

# NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

## Guideline scope

### Hypertension in adults (update)

This guideline will update the NICE guideline on hypertension in adults (CG127).

The guideline will be developed using the methods and processes outlined in [Developing NICE guidelines: the manual](#).

This guideline will also be used to update the NICE [quality standard](#) for hypertension in adults.

#### **1 Why the update is needed**

New evidence that could affect recommendations was identified through the surveillance process. Topic experts, including those who helped to develop the existing guideline, advised NICE on whether areas should be updated or new areas added. Full details are set out in the [surveillance review decision](#).

#### ***Why the guideline is needed***

##### **Key facts and figures**

High blood pressure (hypertension) is one of the most important treatable causes of premature morbidity and mortality in the UK. Hypertension is a major risk factor for stroke (ischaemic and haemorrhagic), myocardial infarction, heart failure, chronic kidney disease, cognitive decline and premature death. Untreated hypertension is usually associated with a progressive rise in blood pressure. The vascular and renal damage that this may cause can potentially culminate in a treatment-resistant state.

Blood pressure is normally distributed in the population and there is no natural cut-off point above which 'hypertension' definitively exists and below which it does not. The risks associated with hypertension continue to increase as

blood pressure rises. Between the ages of 40 and 69, each difference of 20 mmHg usual systolic blood pressure (or approximately 10 mmHg usual diastolic blood pressure) is associated with more than a twofold difference in the stroke death rate, and with a doubling of the death rates from cardiovascular causes. Hypertension is common in the UK and the prevalence is strongly influenced by age. In people younger than 50, diastolic pressure is more commonly elevated than systolic pressure. With ageing, systolic hypertension becomes a more significant problem, as a result of progressive stiffening and loss of compliance of larger arteries. At least one quarter of adults (and more than half of those older than 60) have high blood pressure.

The clinical management of hypertension is one of the most common interventions in primary care, accounting for 12% of visits to primary care practitioners, and its consequences are responsible for up to £2.1 billion of healthcare expenditure.

### **Current practice**

Since the publication of the 2011 guideline, there has been variable access to ambulatory blood pressure monitoring and consequently uptake of home blood pressure monitoring has been low.

Resistant hypertension continues to be a challenge. Current pharmacological treatment regimens often fail to achieve adequate reductions in blood pressure. Developments in the pharmacological management of hypertension have resulted in the publication of substantial clinical trial data since the 2011 guideline was published. This evidence needs to be reviewed in the context of existing guidance.

In addition, the factors that indicate referral for management of malignant hypertension has been prioritised for review within this update, as well as blood pressure management in adults with type 2 diabetes.

## 2 Who the guideline is for

People using services, their families and carers and the public will be able to use the guideline to find out more about what NICE recommends, and help them make decisions.

This guideline is for:

- Healthcare professionals in primary and secondary care.
- Commissioners and providers of services.

NICE guidelines cover health and care in England. Decisions on how they apply in other UK countries are made by ministers in the [Welsh Government](#), [Scottish Government](#), and [Northern Ireland Executive](#).

### ***Equality considerations***

NICE has carried out [an equality impact assessment](#) during scoping. The assessment:

- lists equality issues identified, and how they have been addressed
- explains why any groups are excluded from the scope.

The guideline will look at inequalities relating to the needs of:

- people of west African and Caribbean family origin in the context of hypertension and increased risk of stroke
- people of South Asian family origin among whom the risk of renal and cardiovascular complications of hypertension are increased, especially in people with type 2 diabetes
- people aged over 80, among whom co-morbidities are more prevalent, with implications for choice of treatment.

## **3 What the updated guideline will cover**

### **3.1 *Who is the focus?***

#### **Groups that will be covered**

- Adults (over 18 years) with hypertension.

Where appropriate special consideration will be given to:

- Adults with hypertension and type 2 diabetes.
- people of West African and Caribbean family origin
- people of South Asian family origin
- people aged 80 years or older.

#### **Groups that will not be covered**

- Children and young people (under 18 years).
- Pregnant women and women planning pregnancy.
- People with secondary causes of hypertension such as tumours or structural vascular defects (including Conn's adenoma, pheochromocytoma and renovascular hypertension).
- People with type 1 diabetes.
- People with chronic kidney disease in an ACR (albumin:creatinine ratio) category of A3.

### **3.2 *Settings***

#### **Settings that will be covered**

- All settings in which NHS commissioned care is provided.

### **3.3 *Activities, services or aspects of care***

#### **Key areas that will be covered in this update**

We will look at evidence in the areas below when developing this update. We will consider making new recommendations or updating existing recommendations in these areas only.

- 1 Diagnosing hypertension.
- 2 Monitoring blood pressure.
- 3 Initiating and monitoring antihypertensive drug treatment, including blood pressure targets.
- 4 Choosing antihypertensive drug treatment (including for people with resistant hypertension).
- 5 Management of hypertension with relaxation therapies.
- 6 Factors that indicate referral of people with suspected malignant hypertension.

Note that guideline recommendations for medicines will normally fall within licensed indications; exceptionally, and only if clearly supported by evidence, use outside a licensed indication may be recommended. The guideline will assume that prescribers will use a medicine's summary of product characteristics to inform decisions made with individual patients.

### Proposed outline for the guideline

The table below outlines all the areas that will be included in the guideline. It sets out what NICE plans to do for each area in this update.

Area of care	What NICE plans to do
Measuring blood pressure	No evidence review: retain recommendations from existing guideline.
Diagnosing hypertension	Review evidence: update existing recommendations as needed.
Monitoring blood pressure	Review evidence: update existing recommendations as needed.
Assessing cardiovascular risk and target organ damage	No evidence review: retain recommendations from existing guideline.
Lifestyle interventions	Review evidence for relaxation therapies only: update relaxation therapies recommendations as needed. For all other areas retain recommendations from existing guideline.
Initiating and monitoring antihypertensive drug treatment, including blood pressure targets	Review evidence: update existing recommendations as needed.

Choosing antihypertensive drug treatment	Review evidence: update existing recommendations as needed and include adults with type 2 diabetes. Recommendations on blood pressure management in the NICE guideline on <a href="#">managing type 2 diabetes in adults</a> will be replaced by this update.
Patient education and adherence to treatment	Remove recommendations 1.7.1, 1.7.2, and 1.7.4: refer to NICE guidelines on <a href="#">medicines adherence</a> and <a href="#">medicines optimisation</a> .
Factors indicating referral of people with suspected malignant hypertension	Review evidence: new area in the guideline.

Recommendations in areas that are being retained from the existing guideline may be edited to ensure that they meet current editorial standards, and reflect the current policy and practice context.

### Areas not covered by the guideline

These areas will not be covered by the guideline.

- 1 Preventing hypertension.
- 2 Screening for hypertension.
- 3 Specialist management of secondary hypertension (that is, hypertension arising from other medical conditions).
- 4 Non-pharmacological interventions (such as supplements, acupuncture or herbal remedies) with the exception of relaxation therapies.

### Related NICE guidance

- [Multimorbidity: clinical assessment and management](#) (2016) NICE guideline NG56
- [Type 2 diabetes in adults: management](#) (2015) NICE guideline NG28
- [Type 1 diabetes in adults: diagnosis and management \(2015\) NICE guideline NG17](#)
- [Chronic kidney disease in adults: assessment and management](#) (2014) NICE guideline CG182
- [Cardiovascular disease: risk assessment and reduction, including lipid modification](#) (2014) NICE guideline CG181

- [Atrial fibrillation: management](#) (2014) NICE guideline CG180
- [Percutaneous transluminal radiofrequency sympathetic denervation of the renal artery for resistant hypertension \(2012\) NICE interventional procedure guidance IPG418](#)
- [Hypertension in pregnancy: diagnosis and management \(2011\) NICE guideline CG107](#)

### **NICE guidance about the experience of people using NHS services**

NICE has produced the following guidance on the experience of people using the NHS. This guideline will not include additional recommendations on these topics unless there are specific issues related to hypertension:

- [Medicines optimisation](#) (2015) NICE guideline NG5
- [Patient experience in adult NHS services](#) (2012) NICE guideline CG138
- [Service user experience in adult mental health](#) (2011) NICE guideline CG136
- [Medicines adherence](#) (2009) NICE guideline CG76

### **3.4 Economic aspects**

We will take economic aspects into account when making recommendations. We will develop an economic plan that states for each review question (or key area in the scope) whether economic considerations are relevant, and if so whether this is an area that should be prioritised for economic modelling and analysis. We will review the economic evidence and carry out economic analyses, using an NHS and personal social services (PSS) perspective, as appropriate.

### **3.5 Key issues and questions**

While writing this scope, we have identified the following key issues, and draft review questions related to them:

- 1 Diagnosing hypertension
  - 1.1 In adults with suspected primary hypertension, what is the best method of measuring blood pressure (home, ambulatory or clinic

- measurement) to establish the diagnosis and predict cardiovascular events?
- 2 Monitoring blood pressure
    - 2.1 In adults with treated primary hypertension, what is the best method of measuring blood pressure (home, ambulatory or clinic measurement) to assess the response to treatment and predict cardiovascular events?
  - 3 Initiating and monitoring antihypertensive drug treatment, including blood pressure targets
    - 3.1 At what blood pressure or cardiovascular disease risk threshold should antihypertensive drug treatment be initiated?
    - 3.2 Does the use of targets improve outcomes for adults with treated primary hypertension, and should these be based on blood pressure or cardiovascular risk?
    - 3.3 What are the optimum blood pressure or cardiovascular risk targets for adults with treated primary hypertension?
  - 4 Choosing antihypertensive drug treatment
    - 4.1 Is monotherapy or combination therapy more clinically and cost effective for first-line treatment of hypertension?
    - 4.2 What is the most clinically and cost-effective sequence of antihypertensive drug treatment, and does this vary with age, ethnicity, or presence of type 2 diabetes?
  - 5 Management of hypertension with relaxation therapies
    - 5.1 What is the clinical and cost-effectiveness of relaxation therapies for the management of hypertension?
  - 6 Factors indicating referral of people with suspected malignant hypertension
    - 5.1 Which factors indicate malignant hypertension?

The draft questions may be used to develop more detailed review questions, which guide the systematic review of the literature.



### **3.6 Main outcomes**

The main outcomes that will be considered when searching for and assessing the evidence are:

- 1 All-cause mortality.
- 2 Stroke (ischaemic or haemorrhagic).
- 3 Myocardial infarction.
- 4 Heart failure.
- 5 Vascular procedures (including both coronary and carotid artery procedures).
- 6 Angina needing hospitalisation.
- 7 Health-related quality of life.
- 8 Adverse events such as acute kidney injury, falls or new-onset type 2 diabetes.

## **4 NICE quality standards and NICE Pathways**

### **4.1 NICE quality standards**

**NICE quality standards that may need to be revised or updated when this guideline is published**

- [Hypertension in adults](#) (2013) NICE quality standard QS28

### **4.2 NICE Pathways**

When this guideline is published, the recommendations will be added to NICE Pathways. NICE Pathways bring together all related NICE guidance and associated products on a topic in an interactive flowchart. The existing flowchart on [hypertension](#) will be reviewed and updated to integrate the updated recommendations.

## **5 Further information**

This is the final scope, incorporating comments from registered stakeholders during consultation.

The guideline is expected to be published in August 2019.

You can follow [progress of the guideline](#).

Our website has information about how [NICE guidelines](#) are developed.