

# NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

## Guideline scope

### Acute coronary syndromes (unstable angina, NSTEMI and STEMI): management and secondary prevention (update)

This guideline will update and amalgamate the NICE guidelines on:

- unstable angina and myocardial infarction with non ST-segment elevation (NSTEMI): early management (CG94)
- myocardial infarction with ST-segment elevation (STEMI): acute management (CG167)
- myocardial infarction: cardiac rehabilitation (CG172).

It will incorporate the NICE guideline on hyperglycaemia in acute coronary syndromes: management (CG130).

For information on which areas will be covered by this update, see the [proposed outline for the guideline](#).

The guideline will be developed using the methods and processes outlined in [Developing NICE guidelines: the manual](#).

This guideline will also be used to update the NICE [quality standards](#) for acute coronary syndromes in adults and secondary prevention after a myocardial infarction.

## 1 Why the update is needed

New evidence that could affect recommendations was identified through the surveillance process. Topic experts, including those who helped to develop the existing guidelines, advised NICE on whether areas should be updated or new areas added. Full details are set out in the surveillance review decisions for [CG94](#), [CG167](#), [CG172](#) and [CG130](#).

## ***Why the guideline is needed***

Acute coronary syndromes due to ischaemic heart disease remain a significant cause of morbidity and mortality. In 2015, heart disease remained the leading cause of death in men and second most-common cause of death in women in England. In 2015/16, more than 58,000 people were admitted to hospital in England with a heart attack. Although many more people now survive than in the past, there remains considerable scope to reduce their future risk of death, angina, heart failure and further heart attack.

National audits continue to show variation in practice across the UK in the treatments offered for acute coronary syndromes. This, combined with evidence of novel ways of treating acute coronary syndromes and updates to existing treatments, indicates a need for an updated guideline that will help deliver best practice to the large number of people treated for acute coronary syndromes by the NHS.

## **2 Who the guideline is for**

This guideline is for:

- Healthcare professionals
- Commissioners and providers
- People with acute coronary syndromes, their families and carers.

NICE guidelines cover health and care in England. Decisions on how they apply in other UK countries are made by ministers in the [Welsh Government](#), [Scottish Government](#) and [Northern Ireland Executive](#).

### ***Equality considerations***

NICE has carried out [an equality impact assessment](#) during scoping. The assessment:

- lists equality issues identified, and how they have been addressed
- explains why any groups are excluded from the scope.

The guideline will consider whether there are inequalities relating to geographic distance of residence from a centre offering urgent percutaneous coronary interventions.

### **3 What the updated guideline will cover**

#### **3.1 *Who is the focus?***

##### **Groups that will be covered**

- Adults (18 and over) with acute coronary syndromes.

No subgroups of people have been identified as needing specific consideration.

##### **Groups that will not be covered**

- Children and young people (younger than 18).
- People with acute heart failure not due to acute coronary syndrome.
- People with chest pain that is not thought to be due to acute coronary syndrome (undifferentiated chest pain)
- People with type 2 myocardial infarction (heart attacks not caused by acute coronary syndromes).

#### **3.2 *Settings***

##### **Settings that will be covered**

This guideline update will cover the early management of acute coronary syndromes in secondary and tertiary care (including ambulance services) and secondary prevention in primary and secondary care.

#### **3.3 *Activities, services or aspects of care***

##### **Key areas that will be covered in this update**

We will look at evidence in the areas below when developing this update. We will consider making new recommendations or updating existing recommendations in these areas only.

- 1 Initial choice of antiplatelet agents for adults with unstable angina, NSTEMI or STEMI.
- 2 Early invasive angiography with revascularisation compared with conservative treatment with later angiography for adults with unstable angina or NSTEMI.
- 3 Antithrombin therapy for adults with unstable angina or NSTEMI being considered for percutaneous coronary intervention within 24 hours of admission, or with STEMI undergoing primary percutaneous intervention.
- 4 Culprit-vessel only compared with complete revascularisation in adults with STEMI and multi-vessel coronary disease undergoing primary percutaneous coronary intervention.
- 5 Drug-eluting stents in adults with acute coronary syndromes, including those with unstable angina or NSTEMI undergoing percutaneous coronary intervention and those with STEMI undergoing primary percutaneous coronary intervention.
- 6 Optimal combination of antiplatelet and anticoagulant therapies for people who have had an ACS and have an indication for anticoagulation
- 7 Duration of therapy with beta-blockers for adults without left ventricular dysfunction after a myocardial infarction.

Note that the guideline recommendations for medicines will normally fall within licensed indications; exceptionally, and only if clearly supported by evidence, use outside a licensed indication may be recommended. The guideline will assume that prescribers will use a medicine's summary of product characteristics to inform decisions made with individual patients.

### **Proposed outline for the guideline**

The table below outlines all the areas that will be included in the guideline. It sets out what NICE plans to do for each area in this update.

Area of care (headings taken from existing guidelines)	What NICE plans to do
Unstable angina and NSTEMI (CG94): provision of information	No evidence review: amend recommendations if needed to fit with other parts of the update
Unstable angina and NSTEMI (CG94): assessment of risk of future adverse cardiovascular events	No evidence review: amend recommendations if needed to fit with other parts of the update
Unstable angina and NSTEMI (CG94): antiplatelet therapy	Review evidence: update existing recommendations as needed
Unstable angina and NSTEMI (CG94): antithrombin therapy	Review evidence: update existing recommendations as needed
Unstable angina and NSTEMI (CG94): early invasive versus conservative management	Review evidence: update existing recommendations as needed
Unstable angina and NSTEMI (CG94): drug-eluting stents	Review evidence: new area in the guideline (update of TA152)
Unstable angina and NSTEMI (CG94): percutaneous coronary intervention versus coronary artery bypass grafting	No evidence review: amend recommendations if needed to fit with other parts of the update
Unstable angina and NSTEMI (CG94): testing for ischaemia, assessing left ventricular function, rehabilitation and discharge planning	No evidence review: amend recommendations if needed to fit with other parts of the update
Myocardial infarction with ST-segment elevation (CG167): coronary reperfusion therapy	No evidence review: amend recommendations if needed to fit with other parts of the update
Myocardial infarction with ST-segment elevation (CG167): drug-eluting stents	Review evidence: new area in the guideline (update of TA152)
Myocardial infarction with ST-segment elevation (CG167): antithrombin therapy	Review evidence: update existing recommendations as needed (including update of TA230)
Myocardial infarction with ST-segment elevation (CG167): culprit vessel versus complete revascularisation	Review evidence: update existing recommendations as needed
Myocardial infarction with ST-segment elevation (CG167): provision of information	No evidence review: amend recommendations if needed to fit with other parts of the update
Myocardial infarction with ST-segment elevation (CG167): service provision	No evidence review: amend recommendations if needed to fit with other parts of the update
Myocardial infarction: cardiac rehabilitation (CG172): cardiac rehabilitation after acute MI	No evidence review: amend recommendations if needed to fit with other parts of the update
Myocardial infarction: cardiac rehabilitation (CG172): lifestyle changes after an MI	No evidence review: amend recommendations if needed to fit with other parts of the update

Myocardial infarction: cardiac rehabilitation (CG172): drug therapy	Review evidence on beta-blockers and combinations of antiplatelets and anticoagulants in people with an indication for anticoagulation: update existing recommendations as needed
Myocardial infarction: cardiac rehabilitation (CG172): coronary revascularisation after an MI	No evidence review: amend recommendation if needed to fit with other updated guidance
Myocardial infarction: cardiac rehabilitation (CG172): selected patient subgroups	No evidence review: amend recommendations if needed to fit with other updated guidance
Myocardial infarction: cardiac rehabilitation (CG172): communication of diagnosis and advice	No evidence review: retain recommendations from existing guideline
Hyperglycaemia in acute coronary syndromes (CG130): management in inpatients within 48 hours of ACS	No evidence review: incorporate recommendations
Hyperglycaemia in acute coronary syndromes (CG130): identifying patients at high risk of developing diabetes	No evidence review: incorporate recommendations
Hyperglycaemia in acute coronary syndromes (CG130): advice and monitoring for patients without known diabetes	No evidence review: incorporate recommendations

Recommendations in areas that are being retained from the existing guideline may be edited to ensure that they meet current editorial standards, and reflect the current policy and practice context. Links to other NICE guidance in the recommendations will be updated as required.

### Areas not covered by the guideline

These areas will not be covered by the guideline.

1. The diagnosis of myocardial infarction (this is covered in a separate NICE guideline on [chest pain of recent onset \(CG95\)](#)).

### ***NICE guidance that will be updated by this guideline***

- [Myocardial infarction: cardiac rehabilitation](#) (2013) NICE guideline CG172
- [Myocardial infarction with ST-segment elevation: acute management](#) (2013) NICE guideline CG167
- [Bivalirudin for the treatment of ST-segment-elevation myocardial infarction](#) (2011) NICE technology appraisal guidance 230

It is proposed that this guideline will update all recommendations from TA230, subject to a review proposal by the technology appraisals programme.

- [Unstable angina and NSTEMI: early management](#) (2010) NICE guideline CG94
- [Drug-eluting stents for the treatment of coronary artery disease](#) (2008) NICE technology appraisal guidance 152 (with regard to acute coronary syndromes population only)

***NICE guidance that will be partially updated in this guideline***

- [Guidance on the use of coronary artery stents](#) (2008) NICE technology appraisal guidance 71 (recommendations 1.2, 1.3 and 1.4 will be updated)

***NICE guidance that will be incorporated and contextualised in this guideline***

- [Prasugrel with percutaneous coronary intervention for treating acute coronary syndromes](#) (2014) NICE technology appraisal guidance 317
- [Ticagrelor for the treatment of acute coronary syndromes](#) (2011) NICE technology appraisal guidance 236

***NICE guidance that will be incorporated unchanged in this guideline***

- [Hyperglycaemia in acute coronary syndromes: management](#) (2011) NICE guideline CG130
- [Rivaroxaban for preventing adverse outcomes after acute management of acute coronary syndrome](#) (2015) NICE technology appraisal guidance 335

It is proposed that this guideline will incorporate all recommendations from TA335, subject to a review proposal by the technology appraisals programme.

**Related NICE guidance**

- [Ticagrelor for preventing atherothrombotic events after myocardial infarction](#) (2016) NICE technology appraisal guidance 420
- [Clopidogrel and modified-release dipyridamole for the prevention of occlusive vascular events](#) (2010) NICE technology appraisal guidance 210

- [SeQuent Please balloon catheter for in-stent coronary restenosis](#) (2010) NICE medical technologies guidance MTG1
- [Guidance on the use of drugs for early thrombolysis in the treatment of acute myocardial infarction](#) (2002) NICE technology appraisal guidance 52
- [Guidance on the use of glycoprotein IIb/IIIa inhibitors in the treatment of acute coronary syndromes](#) (updated 2010, first published 2002) NICE technology appraisal guidance 47

### **NICE guidance about the experience of people using NHS services**

NICE has produced the following guidance on the experience of people using the NHS. This guideline will not include additional recommendations on these topics unless there are specific issues related to acute coronary syndromes:

- [Multimorbidity](#) (2016) NICE guideline NG56
- [Medicines optimisation](#) (2015) NICE guideline NG5
- [Patient experience in adult NHS services](#) (2012) NICE guideline CG138
- [Medicines adherence](#) (2009) NICE guideline CG76

### **3.4 Economic aspects**

We will take economic aspects into account when making recommendations. For each review question (or key area in the scope) for which the evidence is being reviewed, we will develop an economic plan that states whether economic considerations are relevant, and if so whether this is an area that should be prioritised for economic modelling and analysis. We will review the economic evidence and where appropriate carry out economic analyses, using an NHS and personal social services perspective.

### **3.5 Key issues and questions**

While writing the scope for this updated guideline, we have identified the following key issues and key questions related to them. The questions may be used to develop more detailed review questions, which guide the systematic review of the literature.

- 1 Initial antiplatelet therapy in adults with acute coronary syndromes including unstable angina or NSTEMI and STEMI.



- 1.1 Which antiplatelet is most clinically and cost effective for managing unstable angina or NSTEMI or for managing STEMI in adults?
- 2 Management strategies in adults with unstable angina or NSTEMI.
  - 2.1 In adults with unstable angina or NSTEMI does early invasive investigation (angiography), with intent to assess for (and in those deemed suitable, to perform) revascularisation, improve outcomes compared with initial conservative treatment, with or without later angiography?
- 3 Antithrombin therapy in adults with unstable angina or NSTEMI or with STEMI.
  - 3.1 What is optimal choice of antithrombin therapy in adults with unstable angina or NSTEMI who are being considered for coronary angiography within 24 hours of admission?
  - 3.2 What is the clinical and cost effectiveness of bivalirudin as adjunctive pharmacotherapy in adults with STEMI undergoing primary percutaneous coronary intervention?
- 4 Culprit-vessel only versus complete revascularisation in adults with STEMI undergoing primary percutaneous coronary intervention.
  - 4.1 What is the clinical and cost effectiveness of multi-vessel percutaneous coronary intervention compared with culprit-vessel only primary percutaneous coronary intervention in adults with STEMI and multi-vessel coronary disease?
- 5 Drug-eluting stents in adults with acute coronary syndromes.
  - 5.1 What is the clinical and cost effectiveness of drug-eluting stents in adults with acute coronary syndromes, including those with unstable angina or NSTEMI undergoing percutaneous coronary intervention and those with STEMI undergoing primary percutaneous coronary intervention?
- 6 Combinations of antiplatelets and anticoagulants in people who have had an acute coronary syndrome and an indication for anticoagulation
  - 6.1 What is the most clinically and cost effective combination of antiplatelet and anticoagulant therapies for people who have had an ACS and an indication for anticoagulation?
- 7 Beta-blocker therapy after a myocardial infarction.

7.1 What is the optimal duration of beta-blocker therapy to improve outcomes for adults without left ventricular dysfunction after myocardial infarction?

### **3.6 Main outcomes**

The main outcomes that will be considered when searching for and assessing the evidence are:

- mortality (all-cause and cardiovascular)
- adverse events, including minor and major bleeding
- length of hospital stay
- reinfarction
- revascularisation
- restenosis
- stroke
- health-related quality of life

## **4 NICE quality standards and NICE Pathways**

### **4.1 NICE quality standards**

**NICE quality standards that may need to be revised or updated when this guideline is published**

- [Secondary prevention after a myocardial infarction](#) (2015) NICE quality standard 99
- [Acute coronary syndromes in adults](#) (2014) NICE quality standard 68

### **4.2 NICE Pathways**

When this guideline is published, we will update the NICE Pathways on [chest pain](#), [hyperglycaemia in acute coronary syndromes](#), [myocardial infarction with ST-segment elevation](#) and [myocardial infarction: rehabilitation and preventing further cardiovascular disease](#), which bring together everything we have said on acute coronary syndromes in interactive flowcharts.

## 5 Further information

This is the final scope, which takes into account comments from registered stakeholders during consultation.

The guideline is expected to be published in May 2020.

You can follow [progress of the guideline](#).

Our website has information about [how NICE guidelines are developed](#).