NHS
Derby and Derbyshire
Integrated Care Board

CLINICAL POLICY ADVISORY GROUP (CPAG)

Angioplasty for Percutaneous Coronary Intervention (PCI) in Stable Angina Policy

Statement

NHS Derby and Derbyshire ICB (NHSDDICB), in line with its principles for procedures of limited clinical value has deemed that PCI should not routinely be commissioned for patients with stable angina unless at least one indication in criteria 1 OR at least one indication in criteria 2 are met:

Criteria 1:

- There is ongoing anginal symptoms despite optimal anti-anginal medication*,
  OR,
- There is ongoing angina symptoms with intolerance of anti-anginal medications*.

Criteria 2:

If agreed at an appropriately constituted myocardial revascularisation cardiac multidisciplinary meeting (MDM)**, PCI may also be performed in patients with stable angina in the following cases:

- In patients with impaired left ventricular systolic function.
  OR,
- In patients with left main stem disease,
  OR,
- In patients with significant ischemic burden,
  OR,
- Where PCI is otherwise considered appropriate by the MDM.**

These commissioning intentions will be reviewed periodically. This is to ensure affordability against other services commissioned by the ICB.

For * and ** please see section 2. Recommendations of the policy.

1. Background

Stable angina is typically defined as exertional chest discomfort that is relieved by rest. NICE guidance (CG126) indicates that medical management should be optimised in such patients. This includes lifestyle interventions, medications to reduce risk and appropriate medications to improve angina[1,2].

A coronary angioplasty is a procedure used to widen blocked or narrowed coronary arteries (the main blood vessels supplying the heart). The term "angioplasty" means using a balloon to stretch open a narrowed or blocked artery. However, most modern angioplasty procedures also involve inserting a short wire mesh tube, called a stent, into the artery during the procedure. The stent is left in place permanently to allow blood to flow more freely. Coronary angioplasty is sometimes known as percutaneous transluminal coronary angioplasty (PTCA). The combination of coronary angioplasty with stenting is usually referred to as percutaneous coronary intervention (PCI).[3]

Clinical trials looking at the role of revascularisation (widening of blocked or narrowed coronary arteries) by PCI in patients with stable angina showed that PCI did not improve mortality (death rate). However, longer-term follow up is needed to see if differences emerge over time. The current primary aim of PCI in stable angina is to improve angina symptoms[1].

The European Society of Cardiology (ESC)[4] and American Heart Association/ American College of Cardiology (AHA/ACC) guidelines[5] recommend that in most patients with stable angina, PCI should be considered for symptom relief. Ideally medical therapy, which should include therapies for the reduction of cardiovascular risk as well as anti-anginal therapies, should be optimised prior to PCI being considered. PCI should only be performed in patients with stable angina that fulfil the policy criteria, after optimisation of medication. Patients should be properly consented with documented shared decision making[1].

2. Recommendation

This guidance applies to those 18 years and over.

NHSDDICB, in line with its principles for procedures of limited clinical value has deemed that PCI should not routinely be commissioned for patients with stable angina unless at least one indication in criteria 1 OR at least one indication in criteria 2 are met:

Criteria 1:

- There is ongoing anginal symptoms despite optimal anti-anginal medication*,
  OR,
- There is ongoing angina symptoms with intolerance of anti-anginal medications*

Criteria 2:

If agreed at an appropriately constituted myocardial revascularisation cardiac multidisciplinary meeting (MDM)**, PCI may also be performed in patients with stable angina in the following cases:

- In patients with impaired left ventricular systolic function.
  OR,
- In patients with left main stem disease,
  OR,
- In patients with significant ischemic burden,
  OR,
- Where PCI is otherwise considered appropriate by the MDM.**

All patients being considered for elective revascularisation should have documented evidence that a formal shared decision-making process has taken place with informed patient choice.

* Optimal medical management should be offered and include:
- Lifestyle interventions:
  - Weight management
  - Smoking cessation
  - Adherence to a cardioprotective diet
  - Regular physical activity
- Risk reduction management:
  - Antiplatelet therapy or anticoagulant in line with current guidelines
  - Adequate lipid lowering therapy
  - ACE Inhibitor or alternative to optimal dose
  - Anti-hypertensive therapy to guideline-directed targets
  - Appropriate glycaemic control in patients with diabetes
- Anti-anginal medication in line with current guidelines:
  - Preferably two anti-anginal agents at recommended daily dose.
  - Symptoms should ideally be reassessed after an appropriate period of optimal anti-anginal medication uptitration and assessment of side effects

** Patients without ongoing angina should be discussed at an appropriate MDM before being offered PCI. This could include patients that are not within these criteria, for example, patients undergoing transcutaneous aortic valve implantation, asymptomatic patients with evidence of significant ischaemia, occupational indications, or patient preference. An appropriately constituted myocardial revascularisation MDM would typically include:
- MDM coordinator
- Interventional cardiologist – at least one (the norm should be two or more)
- Non-interventional cardiologists – at least one (the norm should be two or more)
- Cardiac surgical consultant – at least one (the norm should be two or more)
- Other attendees including cardiac anaesthetists / intensivists may be required for some cases.

Exclusion Criteria

The following indications are excluded from this policy:
- Patients presenting with ST-elevation myocardial infarction, non ST-elevation myocardial infarction or staged procedures after acute coronary syndrome
- Patients presenting with unstable angina defined as myocardial ischaemia at rest or on minimal exertion in the absence of acute cardiomyocyte injury/necrosis
- Patients presenting with crescendo (rapidly worsening) stable angina
- Patients who may be best treated with coronary artery bypass graft surgery

3. Rationale for Recommendation

The results of multiple trials in stable coronary artery disease (CAD), including COURAGE[6] and ISCHEMIA[7] have shown that revascularization does not improve mid-term mortality. However, revascularisation did significantly reduce spontaneous myocardial infarction in ISCHEMIA, therefore longer-term follow-up will be important.

Furthermore, it is important to note that around one third of the patients allocated to medical therapy in both COURAGE[6] and ISCHEMIA[7] had to undergo revascularisation within their primary follow up periods because of ongoing angina. There are selected subgroups where PCI can be offered at an earlier stage: patients with impaired left ventricular systolic function

and significant left main stem disease. A multidisciplinary heart team approach** and shared decision making with the patient is key

4. Useful Resources

- Angioplasty for PCI (percutaneous coronary intervention) in stable angina, Evidence Based Interventions List 3 Guidance, Academy of Medical Royal Colleges, published May 2023, last accessed 08/08/23, EBI_Guidance_List3_0523.pdf (aomrc.org.uk)
- Coronary angioplasty and stent insertion, NHS, reviewed 04/10/22, last accessed 09/08/23, https://www.nhs.uk/conditions/coronary-angioplasty/

5. References

- Angioplasty for PCI (percutaneous coronary intervention) in stable angina, Evidence Based Interventions List 3 Guidance, Academy of Medical Royal Colleges, published May 2023, last accessed 08/08/23, EBI_Guidance_List3_0523.pdf (aomrc.org.uk)
- Stable angina: management guidance, NICE CG 126, updated 25/98/2016, last accessed 10/08/23, Overview | Stable angina: management | Guidance | NICE
- Coronary angioplasty and stent insertion, NHS, reviewed 04/10/222, last accessed 09/08/23, https://www.nhs.uk/conditions/coronary-angioplasty/
- Knuuti J, Wijns W, Saraste A, et al. 2019 ESC Guidelines for the diagnosis and management of chronic coronary syndromes. Eur Heart J. Aug 31 2019;doi:10.1093/eurheartj/ehz425
- Patel MR, Calhoon JH, Dehmer GJ, et al. ACC/AATS/AHA/ASE/ASNC/SCAI/SCCT/STS 2017 Appropriate Use Criteria for Coronary Revascularization in Patients With Stable Ischemic Heart Disease: A Report of the American College of Cardiology Appropriate Use Criteria Task Force, American Association for Thoracic Surgery, American Heart Association, American Society of Echocardiography, American Society of Nuclear Cardiology, Society for Cardiovascular Angiography and Interventions, Society of Cardiovascular Computed Tomography, and Society of Thoracic Surgeons. J Am Coll Cardiol. May 02 2017;69(17):2212-2241. doi:10.1016/j.jacc.2017.02.001
- Boden WE, O'Rourke RA, Teo KK, et al. Optimal medical therapy with or without PCI for stable coronary disease. N Engl J Med. Apr 12 2007;356(15):1503-16. doi:10.1056/NEJMoa070829
- Chaitman BR, Alexander KP, Cyr DD, et al. Myocardial Infarction in the ISCHEMIA Trial: Impact of Different Definitions on Incidence, Prognosis, and Treatment Comparisons. Circulation. Feb 23 2021;143(8):790-804. doi:10.1161/CIRCULATIONAHA.120.047987

6. Appendices

Appendix 1 - Consultation

All relevant providers/stakeholders will be consulted via a named link consultant/specialist. Views expressed should be representative of the provider/stakeholder organisation. CPAG will consider all views to inform a consensus decision, noting that sometimes individual views and opinions will differ.

Consultee	**Date**
Consultant Cardiologist & Assistant Clinical Director Cardiology (UHDBFT)	June 2023
Consultant Cardiologist (CRHFT)	July 2023
Clinical Policy Advisory Group (CPAG)	September 2023

Appendix 2 - Document Update

Document Update	**Date Updated**
Version 1.0 Policy issued in response to the publication of the Evidence Based Interventions List 3 guidance by the Academy of Medical Royal Colleges on Angioplasty for PCI in Stable Angina Policy.	September 2023