

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Guideline scope

Atrial fibrillation: diagnosis and management (update)

This guideline will update the NICE guideline on atrial fibrillation: management (CG180).

The guideline will be developed using the methods and processes outlined in [developing NICE guidelines: the manual](#).

This guideline may also be used to update the NICE [quality standard](#) for atrial fibrillation.

1 Why the update is needed

New evidence that could affect recommendations was identified through the surveillance process. Topic experts, including those who helped to develop the existing guideline, advised NICE on whether areas should be updated or new areas added. Full details are set out in the [surveillance review decision](#).

Why the guideline is needed

Key facts and figures

- Atrial fibrillation is the most common sustained cardiac arrhythmia; it affects about 1.3% of the population in England and Wales. Men are more commonly affected than women and the prevalence increases with age.
- Early recognition of atrial fibrillation can be difficult. It does not always cause signs and symptoms, and may remain silent for a long time. It is estimated that it is undiagnosed in about one-third of the total population with atrial fibrillation. As a result, the prevalence of atrial fibrillation is likely to be underestimated.

- Atrial fibrillation can lead to complications such as heart failure and stroke. The risk of stroke in people with atrial fibrillation is 5-times higher than in people with a normal heart rhythm.
- People with atrial fibrillation have a higher rate of hospitalisation compared with people without the condition; it accounts directly for about 130,000 finished consultant episodes per year in England.
- Atrial fibrillation is associated with an increased risk of mortality. The mortality rate is double that for people without atrial fibrillation, independent of other known predictors of mortality.
- Several conditions are associated with an increased risk of developing atrial fibrillation. These include hypertension, valvular heart diseases, diabetes mellitus, heart failure, and chronic or acute alcohol use. The aim of treatment for atrial fibrillation is to prevent complications, in particular stroke, and to alleviate symptoms. Atrial fibrillation is a contributing factor in approximately 1 in 5 strokes in the UK.

Current practice

- The detection of atrial fibrillation based on clinical suspicion is essential to reduce mortality and morbidity. The 2014 NICE guideline on atrial fibrillation recommends manual pulse checking to identify people with atrial fibrillation, but other technologies, such as blood pressure monitors and handheld devices such as mobile phone apps, are increasingly being used in practice.
- Diagnosis of atrial fibrillation is confirmed by an electrocardiogram (ECG), and an echocardiogram may also be performed.
- Drug treatments include antiarrhythmics to restore or maintain the normal heart rhythm, or to slow the heart rate in patients who remain in atrial fibrillation.
- Other drug treatments include anticoagulation therapy to reduce the risk of stroke, because atrial fibrillation increases the risk of clot formation. Until recently this has been with traditional anticoagulants such as warfarin or heparin. However, newer antithrombotic agents (direct acting oral anticoagulants) are now being used as alternatives to warfarin for treating people with non-valvular atrial fibrillation.

- Direct acting oral anticoagulants (DOACs) have been evaluated through the NICE technology appraisal programme. Edoxaban was not included in the existing guideline.
- Non-pharmacological management of atrial fibrillation includes:
 - electrical cardioversion, which may be used to 'shock' the heart back to its normal rhythm
 - catheter or surgical ablation to create lesions to stop the abnormal electrical impulses that cause atrial fibrillation.
- New evidence has been identified on ablation therapies in managing arrhythmia.
- Current good practice in the care of people with atrial fibrillation includes the regular review of stroke and bleeding risk, together with assessment of the efficacy of anticoagulant therapy and the adequacy of symptom control.
- The current guideline recommends the CHA2DS2-VASc stroke risk score to assess stroke risk and the HAS-BLED score to assess the risk of bleeding in people who are starting, or have started, anticoagulation. However, new evidence has been identified for these tools, as well as evidence for new tools.
- New areas of evidence have also been identified; the short-term use of antiarrhythmic drugs following ablation and the prevention of postoperative atrial fibrillation with statins. There is also new evidence on the treatment of postoperative atrial fibrillation.

2 Who the guideline is for

People using services, their families and carers and the public will be able to use the guideline to find out more about what NICE recommends, and help them make decisions.

This guideline is for:

- healthcare professionals in primary and secondary care
- commissioners and providers of services
- people with suspected or diagnosed atrial fibrillation, their families and carers, and the public.

NICE guidelines cover health and care in England. Decisions on how they apply in other UK countries are made by ministers in the [Welsh Government](#), [Scottish Government](#) and [Northern Ireland Executive](#).

Equality considerations

NICE has carried out [an equality impact assessment](#) during scoping. The assessment:

- lists equality issues identified, and how they have been addressed
- explains why any groups are excluded from the scope.

The guideline will look at inequalities relating to:

- women, who carry a greater risk of stroke from atrial fibrillation
- black and ethnic minority groups, who may be at greater risk of stroke from atrial fibrillation.

3 What the updated guideline will cover

3.1 Who is the focus?

Groups that will be covered

Adults (18 and older) with suspected or diagnosed atrial fibrillation, including those with:

- new onset or acute atrial fibrillation
- chronic atrial fibrillation, including paroxysmal, persistent or permanent
- postoperative atrial fibrillation
- atrial flutter.

In addition people undergoing cardiothoracic surgery who are at risk of developing post-operative atrial fibrillation.

Groups that will not be covered

- People with congenital heart disease precipitating atrial fibrillation.
- People with moderate or severe mitral stenosis.

3.2 Settings

Settings that will be covered

All settings where NHS healthcare is provided or commissioned.

3.3 Activities, services or aspects of care

Key areas that will be covered in this update

We will look at evidence in the areas below when developing this update. We will consider making new recommendations or updating existing recommendations in these areas only.

- 1 Diagnosis and assessment: presenting symptoms and pulse assessment.
- 2 Assessment of stroke and bleeding risks.
- 3 Interventions to prevent stroke in people with atrial fibrillation.
- 4 Rate and rhythm control.
- 5 Preventing recurrence of atrial fibrillation.
- 6 Prevention and management of postoperative atrial fibrillation.

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

Proposed outline for the guideline

The table below outlines all the areas that will be included in the guideline. It sets out what NICE plans to do for each area in this update.

| Area of care | What NICE plans to do |
|--|--|
| Diagnosis and assessment | Review evidence on identification of people with pulse irregularities: update existing recommendations as needed |
| Personalised package of care and information | No evidence review: retain recommendations from existing guideline |
| Referral for specialised management | No evidence review: retain recommendations from existing guideline |
| Assessment of stroke and bleeding risks | Review evidence: update existing recommendations as needed |
| Interventions to prevent stroke | Review evidence: update existing recommendations as needed |
| Rate and rhythm control | Review evidence: update existing recommendations as needed |
| Management of people presenting acutely with atrial fibrillation | No evidence review: retain recommendations from existing guideline |
| Initial management of stroke and atrial fibrillation | No evidence review: retain recommendations from existing guideline |
| Preventing recurrence of atrial fibrillation | Review evidence on short-term use of antiarrhythmic drugs following ablation: new area in the guideline |
| Prevention and management of postoperative atrial fibrillation | Review evidence: update existing recommendations as needed |

Recommendations in areas that are being retained from the existing guideline may be edited to ensure that they meet current editorial standards, and reflect the current policy and practice context.

Areas that will not be covered by the guideline

- 1 Treatment of comorbidities associated with atrial fibrillation.
- 2 Optimal treatment with a combination of antiplatelet and anticoagulant therapies for people who have had an acute coronary syndrome and for whom anticoagulation is indicated.
- 3 Percutaneous atrial appendage occlusion.

Related NICE guidance

Published

- [Venous thromboembolism in over 16s: reducing the risk of hospital-acquired deep vein thrombosis or pulmonary embolism](#) (2018) NICE guideline NG89
- [Atrial fibrillation and heart valve disease: self-monitoring coagulation status using point-of-care coagulometers \(the CoaguChek XS system\)](#) (2014, updated 2017) NICE diagnostic guidance DG14
- [Multimorbidity: clinical assessment and management](#) (2016) NICE guideline NG56
- [Cardiovascular disease: risk assessment and reduction, including lipid modification](#) (2014, updated 2016) NICE guideline CG181
- [Percutaneous balloon cryoablation for pulmonary vein isolation in atrial fibrillation](#) (2012) NICE interventional procedure guidance IPG427
- [Thoracoscopic exclusion of the left atrial appendage in atrial fibrillation \(with or without other cardiac surgery\) for the prevention of thromboembolism](#) (2011) NICE interventional procedure guidance IPG400
- [Percutaneous endoscopic catheter laser balloon pulmonary vein isolation for atrial fibrillation](#) (2011) NICE interventional procedure guidance IPG399
- [Alcohol-use disorders: diagnosis and management of physical complications](#) (2010) NICE guideline CG100
- [Percutaneous occlusion of the left atrial appendage in non-valvular atrial fibrillation for the prevention of thromboembolism](#) (2010) NICE interventional procedure guidance IPG349
- [Percutaneous \(non-thoracoscopic\) epicardial catheter radiofrequency ablation for atrial fibrillation](#) (2009) NICE interventional procedure guidance IPG294
- [Thoracoscopic epicardial radiofrequency ablation for atrial fibrillation](#) (2009) NICE interventional procedure guidance IPG286
- [Medicines adherence: involving patients in decisions about prescribed medicines and supporting adherence](#) (2009) NICE guideline CG76

In development

- [Chronic heart failure in adults: diagnosis and management](#). NICE guideline. Publication expected August 2018
- [Lead-I electrocardiogram \(ECG\) devices for detecting atrial fibrillation using single-time point testing in primary care](#). NICE diagnostics guidance. Publication expected February 2019
- [Hypertension in adults](#). NICE guideline. Publication expected August 2019
- [Reveal LINQ insertable cardiac monitor to detect atrial fibrillation after cryptogenic stroke](#). NICE diagnostic guidance. Publication expected September 2019
- [Acute coronary syndromes](#). NICE guideline. Publication expected May 2020
- [Investigation and management of heart valve disease in adults](#). NICE guideline. Publication expected May 2021

NICE guidance that will be incorporated unchanged in this guideline

- [Edoxaban for preventing stroke and systemic embolism in people with non-valvular atrial fibrillation](#) (2015) NICE technology appraisal TA355
- [WatchBP Home A for opportunistically detecting atrial fibrillation during diagnosis and monitoring of hypertension](#) (2013) NICE medical technologies guidance 13
- [Apixaban for preventing stroke and systemic embolism in people with nonvalvular atrial fibrillation](#) (2013) NICE technology appraisal TA275
- [Rivaroxaban for the prevention of stroke and systemic embolism in people with atrial fibrillation](#) (2012) NICE technology appraisal guidance TA256
- [Dabigatran etexilate for the prevention of stroke and systemic embolism in atrial fibrillation](#) (2012) NICE technology appraisal TA249
- [Percutaneous radiofrequency ablation for atrial fibrillation](#) (2006) NICE interventional procedure IP168

The evidence for anticoagulant therapy will be reviewed (see section 3.5) with the aim of contextualising recommendations in NICE technology appraisal guidance TA249, TA256, TA275 and TA355.

NICE guidance about the experience of people using NHS services

NICE has produced the following guidance on the experience of people using the NHS. This guideline will not include additional recommendations on these topics unless there are specific issues related to atrial fibrillation:

- [Medicines optimisation](#) (2015) NICE guideline NG5
- [Patient experience in adult NHS services](#) (2012) NICE guideline CG138
- [Medicines adherence](#) (2009) NICE guideline CG76

3.4 *Economic aspects*

We will take economic aspects into account when making recommendations. We will develop an economic plan that states for each review question (or key area in the scope) whether economic considerations are relevant, and if so whether this is an area that should be prioritised for economic modelling and analysis. We will review the economic evidence and carry out economic analyses, using an NHS and personal social services (PSS) perspective, as appropriate.

3.5 *Key issues and draft questions*

- 1 Diagnosis and assessment: presenting symptoms and pulse assessment
 - 1.1 What are the most accurate methods for detecting constant or intermittent pulse irregularities in people with symptoms suggestive of atrial fibrillation and in people with cardiovascular risk factors?
- 2 Assessment of stroke and bleeding risks
 - 2.1 What is the most clinically and cost-effective risk stratification tool for predicting stroke or thromboembolic events in people with atrial fibrillation?
 - 2.2 What is the most clinically and cost-effective tool for assessing bleeding risk in people with atrial fibrillation?
- 3 Interventions to prevent stroke
 - 3.1 What is the most clinically and cost-effective anticoagulant therapy for stroke prevention in people with atrial fibrillation?

- 3.2 What is the clinical and cost effectiveness of discontinuing anticoagulation therapy following ablation or spontaneous resolution of atrial fibrillation?
- 4 Rate and rhythm control
 - 4.1 What is the clinical and cost effectiveness of different ablative and non-ablative therapies in people with atrial fibrillation?
- 5 Preventing of recurrence of atrial fibrillation
 - 5.1 What is the clinical and cost effectiveness of short-term antiarrhythmic drugs following ablation for preventing recurrence of atrial fibrillation?
- 6 Prevention and management of postoperative atrial fibrillation
 - 6.1 What is the clinical and cost effectiveness of statins in the prevention of atrial fibrillation following cardiothoracic surgery?
 - 6.2 What is the best clinical and cost-effective treatment strategy (rate or rhythm control or no treatment) for people with atrial fibrillation after cardiothoracic surgery?

The key issues and draft questions will be used to develop more detailed review questions, which guide the systematic review of the literature.

3.6 Main outcomes

The main outcomes that may be considered when searching for and assessing the evidence are:

- health-related quality of life
- mortality
- stroke or thromboembolic complications
- major bleeding
- hospitalisation with a primary diagnosis of atrial fibrillation
- heart failure.

4 NICE quality standards and NICE Pathways

4.1 NICE quality standards

NICE quality standards that may need to be revised or updated when this guideline is published

[Atrial fibrillation](#) (2015) NICE quality standard QS93.

4.2 NICE Pathways

When this guideline is published, the recommendations will be added to NICE Pathways. NICE Pathways bring together all related NICE guidance and associated products on a topic in an interactive flowchart. The existing [atrial fibrillation flowchart](#) will be reviewed and amended to integrate the updated recommendations.

5 Further information

This is the final scope, which takes into account comments from registered stakeholders during consultation.

The guideline is expected to be published in September 2020.

You can follow progress of the [guideline](#).

Our website has information about how [NICE guidelines](#) are developed.

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