

Guide Lines

Summary of recommendations

Precipitating factors

Patients should be asked about factors that precipitate angina and management of these factors discussed (D).

Investigation of angina

Patients being investigated for angina should have:

- Their haemoglobin (D), blood glucose (on one or more occasions as necessary) (D), and serum lipid concentration (A) and thyroid function (D) measured.
- A resting 12 lead ECG (B); the ECG should be interpreted by someone who is competent to do so (D).

Exercise testing

Exercise testing is effective in the identification of a patient's prognostic group and can provide information in addition to that obtained from invasive testing (B).

All patients with clinically certain angina should have an exercise test (but see below); this will mean referral to an open access service where this is available and referral to a cardiologist where it is not (B).

If a patient who requires an exercise test cannot physically perform the test they should be referred to a cardiologist for consideration of other forms of investigation (D).

Patients who have an exercise test for prognostic investigation and treatment should have the test performed while they are taking their normal medication (B).

Whether or not a patient has diabetes and the oestrogen status of women should be recorded on a request form as they will influence the performance of the test and the interpretation of the results (B).

Patients who should not have an exercise test are:

- Those whose symptoms are not controlled on maximal medical treatment (they should be referred to a cardiologist for consideration of

angiography, not exercise testing) (D).

- Those who are physically incapable of performing the test for reasons other than their angina (see above) (D).
- Those with comorbid illness that is currently more important (D).
- Those who decline to have the test (D).

Risk factor modification

Assessing risk factors

Most patients with stable angina will be at increased risk of subsequent cardiovascular events or death; the assessment of a patient's absolute risk of subsequent cardiovascular events or death should be based on an assessment of all his or her risk factors. As well as modifiable risk factors this includes age, sex, presence of diabetes, and family history of premature coronary heart disease (A).

The approach to risk factor modification should, as far as possible, be based on a patient's absolute risk of subsequent cardiovascular events or death (D).

Cholesterol

All patients with angina should have their serum lipid concentrations measured (A).

If their serum cholesterol concentration is raised they should be offered treatment to lower it (A).

The use of statins for lowering cholesterol concentration has economic consequences that are still the subject of debate and disagreement; details of lipid management should be covered in local guidelines (D).

Blood pressure

All patients should have their blood pressure measured and, if it is consistently raised, should be offered treatment to lower it (see also weight reduction) (A).

Smoking and smoking cessation

The current smoking status of all patients should be known so that patients with angina who smoke

Exercise

Moderate exercise within a patient's capabilities should be recommended to improve general fitness and wellbeing (C).

Training packages may help to improve exercise capacity but the important constituents of such packages are not clear (C).

Weight reduction and dietary management

Patients with a body mass index (BMI) above the normal range should be encouraged to reduce their body weight until their BMI is as close to normal as is achievable (A for hypertensive patients, C for normotensive)

Patients with stable angina who have survived a myocardial infarction should be advised to eat a "Mediterranean diet" and oily fish twice a week (A).

Drug treatment

It is important to ensure that patients are complying with treatment and that any side effects they are experiencing are known about (D).

Within any class of drugs patients should be treated with the cheapest preparation that they can tolerate and comply with and that controls their symptoms (D).

Secondary prophylactic treatment

Aspirin 75 mg daily for four years (A) after four years, aspirin should be continued long term at a dose of 75 mg daily (D).

Initial treatment of symptoms

Patients should be treated with short acting nitrates as required in response to pain and before performing activities that are known to bring on pain (A).

For all but minimal symptoms patients should be started on regular treatment of symptoms (D).

Regular treatment of symptoms

Choosing a first drug

- Use a blocker (B).
- Patients intolerant of blockers should be treated with verapamil (C).
- If a patient cannot tolerate a blocker or verapamil then there is no clear basis from the evidence for choosing substitution monotherapy. They should therefore be given the cheapest drug with which they can comply and that controls their symptoms (D).

Choosing a second drug

- In patients taking blockers add a dihydropyridine or diltiazem (B).
- In patients taking blockers who cannot tolerate dihydropyridines or diltiazem add isosorbide mononitrate (B).
- In patients taking verapamil add isosorbide mononitrate (D).
- In patients taking dihydropyridines add isosorbide mononitrate (D).
- In patients taking nitrates add any calcium channel blocker (B).

Choosing a third drug

Patients who are not adequately controlled on maximal therapeutic doses of two drugs should be referred rather than given a third drug (D).

Review of patients with stable angina

Patients should be reviewed at least annually (D).

Referral to a cardiologist

All patients in whom the diagnosis is uncertain should be considered for referral for clarification of the diagnosis (D).

All patients in whom management is currently suboptimal, as judged by symptoms, should be considered for referral for further treatment or investigation (D).

Patients whose symptoms are not controlled on maximal medical treatment should be referred to a cardiologist for angiography not exercise