PRACTICE GUIDANCE: MANAGING HYPERTENSION

Clinical guideline CG34 from the National Institute for Health and Clinical Excellence (NICE) concerns the management of hypertension in adults in primary care. This document sets out the implications for community pharmacy of the guideline's key priorities

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The key priorities from NICE clinical guideline CG34 are listed in the first column of the table below. The second column lists the steps that a community pharmacist could take to help to implement the recommended measures. The third column lists corresponding resources or weblinks that provide supporting material (guidance documents, educational resources, etc). Community pharmacies can be involved in the care of people with hypertension at different levels depending on local needs and the competence of the pharmacist/staff (see "Levels of service" overleaf).

Key priority	Implications	Resources and weblinks
MEASURING BLOOD PRESSURE To identify hypertension (persistent raised blood pressure above 140/90 mmHg), ask the patient to return for at least two subsequent clinics at which blood pressure is assessed from at least two readings under the best conditions available. Routine use of automated ambulatory blood pressure monitoring or home monitoring devices in primary care is not currently recommended because their value has not been adequately established. Appropriate use in primary care remains an issue for further research.	■ Create private consulting room for blood pressure monitoring ■ Purchase blood pressure monitoring equipment that conforms to BHS criteria ■ Train staff/self to measure blood pressure correctly (see Box 1 overleaf) ■ Establish maintenance and recalibration schedule for equipment ■ Establish periodic checks of technique and refresher training ■ Design or purchase suitable documentation to record activity and to give to patients	List of equipment at British Hypertension Society website — www.bhsoc.org/blood_pressure_list.stm NICE Clinical Guideline CG34: quick reference guide (page 6) — www.nice.org.uk/nicemedia/pdf/cg034quickrefguide.pdf See Workshop 2 section of NPCi "eLearning in less than 60 minutes" — www.npci.org.uk/therapeutics/cardio/cdhyper/workshops/workshop_60minute_elearn_event1.php "How to measure blood pressure", British Hypertension Society DVD, available from www.bhsoc.org/how_to_measure_blood_pressure.stm
LIFESTYLE INTERVENTIONS Lifestyle advice should be offered initially and then periodically to patients undergoing assessment or treatment for hypertension.	■ Educate staff/self about impact of lifestyle interventions ■ Obtain information leaflets and supporting material ■ Establish protocol for advice service	*MeReC Bulletin 17* (www.npc.nhs.uk) and the whole floor of NPCi at www.npci.org.uk/therapeutics/cardio/cdhyper/room_cdhyper.php NICE Clinical Guideline CG34: quick reference guide — www.nice.org.uk/nicemedia/pdf/cg034quickrefguide.pdf
CARDIOVASCULAR RISK If raised blood pressure persists and the patient does not have established cardiovascular disease (CVD), discuss with the patient the need to formally assess his or her cardiovascular risk. Tests may help identify diabetes, evidence of hypertensive damage to the heart and kidneys and secondary causes of hypertension, such as kidney disease. Consider the need for specialist investigation of patients with signs and symptoms suggesting a secondary cause of hypertension. Accelerated (malignant) hypertension and suspected phaeochromocytoma require immediate referral.	■ Educate staff/self about cardiovascular risk ■ Establish service for detection of undiagnosed hypertension ■ Referral may be required for tests to identify diabetes, etc. Establish referral procedure and documentation ■ If a secondary cause of hypertension is suspected consider referral. Establish referral procedure and documentation	NICE Clinical Guideline CG34 — www.nice.org.uk *PBC Bulletin 7*: "Building PBC capacity through community pharmacy" — www.primarycarecontracting. nhs.uk Adapt PSNC template for enhanced services — www.psnc.org.uk Beevers DG, Lip GYH, O'Brien E. ABC of hypertension. 5th edition. London: Blackwell and BMJ Books; 2007 (£21.99)
PHARMACOLOGICAL INTERVENTIONS Drug therapy reduces the risk of cardiovascular disease and death. Offer drug therapy to patients with persistent high blood pressure of 160/100 mmHg or more and patients at raised cardiovascular risk (10-year risk of CVD of 20 per cent or more or existing CVD or target organ damage) with persistent blood pressure of more than 140/90 mmHg.. In hypertensive patients aged 55 or older or black patients of any age, the first choice for initial therapy should be either a calcium-channel blocker or a thiazide-type diuretic. For this recommendation, black patients are considered to be those of African or Caribbean descent, not mixed-race, Asian or Chinese. In hypertensive patients younger than 55, the first choice for initial therapy should be an angiotensin-converting enzyme (ACE) inhibitor (or an angiotensin-II receptor antagonist if an ACE inhibitor is not tolerated).	■ Educate staff/self about pharmacological interventions ■ Establish hypertension monitoring service (advice on treatment regimen, detection of poor control, identification of drug-related problems, reinforcement of compliance, lifestyle advice) ■ Supplementary or independent prescribing ■ Design or purchase documentation to record activities ■ Obtain leaflets and supporting information (patient support group contact details, etc) for patients	*MeReC Bulletin 17* (www.npc.nhs.uk) and the whole floor of NPCi at www.npci.org.uk/therapeutics/cardio/cdnondrug/ room_cdnondrug.php NICE Clinical Guideline CG34 — www.nice.org.uk CPPE workshop: Hypertension Consult colleagues with established services (contact the RPSGB practice department for further information) Adapt PSNC template for enhanced services — www.psnc.org.uk Note: the treatment of patients with Type 2 diabetes is covered in the NICE guideline on Type 2 diabetes (due to be published May 2008)
CONTINUING TREATMENT Provide an annual review of care to monitor blood pressure, provide patients with support and discuss their lifestyle, symptoms and medication. Patients may become motivated to make lifestyle changes and want to stop using antihypertensive drugs. If at low cardiovascular risk and with well controlled blood pressure, these patients should be offered a trial reduction or withdrawal of therapy with appropriate lifestyle guidance and ongoing review.	■ Establish collaborative working arrangement with GPs. Make monitoring records available for annual review	

BOX 1: TAKING BLOOD PRESSURE MEASUREMENTS

- Where possible, standardise the environment when measuring blood pressure. The environment should be relaxed, quiet and warm, and the patient seated with his or her arm outstretched and supported.
- The patient should be seated and not talking for five minutes before taking the blood pressure, and the arm should be supported with the cuff at the level of the heart.
- If the first measurement exceeds 140/90 mmHg, take a second confirmatory reading at the end of the consultation if possible.
- Measure blood pressure on both of the patient's arms and use the arm with the higher value as the reference arm for future measurements.
- If the patient has symptoms of postural hypotension (falls or postural dizziness), measure blood pressure while he or she is standing.
- To identify hypertension (persistent raised blood pressure, above 140/90 mmHg), ask the patient to return for at least two more appointments. Check the blood pressure twice on each occasion, under the best conditions available.
- Take measurements at monthly intervals, but if the patient has severe hypertension re-evaluate him or her earlier.

From NICE CG34 Quick Reference Guide

Note: Blood pressure is variable within individuals and may be affected by a number of different factors such as age, ethnicity, disease, the time of day, posture, emotions, exercise, meals, drugs, fullness of bladder, pain, shock, dehydration, acute changes in temperature and changes in altitude. These influences can be substantial, altering systolic readings by as much as 20mmHg. In order to make measurements from different occasions as comparable as possible it is worth fixing on a time of day for each patient and preferably sticking consistently to a working or non-working day. It may be necessary to take more than two measurements at each appointment to arrive at a consistent reading. (See Pharmaceutical Journal 2005; 274:121–2.)

BOX 2: RECORD-KEEPING

Keep a record of your service. The type of record will depend on the level of service that is offered. For example, if your service is concerned with primary prevention (provision of information and lifestyle advice), a record could be kept of the number of pharmacy customers to whom information about risk factors and prevention of CVD has been given.

For a service concerned with detection of hypertension, the following records should be kept:

- Number of patients in whom blood pressure has been measured
- Number of patients referred to GP due to elevated BP
- Percentage of patients referred to the GP who returned with a prescription of antihypertensive medication.

Sample recording forms and more detailed suggestions are available at www.euro.who.int/document/E85730.pdf.

LEVELS OF SERVICE

Community pharmacies can be involved in the care of people with hypertension at different levels. It is important to decide on the level and scope of service that you intend to offer. The model shown below was drawn up by the EuroPharm Forum and WHO Countrywide Integrated Noncommunicable Diseases Intervention (CINDI) programme ("Pharmacy-based hypertension management model: protocol and guidelines", available at www.euro.who.int/document/E85730.pdf). It can be used as a starting point for planning local services.

LEVEL ONE: PRIMARY PREVENTION

Goal:

- To promote healthy lifestyle for CVD prevention through health education.

At this level advice on healthy lifestyles is given to pharmacy customers, in particular to adult individuals with unfavourable cardiovascular risk profiles.

The pharmacy customer-counselling comprises lifestyle modifications, eg, healthy diet, adequate physical activity and stopping smoking.

LEVEL TWO: DETECTION

Goal:

- To contribute to early detection of hypertension by measuring blood pressure of a customer and referring persons with possible hypertension to the GP. Simultaneous screening for other cardiovascular risk factors can be provided.

LEVEL THREE: MANAGEMENT OF HYPERTENSIVE PATIENTS ON TREATMENT

Goals:

- To monitor patients with hypertension on treatment and to refer to the GP those who do not achieve an adequate blood pressure control
- To identify possible drug related problems and report them to the GP
- To obtain and reinforce informed compliance
- To provide health education to patients with hypertension about necessary lifestyle modifications
- To advise on treatment regimen to patients with hypertension
- To teach about self-measurement of blood pressure

Level three contributes to the monitoring of patients with hypertension on treatment.

This guidance on the management of hypertension in primary care has been prepared by the Practice Division of the Royal Pharmaceutical Society of Great Britain and the NHS National Prescribing Centre.

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NPC National Prescribing Centre

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