

DRUG UPDATE

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HYPERTENSION GUIDELINES

Guidelines for the management of hypertension have recently been issued by both NICE and the British Hypertension Society. Though broadly similar in scope, they differ in detail. Overall, the NICE guideline is simpler and complements the Coronary Heart Disease National Service Framework and other NICE guidance. Prescribers in primary care are expected to achieve standards set out in NICE guidance and should implement the NICE guideline for suitable patients.

Treatment thresholds

New guidelines on the management of hypertension have recently been published by the National Institute for Clinical Excellence (NICE)¹ and the British Hypertension Society (BHS).² Both these evidence-based guidelines cover the diagnosis and treatment of hypertension. The NICE guideline is aimed solely at primary care and takes cost into account whereas the BHS guidelines also address general hospital practice but does not consider cost. Furthermore, the NICE guideline excludes patients with diabetes or coronary heart disease (CHD), for whom more specific guidance is available. This Drug Update summarises the NICE guideline and notes the major differences between this and the guidance issued by the BHS.

When blood pressure, confirmed by repeated measurements, consistently exceeds 140/90 mmHg patients should be encouraged to adopt a healthy diet, lose excess weight, stop smoking and take exercise.¹ These measures alone can reduce blood pressure and may avoid the need for drug treatment or be dose-sparing; they also reduce cardiovascular risk.

Drug treatment is indicated if blood pressure remains above 160/100 mmHg or above 140/90 mmHg in patients with target organ damage, cardiovascular disease or whose 10-year cardiovascular risk is $\geq 20\%$ (equivalent to CHD risk $\geq 15\%$).¹

- The BHS guideline includes patients with diabetes in this category whereas a separate NICE guideline specifies a lower diastolic threshold (140/80 mmHg) plus CHD risk $> 15\%$ or target organ damage for patients with diabetes.³

Treatment targets

NICE states that treatment should aim to reduce blood pressure to 140/90 mmHg (140/80 mmHg for people with diabetes³) or until further treatment is inappropriate or declined. About half of patients will need more than one drug to reach this target, which can be achieved in a half to three-quarters of patients; the remainder will still benefit from some blood pressure reduction.

- The BHS target for most patients is slightly lower ($\approx 140/85$ mmHg); acknowledging this is a difficult target to reach in clinical practice, the BHS also suggests a minimally acceptable level ('audit standard') of 150/90 mmHg. For patients with diabetes, renal disease or cardiovascular disease, the BHS target is $\approx 130/80$ mmHg (minimum $\approx 140/80$ mmHg).

Reducing cardiovascular risk

Hypertension should be managed in the context of overall cardiovascular risk. If hypertension persists after lifestyle change in patients who do not have established cardiovascular disease, the patient and GP should consider a formal assessment of cardiovascular risk. This provides the basis for discussion about the prognosis and treatment options taking changes made to lifestyle into account. An underlying cause should be sought in patients with signs and symptoms suggesting secondary hypertension.

- The BHS guideline also includes risk assessment but adds recommendations for primary and secondary prevention with low-dose aspirin and statins. The thresholds for intervention are lower than those stated in the CHD National Service Framework (NSF).⁴

Drug treatment

Stepped care using thiazide diuretics, beta-blockers, ACE inhibitors, angiotensin II receptor blockers (ARBs) and calcium channel blockers is cost effective. Evidence currently available indicates that treatment is similarly effective regardless of which drug class is used first. There is little evidence to support the use of alpha-blockers or centrally-acting agents as initial treatment.¹ The same treatment should be offered to patients in whom both diastolic and systolic pressures are raised, those with isolated systolic hypertension (≥ 160 mmHg) and those aged 80 or older, taking into account morbidity and other drug treatment.¹

Where possible, drugs with a once-daily dose regimen should be prescribed and generic drugs are preferred to branded products.

The NICE guideline advises that first-line treatment should be a low-dose thiazide diuretic except in patients under 55 with moderately raised blood pressure, for whom a beta-blocker may be more effective and should be considered as an alternative first-line therapy.¹

If monotherapy is unsuccessful, a beta-blocker should be added. The combination of a thiazide and a beta-blocker may still be effective in patients under 55 but is associated with a slightly increased risk of diabetes. Patients at increased risk, including those of South Asian or African-Caribbean origin, should instead add an ACE inhibitor or, if this is poorly tolerated, an ARB. However, a thiazide plus a beta-blocker may become necessary for cases of treatment-resistant hypertension or if cardiovascular disease develops.

If a third drug is necessary, a dihydropyridine calcium channel blocker should be added. If further treatment is required, one of the remaining alternatives or referral should be considered.

- The BHS is less prescriptive about first-line therapy, suggesting a thiazide (D) or calcium channel blocker (C) for patients >55 years old or of African-Caribbean origin; and an ACE inhibitor or ARB (A) (or alternatively a beta-blocker, B) for younger patients and those of other ethnic origin. Thereafter, drugs should be added stepwise as A (or B) + (C or D) and A (or B) + C + D. Further treatment may require an alpha-blocker, spironolactone or other diuretic.

Review

Annual review should include discussion about lifestyle, symptoms and medication. A trial of dose reduction or withdrawal of treatment may be offered to patients willing to make lifestyle changes. NICE states that blood pressure should be monitored annually in patients with hypertension. However, the current GMS contract quality indicators BP4 and BP5 specify a 9-month monitoring interval.⁵

- The BHS recommends that every adult should have their blood pressure measured every 5 years. Annual measurements are recommended for those with hypertension recorded at any time or whose blood pressure exceeds 85 - 89 mmHg diastolic or 130 - 139 mmHg systolic.

Which guidance?

Though broadly similar in scope, the NICE and BSH guidelines differ in detail. Overall, NICE guidance is simpler and complements the CHD NSF and other NICE guidance. The recommendations of the BHS overlap those of NICE and some of its targets are different. The NHS is expected to achieve the standards set out in NICE guidance so prescribers in primary care should implement the NICE guideline for the management of hypertension together with other guidelines for the management of cardiovascular risk. The BHS guidelines can be used to provide advice for clinical problems not dealt with by the NICE guidelines or relevant NSFs.

REFERENCES

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- 4 Department of Health. National Service Framework for Coronary Heart Disease. March 2000 (G)
- 5 Department of Health. Investing in general practice. The new General Medical Services contract. Annex A. Quality indicators - summary of points. 2004 (www.dh.gov.uk/assetRoot/04/08/27/10/04082710.pdf)

KEY RCT - randomised controlled trial, CT-controlled trial, O-open study, MA-meta analysis, R-review, U-unpublished, Abs- abstract, E-editorial, G-guidelines

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