British Hypertension Society Guidelines 2004 – BHS IV. Ten key comments for primary care

The British Hypertension Society has recently published its latest guidance for the management of hypertension – BHS IV. Here, general practitioner Mike Mead writes about its implications for primary care.

Abstract

The latest British Hypertension Society guidelines, BHS IV, have particular implications for primary care. This article discusses 10 key areas on which general practitioners should focus as a result of the new guidance, with a comment about the significance of each in a primary care setting.

Key words: British Hypertension Society, hypertension, primary care.

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'Hypertension becomes the biggest resource issue, both in terms of workload and prescribing cost'

Mike Mead

Introduction

The new 2004 guidelines for the management of hypertension from the British Hypertension Society (BHS)[1] should further change primary care practice, which is already focused on hypertension since this is the most important single intervention in the new General Medical Services (GMS) contract. There are 10 areas of the guidelines which particularly stand out for primary care comment.

1. Changes in the BHS definition and classification of blood pressure levels

The new classification of blood pressure levels in the guidelines is shown in table 1.

Comment

This definition makes hypertension by far the commonest diagnosed condition within a primary care trust (PCT). In particular, over the age of 60 years, isolated systolic hypertension is the rule rather than the exception. Hypertension becomes the biggest resource issue in primary care, both in terms of workload and prescribing cost.

2. Focusing on cardiovascular risk

A key statement in the guidelines is: "Treatment of patients with hypertension should not focus solely on blood pressure but must also formally assess cardiovascular risk and use multifactorial interventions to reduce total cardiovascular disease (CVD) risk." Despite their limitations, risk prediction is still based on Framingham data but the focus has changed from calculating a 10-year risk of coronary heart disease (CHD) to calculating a 10-year risk of CVD (combined fatal and non-fatal stroke and CHD). The significant threshold for treatment purposes here is a 20% 10-year CVD risk. For primary prevention, statin therapy is recommended when the 10-year CVD risk is $\geq$ 20% and the same level applies to the use of 75 mg aspirin in primary prevention in patients over 50, providing blood pressure has been controlled to below 150/90 mmHg and there are no contraindications.

Comment

This risk assessment and management approach of the guidelines is the correct approach for primary care – the blood pressure of a patient with hypertension cannot be treated in isolation, ignoring other cardiovascular risk factors. Studies such as ASCOT (the Anglo-Scandinavian Cardiac Outcomes Trial) have clearly demonstrated the value of using statins in hypertensive patients. Prescribing budgets will just have to cope with the massive increase in statins prescribed to at-risk hypertensive patients. Aspirin now joins to form the 'ASA' (antihypertensives, statin, aspirin) triad for many hypertensive patients. The BHS guidelines also use lower optimal lipid targets, in line with our international colleagues – the target for total cholesterol is < 4 mmol/L and for low-density lipoprotein (LDL) cholesterol is < 2 mmol/L.

3. Patients with diabetes are 'coronary equivalents'

People with diabetes no longer have a

Table 1. The new classification of blood pressure levels in BHS-IV

Category	Systolic BP (mmHg)	Diastolic BP (mmHg)
Optimal BP	< 120	< 80
Normal BP	< 130	< 85
High normal BP	130–139	85–89
Grade 1 hypertension	140–159	90–99
Grade 2 hypertension	160–179	100–109
Grade 3 hypertension	≥ 180	≥ 110
ISH Grade 1	140-159	< 90
ISH Grade 2	≥ 160	< 90

Note: If systolic BP and diastolic BP fall into different categories, the higher value should be taken for classification.

Key: BP = blood pressure; ISH = isolated systolic hypertension

separate risk assessment chart – they are regarded as 'coronary equivalents', where the rules of secondary prevention apply. There are several caveats to this generalised statement – technically the evidence supports this view for people with diabetes aged over 50, who have been diagnosed for over 10 years, but evidence is lacking on levels of cardiac risk in patients with type 1 diabetes. It is fair to say, however, that the majority of patients with diabetes would qualify as 'coronary equivalents'.

Patients with diabetes are the only group to have treatment blood pressure target changes: the optimal target blood pressure level for treatment falls to < 130/80 mmHg, with an audit standard of < 140/80 mmHg. Our new GMS contract blood pressure target of 145/85 mmHg (or less) is simply not sufficient to reduce risk significantly in the diabetic patient.

Comment

The whole issue of cardiovascular risk and diabetes should now be simplified in primary care. Hypertension is a major risk and warrants a lower blood pressure target. In line with the Heart Protection Study, diabetic patients will benefit from a statin if their total cholesterol is > 3.5 mmol/L and we are now awarding, in any case, a coronary equivalent status to patients with diabetes. The guidelines also mention the risks of low levels of high-density lipoprotein cholesterol and raised levels of triglycerides in patients with diabetes – these too should be targeted. The ASA triad looks as relevant to diabetes as to at-risk hypertensives.

4. Lifestyle changes

The importance of lifestyle change can often be neglected in the excitement to discuss targets and treatments. Once again, the BHS guidelines demonstrate excellent relevance to primary care in promoting such lifestyle change in detail. Lifestyle changes are also listed for the primary prevention of hypertension – maintaining normal body weight, reducing dietary sodium intake, engaging in regular aerobic physical activity, limiting alcohol consumption, and consuming a diet rich in fruit and vegetables with reduced content of saturated and total fat.

Comment

Primary prevention of hypertension is a major role for primary care (as indeed is primary prevention of insulin resistance and, hence, type 2 diabetes). There are huge savings clinically for the patient, and financially for a PCT, for every person who does not become obese, hypertensive or diabetic. More PCT energy needs to be devoted to preventing risk and developing effective programmes in our community to achieve lifestyle change

5. Use of combination therapy in hypertension treatment

The BHS guidelines note that one of the key reasons for poor blood pressure control in people with hypertension is the use of monotherapy by most doctors. The BHS advises that "the majority of patients require two or more drugs to achieve current blood pressure goals".

Comment

This is an important point to emphasise. Achieving new GMS contract targets will require combination therapy.

6. Use of the AB/CD algorithm for drug selection in practice

The BHS AB/CD algorithm is recommended as a general starting point for selecting drugs for patients in primary care and for choosing logical drug combinations.

> ***'We are now awarding a coronary equivalent status to patients with diabetes'***

Comment

The AB/CD algorithm is supported by robust clinical evidence and gives general practitioners a template on which to build their prescribing practice. Wider promotion of the AB/CD algorithm and the rationale behind it now becomes the key agenda for those involved in general practitioner education, not least to standardise good practice.

7. Indications for specific classes of antihypertensive agent

There is a comprehensive debate in the guidelines on the benefits and disadvantages of using particular classes of antihypertensive drugs. The guidelines emphasise that "the optimal cardiovascular outcome is more linked to blood

pressure control rather than the drug class used to achieve it". Nevertheless, there are important indications and contraindications for each drug class listed.

Compared with the 1999 guidelines, changes include compelling indications for thiazides and angiotensin-converting enzyme (ACE) inhibitors in secondary stroke prevention, and for ACE inhibitors post-myocardial infarction (MI) or with established CHD. Angiotensin II receptor blockers expand their indications, with compelling indications for use in conditions including type 2 nephropathy, hypertension with left ventricular hypertrophy, heart failure in ACE inhibitor-intolerant patients and post-MI.

Turning to cautions for drug use, major changes are the addition of diabetes (except with CHD) as a caution for beta blocker use, while heart failure is listed as a caution for alpha blockers when used as monotherapy.

Comment

General practitioners need to consider these special indications and cautions. The main discussion in the future will centre on the advantages of blocking the renin-angiotensin system. It is likely that we will see much more of a role for using ACE inhibitors together with angiotensin II receptor blockers.

> ***'The importance of lifestyle change can often be neglected'***

8. Patient participation

The BHS guidelines note that "a vital aspect of the successful management and control of high blood pressure is to obtain the participation and closer involvement of the individual affected".

Comment

Patient participation is, of course, essential to the whole process. Without a structured programme for involving patients in our care, we cannot hope to achieve any targets in hypertension. The Blood Pressure Association (www.bpassoc.org.uk) is an ally here, providing patients with support and education across the whole spectrum of diagnosis and management.

9. Use of combination preparations

In their latest guidelines, the BHS recommends the use of fixed-dose combinations of antihypertensive drugs as a way of reducing the number of drugs and improving adherence to therapy, on condition that the fixed-dose combinations replicate the desired treatment plan and there is no cost disadvantage to use.

Comment

For years we have all been advised against using fixed-dose combinations of drugs, so this recommendation comes as a surprise but may well help to achieve compliance in specific patients.

10. Hypertension in special patient groups

The new guidelines devote specific sections to hypertension in the elderly, in the young, in patients with diabetes, in those with underlying renal disease, in pregnant patients, in patients on oral contraceptives or hormone replacement therapy and in ethnic minority groups.

Comment

The key highlights for general practitioners in this area are :

- It is important to treat hypertension in the elderly – indeed, treatment benefits are greater in older people because of their increased absolute risk.
- Secondary causes of hypertension are commoner in younger people, so here referral should be considered.
- Hypertension greatly increases the CVD risk in patients with diabetes. Almost all patients with diabetes will need combination therapy. Evidence for renin-angiotensin system blockade for nephroprotection and cardiovascular protection "strongly supports use of an ACE inhibitor or angiotensin II receptor blocker as part of the treatment cocktail".
- General practitioners should be aware of clues suggesting possible underlying renal disease e.g. early onset hypertension; sudden onset, worsening, accelerated or resistant hypertension; raised creatinine.

Key messages

- The definition and classification of blood pressure levels have been changed
- Treatment of hypertension must also focus on cardiovascular risk
- Patients with diabetes are now regarded as 'coronary equivalents'
- Lifestyle changes should not be neglected. Patient participation is essential for successful hypertension management
- Combination therapy is recommended for hypertension treatment, with fixed-dose combinations of antihypertensive drugs advised. Particular classes of antihypertensive drugs have special indications and cautions
- The AB/CD algorithm should be a starting point for treatment in primary care
- There are specific recommendations for special groups of patients, including the elderly, the young, diabetics, pregnancy, those on oral contraceptives or hormone replacement therapy, and those with underlying renal disease

Editors' note

An article summarising the main recommendations of the new British Hypertension Society guidelines for the management of hypertension – BHS IV, was published in the last issue of the journal (*Br J Cardiol* 2004; **11**:112-17). In future issues, the British Hypertension Society will be writing about the management of hypertension in special groups of patients.

Reference

1. Williams B, Poulter NP, Brown MJ *et al*. Guidelines for management of hypertension: report of the fourth working party of the British Hypertension Society, 2004 – BHS IV. *J Hum Hypertens* 2004;**18**:139-85.

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