



Impact on NHS workforce and resources

Resource impact

Published: 18 August 2022

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The [NICE guideline on atrial fibrillation: diagnosis and management](#) was published in April 2021. The guideline recommendations have been reviewed for their potential impact on the NHS workforce and resources.

Since publishing these recommendations, [NHS England and NHS Improvement have published an operational note](#), which outlines the results of the national procurement exercise for direct-acting oral anticoagulants (DOACs) and the resulting commissioning recommendations. The NICE guideline should be read in conjunction with this document.

The guideline covers diagnosing and managing atrial fibrillation in adults. It includes guidance on providing the best care and treatment for people with atrial fibrillation, including assessing and managing risks of stroke and bleeding.

The recommendations in the guideline were developed before the COVID-19 pandemic.

Recommendations likely to have an impact on resources

The recommendations most likely to have the greatest resource impact nationally (for England) are listed below.

- Offer anticoagulation with a direct-acting oral anticoagulant to people with atrial fibrillation and a CHA₂DS₂-VASc score of 2 or above, taking into account the risk of bleeding. Apixaban, dabigatran, edoxaban and rivaroxaban are all recommended as options, when used in line with the criteria specified in the relevant NICE technology appraisal guidance (**recommendation 1.6.3**).
- Consider anticoagulation with a direct-acting oral anticoagulant for men with atrial fibrillation and a CHA₂DS₂-VASc score of 1, taking into account the risk of bleeding. Apixaban, dabigatran, edoxaban and rivaroxaban are all recommended as options, when used in line with the criteria specified in the relevant NICE technology appraisal guidance (**recommendation 1.6.4**).
- If direct-acting oral anticoagulants are contraindicated, not tolerated or not suitable in people with atrial fibrillation, offer a vitamin K antagonist (**recommendation 1.6.5**).
- Use the [ORBIT bleeding risk score](#) because evidence shows that it has a higher accuracy in predicting absolute bleeding risk than other bleeding risk tools. Although ORBIT is the best tool for this purpose, other bleeding risk tools may need to be used until it is embedded in clinical pathways and electronic systems (**recommendation 1.2.2**).
- The implementation of the ORBIT tool may take some time to integrate into the different primary care systems.

Context

Atrial fibrillation is the most common heart rhythm disorder (affecting over 2% of the adult population), and estimates suggest its prevalence is increasing. Atrial fibrillation causes palpitations and breathlessness in many people, but it may be silent and undetected. If left untreated it is a significant risk factor for stroke and other morbidities.

Atrial fibrillation is typically detected as an irregular pulse or an irregular rhythm on an electrocardiogram (ECG). This may be an incidental finding or may arise while investigating symptoms suggestive of the disease. See the section on support from NICE (below) for related NICE medical technologies guidance on detecting atrial fibrillation. Because atrial fibrillation can be intermittent, detection and diagnosis may be challenging. The aim of treatment is to prevent complications, particularly stroke, and alleviate symptoms. Drug treatments include anticoagulants to reduce the risk of stroke, and antiarrhythmics to restore or maintain the normal heart rhythm or to slow the heart rate in people who remain in atrial fibrillation.

The guideline update focuses on areas of new evidence and changing practice since the 2014 NICE guideline. These include methods of identifying atrial fibrillation; assessing stroke and bleeding risk; antithrombotic agents; ablation strategies; preventing recurrence; and preventing and managing postoperative atrial fibrillation.

Atrial fibrillation services are commissioned by integrated care systems or clinical commissioning groups and NHS England. NHS England commission adult specialist cardiac services including complex cardiac rhythm management, complex interventional cardiology services and high cost devices for ablation. Providers are primary care GP services, community services and NHS hospital trusts.

Resource impact

The expected move away from warfarin to DOACs for stroke prevention in atrial fibrillation reflects changes already happening in current practice, which would have continued without the guideline update. This change in practice may have been accelerated during the COVID-19 pandemic, because people taking DOACs do not need to attend regular monitoring appointments.

In the future, it is anticipated that the proportion of people with atrial fibrillation treated with warfarin will decrease. It is assumed that this reduction in warfarin use will correspond to an increase in the use of the 4 DOACs currently approved.

Movement away from warfarin to DOACs may lead to a reduction in the need for anticoagulation clinics.

The costs for anticoagulant treatments mainly fall within primary care because this is where most prescribing for atrial fibrillation takes place.

A resource impact template is available for local modelling and should take into account prices in the [framework agreement for DOACs announced by NHS England](#) that went live on 1 January 2022.

Support to put the recommendations into practice

Support from NICE

- The recommendations in this guideline were developed before the COVID-19 pandemic. See the [MHRA advice on warfarin and other anticoagulants – monitoring of patients during the COVID-19 pandemic](#), which includes reports of supratherapeutic anticoagulation with warfarin.
- We have developed a resource on [CVD prevention: detecting atrial fibrillation and anticoagulation](#) to help support local priorities. This resource includes advice on where to find local data to make the case for action, how to find relevant NICE guidance on the topic, and practical support on how to improve quality.
- NICE has produced [clinical knowledge summaries on atrial fibrillation](#) and [oral anticoagulation](#). These are concise, accessible summaries of current evidence for primary care professionals.
- The 2021 [NICE impact report on cardiovascular disease prevention](#) highlights how our guidance on atrial fibrillation is used to improve the health of people. We have also published an [impact report on stroke](#), which highlights how our atrial fibrillation guidance can contribute towards preventing strokes.
- Related NICE guidance includes:
 - [NICE's medical technologies guidance on WatchBP Home A for opportunistically detecting atrial fibrillation during diagnosis and monitoring of hypertension](#)
 - [NICE's medical technologies guidance on Zio XT for detecting cardiac arrhythmias](#)
 - [NICE's quality standard on atrial fibrillation](#).

We have listed all our products on [heart rhythm conditions](#), which includes published and in development products on atrial fibrillation.

Support from outside NICE

- The [NHS England National CVD Prevention Programme](#) has been set up to address the [NHS Long Term Plan](#) priority to focus on the prevention of cardiovascular disease. The programme aims to develop targeted interventions to optimise care on high-risk conditions for cardiovascular disease, including atrial fibrillation. The work includes:
 - [CVDPREVENT](#), a new national primary care audit. People with a coded diagnosis of atrial fibrillation, amongst other high-risk conditions, will have data extracted that will allow an analysis of cardiovascular disease prevention efforts and lead to quality improvement opportunities across primary care networks. The [first CVDPREVENT annual audit report](#) has been published.
 - An [atrial fibrillation demonstrator site programme](#), which aims to identify people already diagnosed with atrial fibrillation who are not receiving anticoagulation. These people are then encouraged to have a discussion with their GP to discuss their treatment options.
- NHS England have also developed a national stroke service model as outlined in the NHS Long Term Plan. [Integrated Stroke Delivery Networks](#) are designed to transform stroke care across the country and provide a collaborative approach to improving the entire stroke pathway. This includes working with local primary care networks to detect and address risk factors for stroke, including atrial fibrillation.
- Public Health England have published [Health Matters: preventing cardiovascular disease](#) to help achieve the ambitions set out in the NHS Long Term Plan. This professional resource aims to prevent cardiovascular disease by the detection and management of atrial fibrillation, blood pressure and cholesterol. Its aim is that 90% of people with atrial fibrillation who are known to be at high risk of stroke are adequately anticoagulated by 2029.

Note that external websites and resources referred to in this statement have been identified as potentially useful resources to help implement specific recommendations from the guideline. NICE has not made any judgement about the methodology, quality or usability of the websites or resources.

The Guideline Resource and Implementation Panel

The Guideline Resource and Implementation Panel reviews NICE guidelines that have a substantial impact on NHS resources. By 'substantial', we mean that:

- implementing a single guideline recommendation in England costs or saves more than £1 million per year, **or**
- implementing the whole guideline in England costs or saves more than £5 million per year.

Panel members are from NICE, NHS England and NHS Improvement, Health Education England and NHS Clinical Commissioners. Topic experts are invited for discussions on specific topics, for example, from the Office for Health Improvement and Disparities, and voluntary and community support organisations.

The panel does not comment on or influence the guideline recommendations outside NICE's usual consultation processes and timelines.