

# 2022 surveillance of hypertension (NG136) and transient loss of consciousness (CG109) guidelines for postural hypotension

## Surveillance proposal

We propose updating the recommendations related to the measurement of blood pressure in suspected 'postural' or 'orthostatic' hypotension in the [NICE guideline on hypertension \(NG136\)](#) and NICE guideline on [transient loss of consciousness \(CG109\)](#). Going forward, only the term 'postural hypotension' will be used in NICE guidelines. Amendments will be made to all other NICE guidelines which mention 'orthostatic hypotension', so that only the term 'postural hypotension' is consistently used.

## Background

We received an enquiry highlighting a potential diagnosis accuracy issue with recommendations in [the NICE guideline on hypertension \(NG136\)](#). The guideline recommends initial measurement of blood pressure either in the seated or supine position in people with symptoms of postural hypotension (falls or postural dizziness). The recommendation then requires that blood pressure is measured again with the person standing for at least 1 minute before measurement. This is to establish if the systolic blood pressure falls by 20 mmHg or more when the person is standing. The enquirer stated if blood pressure was measured in the sitting (rather than the supine position), followed by the standing position, a significant proportion of postural hypotension cases may be missed, particularly in older and frail people.

We reviewed this issue to establish whether the guideline should be updated. We also considered all NICE guidelines which cover postural hypotension or 'orthostatic hypotension' to check they are consistent and clear.

## Methods

The surveillance process consisted of:

- Considering and addressing comments from the enquiry.
- Examining and comparing NICE guidance and quality standards related to postural or orthostatic hypotension.
- Considering the evidence and committee rationales used to develop recommendations in the NICE guidelines on [hypertension \(NG136\)](#) and [transient loss of consciousness \(CG109\)](#).
- Gathering feedback from topic experts to establish preferred terminology, standards of measurement and potential implementation challenges.
- Assessing the topic expert feedback against current recommendations to determine whether to update the recommendations and terminology used.
- Consulting on the proposal with stakeholders (this report).

### ***Current NICE recommendations related to postural hypotension***

We have reviewed our recommendations related to ‘postural’ or ‘orthostatic’ hypotension across all NICE guidelines. We identified the following inconsistencies:

- Recommendations on measurement of blood pressure when postural or orthostatic hypotension is suspected are made in 2 guidelines [\[Hypertension \(NG136\)\]](#) and [\[Transient Loss of Consciousness, TLoC \(CG109\)\]](#), and the criteria used are inconsistent (see Table 1 for a summary).
- ‘Orthostatic’ or ‘postural’ hypotension is mentioned in 13 NICE guidelines. In two guidelines, [\[Type I Diabetes \(NG17\)\]](#) and [\[Rehabilitation after Traumatic injury \(NG211\)\]](#), both terms are used interchangeably. See Appendix A for the list of recommendations.

## ***Information considered when developing the guideline***

There was no evidence review for the orthostatic hypertension recommendations in the NICE guideline on [hypertension \(NG136\)](#), and there was only 1 study identified on orthostatic hypertension in diagnosing the cause of transient loss of consciousness (TLoC) in the NICE guideline on [TLoC \(CG109\)](#). See Appendix B for details.

## ***Feedback from topic experts***

We received feedback from five members of the CVD committee (1 GP lecturer, 1 cardiologist, 1 hypertension specialist, and 1 nephrologist) with an interest in hypertension. One respondent declared a potential conflict of interest in receiving (non-commercially) funded research in postural hypotension. Key points raised in the feedback were:

- A consistent term for orthostatic or postural hypotension should be used in all recommendations
- Standardised measurement criteria and terminology should be used across all NICE guidelines
- Lying down to standing blood pressure measurement is the best practice based on international consensus and is preferable
- There are implementation challenges of measuring blood pressure in the lying down position in general practice, and there should be an option to do this seated if lying down is not possible

Further details of topic expert feedback are available in Appendix C.

## ***Addressing inconsistencies in NICE guidelines***

It is proposed to align the recommendations in the Hypertension (NG136) ([recommendation 1.1.5 and 1.1.6](#)) and TLoC (CG109) ([recommendation 1.2.1.1](#)) guidelines (see Table 1 below for a comparison of the main measurement criteria used in the current recommendations versus proposed changes. It is proposed that the measurement method and criteria will only be stated in the Hypertension guideline (NG136), and a cross-reference to this will be made from the TLoC guideline (CG109). In addition, we propose to amend [recommendation 1.4.16](#) in the hypertension guideline (NG136) to be

consistent with recommendations [1.1.5 and 1.1.6](#) so that the emphasis is to measure the blood pressure in the lying down position. See Table 2 for comparison of existing versus proposed recommendations.

**Table 1: Comparison of definitions and diagnosis methods for blood pressure measurement for postural hypotension**

	Hypertension (NG136) <a href="#">Recommendations 1.1.5 and 1.16</a>	TLoC (CG109) <a href="#">Recommendation 1.2.1.1</a>	Proposed amendments
Position	Seated or supine	Lying down	Lying down is preferred to a seated position
Duration of standing before measurement	1 minute	3 minutes	Up to 3 minutes
Threshold of difference between standing vs seated or supine	Systolic BP falls by 20mmHg or more when standing	No mention of the threshold	20 mmHg
Management	<ul style="list-style-type: none"> <li>• review medication</li> <li>• measure subsequent blood pressures with the person standing</li> <li>• consider referral to specialist care if symptoms of postural hypotension persist. [2004, amended 2011]</li> </ul>	<p>'If orthostatic hypotension is confirmed, consider likely causes, including drug therapy, and manage appropriately (for example, see the NICE guideline on falls in older people: assessing risk and prevention).'</p>	<p>If postural hypotension falls by 20 mmHg or more when the person is standing.</p> <ul style="list-style-type: none"> <li>• consider likely causes, including reviewing current medications</li> <li>• manage appropriately (for example, see the NICE guideline on falls in older people: assessing risk and prevention).</li> <li>• consider referral to specialist care if symptoms of postural hypotension persist</li> </ul> <p>If the blood pressure drop is less than 20mm Hg despite a suggestive history:</p> <ul style="list-style-type: none"> <li>• repeat the measurement with the person lying down if the first measurement was taken while seated</li> <li>• refer the person for further specialist cardiovascular assessment</li> </ul>

**Table 2: Comparison of existing versus proposed recommendations**

Guideline	Existing recommendation	Proposed recommendations
<p>Hypertension (NG136)  <a href="#">Section 1.1</a>  <a href="#">Measuring blood pressure</a></p>	<p><a href="#">1.1.5</a> In people with symptoms of postural hypotension (falls or postural dizziness):</p> <ul style="list-style-type: none"> <li>• blood pressure with the person either supine or seated</li> <li>• measure blood pressure again with the person standing for at least 1 minute before measurement. [2004, amended 2011]</li> </ul>	<p>1.1.5 In people with suspected postural hypotension (with symptoms such as falls or postural dizziness):</p> <ul style="list-style-type: none"> <li>• measure blood pressure with the person in the lying position</li> <li>• repeat blood pressure measurement again with the person standing. Take this measurement within 3 minutes of getting up from the lying position measurement.</li> </ul> <p>If it is inconvenient to take the blood pressure measurement lying down, a seated position may be considered.</p>
<p>Hypertension (NG136)  <a href="#">Section 1.1</a>  <a href="#">Measuring blood pressure</a></p>	<p><a href="#">1.1.6</a> If the systolic blood pressure falls by 20 mmHg or more when the person is standing:</p> <ul style="list-style-type: none"> <li>• review medication</li> <li>• measure subsequent blood pressures with the person standing</li> <li>• consider referral to specialist care if symptoms of postural hypotension persist. [2004, amended 2011]</li> </ul>	<p>1.1.6 If the systolic blood pressure falls by 20 mmHg or more when the person is standing:</p> <ul style="list-style-type: none"> <li>• consider likely causes, including reviewing current medications</li> <li>• manage appropriately (for example, see <a href="#">NICE guideline on falls in older people: assessing risk and prevention</a>).</li> <li>• consider referral to specialist care if symptoms of postural hypotension persist.</li> </ul> <p>If the blood pressure drop is less than 20mm Hg despite a suggestive history:</p> <ul style="list-style-type: none"> <li>• repeat the measurement with the person lying down if the first measurement was taken while seated</li> <li>• refer the person for further specialist cardiovascular assessment.</li> </ul>

Guideline	Existing recommendation	Proposed recommendations
<p>Hypertension (NG136)</p> <p><a href="#">Section 1.4 Treating and monitoring hypertension</a></p> <p>Monitoring treatment and blood pressure targets</p>	<p><a href="#">1.4.16</a> Measure standing as well as seated blood pressure (see <a href="#">recommendation 1.1.6</a>) in people with hypertension and:</p> <ul style="list-style-type: none"> <li>• with type 2 diabetes or</li> <li>• with symptoms of postural hypotension or</li> <li>• aged 80 and over.</li> </ul> <p>In people with a significant postural drop or symptoms of postural hypotension, treat to a blood pressure target based on standing blood pressure.</p>	<p><a href="#">1.4.16</a> Measure standing as well as lying down blood pressure (see <a href="#">recommendation 1.1.6</a>) in people with hypertension and:</p> <ul style="list-style-type: none"> <li>• with type 2 diabetes or</li> <li>• with symptoms of postural hypotension or</li> <li>• aged 80 and over.</li> </ul> <p>In people with a significant postural drop or symptoms of postural hypotension, treat to a blood pressure target based on standing blood pressure.</p>
<p>Transient loss of consciousness (CG109)</p> <p><a href="#">Section 1.2 assessment and referral</a></p> <p>1.2.1 Suspected orthostatic hypotension</p>	<p><a href="#">1.2.1.1</a> Suspect <a href="#">orthostatic hypotension</a> on the basis of the initial assessment when:</p> <ul style="list-style-type: none"> <li>• there are no features suggesting an alternative diagnosis and</li> <li>• the history is typical.</li> </ul> <p>If these criteria are met, measure lying and standing blood pressure (with repeated measurements while standing for 3 minutes). If clinical measurements do not confirm orthostatic hypotension despite a suggestive history, refer the person for further specialist cardiovascular assessment.</p> <p>If orthostatic hypotension is confirmed, consider likely causes, including drug therapy, and manage appropriately (for example, see <a href="#">NICE guideline on falls in older people: assessing risk and prevention</a>).</p>	<p>1.2.1.1 Suspect <a href="#">postural hypotension</a> on the basis of the initial assessment when:</p> <ul style="list-style-type: none"> <li>• there are no features suggesting an alternative diagnosis and</li> <li>• the history is typical.</li> </ul> <p>See Hypertension guideline <a href="#">NICE guideline on hypertension (recommendations 1.1.5 and recommendation 1.1.6)</a> for details of diagnostic criteria.</p>

## Equalities

Older and frail people are likely to be more susceptible to postural hypotension, than other groups. As it can take time, effort and discomfort to enable lying down and standing blood pressure measurement, this may be a time and resource constraint in primary care to allow for both the facilities and time for this to take place, particularly when patients have mobility issues.

## Overall proposal

We propose to change recommendations [1.1.5](#), [1.1.6](#) and [1.4.16](#) in the [hypertension \(NG136\)](#) guideline. [Recommendation 1.2.1.1 in the transient loss of consciousness \(CG109\)](#) guideline will be cross-referenced to recommendation [1.1.5](#) in the hypertension guideline. All the other recommendation content will be standardised, and only the term 'postural hypotension', rather than 'orthostatic hypotension', will be used across NICE guidelines.