidious, chronic and progressive nature. Identifying hypertension is therefore an important consideration when reviewing patients in primary care.

Isolated blood pressure measurements are insufficient to diagnose hypertension as the line separating them from being "normotensive" and "hypertensive" is not clear-cut, and transient increases in blood pressure can occur for numerous reasons. Any elevated readings should be confirmed via multiple measurements and considered in the context of a patient's overall cardiovascular disease (CVD) risk. The balance between these two factors will influence subsequent management decisions. However, even when **standardised methods for blood pressure measurement** are used, clinic readings do not always reflect true blood pressure due to patient-specific psychological, physiological and behavioural factors. Therefore, 24-hour ambulatory monitoring (the "gold standard") or at-home monitoring should be considered if resources are available to confirm a diagnosis of hypertension.

Any patient with persistently elevated blood pressure readings should be encouraged to make lifestyle changes, e.g. weight loss, increased exercise, dietary changes including reducing sodium intake, limiting alcohol consumption, smoking cessation. Early adoption of meaningful changes could delay or prevent the need for antihypertensive medicines later in life. However, this may not be achievable for all patients.

In patients with severe hypertension (e.g.  $\geq 160/100$  mmHg), antihypertensive medicines should be initiated immediately, in addition to lifestyle changes, regardless of the patient's CVD risk (although CVD risk should still be calculated). For all other patients with a blood pressure persistently  $\geq 130/80$  mmHg, five-year CVD risk should be calculated using NZ primary prevention equations to guide management decisions:

- **CVD < 5%** – antihypertensive treatment is not recommended; proceed with lifestyle changes
- **CVD 5–15%** – antihypertensive treatment should be considered if the blood pressure is  $\geq 140/90$  mmHg, in addition to lifestyle changes
- **CVD  $\geq 15\%$**  – antihypertensive treatment is recommended, in addition to lifestyle changes

If antihypertensive medicines are indicated, first-line options include angiotensin-converting-enzyme (ACE) inhibitors, angiotensin-II receptor blockers (ARBs), calcium channel blockers, as well as thiazide and thiazide-like diuretics. Beta-blockers are no longer considered a first-line antihypertensive (unless indicated for a co-morbidity, e.g. atrial fibrillation) as they are less effective at reducing stroke risk and often poorly tolerated.

International guidelines are increasingly recommending that patients should be initiated on two low-dose antihypertensives together (i.e. dual antihypertensive treatment). This approach provides a more significant blood pressure-lowering effect for most patients compared with high dose monotherapy, while also reducing the risk of adverse effects. Initial monotherapy remains appropriate for certain patient groups, e.g. those within 20/10 mmHg of their blood pressure target, committing to major lifestyle changes, elderly (e.g. aged  $\geq 80$  years) or frail.

Blood pressure targets should be individualised according to a patient's CVD risk, co-morbidities and treatment objectives. For example, those considered to be at "high risk" of CVD could aim for clinic measurements of  $< 130/80$  mmHg, whereas those at "lower risk" could aim for  $< 140/90$  mmHg.

For patients not achieving their blood pressure objective despite the use of two antihypertensives, the doses of existing medicines can be increased if they are close to their goal, or a third antihypertensive can be added if not. If targets are still not being achieved despite use of three antihypertensives, it is important to reassess medicine adherence and lifestyle changes as well as possible secondary causes of hypertension,

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[www.bpac.org.nz/PeerGroupDiscussions](http://www.bpac.org.nz/PeerGroupDiscussions)

prior to considering the addition of another medicine, e.g. spironolactone or a beta-blocker. If it has not already been completed, 24-hour ambulatory or at-home monitoring should also be strongly considered at this stage.

### Questions for discussion:

1. Accurate assessment of blood pressure is essential as a diagnosis of hypertension may result in lifelong exposure to multiple medicines and their potential adverse effects. What is your process for obtaining a confident diagnosis of hypertension and what are some common pitfalls or challenges? Does your practice own or have access to 24-hour ambulatory or at-home monitoring equipment, and if so, is it routinely used?
2. Lifestyle changes form an important foundation for any hypertension management strategy, and in some cases may delay or prevent the need for pharmacological treatment. However, the effectiveness of different strategies can vary between patients, and long-term adherence to change can be challenging. How do you encourage patients to make and maintain positive lifestyle changes? What interventions do you find to be most/least effective?
3. Ministry of Health guidelines emphasise that CVD risk assessment should be used to direct antihypertensive treatment decisions in patients with persistently elevated blood pressure. Do you routinely/strictly follow these recommendations in your clinical practice? If not, what other factors or thresholds influence your decision to initiate antihypertensive treatment?
4. All first-line antihypertensives have a comparable blood pressure lowering effect, however, selection should take into account patient characteristics and co-morbidities. From your own clinical experience, can you identify any situations where the selection or use of antihypertensive(s) has been difficult? How did you resolve/overcome such challenges?
5. Considering the shift in guideline recommendations towards initiating most patients on two low-dose antihypertensives together (i.e. dual antihypertensive treatment), what is your experience with this approach? Has reading this article changed your perspective on it?
6. Determining a blood pressure target for patients with hypertension can be challenging as many variables affect this decision. What factors do you take into account when establishing a blood pressure target and how do you go about reviewing patients in the long term?

Do you think “intensive” blood pressure management (e.g. a systolic blood pressure target < 120 mmHg) is appropriate for any patient group(s) in primary care?

7. For patients not meeting blood pressure targets at follow-up, the next step depends on how well the patient tolerates treatment and how close they are to their objective. What is your general approach for escalating antihypertensive treatment, both in patients close to their targets and in those missing them by a considerable margin? Do you have a “go to” regimen or escalation plan?