

## **PRESS RELEASE**

# **NICE consults on new guideline for diagnosing and treating high blood pressure**

In **draft** guidelines on the diagnosis and treatment of high blood pressure (hypertension) published today (22 February), NICE has made a number of new recommendations that are set to significantly change the way high blood pressure is diagnosed and subsequently treated.

In one of the biggest changes to NICE's original guidance, published in 2004, the draft guideline recommends that a diagnosis of primary hypertension should be confirmed using 24-hour ambulatory blood pressure monitoring (ABPM)<sup>1</sup>, or home blood pressure monitoring (HBPM), rather than be based solely on measurements of blood pressure taken in the clinic. Allied to this, the draft guideline also proposes new thresholds for diagnosis and grades of hypertension which better reflect the values obtained using ABPM.

High blood pressure is one of the most important preventable causes of premature ill health and death in the UK. It is a major risk factor for stroke, heart attack, heart failure, chronic kidney disease and cognitive decline. Primary hypertension is diagnosed when there is no simple identifiable cause of the raised blood pressure: the hypertension may be related, in part, to obesity, poor diet, physical inactivity or genetic inheritance. *Secondary* hypertension, the treatment of which is not covered in this guideline, means there is an identifiable cause such as kidney disease. About 9 out of every 10 people with hypertension have primary hypertension.

<sup>1</sup> Devices that are programmed to allow blood pressure to be measured repeatedly during the day and night.

Other recommendations that have been reviewed in this partial update of the guideline for the clinical management of primary hypertension in adults, include;

blood pressure targets for treatment; the pharmacological treatment of hypertension; the treatment of hypertension in the very elderly (people aged over 80); treatment of hypertension in younger adults (younger than 40); and the treatment of drug resistant hypertension.

Draft new recommendations include:

- If the first and second blood pressure measurements taken during a consultation are both higher than 140/90 mmHg, offer 24-hour ambulatory blood pressure monitoring (ABPM) to confirm the diagnosis of hypertension.
- Offer antihypertensive treatment to people with stage 2 hypertension, (that is, initial clinic systolic blood pressure exceeds  $\geq 160$  mmHg and/or diastolic blood pressure  $\geq 100$  mmHg and subsequent ABPM daytime average or HBPM average of 150/95 mmHg or higher.
- Offer antihypertensive drug treatment to people with stage 1 hypertension (that is, initial clinic systolic blood pressure of 140/90 mmHg or higher and subsequent ABPM daytime average or HBPM average of 135/85 mmHg or higher) who have:
  - target organ damage or
  - established cardiovascular disease or
  - renal disease or
  - diabetes or
  - a 10-year cardiovascular risk equivalent to 20% or greater.

**Professor Bryan Williams, Professor of Medicine, University of Leicester and University Hospitals NHS Trust, Leicester, and Chair of the Guideline**

**Development Group said:** “The wealth of new evidence generated since the original guideline was published in 2004, and the subsequent partial update in 2006, has largely served to further validate the recommendations already made. The areas where we have been able to recommend significant changes based on this new evidence will, nonetheless, have a major impact on how hypertension is diagnosed and subsequent treatment monitored. Of perhaps greatest significance are the findings which suggest that the current practice of using a series of blood pressure readings taken in the clinic alone for the diagnosis of hypertension can lead to inaccurate diagnosis. The resulting draft recommendation to use ambulatory blood pressure monitoring to confirm a diagnosis of hypertension recognises that the measurement of blood pressure, away from the clinic, in a more usual setting can

reduce the over-diagnosis of high blood pressure and unnecessary treatment – for example, because of ‘white-coat’ hypertension. In addition this new approach would not only improve diagnosis but would ultimately be cost-saving for the NHS.

“One of the other areas this update considers is how to manage people aged 40 years and under who are diagnosed as being hypertensive but who have no evidence of target organ damage, such as chronic kidney disease, and who do not have diabetes or renal disease. In these people short-term cardiovascular risk assessments can underestimate their lifetime risk of cardiovascular events because they are powerfully influenced by age. The draft guideline therefore recommends that consideration be given in such cases to seeking a specialist assessment for evaluation of secondary causes of hypertension and a more detailed assessment of potential target organ damage, as well as a review of their blood pressure at least every 12 months.”

## Ends

For more information call the NICE press office on 0845 003 7782 and out of hours on 07775 583 813.

## Notes to Editors

### About the draft guidance

1. For further information about the draft recommendations on “The clinical management of primary hypertension in adults” including how stakeholders can submit their comments, visit: <http://guidance.nice.org.uk/CG/Wave2/14> **Contact the NICE press office for embargoed copies of the draft guideline.**

### About hypertension

1. Primary hypertension is remarkably common in the UK population, its prevalence being strongly influenced by age and lifestyle factors. At least one quarter of the UK population have blood pressure greater than or equal to 140/90mmHg – the threshold used for diagnosis – and more than half of those over the age of 60 years.
2. Because this guideline update recommends using the ABPM daytime average BP (calculated using a minimum of 14 daytime measurements) to confirm the diagnosis of hypertension for initiating treatment, it was necessary to define the ABPM daytime average pressures that are equivalent to the thresholds for stages 1 and 2 hypertension, previously defined according to CBPM readings alone. Thus:

Blood pressure measurement method	Threshold for Stage 1 hypertension	Threshold for Stage 2 hypertension
Clinic blood pressure reading	140/90mmHg	180/110mmHg
Ambulatory blood pressure	135/85mmHg	151/96mmHg

3. White Coat Hypertension (WCH) is reported to occur in as many as 25% of the population, especially where their BP is close to the threshold for diagnosis. It is more common in pregnancy and with increasing age. Failing to identify WCH makes inappropriate treatment for hypertension in normotensive patients a possibility. Similarly, hypertensive individuals can also exhibit WCH and may receive inappropriate dose titrations or additional antihypertensive agents. Patients have historically been enrolled in trials using clinic BP values, and these trials will almost certainly have included a proportion of patients with WCH. It is unknown whether benefits of treatment differ substantially in those with or without WCH.
4. The risk associated with increasing blood pressure is continuous, with each 2 mmHg rise in systolic blood pressure associated with a 7% increased risk of mortality from ischaemic heart disease and a 10% increased risk of mortality from stroke.
5. As the demographics of the UK shift towards an older, more sedentary and obese population, the prevalence of hypertension and its requirement for treatment will continue to rise.
6. Routine periodic screening for high blood pressure is now commonplace in the UK as part of the National Service Frameworks for cardiovascular disease prevention. Consequently, the diagnosis, treatment and follow-up of patients with hypertension is one of the most common interventions in primary care, accounting for approximately 12% of Primary Care consultation episodes and approximately £1 billion in drug costs in 2006.

### About NICE

1. The National Institute for Health and Clinical Excellence (NICE) is the independent organisation responsible for providing national guidance and standards on the promotion of good health and the prevention and treatment of ill health
2. NICE produces guidance in three areas of health:
  - **public health** – guidance on the promotion of good health and the prevention of ill health for those working in the NHS, local authorities and the wider public and voluntary sector
  - **health technologies** – guidance on the use of new and existing medicines, treatments, medical technologies (including devices and diagnostics) and procedures within the NHS
  - **clinical practice** – guidance on the appropriate treatment and care of people with specific diseases and conditions within the NHS.
3. NICE produces standards for patient care:
  - **quality standards** – these reflect the very best in high quality patient care, to help healthcare practitioners and commissioners of care deliver excellent services
  - **Quality and Outcomes Framework** – NICE develops the clinical and health improvement indicators in the QOF, the Department of Health scheme which rewards GPs for how well they care for patients
4. NICE provides advice and support on putting NICE guidance and standards into practice through its **implementation programme**, and it collates and accredits high quality health guidance, research and information to help health professionals deliver the best patient care through **NHS Evidence**.