

# Atrial fibrillation

Quality standard

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This standard should be read in conjunction with QS3, QS6, QS9, QS11, QS21, QS28, QS84, QS15, QS2 and QS100.

## Introduction

This quality standard covers the treatment and management of atrial fibrillation (including paroxysmal, persistent and permanent atrial fibrillation, and atrial flutter) in adults (18 years and older). For more information see the [topic overview](#). It will cover adults with both valvular and non-valvular atrial fibrillation unless specified otherwise at statement level.

### *Why this quality standard is needed*

Atrial fibrillation is a condition that affects the heart, causing it to beat irregularly and too fast. When this happens, blood does not flow properly through the heart and the rest of the body. This means that people with atrial fibrillation may be at increased risk of blood clots. Clots can block blood vessels, and a stroke can occur if a blood vessel in the brain is blocked by a clot. As a result, if left untreated atrial fibrillation is a significant risk factor for stroke and other morbidities.

Atrial fibrillation is the most common sustained cardiac arrhythmia, and estimates suggest that its prevalence is increasing. The Health and Social Care Information Centre's 2011–12 [Quality and outcomes framework](#) estimated the prevalence of known atrial fibrillation to be 1.57%. The NHS Improving Quality [Guidance on risk assessment and stroke prevention for atrial fibrillation \(GRASP-AF\)](#) tool estimated the prevalence to be between 1.65% and 1.76%. However, it has been shown that the true prevalence of atrial fibrillation is underestimated and could be around 2.0% (Hobbs et al. [2005] [A randomised controlled trial and cost-effectiveness study of systematic screening \[targeted and total population screening\] versus routine practice for the detection of atrial fibrillation in people aged 65 and over](#). The SAFE study. Health Technology Assessment 40: 1–74).

The management of atrial fibrillation aims to prevent complications, particularly stroke, and alleviate symptoms. Drug treatments include anticoagulants to reduce the risk of stroke, antiarrhythmics to restore or maintain normal heart rhythm and drugs to slow the heart rate in adults who remain in atrial fibrillation. Non-pharmacological management includes electrical cardioversion, which may be used to 'shock' the heart back to its normal rhythm, and catheter or surgical ablation to create lesions to stop the abnormal electrical impulses that cause atrial fibrillation.

The quality standard is expected to contribute to improvements in the following outcomes:

- mortality rates in adults with atrial fibrillation
- stroke and transient ischaemic attack rates in adults with atrial fibrillation
- admission rates for adults with a primary diagnosis of atrial fibrillation
- quality of life of adults with atrial fibrillation.

### *How this quality standard supports delivery of outcome frameworks*

NICE quality standards are a concise set of prioritised statements designed to drive measurable improvements in the 3 dimensions of quality – patient safety, patient experience and clinical effectiveness – for a particular area of health or care. They are derived from high-quality guidance, such as that from NICE or other sources accredited by NICE. This quality standard, in conjunction with the guidance on which it is based, should contribute to the improvements outlined in the following 2 outcomes frameworks published by the Department of Health:

- [NHS Outcomes Framework 2015–16](#)
- [Public Health Outcomes Framework 2013–16](#).

Tables 1 and 2 show the outcomes, overarching indicators and improvement areas from the frameworks that the quality standard could contribute to achieving.

**Table 1** [NHS Outcomes Framework 2015–16](#)

Domain	Overarching indicators and improvement areas
1 Preventing people from dying prematurely	<p><i>Overarching indicator</i></p> <p>1a Potential Years of Life Lost (PYLL) from causes considered amenable to healthcare</p> <p>i Adults</p> <p><i>Improvement areas</i></p> <p>Reducing premature mortality from the major causes of death</p> <p>1.1 Under 75 mortality rate from cardiovascular disease (PHOF 4.4*)</p>

<p>2 Enhancing quality of life for people with long-term conditions</p>	<p><b>Overarching indicator</b></p> <p>2 Health-related quality of life for people with long-term conditions (ASCOF 1A<sup>**</sup>)</p> <p><b>Improvement areas</b></p> <p><b>Ensuring people feel supported to manage their condition</b></p> <p>2.1 Proportion of people feeling supported to manage their condition</p> <p><b>Reducing time spent in hospital by people with long-term conditions</b></p> <p>2.3i Unplanned hospitalisation for chronic ambulatory care sensitive conditions (adults)</p>
<p>4 Ensuring that people have a positive experience of care</p>	<p><b>Overarching indicator</b></p> <p>4a Patient experience of primary care</p> <p>i GP services</p> <p>4b Patient experience of hospital care</p> <p><b>Improvement areas</b></p> <p><b>Improving people's experience of outpatient care</b></p> <p>4.1 Patient experience of outpatient services</p> <p><b>Improving access to primary care services</b></p> <p>4.4 Access to (i) GP services</p>
<p><b>Aligning across the health and social care system</b></p> <p>* Indicator shared with Public Health Outcomes Framework (PHOF)</p> <p>** Indicator complementary with Adult Social Care Outcomes Framework (ASCOF)</p>	

**Table 2** Public health outcomes framework for England, 2013–16

Domain	Objectives and indicators
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4 Healthcare public health and preventing premature mortality	<p><b>Objective</b></p> <p>Reduced numbers of people living with preventable ill health and people dying prematurely, while reducing the gap between communities</p> <p><b>Indicators</b></p> <p>4.3 Mortality rate from causes considered preventable ** (NHSOF 1a)</p> <p>4.4 Under 75 mortality rate from all cardiovascular disease (including heart disease and stroke)* (NHSOF 1.1)</p>
<p><b>Aligning across the health and social care system</b></p> <p>* Indicator shared with the NHS Outcomes Framework (NHSOF)</p> <p>** Complementary to indicators in the NHS Outcomes Framework (NHSOF)</p>	

## *Patient experience and safety issues*

Ensuring that care is safe and that people have a positive experience of care is vital in a high-quality service. It is important to consider these factors when planning and delivering services relevant to atrial fibrillation.

NICE has developed guidance and an associated quality standard on patient experience in adult NHS services (see the NICE pathway on [patient experience in adult NHS services](#)), which should be considered alongside this quality standard. They specify that people receiving care should be treated with dignity, have opportunities to discuss their preferences, and are supported to understand their options and make fully informed decisions. They also cover the provision of information to patients and service users. Quality statements on these aspects of patient experience are not usually included in topic-specific quality standards. However, recommendations in the development sources for quality standards that impact on patient experience and are specific to the topic are considered during quality statement development.

## *Coordinated services*

The quality standard for atrial fibrillation: treatment and management specifies that services should be commissioned from and coordinated across all relevant agencies encompassing the whole atrial fibrillation care pathway. A person-centred, integrated approach to providing services is fundamental to delivering high-quality care to adults with atrial fibrillation.



The Health and Social Care Act 2012 sets out a clear expectation that the care system should consider NICE quality standards in planning and delivering services, as part of a general duty to secure continuous improvement in quality. Commissioners and providers of health and social care should refer to the library of NICE quality standards when designing high-quality services. Other quality standards that should also be considered when choosing, commissioning or providing a high-quality atrial fibrillation service are listed in [related quality standards](#).

## Training and competencies

The quality standard should be read in the context of national and local guidelines on training and competencies. All healthcare professionals involved in assessing, caring for and treating adults with atrial fibrillation should have sufficient and appropriate training and competencies to deliver the actions and interventions described in the quality standard. Quality statements on staff training and competency are not usually included in quality standards. However, recommendations in the development sources on specific types of training for the topic that exceed standard professional training are considered during quality statement development.

## Role of families and carers

Quality standards recognise the important role families and carers have in supporting adults with atrial fibrillation. If appropriate, healthcare professionals should ensure that family members and carers are involved in the decision-making process about investigations, treatment and care.

## List of quality statements

Statement 1. Adults with non-valvular atrial fibrillation and a CHA<sub>2</sub>DS<sub>2</sub>-VAS<sub>c</sub> stroke risk score of 2 or above are offered anticoagulation.

Statement 2. Adults with atrial fibrillation are not prescribed aspirin as monotherapy for stroke prevention.

Statement 3. Adults with atrial fibrillation who are prescribed anticoagulation discuss the options with their healthcare professional at least once a year.

Statement 4. Adults with atrial fibrillation taking a vitamin K antagonist who have poor anticoagulation control have their anticoagulation reassessed.

Statement 5. Adults with atrial fibrillation whose treatment fails to control their symptoms are referred for specialised management within 4 weeks.

Statement 6 (developmental). Adults with atrial fibrillation on long-term vitamin K antagonist therapy are supported to self-manage with a coagulometer.

## Quality statement 1: Anticoagulation to reduce stroke risk

### *Quality statement*

Adults with non-valvular atrial fibrillation and a CHA<sub>2</sub>DS<sub>2</sub>-VAS<sub>C</sub> stroke risk score of 2 or above are offered anticoagulation.

### *Rationale*

Adults with non-valvular atrial fibrillation and a CHA<sub>2</sub>DS<sub>2</sub>-VAS<sub>C</sub> stroke risk score of 2 or above are at a much higher risk of having a stroke than the general population. Anticoagulation therapy can help to prevent strokes by reducing the likelihood of a blood clot forming. A person's bleeding risk should be taken into account in reaching a decision about anticoagulation, although for most people the benefit of anticoagulation outweighs the bleeding risk.

### *Quality measures*

#### **Structure**

Evidence of local arrangements and written clinical protocols to ensure that adults with non-valvular atrial fibrillation and a CHA<sub>2</sub>DS<sub>2</sub>-VAS<sub>C</sub> stroke risk score of 2 or above are offered anticoagulation.

**Data source:** Local data collection.

#### **Process**

Proportion of adults with non-valvular atrial fibrillation and a CHA<sub>2</sub>DS<sub>2</sub>-VAS<sub>C</sub> stroke risk score of 2 or above who receive anticoagulation.

Numerator – the number in the denominator who receive anticoagulation.

Denominator – the number of adults with non-valvular atrial fibrillation and a CHA<sub>2</sub>DS<sub>2</sub>-VAS<sub>C</sub> stroke risk score of 2 or above.

**Data source:** Local data collection. Data can be collected using Quality and Outcomes Framework indicator AF007.

## Outcome

Stroke rates in adults with a primary diagnosis of non-valvular atrial fibrillation.

*Data source:* Local data collection. Data can be collected using the Royal College of Physicians' [Sentinel Stroke National Audit Programme \(SSNAP\)](#), question 2.1.

### *What the quality statement means for service providers, healthcare professionals and commissioners*

Service providers (primary, secondary and tertiary care services) have written clinical protocols in place to ensure that anticoagulation is offered to adults with non-valvular atrial fibrillation and a CHA<sub>2</sub>DS<sub>2</sub>-VAS<sub>c</sub> stroke risk score of 2 or above.

Healthcare professionals offer anticoagulation to adults with non-valvular atrial fibrillation and a CHA<sub>2</sub>DS<sub>2</sub>-VAS<sub>c</sub> stroke risk score of 2 or above.

Commissioners (NHS England area teams and clinical commissioning groups) commission primary, secondary and tertiary care services with written clinical protocols to ensure that adults with non-valvular atrial fibrillation and a CHA<sub>2</sub>DS<sub>2</sub>-VAS<sub>c</sub> stroke risk score of 2 or above are offered anticoagulation.

### *What the quality statement means for patients, service users and carers*

Adults with a type of atrial fibrillation called 'non-valvular' who are identified by their doctor as being at higher risk of having a stroke are offered treatment with a medicine called an anticoagulant, to lower their risk of having a blood clot that could cause a stroke.

### *Source guidance*

- [Atrial fibrillation](#) (2014) NICE guideline CG180, recommendation 1.5.3 (key priority for implementation)

### *Definitions of terms used in this quality statement*

#### **CHA<sub>2</sub>DS<sub>2</sub>-VAS<sub>c</sub> stroke risk score**

The [CHA<sub>2</sub>DS<sub>2</sub>-VAS<sub>c</sub>](#) stroke risk score estimates the risk of stroke in people with non-valvular atrial fibrillation on a point scale of 1–9, using the following risk factors:

- aged 65–74 years (1 point)
- aged 75 years or older (2 points)
- female (1 point)
- congestive heart failure (1 point)
- hypertension (1 point)
- diabetes (1 point)
- stroke, transient ischaemic attack or thromboembolism (2 points)
- vascular disease – previous myocardial infarction, peripheral arterial disease, aortic plaque (1 point).

The NICE guideline on [atrial fibrillation](#) recommends that bleeding risk, estimated using the [HAS-BLED](#) score, is taken into account when offering anticoagulation. The HAS-BLED score estimates the risk of bleeding on a point scale of 1–9. Each of the following risk factors represents 1 point:

- hypertension (uncontrolled; for example, systolic blood pressure higher than 160 mmHg)
- renal disease (chronic dialysis, renal transplantation or serum creatinine of 200 micromol/litre or more)
- liver disease (chronic hepatic disease such as cirrhosis or biochemical evidence of significant hepatic derangement [for example, bilirubin more than 2 times upper limit of normal in association with aspartate/alanine aminotransferase or alkaline phosphatase more than 3 times upper limit of normal])
- stroke
- major bleeding event or predisposition to bleeding
- labile international normalised ratio (INR) for people taking vitamin K antagonists, unstable or high INRs or poor time in therapeutic range (for example, less than 60%)
- age over 65 years
- use of drugs such as antiplatelet agents or non-steroidal anti-inflammatory drugs
- alcohol misuse or harmful excess.

[Adapted from [Atrial fibrillation](#) (NICE guideline CG180), recommendation 1.5.3]

## Quality statement 2: Use of aspirin

### *Quality statement*

Adults with atrial fibrillation are not prescribed aspirin as monotherapy for stroke prevention.

### *Rationale*

The risks of taking aspirin outweigh any benefits of taking it as monotherapy for stroke prevention in adults with atrial fibrillation. Healthcare professionals should be aware that adults with atrial fibrillation may need to take aspirin for other indications.

### *Quality measures*

#### **Structure**

Evidence of local monitoring arrangements to ensure that adults with atrial fibrillation are not prescribed aspirin as monotherapy for stroke prevention.

*Data source:* Local data collection.

#### **Process**

Proportion of adults with atrial fibrillation who are prescribed aspirin as monotherapy for stroke prevention.

Numerator – the number in the denominator who are prescribed aspirin as monotherapy for stroke prevention.

Denominator – the number of adults with atrial fibrillation.

*Data source:* Local data collection. Data can be collected using the Royal College of Physicians' [Sentinel Stroke National Audit Programme \(SSNAP\)](#), question 2.1.6.

#### **Outcome**

Rates of prescribing aspirin.

*Data source:* Local data collection.

## *What the quality statement means for service providers, healthcare professionals and commissioners*

**Service providers** (primary and secondary care services) monitor prescribing of pharmacological treatment(s) for adults with atrial fibrillation and have protocols in place to ensure that aspirin is not prescribed as monotherapy for stroke prevention.

**Healthcare professionals** do not prescribe aspirin as monotherapy for stroke prevention for adults with atrial fibrillation.

**Commissioners** (NHS England area teams and clinical commissioning groups) specify that primary and secondary care services ensure that aspirin is not prescribed as monotherapy for stroke prevention for adults with atrial fibrillation.

## *What the quality statement means for patients, service users and carers*

**Adults with atrial fibrillation** are not prescribed aspirin on its own for preventing stroke.

## *Source guidance*

- [Atrial fibrillation](#) (2014) NICE guideline CG180, recommendation 1.5.15 (key priority for implementation)

## *Definitions of terms used in this quality statement*

### **Aspirin as monotherapy for stroke prevention**

Adults with atrial fibrillation might be taking aspirin for a variety of other conditions; if so, this may result in the person taking aspirin (for the other conditions) as well as anticoagulants. If a person chooses not to take anticoagulants, this decision and the reason(s) for it should be documented.

[[Atrial fibrillation](#) (NICE guideline CG180), full guideline]



## Quality statement 3: Discussing options for anticoagulation

### *Quality statement*

Adults with atrial fibrillation who are prescribed anticoagulation discuss the options with their healthcare professional at least once a year.

### *Rationale*

Adults with non-valvular atrial fibrillation should have the opportunity to discuss the choice of suitable anticoagulants with their healthcare professional, in order to improve adherence to treatment. Available options should include vitamin K antagonists (such as warfarin) and non-vitamin K antagonist oral anticoagulants (NOACS; that is, apixaban, dabigatran etexilate and rivaroxaban). In adults with valvular atrial fibrillation, only vitamin K antagonists can be used, and this should be explained to the person. Adherence to anticoagulation can help to prevent stroke by reducing the likelihood of a blood clot forming.

### *Quality measures*

#### **Structure**

Evidence of local arrangements to ensure that adults with atrial fibrillation who are prescribed anticoagulation can discuss the options with their healthcare professional at least once a year.

#### **Process**

Proportion of adults with atrial fibrillation who are prescribed anticoagulation who discuss the options with their healthcare professional at least once a year.

Numerator – the number in the denominator who discuss the options with their healthcare professional at least once a year.

Denominator – the number of adults with atrial fibrillation who are prescribed anticoagulation.

*Data source:* Local data collection.

#### **Outcome**

a) Patient experience.

**Data source:**Local data collection.

b) Rates of adherence to anticoagulation therapy for adults with atrial fibrillation.

**Data source:**Local data collection.

### *What the quality statement means for service providers, healthcare professionals and commissioners*

**Service providers** (primary and secondary care services) have protocols in place to ensure that adults with atrial fibrillation who are prescribed anticoagulation can discuss the options with their healthcare professional at least once a year.

**Healthcare professionals** discuss the options at least once a year with adults with atrial fibrillation who are prescribed anticoagulation. There should not be mandatory use of vitamin K antagonists before offering non-vitamin K antagonist oral anticoagulants for people with non-valvular atrial fibrillation.

**Commissioners** (NHS England area teams and clinical commissioning groups) specify that primary and secondary care service providers have protocols in place to ensure that adults with atrial fibrillation who are prescribed anticoagulation can discuss the options with their healthcare professional at least once a year.

### *What the quality statement means for patients, service users and carers*

**Adults with atrial fibrillation who are prescribed an anticoagulant** have the chance to talk with their doctor at least once a year about the types of anticoagulant they could have and the advantages and disadvantages of each.

### *Source guidance*

- [Atrial fibrillation](#) (2014) NICE guideline CG180, recommendations 1.5.4, 1.5.6, 1.5.8 and 1.5.10

## *Definitions of terms used in this quality statement*

### **Anticoagulants**

Anticoagulants for people with atrial fibrillation include vitamin K antagonists (such as warfarin) and non-vitamin K antagonist oral anticoagulants (NOACS; that is, apixaban, dabigatran etexilate and rivaroxaban).

[Adapted from [Atrial fibrillation](#) (NICE guideline CG180)]

### **Discuss**

Any discussion with an adult with atrial fibrillation should involve both oral and written information. A patient decision aid, such as that accompanying NICE's guideline on [atrial fibrillation](#), can be used to inform the discussion. A discussion should take place at least once a year to review the need and quality of anticoagulation.

[Adapted from [Atrial fibrillation](#) (NICE guideline CG180), recommendation 1.5.18, [Patient experience in adult NHS services](#) (NICE guideline CG138), recommendation 1.5.12, and expert consensus]

### *Equality and diversity considerations*

Discussions with adults with atrial fibrillation about choice of anticoagulants should take into account any additional needs, such as physical, sensory or learning disabilities, and people who do not speak or read English. People should have access to an interpreter or advocate if needed.

## Quality statement 4: Anticoagulation control

### *Quality statement*

Adults with atrial fibrillation taking a vitamin K antagonist who have poor anticoagulation control have their anticoagulation reassessed.

### *Rationale*

Improving poor anticoagulation control by reassessing the international normalised ratio (INR) at each visit can ensure that a person's risks of stroke and of having a major bleed are as low as possible.

### *Quality measures*

#### **Structure**

Evidence of local arrangements and written clinical protocols to ensure that adults with atrial fibrillation taking a vitamin K antagonist have their anticoagulation reassessed if their anticoagulation control is poor.

*Data source:* Local data collection.

#### **Process**

a) Proportion of adults with atrial fibrillation taking a vitamin K antagonist who have their time in therapeutic range (TTR) recorded at each visit for INR assessment.

Numerator – the number in the denominator who have their TTR recorded at each visit for INR assessment.

Denominator – the number of adults with atrial fibrillation taking a vitamin K antagonist.

*Data source:* Local data collection.

b) Proportion of adults with poor anticoagulation control who have it reassessed.

Numerator – the number in the denominator who have their anticoagulation reassessed.

Denominator – the number of adults with poor anticoagulation control.

*Data source:* Local data collection.

## Outcome

a) Rates of thromboembolic complications.

*Data source:* Local data collection.

b) Patient experience.

*Data source:* Local data collection.

### *What the quality statement means for service providers, healthcare professionals and commissioners*

Service providers (secondary care services) have systems in place with written clinical protocols for reassessing anticoagulation in adults with atrial fibrillation who are taking a vitamin K antagonist and have poor anticoagulation control.

Healthcare professionals reassess anticoagulation and record the results for adults with atrial fibrillation who are taking a vitamin K antagonist and have poor anticoagulation control.

Commissioners (clinical commissioning groups) commission secondary care services that have written clinical protocols for reassessing anticoagulation in adults with atrial fibrillation who are taking a vitamin K antagonist and have poor anticoagulation control.

### *What the quality statement means for patients, service users and carers*

Adults with atrial fibrillation who are taking a type of anticoagulant called a vitamin K antagonist (such as warfarin) have their anticoagulation treatment reassessed if regular tests show that it isn't working well.

## Source guidance

- [Atrial fibrillation](#) (2014) NICE guideline CG180, recommendations 1.5.11 (key priority for implementation), 1.5.12, 1.5.13 and 1.5.14 (key priority for implementation)

## *Definitions of terms used in this quality statement*

### **Poor anticoagulation control**

Poor anticoagulation control can be shown by any of the following:

- 2 INR values higher than 5 or 1 INR value higher than 8 within the past 6 months
- 2 INR values less than 1.5 within the past 6 months
- TTR less than 65%.

The NICE guideline on [atrial fibrillation](#) recommends that TTR is measured at each visit and at least annually, and that healthcare professionals should:

- use a validated method of measurement such as the Rosendaal method for computer-assisted dosing or proportion of tests in range for manual dosing
- exclude measurements taken during the first 6 weeks of treatment
- calculate TTR over a maintenance period of at least 6 months.

[[Atrial fibrillation](#) (NICE guideline CG180), recommendations 1.5.11, 1.5.12 and 1.5.18]

### **Reassessing anticoagulation**

The NICE guideline on [atrial fibrillation](#) recommends that the following factors should be taken into account and addressed if they are contributing to poor anticoagulation control:

- cognitive function
- adherence to prescribed therapy
- illness
- interacting drug therapy
- lifestyle factors including diet and alcohol consumption.

If poor anticoagulation control cannot be improved as a result of this reassessment, the risks and benefits of alternative stroke prevention strategies should be evaluated and discussed with the person.

[Adapted from [Atrial fibrillation](#) (NICE guideline CG180), recommendations 1.5.13 and 1.5.14]

## Quality statement 5: Referral for specialised management

### *Quality statement*

Adults with atrial fibrillation whose treatment fails to control their symptoms are referred for specialised management within 4 weeks.

### *Rationale*

Prompt referral of adults with atrial fibrillation to specialised management if treatment fails can help to alleviate symptoms and reduce the likelihood of poor outcomes such as stroke and heart failure.

### *Quality measures*

#### **Structure**

Evidence of local arrangements and referral pathways to ensure that adults with atrial fibrillation whose treatment fails to control their symptoms are referred for specialised management within 4 weeks.

*Data source:* Local data collection.

#### **Process**

Proportion of adults with atrial fibrillation whose treatment fails to control their symptoms who are referred for specialised management within 4 weeks.

Numerator – the number in the denominator who are referred for specialised management within 4 weeks.

Denominator – the number of adults with atrial fibrillation whose treatment fails to control their symptoms.

*Data source:* Local data collection.

#### **Outcome**

a) Adults with atrial fibrillation symptom control.



**Data source:**Local data collection.

b) Rates of stroke and heart failure for adults with atrial fibrillation.

**Data source:**Local data collection.

### *What the quality statement means for service providers, healthcare professionals and commissioners*

**Service providers** (primary and secondary care services) have procedures in place to ensure that adults with atrial fibrillation whose treatment fails to control their symptoms are referred for specialised management within 4 weeks.

**Healthcare professionals** refer adults with atrial fibrillation whose treatment fails to control their symptoms, to specialised management within 4 weeks.

**Commissioners** (NHS England area teams and clinical commissioning groups) ensure that primary and secondary care providers have procedures in place so that adults with atrial fibrillation whose treatment fails to control their symptoms are referred for specialised management within 4 weeks.

### *What the quality statement means for patients, service users and carers*

**Adults with atrial fibrillation who still have symptoms after treatment** are referred within 4 weeks for specialised care that aims to ease their symptoms and reduce their risk of having a stroke or heart failure.

### *Source guidance*

- [Atrial fibrillation](#) (2014) NICE guideline CG180, recommendation 1.3.1 (key priority for implementation)

### *Definitions of terms used in this quality statement*

#### **Fails to control symptoms**

Adults whose treatment fails to control the symptoms of atrial fibrillation at any stage.

[Adapted from [Atrial fibrillation](#) (NICE guideline CG180), recommendation 1.3.1]

## Referred within 4 weeks

Referral should be no longer than 4 weeks after the final failed treatment or no longer than 4 weeks after recurrence of atrial fibrillation after cardioversion.

[Adapted from [Atrial fibrillation](#) (NICE guideline CG180), recommendation 1.3.1]

## Specialised management

Specialised management can be provided by an 'atrial fibrillation specialist' such as a cardiologist or nurse with an interest in arrhythmia. Specialised management should be provided through a package of care that covers key elements of service provision, tailored to the person with atrial fibrillation. Formally documenting key elements of the service can help to ensure that it has been delivered.

[[Atrial fibrillation](#) (NICE guideline CG180), full guideline]

## Quality statement 6 (developmental): Self-monitoring of anticoagulation

Developmental quality statements set out an emergent area of cutting-edge service delivery or technology currently found in a minority of providers and indicating outstanding performance. They will need specific, significant changes to be put in place, such as redesign of services or new equipment.

### *Developmental quality statement*

Adults with atrial fibrillation on long-term vitamin K antagonist therapy are supported to self-manage with a coagulometer.

### *Rationale*

Enabling adults with atrial fibrillation to self-manage their coagulation using a coagulometer can help to optimise their anticoagulation treatment. As well as reducing the frequency of hospital or clinic visits, it can improve health outcomes such as risk of stroke and bleeding.

### *Quality measures*

#### **Structure**

Evidence of local arrangements for adults with atrial fibrillation on long-term vitamin K antagonist therapy to be supported to self-manage with a coagulometer.

**Data source:** Local data collection.

#### **Process**

Proportion of adults with atrial fibrillation on long-term vitamin K antagonist therapy who are supported to self-manage with a coagulometer.

Numerator – the number in the denominator who are supported to self-manage with a coagulometer.

Denominator – the number of adults with atrial fibrillation on long-term vitamin K antagonist therapy.

**Data source:** Local data collection.

## Outcome

a) Patient experience.

*Data source:*Local data collection.

b) Rates of adults on long-term vitamin K antagonist therapy who self-manage.

*Data source:*Local data collection.

### *What the quality statement means for service providers, healthcare professionals and commissioners*

**Service providers** (secondary care services) make coagulometers for self-monitoring available to adults with atrial fibrillation who are on long-term vitamin K antagonist therapy, and ensure that support is available for their use.

**Healthcare professionals** offer coagulometers to adults with atrial fibrillation who are on long-term vitamin K antagonist therapy so that they can self-monitor their coagulation status, provided that they are willing and able to do so. Healthcare professionals also provide support for people using the coagulometers.

**Commissioners** (clinical commissioning groups) ensure that secondary care providers have coagulometers for self-monitoring available and offer them to adults with atrial fibrillation who are on long-term vitamin K antagonist therapy, and provide support for their use.

### *What the quality statement means for patients, service users and carers*

Adults with atrial fibrillation who are taking a vitamin K antagonist over a long time are (if appropriate) offered a monitor they can use to help check how well the treatment is working, if they want to use the monitor and can do so. They are also given support by healthcare professionals to use the monitor.

### *Source guidance*

- [Atrial fibrillation and heart valve disease: self-monitoring coagulation status using point-of-care coagulometers \(the CoaguChek XS system and the INRatio2 PT/INR monitor\) \(2014\)](#)  
NICE diagnostics guidance 14, recommendations 1.1 and 1.2

## *Definitions of terms used in this quality statement*

### **Coagulometer**

Coagulometers monitor blood clotting in adults taking anticoagulants.

The CoaguChek XS system and INRatio2 PT/INR monitor are recommended for self-monitoring coagulation status in adults on long-term vitamin K antagonist therapy who have atrial fibrillation if:

- the person prefers this form of testing and
- the person or their carer is both physically and cognitively able to self-monitor effectively.

[Adapted from [Atrial fibrillation and heart valve disease: self-monitoring coagulation status using point-of-care coagulometers \(the CoaguChek XS system and the INRatio2 PT/INR monitor\)](#) (2014) NICE diagnostics guidance 14, recommendations 1.1 and 1.2]

### **Support**

Patients and carers should be trained in the effective use of the CoaguChek XS system or the INRatio2 PT/INR monitor and clinicians involved in their care should regularly review their ability to self-monitor. Equipment for self-monitoring should be regularly checked using reliable quality-control procedures, and by testing patients' equipment against a healthcare professional's coagulometer which is checked in line with an external quality assurance scheme. Ensure accurate patient records are kept and shared appropriately.

[[Atrial fibrillation and heart valve disease: self-monitoring coagulation status using point-of-care coagulometers \(the CoaguChek XS system and the INRatio2 PT/INR monitor\)](#) (2014) NICE diagnostics guidance 14, recommendations 1.3 and 1.4]

### *Equality and diversity considerations*

For adults with atrial fibrillation who may have difficulty with or who are unable to self-monitor, such as people with disabilities, the possibility of their carers helping with self-monitoring should be considered. Coagulometers currently come at a cost to the adult with atrial fibrillation, so reasonable adjustments should be made for the socioeconomic status of the adult.

## Using the quality standard

### *Quality measures*

The quality measures accompanying the quality statements aim to improve the structure, process and outcomes of care in areas identified as needing quality improvement. They are not a new set of targets or mandatory indicators for performance management.

We have indicated if current national indicators exist that could be used to measure the quality statements. These include indicators developed by the Health and Social Care Information Centre through its [Indicators for Quality Improvement Programme](#). If there is no national indicator that could be used to measure a quality statement, the quality measure should form the basis for audit criteria developed and used locally.

See NICE's [what makes up a NICE quality standard?](#) for further information, including advice on using quality measures.

### *Levels of achievement*

Expected levels of achievement for quality measures are not specified. Quality standards are intended to drive up the quality of care, and so achievement levels of 100% should be aspired to (or 0% if the quality statement states that something should not be done). However, NICE recognises that this may not always be appropriate in practice, taking account of safety, choice and professional judgement, and therefore desired levels of achievement should be defined locally.

### *Using other national guidance and policy documents*

Other national guidance and current policy documents have been referenced during the development of this quality standard. It is important that the quality standard is considered alongside the documents listed in [development sources](#).

### *Information for the public*

NICE has produced [information for the public](#) about this quality standard. Patients, service users and carers can use it to find out about the quality of care they should expect to receive; as a basis for asking questions about their care, and to help make choices between providers of social care services.

## Diversity, equality and language

During the development of this quality standard, equality issues have been considered and [equality assessments](#) are available.

Good communication between healthcare professionals and adults with atrial fibrillation is essential. Treatment, care and support, and the information given about it, should be culturally appropriate. It should also be accessible to people with additional needs such as physical, sensory or learning disabilities, and to people who do not speak or read English. Adults with atrial fibrillation should have access to an interpreter or advocate if needed.

Commissioners and providers should aim to achieve the quality standard in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity and foster good relations. Nothing in this quality standard should be interpreted in a way that would be inconsistent with compliance with those duties.

## Development sources

Further explanation of the methodology used can be found in the quality standards [process guide](#).

## Evidence sources

The documents below contain recommendations from NICE guidance or other NICE-accredited recommendations that were used by the Quality Standards Advisory Committee to develop the quality standard statements and measures.

- [Atrial fibrillation](#) (2014) NICE guideline CG180
- [Atrial fibrillation and heart valve disease: self-monitoring coagulation status using point-of-care coagulometers \(the CoaguChek XS system and the INRatio2 PT/INR monitor\)](#) (2014) NICE diagnostics guidance 14

## Policy context

It is important that the quality standard is considered alongside current policy documents, including:

- Atrial Fibrillation Association (2014) [Grasp the initiative: action plan](#)
- European Heart Rhythm Association (2014) [UK report \(white book\)](#)
- National Institute for Cardiovascular Outcomes Research (2014) [National audit of cardiac rhythm management devices](#)
- Department of Health (2013) [Cardiovascular disease outcomes strategy: improving outcomes for people with or at risk of cardiovascular disease](#)

## Definitions and data sources for the quality measures

- Atrial Fibrillation Association (2014) [Guidance of risk assessment and stroke prevention for atrial fibrillation \(GRASP-AF\) tool](#)
- Quality and Outcomes Framework indicator [AF007](#)
- Royal College of Physicians (2014) [Sentinel Stroke National Audit Programme \(SSNAP\)](#)



## Related NICE quality standards

### *Published*

- [Physical activity: encouraging activity in all people in contact with the NHS \(2015\)](#) NICE quality standard 84
- [Hypertension \(2013\)](#) NICE quality standard 28
- [Stable angina \(2012\)](#) NICE quality standard 21
- [Patient experience in adult NHS services \(2012\)](#) NICE quality standard 15
- [Alcohol dependence and harmful alcohol use \(2011\)](#) NICE quality standard 11
- [Chronic heart failure \(2011\)](#) NICE quality standard 9
- [Diabetes in adults \(2011\)](#) NICE quality standard 6
- [Venous thromboembolism prevention \(2010\)](#) NICE quality standard 3
- [Stroke \(2010\)](#) NICE quality standard 2

### *In development*

- [Lipid modification](#). Publication expected September 2015
- [Cardiovascular risk assessment](#). Publication expected September 2015
- [Acute heart failure](#). Publication expected December 2015

### *Future quality standards*

This quality standard has been developed in the context of all quality standards referred to NICE, including the following topics scheduled for future development:

- Medicines optimisation (covering medicines adherence and safe prescribing)
- Physical activity: encouraging activity within the general population
- Primary prevention: population and community based primary prevention strategies, including the role of A&E, at different stages of the life course.

The full list of quality standard topics referred to NICE is available from the [quality standards topic library](#) on the NICE website.

## Quality Standards Advisory Committee and NICE project team

### *Quality Standards Advisory Committee*

This quality standard has been developed by Quality Standards Advisory Committee 1. Membership of this committee is as follows:

**Dr Gita Bhutani**

Professional Lead, Psychological Services, Lancashire Care NHS Foundation Trust

**Mrs Jennifer Bostock**

Lay member

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**Dr Arnold Zermansky**

GP, Leeds

The following specialist members joined the committee to develop this quality standard:

**Dr Campbell Cowan**

Consultant Cardiologist, Leeds General Infirmary

**Mr John Campbell**

Cardiology Specialist Nurse, Community Services, South Tees NHS Foundation Trust

**Dr Matthew Fay**

GP, Westcliffe Medical Practice

**Professor Beverley Hunt** (from April 2015)

Professor of Thrombosis and Haemostasis, Guy's and St Thomas' NHS Foundation Trust and King's College University

**Professor Gregory Lip**

Professor of Cardiovascular Medicine, University of Birmingham

**Mrs Eileen Porter**

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### *NICE project team*

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## About this quality standard

NICE quality standards describe high-priority areas for quality improvement in a defined care or service area. Each standard consists of a prioritised set of specific, concise and measurable statements. NICE quality standards draw on existing NICE or NICE-accredited guidance that provides an underpinning, comprehensive set of recommendations, and are designed to support the measurement of improvement.

The methods and processes for developing NICE quality standards are described in the [quality standards process guide](#).

This quality standard has been incorporated into the NICE pathway on [atrial fibrillation](#).

NICE produces guidance, standards and information on commissioning and providing high-quality healthcare, social care, and public health services. We have agreements to provide certain NICE services to Wales, Scotland and Northern Ireland. Decisions on how NICE guidance and other products apply in those countries are made by ministers in the Welsh government, Scottish government, and Northern Ireland Executive. NICE guidance or other products may include references to organisations or people responsible for commissioning or providing care that may be relevant only to England.

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### *Endorsing organisation*

This quality standard has been endorsed by Department of Health, as required by the Health and Social Care Act (2012)

## *Supporting organisations*

Many organisations share NICE's commitment to quality improvement using evidence-based guidance. The following supporting organisations have recognised the benefit of the quality standard in improving care for patients, carers, service users and members of the public. They have agreed to work with NICE to ensure that those commissioning or providing services are made aware of and encouraged to use the quality standard.

- [Anticoagulation Europe](#)
- [Arrhythmia Alliance](#)
- [Alzheimer's Society](#)
- [UK Clinical Pharmacy Association \(UKCPA\)](#)
- [AF Association](#)
- [Heart Valve Voice](#)
- [Society for Acute Medicine \(SAM\)](#)