

# Acute coronary syndromes (including myocardial infarction)

## NICE quality standard

### Draft for consultation

April 2014

## Introduction

This quality standard covers the diagnosis and management of acute coronary syndromes (including myocardial infarction) in adults aged 18 years and older.

It does not cover the secondary prevention of myocardial infarction, including rehabilitation; this will be covered by a separate quality standard.

For more information see the [topic overview](#).

### ***Why this quality standard is needed***

The term 'acute coronary syndromes' encompasses a range of conditions including unstable angina, non-ST-segment-elevation myocardial infarction (NSTEMI) and ST-segment-elevation myocardial infarction (STEMI); all are due to a sudden reduction of blood flow to the heart, usually caused by a blood clot within a coronary artery.

The most common symptom of acute coronary syndromes is severe chest pain that can last for several hours. Other symptoms include sweating, feeling sick, breathlessness and feeling faint.

People with acute coronary syndromes may have a poor prognosis without prompt and accurate diagnosis. Treatments are available to help ease the pain, improve the blood flow and to prevent any future complications.

After resuscitation from any cardiac arrest, the highest priority in managing STEMI is to restore an adequate coronary blood flow as quickly as possible using either drug treatment and/or revascularisation. The time taken to re-establish coronary blood flow is very important because once a coronary artery is blocked, heart muscle starts to be lost.

In people with NSTEMI and unstable angina the aim of treatment is to alleviate pain and anxiety and prevent recurrence of ischaemia. For people with unstable angina, treatment also aims to prevent or limit progression to acute myocardial infarction. The type of treatment is determined by the patients' risk of future cardiovascular events (heart attack and stroke, repeat treatment or death).

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

- deaths from cardiovascular diseases
- length of hospital stay
- adverse effects of interventions (for example, bleeding and stroke)
- incidence of further heart attacks.

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

NICE quality standards are a concise set of prioritised statements designed to drive measureable 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](#) (Department of Health, November 2013)
- 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 and outcome measures   |
|--|--|
| 1 Preventing people from dying prematurely | <p><b><i>Improvement areas</i></b></p> <p><b>Reducing premature mortality from the major causes of death</b></p> <p>1.1 Under 75 mortality rate from cardiovascular disease*</p> |

|  |  |
|--|--|
| 4 Ensuring that people have a positive experience of care  | <p><b>Overarching indicator</b></p> <p>4b Patient experience of hospital care</p> <p><b>Improvement areas</b></p> <p><b>Improving people’s experience of accident and emergency services</b></p> <p>4.3 Patient experience of A&amp;E services</p> |
| <p><b>Aligning across the health and care system</b></p> <p>* Indicator shared with public health outcomes framework</p> |  |

**Table 2 [Public health outcomes framework for England, 2013–2016](#)**

| <b>Domain</b>  | <b>Overarching indicators and improvement areas</b>   |
|--|---|
| 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, whilst reducing the gap between communities</p> <p><b>Indicators</b></p> <p>4.3 Mortality rate from causes considered preventable</p> <p>4.4 Under 75 mortality rate from all cardiovascular diseases (including heart disease and stroke)*</p> |
| <p><b>Alignment across the health and social care system</b></p> <p>* Indicator shared with the NHS Outcomes Framework</p> |   |

### **Coordinated services**

The quality standard for acute coronary syndromes (including myocardial infarction) specifies that services should be commissioned from and coordinated across all relevant agencies encompassing the diagnosis and management areas of the acute coronary syndromes care pathway. A person-centred, integrated approach to providing services is fundamental to delivering high-quality care to people with acute coronary syndromes (including myocardial infarction).

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 acute coronary syndromes 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 healthcare professionals involved in assessing, caring for and treating people with acute coronary syndromes (including myocardial infarction) 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 acute coronary syndromes (including myocardial infarction). If appropriate, healthcare professionals 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](#). Adults with a suspected acute coronary syndrome have a diagnosis of myocardial infarction made according to the universal definition of myocardial infarction.

[Statement 2](#). Adults with NSTEMI or unstable angina are assessed for their risk of future adverse cardiovascular events using an established risk scoring system that predicts 6-month mortality to guide clinical management.

[Statement 3](#). Adults with NSTEMI or unstable angina who have an intermediate or higher risk of future adverse cardiovascular events are offered coronary angiography (with follow-on percutaneous coronary intervention (PCI) if indicated) within 96 hours of first admission to hospital.

[Statement 4](#). Adults with NSTEMI or unstable angina who are clinically unstable or at high ischaemic risk are offered coronary angiography (with follow-on percutaneous coronary intervention (PCI) if indicated) as soon as possible after first admission to hospital.

[Statement 5](#). Adults with acute STEMI who present within 12 hours of onset of symptoms are offered primary percutaneous coronary intervention (PCI) within 120 minutes of the time when fibrinolysis could have been given.

## 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?

### ***Questions about the individual quality statements***

**Question 3** For draft quality statement 4: Is 24 hours an acceptable time frame for coronary angiography (with follow-on percutaneous coronary intervention (PCI) if indicated) for adults with NSTEMI or unstable angina who are clinically unstable or at high ischaemic risk?

## Quality statement 1: Diagnosis of myocardial infarction

### ***Quality statement***

Adults with a suspected acute coronary syndrome have a diagnosis of myocardial infarction made according to the universal definition of myocardial infarction.

### ***Rationale***

Acute myocardial infarction can have a poor prognosis so prompt and accurate diagnosis is important to ensure that appropriate treatment and care is offered as soon as possible. Accurate diagnosis is also important to ensure that people with other types of acute coronary syndrome do not continue inappropriate treatment and are not offered inappropriate interventions.

### ***Quality measures***

#### **Structure**

Evidence of local arrangements to ensure that adults with a suspected acute coronary syndrome only have a diagnosis of myocardial infarction made according to the universal definition of myocardial infarction.

**Data source:** Local data collection.

#### **Process**

Proportion of adults with a diagnosis of myocardial infarction who had their diagnosis made according to the universal definition of myocardial infarction.

Numerator – the number of people in the denominator who had their diagnosis made according to the universal definition of myocardial infarction.

Denominator – the number of adults with a diagnosis of myocardial infarction.

**Data source:** Local data collection.

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

**Service providers** ensure that they raise awareness among healthcare professionals of the universal definition of myocardial infarction. Providers should also ensure that local protocols are in place for adults with a suspected acute coronary syndrome to have a diagnosis of myocardial infarction made according to the universal definition.

**Healthcare professionals** ensure that they use the universal definition of myocardial infarction to diagnose myocardial infarction in adults with a suspected acute coronary syndrome.

**Commissioners** ensure that they commission services with expertise in using the universal definition of myocardial infarction to diagnose myocardial infarction in adults with a suspected acute coronary syndrome.

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

**Adults with chest pain that might be a heart attack** (a suspected acute coronary syndrome) are only given a diagnosis of heart attack if their signs and symptoms meet an agreed definition.

### ***Source guidance***

- Chest pain of recent onset (NICE clinical guideline 95) recommendation [1.2.6.1](#).

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

#### **Universal definition of myocardial infarction**

A rise in cardiac biomarkers (preferably cardiac troponin) with at least 1 value above the 99th percentile of the upper reference limit and/or a fall in cardiac biomarkers, together with at least 1 of the following:

- symptoms of ischaemia
- ECG changes indicating new ischaemia (new ST-segment-T wave changes or new left bundle branch block)

- pathological Q wave changes in the ECG
- imaging evidence of new loss of viable myocardium or new regional wall motion abnormality.

[adapted from [NICE clinical guideline 95](#), recommendation 1.2.6.1]

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

Symptoms of acute coronary syndromes should be assessed in the same way in men and women and among people from different ethnic groups.

## Quality statement 2: Risk assessment for adults with NSTEMI or unstable angina

### ***Quality statement***

Adults with NSTEMI or unstable angina are assessed for their risk of future adverse cardiovascular events using an established risk scoring system that predicts 6-month mortality to guide clinical management.

### ***Rationale***

Assessing and categorising risk of future adverse cardiovascular events by formal risk assessment in people who have been diagnosed with NSTEMI or unstable angina is important for determining early management strategies. It also allows the benefits of treatment to be balanced against the risks of treatment-related adverse events. Failure to categorise future risk can lead to people being given inappropriate treatment.

### ***Quality measures***

#### **Structure**

Evidence of local arrangements to ensure that adults with NSTEMI or unstable angina are assessed for their risk of future cardiovascular events using an established risk scoring system that predicts 6-month mortality to guide clinical management.

***Data source:*** Local data collection.

#### **Process**

Proportion of adults with NSTEMI or unstable angina who are assessed for their risk of future cardiovascular events using an established risk scoring system that predicts 6-month mortality.

Numerator – the number of people in the denominator who are assessed for their risk of future cardiovascular events using an established risk scoring system that predicts 6-month mortality.

Denominator – the number of adults with NSTEMI or unstable angina.

**Data source:** Local data collection. Contained within [NICE clinical guideline 94 clinical audit tool](#), criterion 1.

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

**Service providers** ensure that local pathways are in place for adults with NSTEMI or unstable angina to be assessed for their risk of future adverse cardiovascular events using an established risk scoring system. Providers should also raise awareness among healthcare professionals of the importance of risk assessment in guiding clinical management.

**Healthcare professionals** ensure that they assess the risk of future adverse cardiovascular events in adults with NSTEMI or unstable angina using an established risk scoring system that predicts 6-month mortality to guide clinical management.

**Commissioners** ensure that they commission services with the capacity and expertise to assess the risk of future adverse cardiovascular events in adults with NSTEMI or unstable angina using established risk scoring systems.

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

**Adults with a type of heart attack called NSTEMI or with chest pain that keeps coming back (unstable angina)** have their risk of another heart attack or a stroke estimated to guide their treatment.

### ***Source guidance***

- Unstable angina and NSTEMI (NICE clinical guideline 94) recommendation [1.2.1 and 1.2.4](#).

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

### **Assessment for risk of future adverse cardiovascular events**

Individual risk of future adverse cardiovascular events should be formally assessed using an established risk scoring system that predicts 6-month mortality (for example, Global Registry of Acute Cardiac Events [GRACE]).

The formal risk assessment should include:

- a full clinical history (including age, previous myocardial infarction and previous percutaneous coronary intervention or coronary artery bypass grafting)
- a physical examination (including measurement of blood pressure and heart rate)
- resting 12-lead ECG (looking particularly for dynamic or unstable patterns that indicate myocardial ischaemia)
- blood tests (such as troponin I or T, creatinine, glucose and haemoglobin).

[NICE clinical guideline 94, recommendations 1.2.1 and 1.2.2]

### **Categories for risk of future adverse cardiovascular events**

Using 6-month mortality, the categories for the risk of future adverse cardiovascular events are:

| <b>Predicted 6-month mortality</b> | <b>Risk of future adverse cardiovascular events</b> |
|------------------------------------|---|
| 1.5% or below                      | Lowest  |
| >1.5 to 3.0%                       | Low   |
| >3.0 to 6.0%                       | Intermediate  |
| >6.0 to 9.0%                       | High  |
| Over 9.0%                          | Highest   |

[[NICE clinical guideline 94](#), recommendation 1.2.5]

## **Quality statement 3: Coronary angiography and percutaneous coronary intervention within 96 hours for NSTEMI or unstable angina**

### ***Quality statement***

Adults with NSTEMI or unstable angina who have an intermediate or higher risk of future adverse cardiovascular events are offered coronary angiography (with follow-on percutaneous coronary intervention (PCI) if indicated) within 96 hours of first admission to hospital.

### ***Rationale***

Coronary angiography is important to define the extent and severity of coronary disease. In people with an intermediate or higher risk of future adverse cardiovascular events, early coronary angiography within 96 hours of admission gives advantages over an initial conservative strategy, provided there are no contraindications to angiography (such as active bleeding or comorbidity). In these people, coronary angiography (with follow-on percutaneous intervention if needed) should be done as soon as possible.

### ***Quality measures***

#### **Structure**

Evidence of local arrangements to ensure that adults with NSTEMI or unstable angina who have an intermediate or higher risk of future adverse cardiovascular events are offered coronary angiography (with follow on PCI if indicated) within 96 hours of first admission to hospital.

***Data source:*** Local data collection.

#### **Process**

Proportion of adults with NSTEMI or unstable angina who have an intermediate or higher risk of future adverse cardiovascular events who receive coronary

angiography (with follow-on PCI if indicated) within 96 hours of first admission to hospital.

Numerator – the number of people in the denominator receiving coronary angiography (with follow-on PCI if indicated) within 96 hours.

Denominator – the number of adults with NSTEMI or unstable angina admitted to hospital with an intermediate or higher risk of adverse cardiovascular events.

**Data source:** Local data collection. Contained within [NICE clinical guideline 94 clinical audit tool](#), criterion 9.

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

**Service providers** ensure that local pathways are in place for adults with NSTEMI or unstable angina who have an intermediate or higher risk of future adverse cardiovascular events to be offered coronary angiography (with follow-on PCI if indicated) within 96 hours of first admission to hospital.

**Healthcare professionals** ensure that they offer adults with NSTEMI or unstable angina who have an intermediate or higher risk of future adverse cardiovascular events, coronary angiography (with follow-on PCI if indicated) within 96 hours of first admission to hospital.

**Commissioners** ensure that they commission services with the capacity and expertise to offer adults with NSTEMI or unstable angina who have an intermediate or higher risk of future adverse cardiovascular events, coronary angiography (with follow-on PCI if indicated) within 96 hours of first admission to hospital.

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

**Adults with a type of heart attack called NSTEMI or with chest pain that keeps coming back (unstable angina) who have a medium or higher risk of another heart attack or a stroke** are offered a test called coronary angiography (with widening of narrowed artery if needed) within 96 hours of being admitted to hospital.

### ***Source guidance***

- Unstable angina and NSTEMI (NICE clinical guideline 94) recommendation [1.5.1](#).

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

#### **Intermediate or higher risk of future adverse cardiovascular events**

Defined as a predicted 6-month mortality above 3.0%. [NICE clinical guideline 94 recommendation 1.5.1]

## **Quality statement 4: Coronary angiography and percutaneous coronary intervention for adults with NSTEMI or unstable angina who are clinically unstable or at high ischaemic risk**

### ***Quality statement***

Adults with NSTEMI or unstable angina who are clinically unstable or at high ischaemic risk are offered coronary angiography (with follow-on percutaneous coronary intervention (PCI) if indicated) as soon as possible after first admission to hospital.

### ***Rationale***

Coronary angiography is important to define the extent and severity of coronary disease. The benefits of an early invasive strategy appear to be greatest in people at higher risk of future adverse cardiovascular events. In people with NSTEMI or unstable angina who are clinically unstable or at high ischaemic risk, coronary angiography (with follow-on PCI if indicated) should be done as soon as possible so that appropriate treatment can be given, lengthy hospital stays can be avoided and further cardiovascular events prevented in both the short and long term.

### ***Quality measures***

#### **Structure**

Evidence of local arrangements to ensure that adults with NSTEMI or unstable angina who are clinically unstable or at high ischaemic risk are offered coronary angiography (with follow-on PCI if indicated) as soon as possible after first admission to hospital.

***Data source:*** Local data collection.

#### **Process**

Proportion of adults with NSTEMI or unstable angina who are clinically unstable or at high ischaemic risk who receive coronary angiography (with follow-on PCI if indicated) within 24 hours of first admission to hospital.

Numerator – the number of people in the denominator receiving coronary angiography (with follow-on PCI if indicated) within 24 hours.

Denominator – the number of adults with NSTEMI or unstable angina who are clinically unstable or at high ischaemic risk and are admitted to hospital.

**Data source:** Local data collection.

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

**Service providers** ensure that local pathways are in place for adults with NSTEMI or unstable angina who are clinically unstable or at high ischaemic risk to be offered coronary angiography (with follow-on PCI if indicated) as soon as possible after first admission to hospital.

**Healthcare professionals** ensure that they offer adults with NSTEMI or unstable angina who are clinically unstable or at high ischaemic risk, coronary angiography (with follow-on PCI if indicated) as soon as possible after first admission to hospital.

**Commissioners** ensure that they commission services with the capacity and expertise for adults with NSTEMI or unstable angina who are clinically unstable or at high ischaemic risk to be offered coronary angiography (with follow-on PCI if indicated) as soon as possible after first admission to hospital.

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

**Adults with a type of heart attack called NSTEMI or with chest pain that keeps coming back (unstable angina) and whose condition is unstable or likely to get worse quickly** are offered a test called coronary angiography (with widening of the narrowed artery if needed) as soon as possible.

### ***Source guidance***

- Unstable angina and NSTEMI (NICE clinical guideline 94) recommendation [1.5.1](#).

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

### **As soon as possible**

This is defined as within 24 hours. [Expert opinion]

### **Clinically unstable**

People who are clinically unstable are those with recurrent ischaemia. [Expert opinion]

### **High ischaemic risk**

People at high ischaemic risk are defined as those with:

- ongoing or recurring pain, believed to be ischaemic, despite treatment
- haemodynamic instability (low blood pressure, shock)
- dynamic ECG changes
- left ventricular failure.

[Expert opinion]

### ***Question for consultation***

Is 24 hours an acceptable time frame for coronary angiography (with follow-on percutaneous coronary intervention (PCI) if indicated) for adults with NSTEMI or unstable angina who are clinically unstable or at high ischaemic risk?

## Quality statement 5: Primary percutaneous coronary intervention for acute STEMI

### ***Quality statement***

Adults with acute STEMI who present within 12 hours of onset of symptoms are offered primary percutaneous coronary intervention (PCI) within 120 minutes of the time when fibrinolysis could have been given.

### ***Rationale***

Primary PCI is a form of reperfusion therapy which should be done as quickly as possible. This is because heart muscle starts to be lost once a coronary artery is blocked and the sooner reperfusion therapy is delivered the better the outcome for the patient. If too much time elapses before PCI is delivered, then the benefits may be lost.

### ***Quality measures***

#### **Structure**

- a) Evidence of local arrangements to ensure that adults with acute STEMI who present within 12 hours of onset of symptoms are offered primary PCI within 120 minutes of the time when fibrinolysis could have been given.

***Data source:*** Local data collection.

- b) Evidence of local arrangements to ensure that adults with acute STEMI have access to primary percutaneous coronary intervention 24 hours a day.

***Data source:*** Local data collection.

- c) Evidence of a single reperfusion care pathway.

***Data source:*** Local data collection.

## **Process**

Proportion of adults with acute STEMI who present within 12 hours of onset of symptoms who receive primary PCI within 150 minutes of the call for professional help.

Numerator – the number of people in the denominator receiving primary PCI within 150 minutes of the call for professional help.

Denominator – the number of adults with acute STEMI who present within 12 hours of onset of symptoms.

**Data source:** [Myocardial Ischaemia National Audit Project \(MINAP\)](#) and [National audit of percutaneous coronary interventional procedures \(BCIS\)](#) collect data on the time to primary PCI.

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

**Service providers** ensure that local pathways are in place for adults with acute STEMI who present within 12 hours of the onset of symptoms to be offered primary PCI within 120 minutes of when fibrinolysis could have been given.

**Healthcare professionals** ensure that they offer primary PCI within 120 minutes of when fibrinolysis could have been given to adults with acute STEMI who present within 12 hours of the onset of symptoms.

**Commissioners** ensure that they commission services that have the capacity and expertise to provide primary PCI within 120 minutes of when fibrinolysis could have been given to adults with acute STEMI who present within 12 hours of onset of symptoms at any time of day including weekends, evenings and overnight.

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

**Adults with a type of heart attack called STEMI whose symptoms started no more than 12 hours before first contacting a healthcare professional** are offered a procedure to open the narrowed or blocked artery (called percutaneous coronary

intervention or PCI) within 120 minutes of when they could have received fibrinolysis ('clot-busting' drug).

### **Source guidance**

- Myocardial infarction with ST-segment elevation (NICE clinical guideline 167), recommendation [1.1.4](#).

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

#### **Time to fibrinolysis**

This is defined as 30 minutes from a call for help. [Expert opinion]

## Status of this quality standard

This is the draft quality standard released for consultation from 11 April to 13 May 2014. It is not NICE's final quality standard on acute coronary syndromes (including myocardial infarction). 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 13 May 2014. 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 2014.

## 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 people with acute coronary syndromes 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 acute coronary syndromes 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.

- [Myocardial infarction with ST-segment elevation](#). NICE clinical guideline 167 (2013).
- [Chest pain of recent onset](#). NICE clinical guideline 95 (2010).
- [Unstable angina and NSTEMI](#). NICE clinical guideline 94 (2010).

## ***Policy context***

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

- [Cardiovascular disease outcomes strategy](#). Department of Health (2013).
- [How the NHS cares for patients with heart attack. Annual public report April 2012–March 2013](#). Myocardial Ischaemia National Audit Project (MINAP) (2013).
- [Together for health – a heart disease delivery plan](#). Welsh Government (2013).
- [National audit of percutaneous coronary interventional procedures. Annual report 2011](#). British Cardiovascular Intervention Society (2013).
- [The cardiac disease national service framework for Wales](#). Welsh Government (2009).

## ***Definitions and data sources for the quality measures***

- Myocardial Ischaemia National Audit Project (MINAP) (2013) [How the NHS cares for patients with heart attack. Annual public report April 2012–March 2013](#).

## **Related NICE quality standards**

### ***Published***

- [Smoking cessation: supporting people to stop smoking](#). NICE quality standard 43 (2013).
- [Familial hypercholesterolaemia](#). NICE quality standard 41 (2013).
- [Hypertension](#). NICE quality standard 28 (2013).

- [Stable angina](#). NICE quality standard 21 (2012).
- [Patient experience in adult NHS services](#). NICE quality standard 15 (2012).

### ***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:

- Acute medical admissions in the first 48 hours.
- Lipid modification.
- Medicines optimisation (covering medicines adherence and safe prescribing).
- Obesity (adults).
- Obesity: prevention and management in adults.
- Physical activity.
- Risk assessment of modifiable cardiovascular risk factors.
- Secondary prevention of myocardial infarction and cardiac rehabilitation.
- Seven day working.
- Urgent and emergency care.

## **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**

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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](#).

This quality standard will be incorporated into the [NICE pathway for acute coronary syndromes](#).

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