Cardiovascular risk assessment

NICE quality standard

Draft for consultation

March 2015

Introduction

This quality standard covers identifying and assessing cardiovascular risk in adults (aged 18 years and over). For more information see the cardiovascular risk assessment overview.

Why this quality standard is needed

Cardiovascular disease (CVD) describes disease of the heart and blood vessels caused by the process of atherosclerosis. It is the leading cause of death in England and Wales, accounting for almost one-third of deaths. In 2010, 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. Of the 180,000 deaths, 46,000 occurred in people aged 75 years or younger, and 70% of those were in men. 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, principally smoking, and that drug treatment, including secondary prevention, accounts for the remaining 40% of the decline in mortality. Since 2000, immediate fatal CVD deaths have halved. In spite of evidence that mortality from CVD is falling, 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 cholesterol). 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 individual 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 at greatest risk can then be offered focused interventions, including help to stop smoking, appropriate advice on diet and physical activity and, if necessary, treatment for high blood pressure and cholesterol, to target individual risk factors and reduce the risk of developing CVD.

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

- incidence of CVD events
- mortality from CVD

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 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 2013–2016

Tables 1–2 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
1 Preventing people from dying prematurely	***Overarching indicator*** 1b Life expectancy at 75 i Males ii Females ***Improvement areas*** **Reducing premature mortality from the major causes of death** 1.1 Under 75 mortality rate from cardiovascular disease* **Reducing premature death in people with mental illness** 1.5 Excess under 75 mortality rate in adults with serious mental illness*
4 Ensuring that people have a positive experience of care	***Overarching indicator*** 4a Patient experience of primary care i GP services
Alignment with Adult Social Care Outcomes Framework and/or Public Health Outcomes Framework * Indicator is shared	

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

Domain	Objectives and indicators
2 Health improvement	***Objective*** People are helped to live healthy lifestyles, make healthy choices and reduce health inequalities
4 Healthcare public health and preventing premature mortality	***Objective*** Reduced numbers of people living with preventable ill health and people dying prematurely, while reducing the gap between communities ***Indicators*** 4.4 Under 75 mortality rate from all cardiovascular diseases (including heart disease and stroke)* 4.9 Excess under 75 mortality in adults with serious mental illness*
Aligning across the health and social care system * Indicator shared with the NHS Outcomes Framework	

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.

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 impact on patient experience and are specific to the topic are considered during quality statement development.

Coordinated services

The quality standard for cardiovascular risk assessment 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.

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 risk assessment 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 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(s) 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. If appropriate, healthcare professionals should ensure that family members and carers are involved in the decision-making process about risk assessment and care.

List of quality statements

Statement 1. Adults under 85 years with an estimated 10-year risk of cardiovascular disease (CVD) of 10% or more are offered a full formal risk assessment using the QRISK2 assessment tool.

Statement 2. Healthcare professionals do not use a tool to assess the risk of cardiovascular disease (CVD) in adults with type 1 diabetes, chronic kidney disease or familial hypercholesterolaemia.

Questions for consultation

Questions about the quality standard

Question 1 Does this draft quality standard accurately reflect the key areas for quality improvement?

Question 2 If the systems and structures were available, do you think it would be possible to collect the data for the proposed quality measures?

Question 3 For each quality statement what do you think could be done to support improvement and help overcome barriers?

Questions about the individual quality statements

Question 4 For draft quality statement 1: To aid feasibility of measurement, which specific contacts with healthcare professionals should be prioritised for performing a full formal risk assessment?

Quality statement 1: Full formal risk assessment using QRISK2

Quality statement

Adults under 85 years with an estimated 10-year risk of cardiovascular disease (CVD) of 10% or more are offered a full formal risk assessment using the QRISK2 assessment tool.

Rationale

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, adults at high risk should be identified and managed in the most effective way. A full formal risk assessment for adults estimated to be at high risk is the most accurate method of targeting prevention strategies. QRISK2 is the recommended formal risk assessment tool to be used to assess CVD risk for the primary prevention of CVD in people up to and including age 84 years.

Quality measures

Structure

a) Evidence of local arrangements to ensure that a systematic strategy is used to identify adults with an estimated 10-year risk of CVD of 10% or more.

Data source: Local data collection.

b) Evidence of local arrangements to ensure that the QRISK2 assessment tool is used to formally assess adults under 85 years with an estimated 10-year risk of CVD of 10% or more.

Data source: Local data collection.

Process

Proportion of adults under 85 years with an estimated 10-year risk of CVD of 10% or more who have a full formal risk assessment using the QRISK2 assessment tool.

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

Denominator – the number of adults under 85 years with an estimated 10-year risk of CVD of 10% or more, without pre-existing clinical conditions with increased CVD risk (type 1 diabetes, chronic kidney disease or familial hypercholesterolaemia).

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 estimate 10-year risk of CVD in adults under 85 years and offer those with an estimated 10-year risk of CVD of 10% a full formal risk assessment using the QRISK2 assessment tool.

Healthcare professionals ensure that they offer a full formal risk assessment using the QRISK2 assessment tool to adults under 85 years with an estimated 10-year risk of CVD of 10% or more.

Commissioners (NHS England area teams) ensure that they commission services where adults under 85 years with an estimated 10-year risk of CVD of 10% or more are offered a full formal risk assessment using the QRISK2 assessment tool.

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

Adults under 85 years who have been identified as being at high risk of developing CVD (those who have a greater than 1 in 10 chance of developing CVD in the next 10 years) are offered a full formal risk assessment. This should involve your GP or nurse using a computer program called QRISK2 to fully assess your risk of developing CVD. This takes into account your age, sex, whether you smoke, your blood pressure and cholesterol levels, all of which can affect your risk of developing CVD. This will help identify adults who need 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 10-year risk of CVD of 10% or more

To estimate 10-year 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]

Full formal risk assessment

This assessment should involve use of the online QRISK2 risk assessment tool to assess CVD risk for the primary prevention of CVD in people up to and including age 84 years. Adults with pre-existing clinical conditions such as type 1 diabetes, familial hypercholesterolaemia or chronic kidney disease are already considered at high risk and should not be formally assessed. [Lipid modification (NICE guideline CG181) recommendation 1.1.8, 1.1.9, 1.1.11, 1.1.15, 1.1.16, 1.1.21]

Equality and diversity considerations

The statement includes adults up to and including age 84 years because this is the population in which the QRISK2 assessment 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.

Question for consultation

To aid feasibility of measurement, which specific contacts with healthcare professionals should be prioritised for performing a full formal risk assessment?

Quality statement 2: Risk assessment for people with pre-existing clinical conditions

Quality statement

Healthcare professionals do not use a tool to assess the risk of cardiovascular disease (CVD) in adults with type 1 diabetes, chronic kidney disease or familial hypercholesterolaemia.

Rationale

Adults with conditions such as type 1 diabetes, chronic kidney disease or familial hypercholesterolaemia are at an increased risk of CVD. For people with these conditions, performing a full formal assessment with a risk assessment tool does not provide any additional information and could delay treatment. Treatment for lipid modification should be considered for these adults.

Quality measures

Structure

Evidence of local arrangements to ensure that healthcare professionals do not use a tool to assess the risk of cardiovascular disease (CVD) in adults with type 1 diabetes, chronic kidney disease or familial hypercholesterolaemia.

Data source: Local data collection.

Process

a) Proportion of adults with type 1 diabetes who have their CVD risk formally assessed with a tool.

Numerator – the number in the denominator who have their CVD risk formally assessed with a tool after being diagnosed with type 1 diabetes.

Denominator – the number of adults with type 1 diabetes.

Data source: Local data collection.

b) Proportion of adults with chronic kidney disease and an estimated glomerular filtration rate (eGFR) less than 60 ml/min/1.73 m^2 and/or albuminuria who have their CVD risk formally assessed with a tool.

Numerator – the number in the denominator who have their CVD risk formally assessed with a tool after being diagnosed with chronic kidney disease.

Denominator – the number of adults with chronic kidney disease and an estimated eGFR less than 60 ml/min/1.73 m^2 and/or albuminuria.

Data source: Local data collection.

c) Proportion of adults with familial hypercholesterolaemia or another inherited disorder of lipid metabolism who have their CVD risk formally assessed with a tool.

Numerator – the number in the denominator who have their CVD risk formally assessed with a tool after being diagnosed with familial hypercholesterolaemia or another inherited disorder of lipid metabolism.

Denominator – the number of adults with familial hypercholesterolaemia or another inherited disorder of lipid metabolism.

Data source: Local data collection.

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

Service providers (primary care) ensure that staff are trained not to formally assess CVD risk with a tool in adults with type 1 diabetes, chronic kidney disease or familial hypercholesterolaemia.

Healthcare professionals ensure that they do not formally assess CVD risk with a tool in adults with type 1 diabetes, chronic kidney disease or familial hypercholesterolaemia.

Commissioners (clinical commissioning groups) ensure that they commission services where adults with type 1 diabetes, chronic kidney disease or familial hypercholesterolaemia.

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

Adults with type 1 diabetes, chronic kidney disease or familial hypercholesterolaemia do not have their risk of CVD formally assessed with a tool because they are already at high risk. This means that their treatment can be started without delay.

Source guidance

- Lipid modification (2014) NICE guideline CG181, recommendations 1.1.9, 1.1.11, 1.1.15 and 1.1.16

Status of this quality standard

This is the draft quality standard released for consultation from 9 March to 8 April 2015. It is not NICE's final quality standard on cardiovascular risk assessment. The statements and measures presented in this document are provisional and may change after consultation with stakeholders.

Comments on the content of the draft standard must be submitted by 5pm on 8 April 2015. All eligible comments received during consultation will be reviewed by the Quality Standards Advisory Committee and the quality statements and measures will be refined in line with the Quality Standards Advisory Committee's considerations. The final quality standard will be available on the NICE website from September 2015.

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 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 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

- 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

- Physical activity: encouraging activity in all people in contact with the NHS (staff, patients and carers). Publication expected March 2015
- Smoking: reducing tobacco use in the community. Publication expected March 2015
- Bipolar disorder in adults. Publication expected June 2015
- Atrial fibrillation. Publication expected July 2015
- Lipid modification. Publication expected September 2015
- Secondary prevention following myocardial infarction. Publication expected September 2015
- 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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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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