



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

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

9 National audits continue to show wide variations in practice across the UK in  
10 both the treatments offered for acute coronary syndromes and how they are  
11 delivered. This, combined with evidence of novel ways of treating acute  
12 coronary syndromes and updates to existing treatments, indicates a need for  
13 an updated guideline that will help deliver best practice to the large number of  
14 people treated for acute coronary syndromes by the NHS.

## 15 **2 Who the guideline is for**

16 This guideline is for:

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

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

## 23 ***Equality considerations***

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

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

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

## 4 **3 What the updated guideline will cover**

### 5 **3.1 Who is the focus?**

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

- 7 • Adults (18 and over) with acute coronary syndromes.
- 8 No subgroups of people have been identified as needing specific
- 9 consideration.

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

- 11 • Children and young people (younger than 18).
- 12 • People with acute heart failure not due to acute coronary syndrome.
- 13 • People with chest pain that is not thought to be due to acute coronary
- 14 syndrome (undifferentiated chest pain)
- 15 • People with type 2 myocardial Infarction (heart attacks not caused by acute
- 16 coronary syndromes).

### 17 **3.2 Settings**

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

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

### 22 **3.3 Activities, services or aspects of care**

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

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

- 1 1 Choice of antiplatelet agents in unstable angina or NSTEMI and in  
2 STEMI.
- 3 2 Early invasive angiography with revascularisation compared with  
4 conservative treatment with later angiography for adults with unstable  
5 angina or NSTEMI.
- 6 3 Antithrombin therapy for adults with unstable angina or NSTEMI being  
7 considered for percutaneous coronary intervention within 24 hours of  
8 admission, or with STEMI undergoing primary percutaneous intervention.
- 9 4 Culprit-vessel only compared with complete revascularisation in adults  
10 with STEMI and multi-vessel coronary disease undergoing primary  
11 percutaneous coronary intervention.
- 12 5 Drug-eluting stents in adults with acute coronary syndromes, including  
13 those with unstable angina or NSTEMI undergoing percutaneous  
14 coronary intervention and those with STEMI undergoing primary  
15 percutaneous coronary intervention.
- 16 6 Duration of therapy with beta-blockers for adults without left ventricular  
17 dysfunction after a myocardial infarction.

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

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

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

Area of care	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 (possible 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 (possible 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: 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

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2 Recommendations in areas that are being retained from the existing guideline  
3 may be edited to ensure that they meet current editorial standards, and reflect  
4 the current policy and practice context.

### 5 **Areas not covered by the guideline**

6 These areas will not be covered by the guideline.

7 1. The diagnosis of myocardial infarction.

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

- 9 • [Myocardial infarction: cardiac rehabilitation](#) (2013) NICE guideline CG172
- 10 • [Myocardial infarction with ST-segment elevation: acute management](#)
- 11 (2013) NICE guideline CG167
- 12 • [Bivalirudin for the treatment of ST-segment-elevation myocardial infarction](#)
- 13 (2011) NICE technology appraisal guidance 230

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

- 1 • [Unstable angina and NSTEMI: early management](#) (2010) NICE guideline  
2 CG94
- 3 • [Drug-eluting stents for the treatment of coronary artery disease](#) (2008)  
4 NICE technology appraisal guidance 152

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

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

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

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

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

- 15 • [Hyperglycaemia in acute coronary syndromes: management](#) (2011) NICE  
16 guideline CG130

17 **Related NICE guidance**

- 18 • [Ticagrelor for preventing atherothrombotic events after myocardial](#)  
19 [infarction](#) (2016) NICE technology appraisal guidance 420
- 20 • [Rivaroxaban for preventing adverse outcomes after acute management of](#)  
21 [acute coronary syndrome](#) (2015) NICE technology appraisal guidance 335
- 22 • [Clopidogrel and modified-release dipyridamole for the prevention of](#)  
23 [occlusive vascular events](#) (2010) NICE technology appraisal guidance 210
- 24 • [SeQuent Please balloon catheter for in-stent coronary restenosis](#) (2010)  
25 NICE medical technologies guidance MTG1
- 26 • [Guidance on the use of drugs for early thrombolysis in the treatment of](#)  
27 [acute myocardial infarction](#) (2002) NICE technology appraisal guidance 52
- 28 • [Guidance on the use of glycoprotein IIb/IIIa inhibitors in the treatment of](#)  
29 [acute coronary syndromes](#) (Updated 2010, first published 2002) NICE  
30 technology appraisal guidance 47

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

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

- 5 • [Medicines optimisation](#) (2015) NICE guideline NG5
- 6 • [Patient experience in adult NHS services](#) (2012) NICE guideline CG138
- 7 • [Medicines adherence](#) (2009) NICE guideline CG76

### 8 **3.4 Economic aspects**

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

### 16 **3.5 Key issues and questions**

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

21 1 Antiplatelet therapy in adults with acute coronary syndromes including  
22 unstable angina or NSTEMI and STEMI.

23 2.1 Which antiplatelet is most clinically and cost effective for managing  
24 unstable angina or NSTEMI or for managing STEMI in adults?

25 2 Management strategies in adults with unstable angina or NSTEMI.

26 3.1 In adults with unstable angina or NSTEMI does early invasive  
27 investigation (angiography), with intent to assess for (and in those  
28 deemed suitable, to perform) revascularisation, improve outcomes  
29 compared with initial conservative treatment, with or without later  
30 angiography?



- 1 3 Antithrombin therapy in adults with unstable angina or NSTEMI or with  
2 STEMI.
- 3 4.1 What is optimal choice of antithrombin therapy in adults with  
4 unstable angina or NSTEMI who are being considered for coronary  
5 angiography within 24 hours of admission?
- 6 4.2 What is the clinical and cost effectiveness of bivalirudin as adjunctive  
7 pharmacotherapy in adults with STEMI undergoing primary  
8 percutaneous coronary intervention?
- 9 4 Culprit-vessel only versus complete revascularisation in adults with  
10 STEMI undergoing primary percutaneous coronary intervention.
- 11 5.1 What is the clinical and cost effectiveness of multi-vessel  
12 percutaneous coronary intervention compared with culprit-vessel only  
13 primary percutaneous coronary intervention in adults with STEMI and  
14 multi-vessel coronary disease?
- 15 5 Drug-eluting stents in adults with acute coronary syndromes.
- 16 1.1 What is the clinical and cost effectiveness of drug-eluting stents  
17 in adults with acute coronary syndromes, including those with unstable  
18 angina or NSTEMI undergoing percutaneous coronary intervention and  
19 those with STEMI undergoing primary percutaneous coronary  
20 intervention?
- 21 6 Beta-blocker therapy after a myocardial infarction.
- 22 6.1 What is the optimal duration of beta-blocker therapy to improve  
23 outcomes for adults without left ventricular dysfunction after acute  
24 coronary syndromes?

### 25 **3.6 Main outcomes**

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

- 28 • mortality (all-cause and cardiovascular)
- 29 • adverse events, including minor and major bleeding
- 30 • length of hospital stay
- 31 • reinfarction
- 32 • revascularisation

- 1 • restenosis
- 2 • stroke
- 3 • health-related quality of life

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

### 5 **4.1 NICE quality standards**

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

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

### 11 **4.2 NICE Pathways**

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

## 17 **5 Further information**

This is the draft scope for consultation with registered stakeholders. The  
consultation dates are 19 February to 19 March.

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](#).

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