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NICE Bites

Management of stable angina

NICE CG126; 2011

This guideline should be read in conjunction with NICE CG95; Chest pain of recent onset. It replaces NICE TA73; 2003.

Definition of terms

ACEI	angiotensin-converting enzyme inhibitor
CCB	calcium channel blocker
CABG	coronary artery bypass graft
PCI	percutaneous coronary intervention

Diagnosis

- Stable angina is pain or constricting discomfort that typically occurs in the front of the chest and is brought on by physical exertion or emotional stress.
- For initial assessment and management of stable angina see NICE CG95; Chest pain of recent onset.
- For patients with unstable angina see NICE CG94; Unstable angina and NSTEMI.

Care pathway – see full guideline

Treatment and management

Pharmacological treatment

- Offer optimal drug treatment for initial management of stable angina before considering revascularisation.
- Optimal drug treatment includes one or two antianginal drugs as necessary plus drugs for secondary prevention of cardiovascular disease – see Box 1.

Cautions and Counselling

Nitrates

- Advise patients:
  - how to take short-acting nitrates,
  - to use immediately before planned exercise or exertion,
  - that side-effects such as flushing, headache and light-headedness may occur,
  - to sit down or find something to hold onto if feeling light -headed.
- Tell patients when treating an episode of angina to:
  - repeat the dose after 5 minutes if the pain has not gone,
  - call an emergency ambulance if the pain has not gone five minutes after taking a second dose.
- Advise patients to seek professional help if they have a sudden worsening in the frequency/severity of their angina.

Antianginal drug treatment

- Advise patients that antianginal drug treatment aims to prevent episodes of angina and drugs for secondary prevention aims to prevent cardiovascular events such as heart attack and stroke.
- Discuss:
  - side-effects of drug treatment and how they may affect daily activities,
  - the importance of taking drug treatment regularly.
- Review response to treatment, including side-effects, 2 to 4 weeks after starting or changing drug treatment.
- Titrate to the maximum tolerable dose.
- When combining a CCB with a beta-blocker or ivabradine*:
  - give a dihydropyridine CCB e.g. slow release nifedipine*, amlodipine* or felodipine*.

Box 1

Pharmacological treatment

Nitrates

- Give all patients a short-acting nitrate for preventing and treating episodes of angina.

Antianginal drug treatment

Monotherapy

First-line: Give a beta-blocker or CCB.

- If a beta-blocker or CCB is contraindicated or not tolerated or symptoms are not controlled with a beta-blocker or CCB:
  - switch to the alternative drug.
- **Do NOT** routinely offer antianginal drugs other than beta-blockers or CCBs as first-line treatment.
- If a beta-blocker **AND** CCB are contraindicated or not tolerated give #:
  - a long-acting nitrate **or**
  - ivabradine* **or**
  - nicorandil* **or**
  - ranolazine* º

Dual therapy

- If symptoms are not controlled with a beta-blocker or CCB, and neither are contraindicated:
  - give a beta-blocker **AND** CCB in combination.
- If symptoms are not controlled with a beta-blocker or CCB alone and the other drug is contraindicated or not tolerated **ADD** #:
  - a long-acting nitrate **or**
  - ivabradine* **or**
  - nicorandil* º **or**
  - ranolazine*

Decide which drug to give on the basis of comorbidities, contraindications, personal preference and drug costs.

Triple therapy

- **ONLY** add a third drug if:
  - symptoms are **NOT** controlled with two antianginal drugs, **AND**
  - the person is waiting for revascularisation or revascularisation is not appropriate or acceptable.

Secondary prevention

- Give the following drug treatment:
  - aspirin 75mg daily. Consider risk of bleeding and comorbidities,
  - ACEI for patients with stable angina and diabetes in line with NICE CG 87; Type 2 diabetes,
  - statins in line with NICE CG67; Lipid modification,
  - treatment for high blood pressure in line with NICE CG34; Hypertension.**

* See Summary of Product Characteristics for full prescribing information.
º Unlicensed indication. Obtain and document informed consent.
** New hypertension guidelines expected August 2011.

Produced for healthcare professionals by North West Medicines Information Service,
The Pharmacy Practice Unit, 70 Pembroke Place, Liverpool, L69 3GF.
Editor: Lindsay Banks. Telephone 0151 794 8117. E-mail: nwmedinfo@nhs.net

Management of stable angina continued

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Investigation and revascularisation

Symptoms controlled on optimal drug treatment

- Patients who respond to optimal drug treatment with symptomatic control of angina may require no further treatment.
- Discuss:
  - the prognosis without further investigation and the likelihood of having left main stem or proximal three-vessel disease,
  - the benefits and risks of further investigation and revascularisation.
- Consider further investigation and revascularisation if necessary – see full guideline.

Symptoms NOT controlled on optimal drug treatment

- Consider revascularisation (CABG or PCI).
- Offer coronary angiography to guide treatment strategy.
- Additional non-invasive or invasive functional testing may be needed.
- If the coronary anatomy is suitable and revascularisation is appropriate:
  - offer CABG or PCI.
- If either CABG or PCI is appropriate take into account:
  - that for people with anatomically less complex disease who do not have a preference, PCI may be more cost effective,
  - the potential survival advantage of CABG for people with multivessel disease who:
    - have diabetes, or
    - are over 65, or
    - have anatomically complex three-vessel disease, with or without involvement of the left main stem.

Stable angina that does NOT respond to treatment

- If stable angina does not respond to drug treatment and/or revascularisation, re-evaluate – see full guideline.
- Consider cardiac syndrome X in people with angiographically normal coronary arteries and continuing anginal symptoms:
  - continue drug treatment for stable angina if symptoms improve,
  - **do NOT** routinely offer drugs for secondary prevention of cardiovascular disease.

Information and support

- Include the person's family or carers in discussions when appropriate.
- Explain stable angina and its long-term management.
- Provide information about factors that can provoke angina e.g. exertion, emotional stress, exposure to cold, eating a large meal.
- Explore and correct any misconceptions about stable angina and its implications for daily activities, heart attack risk and life expectancy.
- Assess the need for lifestyle advice such as weight control, diet and exercise, smoking cessation, and psychological support. Provide appropriate interventions.
- Discuss:
  - self management skills such as pacing activities,
  - concerns about the impact of stress, anxiety or depression and physical exertion, including sexual activity on angina,
  - the purpose, benefits and risks of treatment.

Box 2

General principles for revascularisation

- Consider the relative risks and benefits of continuing drug treatment, and of CABG and PCI and ensure that people have the opportunity to discuss the benefits, limitations and risks of each to help them make an informed decision.
- Ensure regular multidisciplinary team meetings to discuss the risks and benefits of continuing drug treatment or a revascularisation strategy. Teams should include interventional cardiologists and cardiac surgeons. Treatment strategy should be discussed including:
  - for people with left main stem or anatomically complex three-vessel disease **or**
  - when there is doubt about the best method of revascularisation because of coronary anatomy, extent of stenting required or other relevant clinical factors or comorbidities.
- If either CABG or PCI is appropriate, explain:
  - the main purpose of revascularisation is to improve symptoms,
  - CABG and PCI are effective in relieving symptoms,
  - repeat revascularisation may be needed and the rate is lower after CABG,
  - stroke is uncommon and the incidence is similar with CABG and PCI,
  - the potential survival advantage with CABG for some people with multivessel disease.
- Discuss the practical aspects including vein and/or artery harvesting, likely length of hospital stay, recovery time and drug treatment after the procedure.

- **Do NOT:**
  - exclude people from treatment based on age alone,
  - investigate or treat symptoms differently based on gender or ethnic group,
  - offer transcutaneous electrical nerve stimulation, enhanced external counterpulsation or acupuncture to manage stable angina,
  - prescribe vitamin or fish oil supplements as there is no evidence these are effective in treating stable angina.

Supporting documents

A costing statement is available. See CG126: costing statement

A baseline assessment tool is available. See CG126: baseline assessment.

Clinical audit tools are available to support the implementation of NICE guidance. See CG126: audit tools