NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

SCOPE

1 Guideline title

Myocardial infarction: secondary prevention in primary and secondary care for patients following a myocardial infarction

1.1 Short title

MI: secondary prevention

2 The remit

This is a partial update of 'MI: secondary prevention', NICE clinical guideline 48 (2007). See section 4.3.1 for details of which sections will be updated. We will also carry out an editorial review of all recommendations to ensure that they comply with NICE's duties under equalities legislation.

This update is being undertaken as part of the guideline review cycle.

3 Clinical need for the guideline

3.1 Epidemiology

a) Myocardial infarction (MI) remains a common condition, despite recent falls in incidence. For men aged between 30 and 74 the incidence is about 174 per 100,000 per year in England and for women it is about 60 per 100,000. Across the United Kingdom there are a total of 124,000 MIs annually.

b) It is estimated that 1 million men and about 500,000 women living in the UK in 2010 have had an MI.

c) MI is a complication of coronary heart disease (CHD). CHD is a preventable and treatable disease. The death rate from CHD has

been falling since the early 1970s and for people aged below 75, rates have fallen by 44% between 1990 and 2010. In spite of these improvements, the UK death rate from CHD is relatively high when compared with that in western European countries. The age standardised death rate for men is 132 per 100,000 and 61 per 100,000 for women.

d) CHD death rates in the UK vary with age, gender, socioeconomic status and ethnicity, for example:

- in people younger than 75, death rates in men are nearly three times higher than in women
- death rates in affluent areas in the UK are half of those in deprived areas
- people of South Asian origin have a death rate almost 50% higher than the general population.

3.2 Current practice

a) Secondary prevention measures for MI have helped to significantly reduce mortality from coronary artery disease.

b) In England, 99% of people discharged after an MI receive aspirin, 96% beta blockers, 97% statins, 94% angiotensin-converting enzyme (ACE) inhibitors and 95% clopidogrel or another thienopyridine inhibitor on discharge. In Wales, 98% receive aspirin, 95% beta blockers, 95% statins, 91% ACE inhibitors and 92% clopidogrel or another thienopyridine inhibitor. These data reflect excellent provision of current evidence-based care for pharmacological agents.

c) In 2010/11 over 80% of STEMI patients who were eligible for reperfusion as part of their acute treatment strategy received primary PCI compared to less than 20% in 2006/7. In light of this significant change in the acute management of MI, there is now

uncertainty about the appropriateness of existing secondary prevention pharmacological treatment recommendations.

d) Cardiac rehabilitation programmes are not widely accessed, despite being consistently shown to reduce mortality rates in people with CHD. Cardiac rehabilitation is a coordinated programme of physical, psychological and social interventions to enable the person with CHD to preserve or resume optimal functioning in society.

e) Uptake of cardiac rehabilitation varies across the UK, and differs across socioeconomic and demographic groups. In 2008/09 only 39% of people who had an MI were referred for cardiac rehabilitation. In 2008/2009, 24% of patients referred to cardiac rehabilitation did not attend.

4 The guideline

The guideline development process is described in detail on the NICE website (see section 6, 'Further information').

This scope defines what the guideline update will (and will not) examine, and what the guideline developers will consider.

The areas that will be addressed by the guideline update are described in the following sections.

4.1 Population

4.1.1 Groups that will be covered in the update

a) Adults (18 years and older).

b) People who have had an MI (type 1 according to the universal definition). This will include those not yet discharged from hospital, where relevant and those found to have had a proven MI in the past.

c) Specific consideration will be given to the needs of populations thought to have reduced adherence to cardiac rehabilitation programmes. These include people from South Asian communities, black and minority ethnic groups, low socioeconomic groups or rural communities; people with physical and learning disabilities; women; and people with anxiety and/or depression.

4.1.2 Groups that will not be covered

a) Children and young people (younger than 18).

b) Patients diagnosed as having a type 2, 3, 4a, 4b or 5 MI according to the universal definition of myocardial infarction.

4.2 Healthcare setting

a) Primary care and hospital settings, excluding early acute care and accident and emergency departments.

b) Care from healthcare professionals who have direct contact with people after the early acute phase of an MI. The guideline will also be relevant to people working in occupational health services and the voluntary sector, although specific recommendations on their practice will not be made.

4.3 Clinical management

4.3.1 Key clinical issues that will be covered

Areas from the original guideline that will be updated

a) Interventions to increase uptake and adherence to cardiac rehabilitation programmes.

b) Fish diet and omega-3-acid ethyl esters.

c) Pharmacological interventions, including:

- ACE inhibitors, including:
  - Dose titration

- Antiplatelet agents, including:
  - initiating agents after the acute phase
  - duration of therapy
  - duration of therapy after stenting

- Antiplatelet therapy in those with an indication for anticoagulation (e.g., atrial fibrillation)

- Beta blockers

- Angiotensin receptor blockers, including:

  - in patients with a proven past MI without heart failure and with preserved left ventricular function

Note that guideline recommendations 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 drug's summary of product characteristics to inform decisions made with individual patients.

d) Mapping and review of recommendations in relation to more recent NICE guidance (see section 5.1.1)

Areas that were not part of the original guideline but will be included in the update

e) Factors affecting uptake and adherence to cardiac rehabilitation programmes, including both patient and healthcare-provider factors

4.3.2 Clinical issues that will not be covered

Areas from the original guideline that will not be updated

No new evidence has been identified to change the 2007 recommendations on:

a) Lifestyle, except fish diet and omega-3-acid ethyl esters.

b) Cardiac rehabilitation, excluding those areas in 4.3.1 a

c) Coronary revascularisation.

d) Hypertension.

e) Left ventricular dysfunction.

f) Communication of diagnosis and advice.

g) Potassium channel activators

h) Calcium channel blockers

i) Aldosterone antagonists

Areas that will be removed

j) Recommendations relating to lipid lowering pharmaceutical agents will be removed from the updated guideline. These will be covered by the upcoming update of 'Lipid modification', NICE clinical guideline 67 (2008) to which the update of this guideline will cross-refer.

k) Recommendations relating to the use of vitamin K antagonists in people with MI who do not have another indication for anticoagulation. These are considered to be of very limited relevance to current clinical practice.

Areas not covered by the original guideline or the update

l) Acute or retrospective diagnosis of MI.

m) Interventions specific to the early phase of acute MI. These are covered by the relevant acute management guidelines (Unstable angina and NSTEMI [NICE clinical guideline 94] and Myocardial infarction: acute management of STEMI [guideline in development]).

n) Assessment of cardiac status before coronary revascularisation.

4.4 Main outcomes

a) Mortality.

b) Myocardial reinfarction.

c) Revascularisation.

d) Rehospitalisation.

e) Stroke.

f) Adverse events, including bleeding complications.

g) Health-related quality of life.

h) Uptake and adherence to cardiac rehabilitation.

4.5 Economic aspects

Developers will take into account both clinical and cost effectiveness when making recommendations involving a choice between alternative interventions. A review of the economic evidence will be conducted and analyses will be carried out as appropriate. The preferred unit of effectiveness is the quality-adjusted life year (QALY), and the costs considered will usually be only from an NHS and personal social services (PSS) perspective. Further detail on the methods can be found in 'The guidelines manual' (see ‘Further information’).

4.6 Status

4.6.1 Scope

This is the final scope.

4.6.2 Timing

The development of the guideline recommendations will begin in March 2012.

5 Related NICE guidance

5.1 Published guidance

5.1.1 NICE guidance to be updated

This guideline will update and replace the following NICE guidance:

- MI: secondary prevention. NICE clinical guideline 48 (2007)

5.1.2 Related NICE guidance

- Dabigatran etexilate for the prevention of stroke and systemic embolism in atrial fibrillation. NICE technology appraisal 249 (2012).
- Patient experience in generic terms. NICE clinical guideline 138 (2012).
- Bivalirudin for the treatment of ST-segment-elevation myocardial infarction. NICE technology appraisal 230 (2011)
- Hyperglycaemia in acute coronary syndromes. NICE clinical guideline 130 (2011)
- Ticagrelor for the treatment of acute coronary syndromes. NICE technology appraisal guidance 236 (2011)
- Hypertension. NICE clinical guideline 127 (2011)
- Stable angina. NICE clinical guideline 126 (2011)
- Anxiety. NICE clinical guideline 113 (2011)
- Prevention of cardiovascular disease at population level. NICE public health guidance 25 (2010)
- Chronic heart failure. NICE clinical guideline 108 (2010)
- Chest pain of recent onset. NICE clinical guideline 95 (2010)
- Unstable angina and NSTEMI. NICE clinical guideline 94 (2010)
- Clopidogrel and modified-release dipyridamole for the prevention of occlusive vascular events. NICE technology appraisal 210 (2010)
- Depression with a chronic physical health problem. NICE clinical guideline 91 (2009)
- Depression in adults (update). NICE clinical guideline 90 (2009)
- Type 2 diabetes: newer agents. NICE clinical guideline 87 (2009)
- Medicines adherence. NICE clinical guideline 76 (2009)

- Prasugrel for the treatment of acute coronary syndromes with percutaneous coronary intervention. NICE technology appraisal guidance 182 (2009)
- Drug-eluting stents for the treatment of coronary artery disease. NICE technology appraisal guidance 152 (2008)
- Lipid modification. NICE clinical guideline 67 (2008)
- Smoking cessation services in primary care, pharmacies, local authorities and workplaces. NICE public health guidance 10 (2008)
- Varenicline for smoking cessation. NICE technology appraisal guidance 123 (2007)
- Behaviour change. NICE public health guidance 6 (2007)
- Brief interventions and referral for smoking cessation in primary care and other settings. NICE public health guidance 1 (2006)
- Obesity. NICE clinical guideline 43 (2006)
- Implantable cardioverter defibrillators (ICDs) for the treatment of arrhythmias. NICE technology appraisal guidance 95 (2006)
- Statins for the prevention of cardiovascular events in patients at increased risk of developing cardiovascular disease or those with established cardiovascular disease. NICE technology appraisal guidance 94 (2006)
- Dyspepsia. NICE clinical guideline 17 (2004)
- Type 1 diabetes. NICE clinical guideline 15 (2004)

5.1.3 Other related NICE products

- Cardiac rehabilitation service commissioning guide. NICE service commissioning guide (2008)

5.2 Guidance under development

NICE is currently developing the following related guidance (details available from the NICE website):

- Atrial fibrillation (stroke prevention) - rivaroxaban. NICE technology appraisal. Publication expected 2012.
- Stroke and systemic embolism (prevention, non valvular atrial fibrillation) – apixaban. NICE technology appraisal. Publication expected 2013.

- Atrial fibrillation (update). NICE clinical guideline. Publication date to be confirmed.
- Myocardial infarction: acute management of STEMI. NICE clinical guideline. Publication expected 2013.
- Acute heart failure. NICE clinical guideline. Publication date to be confirmed.
- Venous thromboembolism – rivaroxaban. NICE technology appraisal. Publication date to be confirmed.

6 Further information

Information on the guideline development process is provided in:

- 'How NICE clinical guidelines are developed: an overview for stakeholders the public and the NHS'
- 'The guidelines manual'.

These are available from the NICE website (www.nice.org.uk/GuidelinesManual). Information on the progress of the guideline will also be available from the NICE website (www.nice.org.uk).