

Optimising Prescribing for Chronic Stable Angina

The guidance does NOT override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Angina is the main symptom of myocardial ischaemia and is usually caused by atherosclerotic obstructive coronary artery disease restricting blood flow and therefore oxygen delivery to the heart muscle. The aim of management is to stop or minimise symptoms, and to improve quality of life and long-term morbidity and mortality. Management options include lifestyle advice, drug treatment and revascularisation using percutaneous or surgical techniques.

Overarching Principles of Management

- 1. Explore and address issues according to the person's needs**, which may include:
 - Self-management skills such as pacing their activities and goal setting
 - Concerns about the impact of stress, anxiety or depression on angina
 - Advice about physical exertion including sexual activity
- 2. Offer a short-acting nitrate for preventing and treating episodes of angina**
- 3. Offer people optimal drug treatment for the initial management of stable angina.**
Optimal drug treatment consists of one or two anti-anginal drugs as necessary plus drugs for secondary prevention of cardiovascular disease.
- 4. Offer either a beta blocker or a calcium channel blocker as first-line treatment for stable angina.**
 - Do not routinely offer other anti-anginal drugs as first-line treatment for stable angina
 - Review the person's response to treatment, including any side effects, 2–4 weeks after starting or changing drug treatment
- 5. Consider revascularisation (coronary artery bypass graft [CABG] or percutaneous coronary intervention [PCI]) for people with stable angina whose symptoms are not satisfactorily controlled with optimal medical treatment**
- 6. Offer aspirin 75 mg daily for people with stable angina**
Take into account the risk of bleeding and comorbidities.
- 7. Offer statin treatment in line with South London [Lipid Management for the Primary and Secondary Prevention of Cardiovascular Disease \(CVD\) in Adults](#)**
- 8. Offer treatment for high blood pressure in line with South London [hypertension guidance](#)**
- 10. Consider angiotensin-converting enzyme (ACE) inhibitors for people with stable angina and diabetes.**
Offer or continue ACE inhibitors for other conditions, in line with relevant NICE guidance.
- 11. Do not:**
 - Exclude people from treatment based on their age alone
 - Investigate or treat symptoms differently based on gender or ethnic group
 - Offer vitamins or fish oil. Inform people there is no evidence that they help stable angina
 - Offer transcutaneous electrical nerve stimulation (TENS), enhanced external counterpulsation (EECP) or acupuncture to manage stable angina

For more information on managing stable angina, including the advice, information and support which should be offered to patients see: <https://www.nice.org.uk/guidance/cg126>

For NICE guidance on improving Medicines Adherence see: <http://www.nice.org.uk/guidance/CG76>

Medical therapy for chronic stable angina

- Therapies to improve prognosis:**
- Start aspirin 75mg daily
 - Start a statin and manage lipids in line with South London [Lipid Management for the Primary and Secondary Prevention of Cardiovascular Disease \(CVD\) in Adults](#)
 - Manage blood pressure in line with South London [hypertension guidance](#)

Provide sublingual GTN for use as required

Therapies to prevent episodes of angina
 FIRST LINE: Offer a beta-blocker, such as bisoprolol 5mg daily*
 Aim to increase dose to achieve a heart rate between 50-60 beats per minute (bpm)
 *Note: A lower starting dose maybe appropriate in specific patient groups, such as the elderly or those with hypotension

If beta-blocker contraindicated or not tolerated consider a rate-controlling calcium channel blocker (diltiazem or verapamil)

If additional anti-anginal therapy is required add a dihydropyridine calcium channel blocker, such as amlodipine 5 - 10 mg daily

If both beta-blockers and calcium channel blockers are contraindicated or not tolerated consider monotherapy with:

- a long-acting nitrate or
- nicorandil or
- ivabradine** or
- ranolazine***

If rate-controlling calcium channel blocker is contraindicated or not tolerated consider a dihydropyridine calcium channel blocker (amlodipine)

If symptoms are not satisfactorily controlled, consider adding a long-acting nitrate, nicorandil or ranolazine*

If dihydropyridine calcium channel blocker is contraindicated or not tolerated consider adding a long-acting nitrate, nicorandil, ivabradine** or ranolazine***

If symptoms are not satisfactorily controlled, consider adding a long-acting nitrate, nicorandil, ivabradine** or ranolazine***

If symptoms are not adequately controlled, consider referral for revascularisation; an additional anti-anginal may be added whilst awaiting cardiology review

***Ivabradine:** may be useful in symptomatic patients where heart rate remains > 60bpm despite optimal dose of beta-blocker or rate controlling calcium channel blocker; or where these rate controlling agents are contra-indicated or not tolerated
 ****Ranolazine:** may be useful in patients where the use of other options is limited by bradycardia or hypotension
In some primary care organisations these drugs may require specialist initiation

The Medicines and Healthcare products Regulatory Agency (MHRA) has issued **drug safety updates** for **ivabradine** and **nicorandil** (see overleaf)

MHRA advice for healthcare professionals on the prescribing of ivabradine in stable angina:

When using ivabradine to treat the symptoms of chronic angina:

- Only start ivabradine if the resting heart rate is at least 70 bpm
- Do not prescribe ivabradine with other medicines that cause bradycardia, such as verapamil, diltiazem, or strong CYP3A4 inhibitors
- Monitor patients regularly for atrial fibrillation (AF). If AF occurs, carefully reconsider whether the benefits of continuing ivabradine treatment outweigh the risks
- Consider stopping ivabradine if there is no or only limited symptom improvement after 3 months

The update also highlights:

- Ivabradine is indicated to treat symptoms of chronic angina in patients unable to tolerate or with a contraindication to beta-blockers - it can also be used in combination with beta-blockers in patients for whom an optimal beta-blocker dose is not enough
- The recommended starting dose is 5 mg twice daily
- Do not exceed the maximum maintenance dose of 7.5 mg twice daily
- Down-titrate the dose if resting heart rate decreases persistently below 50 bpm or if the patient experiences symptoms of bradycardia. The dose can be down-titrated to 2.5 mg twice daily if necessary
- Stop ivabradine treatment if the resting heart rate remains below 50 bpm or symptoms of bradycardia persist

MHRA advice for healthcare professionals on the prescribing of nicorandil in stable angina:

- Use nicorandil for treatment of stable angina only in patients whose angina is inadequately controlled by first line anti-anginal therapies, or who have a contraindication or intolerance to first line anti-anginal therapies such as beta-blockers or calcium antagonists
- Nicorandil can cause serious skin, mucosal, and eye ulceration, including gastrointestinal ulcers which may progress to perforation, haemorrhage, fistula, or abscess
- Stop nicorandil treatment if ulceration occurs—consider the need for alternative treatment or specialist advice if angina symptoms worsen
- Please continue to report suspected adverse drug reactions to nicorandil or any other medicines on a [Yellow Card](#)

References

1. National Institute for Health and Care Excellence (2011). Stable angina: management, Clinical Guideline [CG126]. Retrieved from <https://www.nice.org.uk/guidance/cg126/chapter/1-Guidance>
2. National Institute for Health and Care Excellence (2009). Medicines adherence: involving patients in decision about prescribed medicines and supporting adherence, Clinical Guideline [CG76]. Retrieved from <https://www.nice.org.uk/guidance/CG76>
3. *Medicines and Healthcare products Regulatory Agency Drug Safety Update (2014). Ivabradine in the symptomatic treatment of angina: risk of cardiac side effects.* Retrieved from <https://www.gov.uk/drug-safety-update/ivabradine-procoralan-in-the-symptomatic-treatment-of-angina-risk-of-cardiac-side-effects>
4. *Medicines and Healthcare products Regulatory Agency Drug Safety Update (2016). Nicorandil second line treatment for angina – risk of ulcer complications.* Retrieved from <https://www.gov.uk/drug-safety-update/nicorandil-ikorel-now-second-line-treatment-for-angina-risk-of-ulcer-complications>