

Peripheral arterial disease

Quality standard

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This standard is based on CG147.

This standard should be read in conjunction with QS6, QS15, QS28, QS43, QS89, QS92, QS100 and QS99.

Introduction

This quality standard covers the diagnosis and management of lower limb peripheral arterial disease in adults aged 18 years and over. It does not cover acute ischaemia of the lower limb. For more information, see the [topic overview](#).

Why this quality standard is needed

Peripheral arterial disease (PAD) is a condition in which the arteries that carry blood to the limbs are narrowed or blocked by a build-up of fatty deposits (called atheroma).

The most common initial symptom of PAD is leg pain (usually in the calf) while walking. This is known as intermittent claudication. In most people with intermittent claudication, the symptoms remain stable. Approximately 10–20% of people may develop increasingly severe symptoms and 5–10% may develop critical limb ischaemia. Critical limb ischaemia is characterised by severely diminished circulation, ischaemic pain at rest and tissue loss (ulceration and/or gangrene). Overall, approximately 1–2% of people with intermittent claudication will eventually undergo lower limb amputation, although the risk is higher (about 5%) in people with diabetes.

The incidence of PAD increases with age, and about 20% of people over 60 years have some form of PAD. Smoking is the most important risk factor for PAD; other risk factors include diabetes, high cholesterol and high blood pressure.

PAD is also a marker for an increased risk (3–4 fold) of other cardiovascular morbidity and mortality (heart attack and ischaemic stroke), even if it is asymptomatic. Symptomatic PAD significantly impairs quality of life through reduced mobility, severe pain and tissue loss (ulceration and/or gangrene). It is the largest single cause of lower limb amputation in the UK.

How this quality standard supports delivery of outcome frameworks

NICE quality standards are a concise set of prioritised statements designed to drive measurable quality improvements within a particular area of health or care. They are derived from high-quality

guidance, such as that from NICE or other sources accredited by NICE. This quality standard, in conjunction with the guidance on which it is based, should contribute to the improvements outlined in the following 2 outcomes frameworks published by the Department of Health:

- [NHS Outcomes Framework 2014–15](#)
- Improving outcomes and supporting transparency: a public health outcomes framework for England 2013–2016, [Part 1](#) and [Part 1A](#).

Tables 1 and 2 show the outcomes, overarching indicators and improvement areas from the frameworks that the quality standard could contribute to achieving.

Table 1 [NHS Outcomes Framework 2014–15](#)

Domain	Overarching indicators and improvement areas
1 Preventing people from dying prematurely	<p>Overarching indicator</p> <p>1a Potential years of life lost (PYLL) from causes considered amenable to healthcare i) Adults</p> <p>Improvement areas</p> <p>Reducing premature mortality from the major causes of death</p> <p>1.1 Under 75 mortality rate from cardiovascular disease*</p>
2 Enhancing quality of life for people with long-term conditions	<p>Overarching indicator</p> <p>2 Health-related quality of life for people with long-term conditions**</p> <p>Improvement areas</p> <p>Ensuring people feel supported to manage their condition</p> <p>2.1 Proportion of people feeling supported to manage their condition**</p>
4 Ensuring that people have a positive experience of care	<p>Overarching indicators</p> <p>4a Patient experience of primary care i) GP services</p> <p>4b Patient experience of hospital care</p>

Alignment across the health and social care system

* Indicator shared

** Indicator complementary

Table 2 Public health outcomes framework for England, 2013–2016

Domain	Objectives and indicators
4 Healthcare public health and preventing premature mortality	<p>Objective</p> <p>Reduced numbers of people living with preventable ill health and people dying prematurely, while reducing the gap between communities</p> <p>Indicator</p> <p>4.4 Mortality from all cardiovascular diseases (including heart disease and stroke)*</p>
Alignment across the health and social care system * Indicator shared	

Coordinated services

The quality standard for PAD specifies that services should be commissioned from and coordinated across all relevant agencies encompassing the whole PAD care pathway. A person-centred, integrated approach to providing services is fundamental to delivering high-quality care to people with PAD.

The Health and Social Care Act 2012 sets out a clear expectation that the care system should consider NICE quality standards in planning and delivering services, as part of a general duty to secure continuous improvement in quality. Commissioners and providers of health and social care should refer to the library of NICE quality standards when designing high-quality services. Other quality standards that should also be considered when choosing, commissioning or providing a high-quality PAD service are listed in [Related quality standards](#).

Training and competencies

The quality standard should be read in the context of national and local guidelines on training and competencies. All health and social care practitioners involved in assessing, caring for and treating people with PAD should have sufficient and appropriate training and competencies to deliver the

actions and interventions described in the quality standard.

Role of families and carers

Quality standards recognise the important role families and carers have in supporting people with PAD. If appropriate, health and social care practitioners should ensure that family members and carers are involved in the decision-making process about investigations, treatment and care.

List of quality statements

Statement 1. People who have symptoms of, or who are at risk of developing, peripheral arterial disease (PAD) are offered a clinical assessment and ankle brachial pressure index (ABPI) measurement.

Statement 2. People with PAD are offered an assessment for cardiovascular comorbidities and modifiable risk factors.

Statement 3. People with intermittent claudication are offered a supervised exercise programme.

Statement 4. People with PAD being considered for revascularisation who need further imaging after a duplex ultrasound are offered magnetic resonance angiography (MRA).

Statement 5. People with intermittent claudication are offered angioplasty only when imaging has confirmed it is appropriate, after advice on the benefits of modifying risk factors has been given and after a supervised exercise programme has not improved symptoms.

Quality statement 1: Identification and assessment of peripheral arterial disease

Quality statement

People who have symptoms of, or who are at risk of developing, peripheral arterial disease (PAD) are offered a clinical assessment and ankle brachial pressure index (ABPI) measurement.

Rationale

Early identification of both asymptomatic and symptomatic PAD means that treatment can begin earlier, potentially slowing disease progression and improving quality of life through better mobility and reduced pain. Early identification and treatment of PAD and its risk factors may also reduce the risk of cardiovascular morbidity and mortality, and the need for lower limb amputation. A comprehensive assessment should include both a clinical assessment with structured history taking, and ABPI measurement with a hand-held doppler ultrasound scan to ensure an accurate diagnosis and quantification of disease severity.

Quality measures

Structure

(a) Evidence of local arrangements to ensure that health and social care practitioners receive training to recognise the symptoms of PAD.

Data source: Local data collection.

(b) Evidence of local arrangements to ensure that people who have symptoms of, or who are at risk of developing, PAD are offered a clinical assessment and ABPI measurement.

Data source: Local data collection.

(c) Evidence of local arrangements to ensure that all healthcare practitioners undertaking hand-held doppler ultrasound assessment of ABPI are appropriately trained.

Data source: Local data collection.

Process

(a) Proportion of people who have symptoms of PAD who receive a clinical assessment and ABPI measurement.

Numerator – the number of people in the denominator receiving a clinical assessment and ABPI measurement.

Denominator – the number of people who have symptoms of PAD.

Data source: Local data collection.

(b) Proportion of people who are at risk of developing PAD who receive a clinical assessment and ABPI measurement.

Numerator – the number of people in the denominator receiving a clinical assessment and ABPI measurement.

Denominator – the number of people at risk of developing PAD.

Data source: Local data collection.

Outcome

Disease severity at diagnosis.

Data source: Local data collection.

What the quality statement means for service providers, health and social care practitioners, and commissioners

Service providers ensure that hand-held doppler ultrasounds are adequately available; that staff are trained to recognise the symptoms of PAD; and that people who have symptoms of PAD or who are at risk of developing it are offered a clinical assessment and ABPI measurement.

Health and social care practitioners ensure that they are aware of the symptoms of PAD and the need to have these symptoms assessed; that they are aware of the risk factors for PAD; and that healthcare practitioners ensure that they offer a clinical assessment and ABPI measurement to people who have symptoms of PAD or who are at risk of developing it.

Commissioners ensure that they commission services that have an adequate supply of hand-held doppler ultrasounds, and have staff trained to carry out clinical assessments and ABPI measurements in people who have symptoms of PAD or who are at risk of developing it.

What the quality statement means for patients, service users and carers

People with possible peripheral arterial disease, and people who are at risk of developing peripheral arterial disease receive a thorough assessment to find out whether or not they have it, in which they are asked about their symptoms, their legs and feet are examined, their pulses are checked, and the blood pressures in their arms and ankles are compared.

Source guidance

- Lower limb peripheral arterial disease (NICE clinical guideline 147), [recommendations 1.3.1 and 1.3.2](#) (key priorities for implementation).

Definitions of terms used in this quality statement

Symptoms of PAD include:

- non-healing wounds on the legs or feet
- unexplained leg pain
- pain in the leg when walking that resolves when stopping (intermittent claudication), pain in the foot at rest, often made worse by elevation (for example, in bed at night disturbing sleep and relieved by hanging the foot down)
- tissue loss (ulceration and/or gangrene).

[Adapted from [NICE clinical guideline 147](#)]

People at risk of PAD include those who:

- have diabetes or
- are being considered for interventions to the leg or foot (for example, podiatric and orthopaedic foot surgery and chiropody) or
- need to use compression hosiery.

[Adapted from [NICE clinical guideline 147, recommendation 1.3.1](#)]

A clinical assessment should include:

- asking about the presence and severity of possible symptoms of intermittent claudication and critical limb ischaemia using a structured questionnaire
- examining the legs and feet for evidence of critical limb ischaemia, for example, tissue loss (ulceration and/or gangrene)
- examining the femoral, popliteal and foot pulses.

[Adapted from [NICE clinical guideline 147, recommendation 1.3.2](#)]

ABPI measurement:

[Recommendation 1.3.3 in NICE clinical guideline 147](#) provides guidance on how this should be done.

Quality statement 2: Comorbidity assessment

Quality statement

People with peripheral arterial disease (PAD) are offered an assessment for cardiovascular comorbidities and modifiable risk factors.

Rationale

People with both asymptomatic and symptomatic PAD have an increased risk of mortality from cardiovascular disease, mainly due to heart attack and stroke. It is therefore important to assess people with PAD for other cardiovascular comorbidities and modifiable risk factors, so that appropriate evidence-based treatment, advice and support can be given to reduce this risk.

Quality measures

Structure

Evidence of local arrangements to ensure that people with PAD are offered an assessment of cardiovascular comorbidities and modifiable risk factors.

Data source: Local data collection.

Process

Proportion of people with PAD who receive an assessment of cardiovascular comorbidities and modifiable risk factors.

Numerator – the number of people in the denominator receiving an assessment of cardiovascular comorbidities and modifiable risk factors.

Denominator – the number of people with PAD.

Data source: Local data collection. Data on the percentage of patients with PAD in whom the last blood pressure reading (measured in the preceding 12 months) is 150/90 mmHg or less, the percentage of patients with PAD in whom the last measured total cholesterol (measured in the preceding 12 months) is 5 mmol/l or less, and the percentage of patients with PAD with a record in the preceding 12 months that aspirin or an alternative antiplatelet is being taken, are available in the Quality and Outcomes Framework (QOF) indicators PAD002, PAD003 and PAD004.

What the quality statement means for service providers, healthcare practitioners and commissioners

Service providers ensure that staff are trained to carry out assessments for cardiovascular comorbidities and modifiable risk factors.

Healthcare practitioners ensure that they offer people with PAD an assessment for cardiovascular comorbidities and modifiable risk factors.

Commissioners ensure that they commission services so that staff are trained on how to assess for cardiovascular comorbidities and modifiable risk factors.

What the quality statement means for patients, service users and carers

People with peripheral arterial disease are offered an assessment to check their risk of having a heart attack or a stroke, and identify any lifestyle factors that they can alter to reduce their risk (for example, eating healthily, reducing alcohol consumption, stopping smoking, maintaining a healthy weight and exercising regularly).

Source guidance

- Lower limb peripheral arterial disease (NICE clinical guideline 147), [recommendation 1.2.1](#) (key priority for implementation).

Definitions of terms used in this quality statement

The assessment of cardiovascular comorbidities and modifiable risk factors should include a review of:

- smoking status
- diet
- weight
- cholesterol levels
- presence of diabetes
- presence of hypertension

- current antiplatelet therapy.

[Adapted from [NICE clinical guideline 147, recommendation 1.2.1](#)]

Quality statement 3: Supervised exercise programmes

Quality statement

People with intermittent claudication are offered a supervised exercise programme.

Rationale

Supervised exercise programmes can improve walking distance and quality of life for people with intermittent claudication. However, the provision of services varies across the country and so there is a need for both new provision and improvement in existing care.

Quality measures

Structure

Evidence of local arrangements to ensure the availability of supervised exercise programmes.

Data source: Local data collection.

Process

(a) Proportion of people with intermittent claudication who are offered a supervised exercise programme.

Numerator – the number of people in the denominator offered a supervised exercise programme.

Denominator – the number of people with intermittent claudication.

Data source: Local data collection. Contained within [NICE clinical guideline 147 audit support – imaging and supervised exercise programmes: audit standard 3](#).

(b) Proportion of people with intermittent claudication who start a supervised exercise programme.

Numerator – the number of people in the denominator starting a supervised exercise programme.

Denominator – the number of people with intermittent claudication offered a supervised exercise programme.

Data source: Local data collection.

(c) Proportion of people with intermittent claudication who complete a supervised exercise programme.

Numerator – the number of people in the denominator completing a supervised exercise programme.

Denominator – the number of people with intermittent claudication who start a supervised exercise programme.

Data source: Local data collection.

Outcome

(a) Improvement in pain-free walking distance.

Data source: Local data collection.

(b) Improvement in health-related quality of life.

Data source: Local data collection.

What the quality statement means for service providers, healthcare practitioners and commissioners

Service providers ensure the availability of a supervised exercise programme for all people with intermittent claudication.

Healthcare practitioners ensure that they offer supervised exercise programmes to all people with intermittent claudication.

Commissioners ensure that they commission supervised exercise programmes that can be offered to all people with intermittent claudication.

What the quality statement means for patients, service users and carers

People who have pain when walking because of poor circulation are offered a supervised exercise

programme to gradually build up their pain-free walking distance and improve their quality of life.

Source guidance

- Lower limb peripheral arterial disease (NICE clinical guideline 147), [recommendation 1.5.1](#) (key priority for implementation).

Definitions of terms used in this quality statement

Intermittent claudication is defined as a walking- or exercise-induced pain in the lower limbs caused by diminished circulation. [[Full NICE clinical guideline 147](#)]

Supervised exercise programmes may involve the following components:

- 2 hours of supervised exercise a week for a 3-month period
- encouraging people to exercise to the point of maximal pain.

[Adapted from [recommendation 1.5.2](#) of [NICE clinical guideline 147](#)]

Quality statement 4: Imaging

Quality statement

People with peripheral arterial disease (PAD) being considered for revascularisation who need further imaging after a duplex ultrasound are offered magnetic resonance angiography (MRA).

Rationale

Imaging should only be performed in people with PAD if it is likely to provide information that will influence their management. Duplex ultrasound followed by MRA, where clinically appropriate and if needed, offers the most accurate, safe and cost-effective imaging strategy for people with PAD. However, local training and expertise and the availability of imaging equipment may be variable.

Quality measures

Structure

(a) Evidence of local arrangements to ensure that healthcare practitioners undertaking imaging are appropriately trained in the use of duplex ultrasound and MRA for PAD.

Data source: Local data collection.

(b) Evidence of local arrangements to ensure that people with PAD being considered for revascularisation who need further imaging after a duplex ultrasound are offered MRA.

Data source: Local data collection.

Process

Proportion of people with PAD being considered for revascularisation needing further imaging after a duplex ultrasound who receive MRA.

Numerator – the number of people in the denominator receiving MRA.

Denominator – the number of people with PAD being considered for revascularisation who need further imaging after a duplex ultrasound.

Data source: Local data collection. Contained within [NICE clinical guideline 147 audit support](#) –

imaging and supervised exercise programmes: audit standard 2.

What the quality statement means for service providers, healthcare practitioners and commissioners

Service providers ensure that imaging equipment is adequately available, and that people with PAD who are being considered for revascularisation and need further imaging after a duplex ultrasound are offered MRA.

Healthcare practitioners ensure that they offer MRA to people with PAD who are being considered for revascularisation who need further imaging after a duplex ultrasound imaging.

Commissioners ensure that they commission services with adequate availability of imaging equipment and which offer MRA to people with PAD being considered for revascularisation who need further imaging after a duplex ultrasound.

What the quality statement means for patients, service users and carers

People with peripheral arterial disease whose healthcare practitioner thinks surgery might help to improve their blood flow, are offered imaging tests (for example, an ultrasound) to see whether surgery would be suitable.

Source guidance

- Lower limb peripheral arterial disease (NICE clinical guideline 147), [recommendations 1.4.1, 1.4.2 \(key priority for implementation\) and 1.4.3.](#)

Definitions of terms used in this quality statement

Revascularisation is any procedure that is used to restore blood flow to an area of the body that is supplied by narrowed or blocked arteries. This can be done either by making the narrowed arteries wider (angioplasty, stenting), or by using another blood vessel to bypass the blocked or narrowed artery (bypass surgery).

[Adapted from [information for the public for NICE clinical guideline 147](#)]

People being considered for revascularisation include those:

- with intermittent claudication, who should be offered angioplasty only when:

- – advice on the benefits of modifying risk factors has been reinforced (see [recommendation 1.2.1](#)) and
 - a supervised exercise programme has not led to a satisfactory improvement in symptoms and
 - imaging has confirmed that angioplasty is suitable for the person
- being considered for primary stent placement, for treating people with intermittent claudication caused by complete aorto-iliac occlusion (rather than stenosis)
- with critical limb ischaemia who need revascularisation, who should be offered angioplasty or bypass surgery, taking into account factors including:
 - comorbidities
 - pattern of disease
 - availability of a vein for grafting
 - patient preference
- being considered for primary stent placement, for treating people with critical limb ischaemia caused by complete aorto-iliac occlusion (rather than stenosis).

[Adapted from [NICE clinical guideline 147](#), recommendations 1.5.3, 1.5.5, 1.6.2 and 1.6.4]

Quality statement 5: Angioplasty for intermittent claudication

Quality statement

People with intermittent claudication are offered angioplasty only when imaging has confirmed it is appropriate, after advice on the benefits of modifying risk factors has been given, and after a supervised exercise programme has not improved symptoms.

Rationale

Angioplasty can be used to treat intermittent claudication, but it is an invasive procedure and should only be used after non-invasive options (including reinforcement of the importance of lifestyle changes and participation in supervised exercise programmes) have not improved symptoms, and imaging has confirmed that angioplasty is suitable. Greater use of non-invasive treatments may reduce the need for angioplasty and improve overall outcomes for peripheral arterial disease (PAD).

Quality measures

Structure

Evidence of local arrangements to ensure that people with intermittent claudication are offered angioplasty only when imaging has confirmed it is appropriate, advice on the benefits of modifying risk factors has been given and a supervised exercise programme has not improved symptoms.

Data source: Local data collection.

Process

Proportion of people with intermittent claudication receiving angioplasty who have had imaging to confirm angioplasty is appropriate, received advice on the benefits of modifying risk factors and undergone a supervised exercise programme that did not improve symptoms.

Numerator – the number of people in the denominator who have had imaging to confirm angioplasty is appropriate, received advice on the benefits of modifying risk factors and undergone supervised exercise programme that did not improve symptoms.

Denominator – the number of people with intermittent claudication who receive angioplasty.

Data source: Local data collection.

What the quality statement means for service providers, healthcare practitioners and commissioners

Service providers ensure that supervised exercise programmes are adequately available and have local protocols in place to ensure healthcare practitioners only offer angioplasty to people with intermittent claudication when imaging has confirmed it is appropriate, advice on the benefits of modifying risk factors has been given and a supervised exercise programme has not improved symptoms.

Healthcare practitioners ensure that they offer angioplasty to people with intermittent claudication only when imaging has confirmed it is appropriate, advice on the benefits of modifying risk factors has been given and a supervised exercise programme has not improved symptoms.

Commissioners ensure that they commission services in which people with intermittent claudication are only offered angioplasty when imaging has confirmed it is appropriate, advice on the benefits of modifying risk factors has been given and a supervised exercise programme has not improved symptoms.

What the quality statement means for patients, service users and carers

People who have pain when walking because of poor circulation are offered angioplasty (a procedure in which a small balloon is inserted into the narrowed artery and inflated to widen the artery) only when an imaging test has confirmed that angioplasty is suitable, and advice on the risk factors of peripheral arterial disease and a supervised exercise programme have not improved symptoms.

Source guidance

- Lower limb peripheral arterial disease (NICE clinical guideline 147), [recommendation 1.5.3](#).

Definitions of terms used in this quality statement

Intermittent claudication is defined as a walking- or exercise-induced pain in the lower limbs caused by diminished circulation. [[Full NICE clinical guideline 147](#)]

Using the quality standard

Quality measures

The quality measures accompanying the quality statements aim to improve the structure, process and outcomes of care in areas identified as needing quality improvement. They are not a new set of targets or mandatory indicators for performance management.

We have indicated if current national indicators exist that could be used to measure the quality statements. These include indicators developed by the Health and Social Care Information Centre through its [Indicators for Quality Improvement Programme](#). If there is no national indicator that could be used to measure a quality statement, the quality measure should form the basis for audit criteria developed and used locally.

See NICE's [What makes up a NICE quality standard?](#) for further information, including advice on using quality measures.

Levels of achievement

Expected levels of achievement for quality measures are not specified. Quality standards are intended to drive up the quality of care, and so achievement levels of 100% should be aspired to (or 0% if the quality statement states that something should not be done). However, NICE recognises that this may not always be appropriate in practice, taking account of safety, choice and professional judgement, and therefore desired levels of achievement should be defined locally.

Using other national guidance and policy documents

Other national guidance and current policy documents have been referenced during the development of this quality standard. It is important that the quality standard is considered by commissioners, providers, health, public health and social care practitioners, patients, service users and carers alongside the documents listed in [Development sources](#).

Information for commissioners

NICE has produced [support for commissioning](#) that considers the commissioning implications and potential resource impact of this quality standard. This is available on the NICE website.

Information for the public

NICE has produced [information for the public](#) about this quality standard. Patients, service users and carers can use it to find out about the quality of care they should expect to receive; as a basis for asking questions about their care, and to help make choices between providers of social care services.

Diversity, equality and language

During the development of this quality standard, equality issues have been considered and [equality assessments](#) are available.

Good communication between health and social care practitioners and people with PAD is essential. Treatment, care and support, and the information given about it, should be culturally appropriate. It should also be accessible to people with additional needs such as physical, sensory or learning disabilities, and to people who do not speak or read English. People with PAD should have access to an interpreter or advocate if needed.

Commissioners and providers should aim to achieve the quality standard in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity and foster good relations. Nothing in this quality standard should be interpreted in a way that would be inconsistent with compliance with those duties.

Development sources

Further explanation of the methodology used can be found in the quality standards [Process guide](#) on the NICE website.

Evidence sources

The documents below contain recommendations from NICE guidance or other NICE-accredited recommendations that were used by the Quality Standards Advisory Committee to develop the quality standard statements and measures.

- [Lower limb peripheral arterial disease](#). NICE clinical guideline 147 (2012).

Policy context

It is important that the quality standard is considered alongside current policy documents, including:

- Department of Health (2013) [Cardiovascular Disease Outcomes Strategy: improving outcomes for people with or at risk of cardiovascular disease](#).
- NHS Wales (2009) [Cardiac Disease National Service Framework for Wales](#).

Definitions and data sources for the quality measures

- [Quality and Outcomes Framework \(2013/14\)](#).
- [Imaging and supervised exercise programmes: audit support](#). NICE clinical guideline 147 (2012).

Related NICE quality standards

Published

- [Smoking cessation – supporting people to stop smoking](#). NICE quality standard 43 (2013).
- [Hypertension](#). NICE quality standard 28 (2013).
- [Patient experience in adult NHS services](#). NICE quality standard 15 (2012).
- [Diabetes in adults](#). NICE quality standard 6 (2011).

Future quality standards

This quality standard has been developed in the context of all quality standards referred to NICE, including the following topics scheduled for future development:

- Lipid modification.
- Obesity in adults.
- Physical activity.
- Risk assessment of modifiable cardiovascular risk factors.

Quality Standards Advisory Committee and NICE project team

Quality Standards Advisory Committee

This quality standard has been developed by Quality Standards Advisory Committee 2.

Membership of this committee is as follows:

Dr Michael Rudolf (Chair)

Consultant Physician, Ealing Hospital NHS Trust

Mr Barry Attwood

Lay member

Professor Gillian Baird

Consultant Paediatrician, Guys and St Thomas NHS Foundation Trust

Mrs Belinda Black

Chief Executive, Sheffcare Ltd

Dr Ashok Bohra

Consultant Surgeon, Dudley Group of Hospitals NHS Foundation Trust

Mrs Julie Clatworthy

Governing Body Nurse, Gloucestershire Clinical Commissioning Group

Mr Derek Cruickshank

Consultant Gynaecological Oncologist/Chief of Service, The James Cook University Hospital Foundation Trust

Miss Parul Desai

Consultant in Ophthalmology and Public Health, Moorfields Eye Hospital NHS Foundation Trust

Mrs Belinda Dooley

Divisional Manager, Sandwell Metropolitan Borough Council

Mrs Jean Gaffin

Lay member

Dr Joanne Greenhalgh

Principal Research Fellow in Healthcare Evaluation, University of Leeds

Dr John Harley

General Practitioner, Woodlands Family Medical Centre

Dr Ulrike Harrower

Consultant in Public Health, NHS Somerset

Prof Richard Langford

Consultant in Anaesthesia and Pain Medicine, Barts Health NHS Trust

Dr Tessa Lewis

General Practitioner, All Wales Prescribing Advisory Group

Miss Ruth Liley

Assistant Director of Quality Assurance, Marie Curie Cancer Care

Ms Kay MacKay

Director Enhancing Quality and recovery, Enhancing Quality and recovery Kent Surrey and Sussex

Mr David Minto

West Sector Operations Manager, Northumbria Healthcare

Mrs Alison Raw

Head of Integrated Health and Care, Lewisham

Dr Lindsay Smith

General Practitioner, West Coker, Somerset

The following specialist members joined the committee to develop this quality standard:

Professor Jill Belch

Professor of Vascular Surgery, University of Dundee

Professor Andrew Bradbury

Professor of Vascular Surgery, University of Birmingham

Professor Duncan Ettles

Consultant Cardiovascular and Interventional Radiologist, Hull Royal Infirmary

Mr Peter Maufe

Patient/carer member

Dr Ricky Mullis

Physiotherapist and Senior Research Associate, University of Cambridge

Ms Hazel Trender

Senior Vascular Nurse Specialist, Sheffield Vascular Institute, Sheffield

NICE project team

Dylan Jones

Associate Director

Andrew Wragg and Rachel Neary

Programme Managers

Beth Shaw and Craig Grime

Technical Advisers

Nicola Greenway

Lead Technical Analyst

Natalie Boileau

Project Manager

Jenny Harrison

Coordinator

About this quality standard

NICE quality standards describe high-priority areas for quality improvement in a defined care or service area. Each standard consists of a prioritised set of specific, concise and measurable statements. NICE quality standards draw on existing NICE or NICE-accredited guidance that provides an underpinning, comprehensive set of recommendations, and are designed to support the measurement of improvement.

The methods and processes for developing NICE quality standards are described in the [quality standards process guide](#).

This quality standard has been incorporated into the NICE pathway for [lower limb peripheral arterial disease](#).

Changes after publication

April 2015: minor maintenance

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Endorsing organisation

This quality standard has been endorsed by NHS England, as required by the Health and Social Care Act (2012)

Supporting organisations

Many organisations share NICE's commitment to quality improvement using evidence-based guidance. The following supporting organisations have recognised the benefit of the quality standard in improving care for patients, carers, service users and members of the public. They have agreed to work with NICE to ensure that those commissioning or providing services are made

aware of and encouraged to use the quality standard.

- [Foot In Diabetes UK](#)
- [College of Podiatry](#)
- [Royal College of General Practitioners](#)
- [Royal College of Nursing](#)
- [Royal College of Surgeons of Edinburgh](#)
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