

# Cardiovascular risk assessment and lipid modification

Quality standard

Published: 4 September 2015

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This standard is based on CG181.

This standard should be read in conjunction with QS103, QS99, QS95, QS93, QS84, QS82, QS80, QS68, QS52, QS43, QS41, QS28, QS21, QS11, QS9, QS6, QS5, QS2, QS111 and QS143.

## Introduction

This quality standard covers identifying and assessing cardiovascular risk, and lipid modification for preventing cardiovascular disease, in adults (aged 18 years and over). For more information see the cardiovascular risk and lipid modification [topic overviews](#).

### *Why this quality standard is needed*

Cardiovascular disease (CVD) describes disease of the heart and blood vessels caused by the process of atherosclerosis, which includes coronary heart disease, peripheral arterial disease, stroke and transient ischaemic attack. CVD is the leading cause of death in England and Wales, accounting for almost one-third of all deaths. In 2010, approximately 180,000 people died from CVD – around 80,000 of these deaths were caused by coronary heart disease and 49,000 were caused by strokes. Approximately 46,000 occurred in people aged 75 years or younger, and 70% of those were in men.

Mortality from CVD in the UK is falling. It is estimated that 60% of the CVD mortality decline in the UK during the 1980s and 1990s was attributable to reductions in major risk factors, mainly smoking. Drug treatment, including secondary prevention, accounts for the remaining 40%. Since 2000, immediate fatal CVD deaths have halved. However, morbidity appears to be rising. CVD has significant cost implications and was estimated to cost the NHS in England almost £6,940 million in 2003, rising to £7,880 million in 2010.

CVD shows strong age-dependence and predominantly affects people older than 50 years. Risk factors for CVD include non-modifiable factors (such as age, sex, family history of CVD and ethnic background) and modifiable risk factors (such as smoking, raised blood pressure and lipids, obesity and alcohol intake). CVD is strongly associated with low income and social deprivation, and there are higher rates in the north of England than in the south.

Cardiovascular risk assessment aims to identify people who do not already have CVD but who may be at high risk of developing it. A full cardiovascular risk assessment usually takes place in primary

care and takes into account both non-modifiable and modifiable risk factors. Those people identified to be at greatest risk can then be offered focused interventions, including help to stop smoking, and advice on diet and physical activity. If necessary, treatment for high blood pressure and lipids can be used to target modifiable risk factors and reduce the risk of developing CVD.

One of the main strategies for CVD risk management is the use of lipid-lowering therapies, especially statins. Statin therapy needs to be a long-term treatment to be fully beneficial. Key challenges in the field of CVD prevention include improving treatment adherence in people who have had CVD events, and convincing people who feel well that they need to make substantial lifestyle changes and need lifelong drug treatment. High-quality information and communication on the benefits and risks associated with these therapies are needed.

The quality standard is expected to contribute to improvements in the following outcomes:

- incidence of CVD events
- mortality from CVD
- patient experience of GP services.

### *How this quality standard supports delivery of outcome frameworks*

NICE quality standards are a concise set of prioritised statements designed to drive measurable improvements in the 3 dimensions of quality – patient safety, patient experience and clinical effectiveness. 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 2015–16](#)
- [Public Health Outcomes Framework 2013–16](#)

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 2015–16](#)**

Domain	Overarching indicators and improvement areas
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<p>1 Preventing people from dying prematurely</p>	<p><b>Overarching indicator</b></p> <p>1b Life expectancy at 75 i Males ii Females</p> <p><b>Improvement areas</b></p> <p>Reducing premature mortality from the major causes of death</p> <p>1.1 Under 75 mortality rate from cardiovascular disease*</p>
<p>2 Enhancing quality of life for people with long-term conditions</p>	<p><b>Overarching indicator</b></p> <p>2 Health-related quality of life for people with long-term conditions**</p> <p><b>Improvement areas</b></p> <p>Ensuring people feel supported to manage their condition</p> <p>2.1 Proportion of people feeling supported to manage their condition**</p> <p>Improving functional ability in people with long-term conditions</p> <p>2.2 Employment of people with long-term conditions*/**</p>
<p>4 Ensuring that people have a positive experience of care</p>	<p><b>Overarching indicator</b></p> <p>4a Patient experience of primary care i GP services</p>
<p><b>Alignment with Adult Social Care Outcomes Framework and/or Public Health Outcomes Framework</b></p> <p>* Indicator is shared</p> <p>** Indicator complementary with Adult Social Care Outcomes Framework (ASCOF)</p>	

**Table 2 Public Health Outcomes Framework for England, 2013–16**

Domain	Objectives and indicators
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1 Improving the wider determinants of health	<p><b>Objective</b></p> <p>Improvements against wider factors that affect health and wellbeing and health inequalities</p> <p><b>Indicators</b></p> <p>1.8 Employment for those with long-term health conditions including adults with a learning disability or who are in contact with secondary mental health services*</p>
2 Health improvement	<p><b>Objective</b></p> <p>People are helped to live healthy lifestyles, make healthy choices and reduce health inequalities</p>
4 Healthcare public health and preventing premature mortality	<p><b>Objective</b></p> <p>Reduced numbers of people living with preventable ill health and people dying prematurely, while reducing the gap between communities</p> <p><b>Indicators</b></p> <p>4.4 Under 75 mortality rate from all cardiovascular diseases (including heart disease and stroke)*</p>
<p><b>Aligning across the health and social care system</b></p> <p>* Indicator shared with the NHS Outcomes Framework</p>	

## Patient experience and safety issues

Ensuring that care is safe and that people have a positive experience of care is vital in a high-quality service. It is important to consider these factors when planning and delivering services relevant to cardiovascular risk assessment and lipid modification.

NICE has developed guidance and an associated quality standard on patient experience in adult NHS services (see the NICE pathway on [patient experience in adult NHS services](#)), which should be considered alongside this quality standard. They specify that people receiving care should be treated with dignity, have opportunities to discuss their preferences, and be supported to understand their options and make fully informed decisions. They also cover the provision of information to patients and service users. Quality statements on these aspects of patient experience are not usually included in topic-specific quality standards. However, recommendations in the development sources for quality standards that affect patient experience and are specific to the topic are considered during quality statement development.

## ***Coordinated services***

The quality standard for cardiovascular risk assessment and lipid modification specifies that services should be commissioned from and coordinated across all relevant agencies encompassing the whole care pathway. A person-centred, integrated approach to providing services is fundamental to delivering high-quality care to adults having a cardiovascular risk assessment and adults being considered for lipid modification therapy.

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 high-quality risk assessment and lipid modification for cardiovascular disease 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 healthcare professionals involved in risk assessment and lipid modification for cardiovascular disease should have sufficient and appropriate training and competencies to deliver the actions and interventions described in the quality standard. Quality statements on staff training and competency are not usually included in quality standards. However, recommendations in the development source on specific types of training for the topic that exceed standard professional training are considered during quality statement development.

## **Role of families and carers**

Quality standards recognise the important role families and carers have in supporting adults who have a cardiovascular risk assessment and are considered for lipid modification therapy. If appropriate, healthcare professionals should ensure that family members and carers are involved in the decision-making process about cardiovascular risk assessment and lipid modification.

## List of quality statements

Statement 1. Adults under 85 years with an estimated increased risk of cardiovascular disease (CVD) are offered a full formal risk assessment using the QRISK2 tool.

Statement 2. Adults with a 10-year risk of CVD of 10% or more are assessed for secondary causes before any offer of statin therapy.

Statement 3. Adults with a 10-year risk of CVD of 10% or more receive advice on lifestyle changes before any offer of statin therapy.

Statement 4. Adults with a 10-year risk of CVD of 10% or more for whom lifestyle changes are ineffective or inappropriate, discuss the risks and benefits of starting statin therapy with their healthcare professional.

Statement 5. Adults choosing statin therapy for the primary prevention of CVD are offered atorvastatin 20 mg.

Statement 6. Adults with newly diagnosed CVD are offered atorvastatin 80 mg.

Statement 7. Adults on a high-intensity statin who have side effects are offered a lower dose or an alternative statin.

Statement 8. Adults on a high-intensity statin have a repeat measurement of lipids and liver transaminases after 3 months of treatment.

Statement 9 (placeholder). Identifying people with an estimated increased risk.

## Quality statement 1: Full formal risk assessment using QRISK2

### *Quality statement*

Adults under 85 years with an estimated increased risk of cardiovascular disease (CVD) are offered a full formal risk assessment using the QRISK2 tool.

### *Rationale*

A full formal risk assessment for adults who have been identified to have an estimated increased risk of CVD is the most accurate method of targeting prevention strategies to improve clinical outcomes. QRISK2 is the recommended formal risk assessment tool to assess CVD risk for the primary prevention of CVD in people up to and including the age of 84 years. QRISK2 is an online assessment tool for estimating the 10-year risk of having a cardiovascular event, in people who do not already have heart disease. A person's 10-year risk of CVD can be used to inform treatment decisions, such as lifestyle advice or drug treatment.

Adults aged 85 years and over and those with existing CVD, type 1 diabetes, chronic kidney disease or familial hypercholesterolaemia should be considered to be at an increased risk of CVD events without using QRISK2. For these people, a full formal assessment with QRISK2 does not provide any additional information and could underestimate their risk of CVD, leading to inappropriate treatment.

### *Quality measures*

#### **Structure**

Evidence of local arrangements to ensure that the QRISK2 tool is used to formally risk assess adults under 85 years when an estimated increased risk of CVD is identified.

*Data source:* Local data collection.

#### **Process**

Proportion of adults under 85 years with an estimated increased risk of CVD who have a full formal risk assessment using the QRISK2 tool.

Numerator – the number in the denominator having a full formal risk assessment using the QRISK2 tool.

Denominator – the number of adults under 85 years with an estimated increased risk of CVD.

*Data source:* Local data collection.

### *What the quality statement means for service providers, healthcare professionals, and commissioners*

**Service providers** (primary care) ensure that systems are in place to offer adults under 85 years with an estimated increased risk of CVD a full formal risk assessment using the QRISK2 tool.

**Healthcare professionals** ensure that they offer a full formal risk assessment using the QRISK2 tool to adults under 85 years with an estimated increased risk of CVD.

**Commissioners** (NHS England area teams) ensure that they commission services that offer a full formal risk assessment using the QRISK2 tool to adults under 85 years with an estimated increased risk of CVD.

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

**Adults under 85 years who may be at risk of developing CVD** are offered a risk assessment. The GP or nurse uses a computer program called QRISK2 to fully assess their risk of developing CVD over the next 10 years. This takes into account the person's age, sex, smoking status, blood pressure and cholesterol levels, all of which can affect the risk of developing CVD. It will help identify adults who need lifestyle advice and possibly treatment to reduce their risk.

### *Source guidance*

- [Lipid modification](#) (2014) NICE guideline CG181, recommendations 1.1.4 and 1.1.8

### *Definitions of terms used in this quality statement*

#### **Estimated increased risk of CVD**

To estimate risk of CVD, use CVD risk factors that are already recorded in primary care electronic medical records using a systematic strategy. [[Lipid modification](#) (NICE guideline CG181) recommendations 1.1.1 and 1.1.2]

Adults aged 85 years and over, and those with pre-existing CVD or other clinical conditions that increase CVD risk (such as type 1 diabetes, familial hypercholesterolaemia or chronic kidney

disease) are already considered at high risk and so should be excluded from estimations of increased risk and formal risk assessment. [[Lipid modification](#) (NICE guideline CG181) recommendations 1.1.9, 1.1.11, 1.1.15, 1.1.16, 1.1.21]

### **Full formal risk assessment**

This assessment should use the online [QRISK2 tool](#) to assess the 10-year CVD risk for the primary prevention of CVD in people aged up to and including 84 years.

### ***Equality and diversity considerations***

The statement includes adults aged under 85 years because this is the population in which the QRISK2 tool is valid. Adults aged 85 years and older should be considered to be at high risk based on age alone, particularly those who smoke or have high blood pressure. Because QRISK2 calculates a person's risk of CVD over the next 10 years, its risk scores may underestimate risk in younger people or women who have additional risk because of underlying medical conditions such as serious mental health problems or severe obesity (body mass index greater than 40 kg/m<sup>2</sup>). When using a QRISK2 risk score to inform treatment decisions in these populations, particularly if it is near the threshold for treatment, take into account other factors that may predispose the person to premature CVD that may not be included in calculated risk scores.

## Quality statement 2: Excluding secondary causes

### *Quality statement*

Adults with a 10-year risk of cardiovascular disease (CVD) of 10% or more are assessed for secondary causes before any offer of statin therapy.

### *Rationale*

Several conditions can increase a person's risk of CVD, which may also cause dyslipidaemia (abnormal lipid levels). It is important that these are identified before starting statin therapy, which can cause side effects in adults with certain conditions. Common secondary causes of increased risk of CVD or dyslipidaemia include uncontrolled diabetes, hypothyroidism, liver disease and nephrotic syndrome.

### *Quality measures*

#### **Structure**

Evidence of local arrangements to ensure that adults with a 10-year risk of CVD of 10% or more are assessed for secondary causes before any offer of statin therapy.

**Data source:** Local data collection.

#### **Process**

Proportion of adults with a 10-year risk of CVD of 10% or more who are assessed for secondary causes before any offer of statin therapy.

Numerator – the number in the denominator who are assessed for secondary causes before any offer of statin therapy.

Denominator – the number of adults with a 10-year risk of CVD of 10% or more.

**Data source:** Local data collection.

## *What the quality statement means for service providers, healthcare professionals, and commissioners*

**Service providers** (primary care) should ensure that adults with a 10-year risk of CVD of 10% or more are assessed for secondary causes before offering statin therapy. This assessment should be recorded and made available for any monitoring requests.

**Healthcare professionals** assess adults with a 10-year risk of CVD of 10% or more for secondary causes before offering statin therapy.

**Commissioners** (NHS England area teams and clinical commissioning groups) ensure that GPs in their locality are aware of the need for adults with a 10-year risk of CVD of 10% or more to be assessed for secondary causes before offering statin therapy. Commissioners should include this requirement in any relevant local enhanced service specifications (for example, cardiovascular), according to local arrangements.

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

Adults with a 1 in 10 or more chance of developing CVD in the next 10 years (a 10-year risk of 10% or more) are checked to see if there are any underlying causes before being offered treatment with a medicine called a statin. This will indicate whether there is another reason for their increased risk that might need a different treatment.

## *Source guidance*

- [Lipid modification](#) (2014) NICE guideline CG181, recommendations 1.3.6 and 1.3.13

## *Definitions of terms used in this quality statement*

### **Assessment for secondary causes**

Secondary causes of increased CVD risk and dyslipidaemia include excess alcohol use, uncontrolled diabetes, hypothyroidism, liver disease and nephrotic syndrome. An assessment for secondary causes of CVD risk or dyslipidaemia should include:

- smoking status
- alcohol consumption



- blood pressure
- body mass index
- HbA1c
- renal function and estimated glomerular filtration rate (eGFR)
- transaminase level
- thyroid-stimulating hormone.

[[Lipid modification](#) (NICE guideline CG181) recommendations 1.3.6, 1.3.13]

### *Equality and diversity considerations*

The statement includes adults with a 10-year risk of CVD of 10% or more, as determined by their QRISK2 score if they are under 85 years. Adults aged 85 years and older should be considered to be at high risk based on age alone, particularly those who smoke or have high blood pressure. Because QRISK2 calculates a person's CVD risk over the next 10 years, its risk scores may underestimate risk in younger people or women who have additional risk because of underlying medical conditions, such as serious mental health problems or severe obesity (body mass index greater than 40 kg/m<sup>2</sup>). When using a QRISK2 risk score to inform drug treatment decisions in these populations, particularly if it is near the threshold for treatment, take into account other factors that may predispose the person to premature CVD that may not be included in calculated risk scores.

## Quality statement 3: Lifestyle advice for primary prevention

### *Quality statement*

Adults with a 10-year risk of cardiovascular disease (CVD) of 10% or more receive advice on lifestyle changes before any offer of statin therapy.

### *Rationale*

Lifestyle changes such as stopping smoking, increasing physical activity, eating a healthy diet, managing weight and reducing alcohol consumption can reduce the risk of CVD. Lifestyle changes should be made, if possible, before statin treatment is offered, because these can reduce a person's risk of CVD without the need for drug treatment. It is important that the benefits of lifestyle changes for primary prevention are discussed with adults at risk of CVD, to encourage uptake of lifestyle interventions before any offer of statin therapy.

### *Quality measures*

#### **Structure**

Evidence of local arrangements to ensure that adults with a 10-year risk of CVD of 10% or more receive advice on lifestyle changes before any offer of statin therapy.

**Data source:** Local data collection.

#### **Process**

Proportion of adults with a 10-year risk of CVD of 10% or more who receive advice on lifestyle changes before any offer of statin therapy.

Numerator – the number in the denominator who receive advice on lifestyle changes before any offer of statin therapy.

Denominator – the number of adults with a 10-year risk of 10% or more.

**Data source:** Local data collection.

### *What the quality statement means for service providers, healthcare*

## *professionals, and commissioners*

**Service providers** (primary care) ensure that processes are in place for adults with a 10-year risk of CVD of 10% or more to be given advice on lifestyle changes before any offer of statin therapy.

**Healthcare professionals** give advice on lifestyle changes to adults with a 10-year risk of CVD of 10% or more before they offer statin therapy.

**Commissioners** (NHS England area teams and clinical commissioning groups) ensure that GPs are aware that adults with a 10-year risk of CVD of 10% or more should be given lifestyle advice before offering statin therapy. Commissioners may wish to consider incorporating this discussion into NHS Health Checks and local enhanced service specifications. Collaboration with local authorities (as the commissioner of NHS Health Checks) may be necessary to achieve this.

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

**Adults with a 1 in 10 or more chance of developing CVD in the next 10 years (a 10-year risk of 10% or more)** are given advice on lifestyle changes, such as stopping smoking, losing weight, eating a healthy diet and exercising, before being offered statin therapy. These changes may help to reduce their chances of having a heart attack or stroke in the future.

## *Source guidance*

- [Lipid modification](#) (2014) NICE guideline CG181, recommendations 1.3.14, 1.3.15 and 1.1.27

## *Definitions of terms used in this quality statement*

### **Lifestyle changes**

Lifestyle changes include:

- stopping smoking
- eating a healthy diet
- reaching and maintaining a healthy weight
- increasing physical activity
- reducing alcohol consumption.

[[Lipid modification](#) (NICE guideline CG181) recommendations 1.2.1–1.2.17]

### *Equality and diversity considerations*

The statement includes adults with a 10-year risk of CVD of 10% or more, as determined by their QRISK2 score if they are under 85 years. Adults aged 85 years and older should be considered to be at high risk based on age alone, particularly those who smoke or have high blood pressure. Because QRISK2 calculates a person's CVD risk over the next 10 years, its risk scores may underestimate risk in younger people or women who have additional risk because of underlying medical conditions, such as serious mental health problems or severe obesity (body mass index greater than 40 kg/m<sup>2</sup>). When using a QRISK2 risk score to inform drug treatment decisions, particularly if it is near the threshold for treatment, take into account other factors that may predispose the person to premature CVD that may not be included in calculated risk scores.

The lifestyle advice given should be sensitive to people's culture and faith, and tailored to their needs. An interpreter should be consulted if needed for people whose first language is not English.

## Quality statement 4: Discussing risks and benefits of statins for primary prevention

### *Quality statement*

Adults with a 10-year risk of cardiovascular disease (CVD) of 10% or more for whom lifestyle changes are ineffective or inappropriate, discuss the risks and benefits of starting statin therapy with their healthcare professional.

### *Rationale*

People who are better informed and involved in decisions about their care are more likely to adhere to their chosen treatment plan, which improves patient experience and clinical outcomes.

### *Quality measures*

#### **Structure**

Evidence of local arrangements to ensure that adults with a 10-year risk of CVD of 10% or more, for whom lifestyle changes are ineffective or inappropriate, discuss with their healthcare professional the risks and benefits of starting statin therapy.

**Data source:** Local data collection.

#### **Process**

Proportion of adults with a 10-year risk of CVD of 10% or more, for whom lifestyle changes are ineffective or inappropriate, with a recorded discussion on the risks and benefits of starting statin therapy.

Numerator – the number in the denominator who have a record of a discussion on the risks and benefits of starting statin therapy.

Denominator – the number of adults with a 10-year risk of CVD of 10% or more for whom lifestyle changes have been ineffective or are inappropriate.

**Data source:** Local data collection.

## *What the quality statement means for service providers, healthcare professionals, and commissioners*

**Service providers** (primary care) ensure that adults with a 10-year risk of CVD of 10% or more, for whom lifestyle changes are ineffective or inappropriate, have a documented discussion with their healthcare professional about the risks and benefits of starting statin therapy.

**Healthcare professionals** discuss the risks and benefits of starting statin therapy with adults who have a 10-year risk of CVD of 10% or more for whom lifestyle changes have been ineffective or are inappropriate, and record details of the discussion and the person's decision.

**Commissioners** (NHS England area teams and clinical commissioning groups) ensure that adults with a 10-year risk of CVD of 10% or more for whom lifestyle changes are ineffective or inappropriate have a documented discussion with their healthcare professional about the risks and benefits of starting statin therapy. Commissioners may do this by seeking evidence of practice, through clinical audits.

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

**Adults with a 1 in 10 or more chance of developing CVD in the next 10 years (a 10-year risk of 10% or more) for whom lifestyle changes have not helped or are unsuitable**, discuss with their doctor the risks and benefits of starting statin therapy. This should include information about how statin therapy may help to reduce their chances of having a heart attack or stroke in the future.

## *Source guidance*

- [Lipid modification](#) (2014) NICE guideline CG181, recommendation 1.3.12

## *Definitions of terms used in this quality statement*

### **Ineffective lifestyle changes**

Lifestyle changes such as stopping smoking, increasing physical activity and changing diet that have not resulted in a reduction in CVD risk when QRISK2 is repeated are considered to have been ineffective. Use clinical judgement to determine how long to wait before lifestyle changes are considered ineffective, because this depends on the type of lifestyle changes and the person's wishes and needs. [Adapted from [lipid modification](#) (NICE guideline CG181) recommendation 1.3.16]

## Discussion about the risks and benefits of statin therapy

The discussion should include information about a person's risk of CVD and about the benefits and harms of statin therapy over a 10-year period. The discussion and the person's decision should be documented. This information should be in a form that:

- presents individualised risk and benefit scenarios
- presents the absolute risk of events numerically
- uses appropriate diagrams and text.

[Adapted from [lipid modification](#) (NICE guideline CG181) recommendations 1.1.25 and 1.1.26]

The [NICE patient decision aid](#) (2014) can be used to help make decisions about treatment with statins.

## *Equality and diversity considerations*

The statement includes adults with a 10-year risk of CVD exceeding 10%, as determined by their QRISK2 score if they are aged under 85 years. Adults aged 85 years and older should be considered to be at high risk based on age alone, particularly those who smoke or have high blood pressure. Because QRISK2 calculates a person's CVD risk over the next 10 years, its risk scores may underestimate risk in younger people or women who have additional risk because of underlying medical conditions, such as serious mental health problems or severe obesity (body mass index greater than 40 kg/m<sup>2</sup>). When using a QRISK2 risk score to inform drug treatment decisions, particularly if it is near to the threshold for treatment, take into account other factors that may predispose the person to premature CVD that may not be included in calculated risk scores.

The discussion about the risks and benefits of starting statin therapy should be sensitive to people's culture and faith, and tailored to their needs. An interpreter should be consulted if it is not appropriate to use an English-language-based patient decision aid, for example, for people whose first language is not English.

## Quality statement 5: Statins for primary prevention

### *Quality statement*

Adults choosing statin therapy for the primary prevention of cardiovascular disease (CVD) are offered atorvastatin 20 mg.

### *Rationale*

High-intensity statins are the most clinically effective treatment option for the primary prevention of CVD – that is, reducing the risk of first CVD events. After a discussion of the risks and benefits of starting statin therapy with a healthcare professional, a person may choose statin therapy as an appropriate treatment to reduce their risk of CVD. When a person decides to have statin therapy, a statin of high intensity and low cost should be offered. Atorvastatin 20 mg is recommended as the preferred initial high-intensity statin to use because it is clinically and cost effective for the primary prevention of CVD.

### *Quality measures*

#### **Structure**

Evidence of local arrangements to ensure that adults who choose statin therapy for primary prevention are offered atorvastatin 20 mg.

*Data source:* Local data collection.

#### **Process**

Proportion of adults choosing statin therapy for primary prevention of CVD who are prescribed atorvastatin 20 mg.

Numerator – the number in the denominator prescribed atorvastatin 20 mg.

Denominator – the number of adults choosing statin therapy for primary prevention of CVD.

*Data source:* Local data collection.

### *What the quality statement means for service providers, healthcare*



## *professionals, and commissioners*

**Service providers** (primary care) ensure that adults choosing statin therapy for primary prevention of CVD are offered atorvastatin 20 mg.

**Healthcare professionals** offer atorvastatin 20 mg to adults choosing statin therapy for primary prevention of CVD.

**Commissioners** (NHS England area teams and clinical commissioning groups) ensure that adults who choose statin therapy for primary prevention of CVD are offered atorvastatin 20 mg. Commissioners may do this by seeking evidence of practice through clinical audits.

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

**Adults at risk of CVD who choose to have a statin to reduce their chances of CVD** are offered one called atorvastatin. This may help to reduce their chances of having a heart attack or stroke in the future.

## *Source guidance*

- [Lipid modification](#) (2014) NICE guideline CG181, recommendations 1.3.18 and 1.3.19

## Quality statement 6: Statins for secondary prevention

### *Quality statement*

Adults with newly diagnosed cardiovascular disease (CVD) are offered atorvastatin 80 mg.

### *Rationale*

High-intensity statins are the most clinically effective option for the secondary prevention of CVD – that is, reducing the risk of future CVD events in people who have already had a CVD event, such as a heart attack or stroke. Evidence shows that atorvastatin 80 mg is the most cost-effective high-intensity statin for the secondary prevention of CVD, which can improve clinical outcomes.

### *Quality measures*

#### **Structure**

Evidence of local arrangements to ensure that adults with newly diagnosed CVD are offered atorvastatin 80 mg.

*Data source:* Local data collection.

#### **Process**

Proportion of adults with newly diagnosed CVD who are prescribed atorvastatin 80 mg.

Numerator – the number in the denominator prescribed atorvastatin 80 mg.

Denominator – the number of adults with newly diagnosed CVD.

*Data source:* Local data collection.

### *What the quality statement means for service providers, healthcare professionals, and commissioners*

**Service providers** (primary care and secondary care) ensure that adults with newly diagnosed CVD are offered atorvastatin 80 mg.

Healthcare professionals offer atorvastatin 80 mg to adults with newly diagnosed CVD.

Commissioners (NHS England area teams and clinical commissioning groups) ensure that adults with newly diagnosed CVD are offered atorvastatin 80 mg. Commissioners may do this by seeking evidence of practice through clinical audits.

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

Adults who have been newly diagnosed with CVD are offered a statin called atorvastatin to help reduce their chances of further problems, such as a heart attack or stroke.

### *Source guidance*

- [Lipid modification](#) (2014) NICE guideline CG181, recommendation 1.3.20

### *Definitions of terms used in this quality statement*

#### **Atorvastatin 80 mg**

At the time of publication (September 2015) atorvastatin did not have a UK marketing authorisation for secondary prevention of CVD. The prescriber should follow relevant professional guidance, taking full responsibility for the decision. Informed consent should be obtained and documented. See the General Medical Council's [Good practice in prescribing and managing medicines and devices](#) for further information.

## Quality statement 7: Side effects of high-intensity statins

### *Quality statement*

Adults on a high-intensity statin who have side effects are offered a lower dose or an alternative statin.

### *Rationale*

The use of high-intensity statins can cause side effects, but to improve clinical outcomes it is important that alternative strategies are tried rather than stopping treatment. Any statin at any dose reduces the risk of cardiovascular disease (CVD).

### *Quality measures*

#### **Structure**

Evidence of local arrangements to ensure that adults on a high-intensity statin are monitored for side effects and offered a lower dose or an alternative statin if necessary.

*Data source:* Local data collection.

#### **Process**

Proportion of adults reporting side effects from a high-intensity statin who are given a lower dose or alternative statin.

Numerator – the number in the denominator at which a lower dose or alternative statin is prescribed.

Denominator – the number of presentations of adults reporting side effects from a high-intensity statin.

*Data source:* Local data collection.

#### **Outcome**

Adherence to statin therapy.

*Data source:* Local data collection.

### *What the quality statement means for service providers, healthcare professionals, and commissioners*

**Service providers** (primary care and secondary care) should ensure that adults on a high-intensity statin who have side effects are offered a lower dose or an alternative statin. Service providers should see recommendation 1.3.42 in NICE's guideline on [lipid modification](#) for further information.

**Healthcare professionals** offer a lower dose or an alternative statin to adults who have side effects from a high-intensity statin.

**Commissioners** (NHS England area teams and clinical commissioning groups) should ensure that providers are aware that adults on a high-intensity statin who have side effects should be offered a lower dose or an alternative statin.

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

Adults taking a statin who have side effects are offered a lower dose or a different type of statin.

### *Source guidance*

- [Lipid modification](#) (2014) NICE guideline CG181, recommendation 1.3.42

### *Definitions of terms used in this quality statement*

#### **High-intensity statin**

The intensity of a statin is defined based on the percentage reduction in low-density lipoprotein (LDL) cholesterol it can produce. A high-intensity statin can produce a reduction above 40%.

High-intensity statins include:

- atorvastatin 20 mg to 80 mg
- rosuvastatin 10 mg to 40 mg
- simvastatin 80 mg. [[Lipid modification](#) (NICE guideline CG181)]

## Quality statement 8: 3-month statin review

### *Quality statement*

Adults on a high-intensity statin have a repeat measurement of lipids and liver transaminases after 3 months of treatment.

### *Rationale*

Repeating lipid profiles and measuring liver transaminases is important for patient safety and to ensure the effectiveness of statin therapy. A repeat lipid profile can be used to determine whether the expected 40% reduction in non-high-density lipoprotein (non-HDL) cholesterol has been achieved. Repeat measurement of liver transaminase is important to detect any increased levels of these enzymes, which may indicate problems with liver function.

### *Quality measures*

#### **Structure**

Evidence of local arrangements to ensure that adults on a high-intensity statin have a repeat measurement of lipids and liver transaminases after 3 months of treatment.

**Data source:** Local data collection.

#### **Process**

Proportion of adults on high-intensity statins who have had a repeat measurement of lipids and liver transaminases after 3 months of treatment.

Numerator – the number in the denominator who have had a repeat measurement of lipids and liver transaminases after 3 months of treatment.

Denominator – the number of adults prescribed high-intensity statins for at least 3 months.

**Data source:** Local data collection.

## *What the quality statement means for service providers, healthcare professionals, and commissioners*

**Service providers** (primary care) ensure that adults on a high-intensity statin have a repeat measurement of lipids and liver transaminases after 3 months of treatment. Evidence should be made available on request to commissioners.

**Healthcare professionals** take a repeat measurement of lipids and liver transaminases after 3 months of treatment for adults on high-intensity statins.

**Commissioners** (NHS England area teams and clinical commissioning groups) should monitor whether adults on a high-intensity statin have a repeat measurement of lipids and liver transaminases after 3 months of treatment. Commissioners may wish to stipulate this in any local enhanced service specifications.

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

**Adults taking a statin** have a review 3 months after their treatment starts to see if the statin is reducing their cholesterol levels and to check it is not affecting their liver.

## *Source guidance*

- [Lipid modification](#) (2014) NICE guideline CG181, recommendations 1.3.28 and 1.3.37

## *Definitions of terms used in this quality statement*

### **High-intensity statin**

The intensity of a statin is defined based on the percentage reduction in low-density lipoprotein (LDL) cholesterol it can produce. A high-intensity statin can produce a reduction above 40%.

High-intensity statins include:

- atorvastatin 20 mg to 80 mg
- rosuvastatin 10 mg to 40 mg
- simvastatin 80 mg. ([Lipid modification](#) [NICE guideline CG181])

## Quality statement 9 (placeholder): Identifying people with an estimated increased risk

### *What is a placeholder statement?*

A placeholder statement is an area of care that has been prioritised by the Quality Standards Advisory Committee but for which no source guidance is currently available. A placeholder statement indicates the need for evidence-based guidance to be developed in this area.

### *Rationale*

Cardiovascular disease (CVD) is the most common cause of death in the UK, and is a major cause of illness, disability and poor quality of life. To improve primary prevention, people at increased risk of CVD need to be identified and their risk factors managed in the most effective way. It is estimated that half of men over 50 and one-fifth of women over 65 have a CVD risk of 20% or more. Current guidance recommends using a systematic strategy in primary care using electronic records to identify people with an estimated increased risk of CVD. However, clarification of the strategies to prioritise people for assessment was not included in guideline recommendations. Further guidance is needed on methods to use across the healthcare pathway to identify people with an estimated increased risk of CVD, how frequently this identification should be done and which healthcare professionals should carry it out.



## 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 alongside the documents listed in [development sources](#).

## 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, public health and social care practitioners and adults having a cardiovascular risk assessment and adults being considered for lipid modification therapy 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. Adults having a cardiovascular risk assessment and adults being considered for lipid modification therapy 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](#).

## *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.

- [Lipid modification](#) (2014) NICE guideline CG181

## *Policy context*

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

- NHS England (2014) [Strategic and operational planning 2014 to 2019: Reduce premature mortality 3. Cardiovascular disease \(CVD\)](#)
- Department of Health (2013) [Cardiovascular Disease Outcomes Strategy: improving outcomes for people with or at risk of cardiovascular disease](#)

## Related NICE quality standards

### *Published*

- [Secondary prevention after a myocardial infarction](#) (2015) NICE quality standard 99
- [Bipolar disorder in adults](#) (2015) NICE quality standard 95
- [Atrial fibrillation](#) (2015) NICE quality standard 93
- [Physical activity: encouraging activity in all people in contact with the NHS](#) (2015) NICE quality standard 84
- [Smoking: reducing tobacco use](#) (2015) NICE quality standard 82
- [Psychosis and schizophrenia in adults](#) (2015) NICE quality standard 80
- [Acute coronary syndromes \(including myocardial infarction\)](#) (2014) NICE quality standard 68
- [Peripheral arterial disease](#) (2014) NICE quality standard 52
- [Smoking cessation: supporting people to stop smoking](#) (2013) NICE quality standard 43
- [Familial hypercholesterolaemia](#) (2013) NICE quality standard 41
- [Hypertension](#) (2013) NICE quality standard 28
- [Stable angina](#) (2012) NICE quality standard 21
- [Alcohol dependence and harmful alcohol use](#) (2011) NICE quality standard 11
- [Chronic heart failure](#) (2011) NICE quality standard 9
- [Diabetes in adults](#) (2011) NICE quality standard 6
- [Chronic kidney disease](#) (2011) NICE quality standard 5
- [Stroke](#) (2010) NICE quality standard 2

### *In development*

- [Acute heart failure](#). Publication expected December 2015.

## *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:

- Obesity (adults)
- Obesity – prevention and management in adults
- Physical activity: encouraging activity within the general population

The full list of quality standard topics referred to NICE is available from the [quality standards topic library](#) on the NICE website.

## 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:

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**Mr Barry Attwood**

Lay member

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**Dr Ivan Benett**

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Community Matron with Special Interest in CVD, Isle of Wight NHS Trust

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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](#).

NICE produces guidance, standards and information on commissioning and providing high-quality healthcare, social care, and public health services. We have agreements to provide certain NICE services to Wales, Scotland and Northern Ireland. Decisions on how NICE guidance and other products apply in those countries are made by ministers in the Welsh government, Scottish government, and Northern Ireland Executive. NICE guidance or other products may include references to organisations or people responsible for commissioning or providing care that may be relevant only to England.

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ISBN: 978-1-4731-1425-8

### *Endorsing organisation*

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