





















Working together across London to prevent AF related strokes

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## FOREWORD

Every year in London about 2,000 (SSNAP 2015-2016) people get admitted to hospital with a stroke due to atrial fibrillation (AF). More than half of these people, despite being known to have AF before their stroke, are not receiving anticoagulation of any sort. Although we don't have the data it is likely that many of the people who are listed as having been prescribed warfarin are not in therapeutic range. A conservative estimate is that 625 people a year in London could have their stroke prevented with correct management.

Stroke caused by AF tends to be severe and is associated with significant mortality and morbidity. The average costs of both health and social care for stroke have recently been calculated to be an average of £44,434 over the first 5 years (data not yet public). The top priority for commissioners is to fund services that are most likely to improve the health and wellbeing of their population.

However, this has to be done within the available budget. Detecting AF through opportunistic pulse checks would cost virtually nothing. Anticoagulating these patients requires effective delivery systems and enhanced communication between all those responsible for patient care. Many patients can be managed perfectly well with warfarin, which is a cheap and effective anticoagulant when managed correctly. Increasingly, the advantages of the newer oral anticoagulants are being recognised by both clinicians and patients. Although these drugs are relatively expensive, the cost is considerably less than the costs for one person who experiences a stroke.

Failure to prescribe an important treatment needs to be seen as an error that is equally as serious as prescribing the wrong treatment.

This toolkit provides useful information and support for those commissioning services for and treating people with AF in London. We hope that it will enable commissioners and clinicians in London to lead the way in showing that correct management of AF is not difficult to deliver, that in doing so we prevent a huge amount of suffering for individuals and their families and avoid an unnecessary burden on our health service.



**Tony Rudd CBE** National Clinical Director for Stroke, NHS England

Matt Keamer

Matt Kearney National Clinical Director for Cardiovascular Disease Prevention, NHS England



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## The pan-London AF Programme

There are 15 Academic Health Science Networks (AHSNs) established by NHS England with the aim to spread innovation at pace and scale, improving health and generating economic growth.

In addition across England there are 12 Clinical Networks which provide the clinical expertise and leadership to drive commissioning decision making, reduce variation and direct service improvement. The London Clinical Networks are focussed on specific areas of clinical care, including the London Stroke Clinical Network.

The London AHSNs **The Health Innovation Network**, **Imperial College Health Partners** and **UCLPartners**, have collaborated with the **London Stroke Clinical Network** to deliver a pan-London approach, working with clinical commissioning groups (CCGs) and providers to reduce AF related strokes.

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## INTRODUCTION and purpose

Within clinical and commissioning settings preventing AF related strokes is a priority. There is evidence of outstanding work delivered by the NHS, charities, and industry to improve AF care and outcomes for patients within London and nationally.

To ensure all commissioners and providers are aware of existing initiatives and accompanying resources this toolkit brings together a series of practical tools and case studies to inform those working on an AF project. To navigate the available resources they are organised around the different parts of the AF pathway. There are three domains, **Detect**, **Protect** and **Perfect**. Within each domain there are three 'opportunities for improvement' in order to help determine where to focus improvement efforts.

Whichever domain or opportunities for improvement you concentrate on, our **AF Improvement Cycle** is designed to inform you of the core elements that make up the foundations of an AF improvement project.

It is anticipated that this repository will continue to grow as further examples of great practice or new resources are published.

More information on the pan-London AF project can be found here in our position statement

The pan-London AF project team have developed AF quality standards and system level impact measures for prevention of AF related strokes

This toolkit is aimed at health care professionals and commissioners. People with Atrial Fibrillation should consult with their healthcare professional as they would normally do, when discussing the management of their AF. We would like to emphasise that clinical decision making remains the sole responsibility of individual clinicians, and that any information provided is for information and educational purposes only and is not intended to constitute professional advice, diagnosis or treatment, or as a substitute for professional judgement. We cannot endorse resources developed by other organisations and therefore individuals and organisations take full responsibility for any use that they undertake of these resources.

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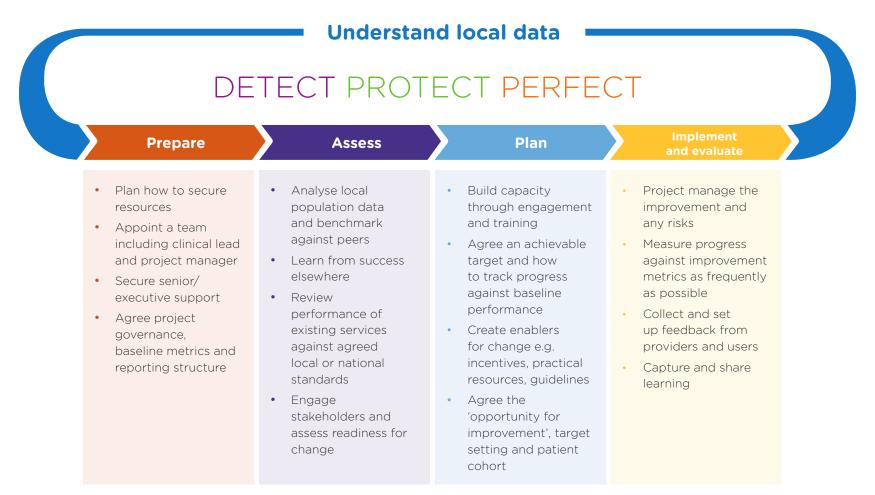
Within the three AF domains Detect, Protect and Perfect we have highlighted nine opportunities for improvement. The AF Improvement Cycle on the following page provides a framework in which each opportunity for improvement should be considered.



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#### The AF Improvement Cycle



This cycle has been developed through understanding the critical success factors within AF improvement work undertaken in London. It can be applied to any of the three AF domains.

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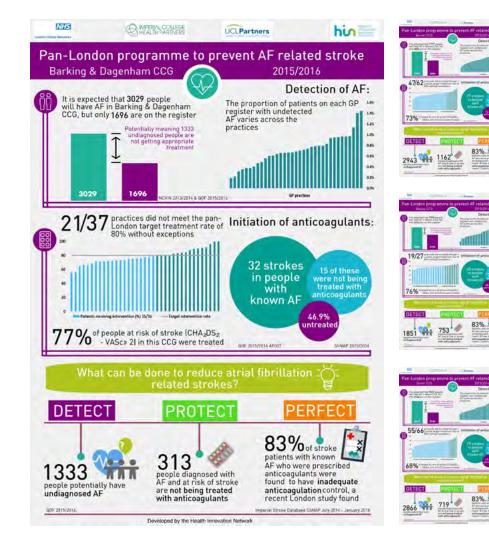
# Understand your local population

The pan-London AF Programme have produced a series of infographics for each CCG using Quality and Outcomes Framework data (QOF), Sentinel Stroke National Audit Programme (SSNAP) and the National Cardiovascular Intelligence Network (NCVIN) data.

#### For each CCG the infographics outline:

- The proportion of patients on a GP register with AF compared to the expected prevalence
- The percentage of people with known AF at risk of stroke who are treated with anticoagulants
- The number of GP surgeries who treated at least 80% of their AF patients at risk of stroke with anticoagulants
- The number of strokes in people with known AF
- The percentage of those people who had a stroke with known AF, who were not receiving anticoagulation therapy





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#### Data - Understand your local population

Understanding your local data is vital to identify areas for improvement and is the first step in any AF project.

Detect data FIND MORE	Protect data TREAT MORE	Perfect data TREAT BETTER
Understand the actual local prevalence of AF compared to the expected prevalence	Identify people with AF not receiving optimal anticoagulation	Gather local knowledge on anticoagulant services. Ensure you capture data on the following areas:
QOF data shows actual AF prevalence. For CCG level data select QOF 2015-16 prevalence, achievement as exceptions at CCG Level v2 <i>Click here</i>	QOF data will show the proportion of patients with AF and at risk of stroke who are anticoagulated <i>Click here</i> >	<ul> <li>Criteria for referral (inclusion and exclusion)</li> <li>Pathways (clinical and administrative)</li> <li>Waiting times from referral to anticoagulant treatment</li> <li>Time in Therapeutic Range (TTR)</li> </ul>
The National Cardiovascular Intelligence Network (NCVIN) has produced models of expected prevalence of AF by CCG Click here	Primary Care Intelligence Packs provide data on CVD prevention, detection and management <i>Click here</i>	Numbers of patients self-monitoring and self managing
Public Health England Health profiles give a snapshot of AF data for each local authority in England. Click here	Sentinel Stroke National Audit Programme (SSNAP) will highlight the number of patients with known AF prior to their stroke who were not anticoagulated <i>Click here</i>	The London Stroke Clinical Network has produced a checklist for excellence in anticoagulation which can be used to benchmark your service. See PDF>
Public health AF prevalence modelling Click here >	NHS RightCare CVD focus packs help CCGs identify 'what to change' by using data to identify improvement opportunities <i>Click here</i> ?	AF quality metrics have been developed to support clinicians and commissioners to review care of people on local AF registers See PDF>

The NHS Specialist Pharmacy service outlines how to access and use the various data sources on medicines optimisation in AF, to assess the quality of care.



**Cardiovascular disease prevention optimal value pathway** This evidence based pathway has been produced by NHS RightCare



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DETECT PERFECT PROTECT Contact us Introduction Data Anticoagulation Resources to pan London myth busters programme **AF Business Case** Public Health England (PHE) and the Academic Health Science Networks have collaborated to develop the AF Care Pathway Business Case Model. This important tool uses local, publiclyreported data on AF to help each organisation identify opportunities for improving the identification and management of AF. The tool will also quantify the costs and savings associated This is an important with addressing these opportunities.

#### The business case assesses the potential gaps in:

- **Detecting** individuals with AF so that all those who need it have access to preventative care
- Protecting people with AF who are most at risk (those with a CHA<sub>2</sub>DS<sub>2</sub>-VASc ≥ 2) by ensuring that all eligible patients have access to treatment with an anticoagulant
- **Perfecting** treatment approaches, to ensure optimal treatment for everyone with AF who is receiving an anticoagulant

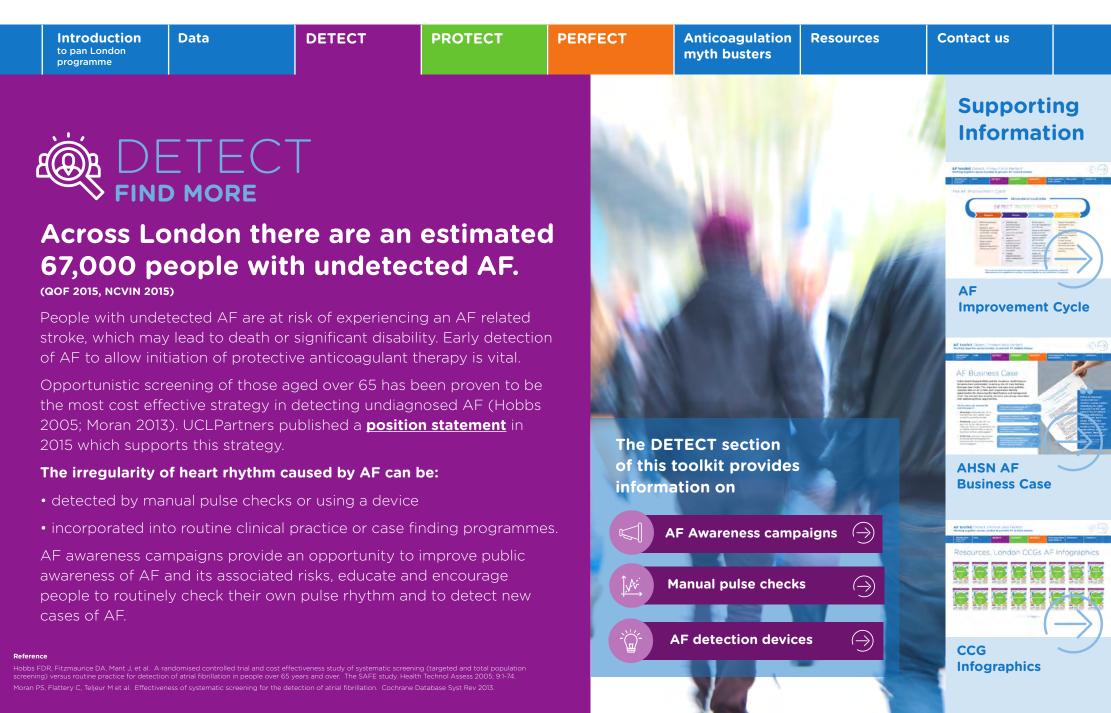
#### Click here to download the AF business case user guide

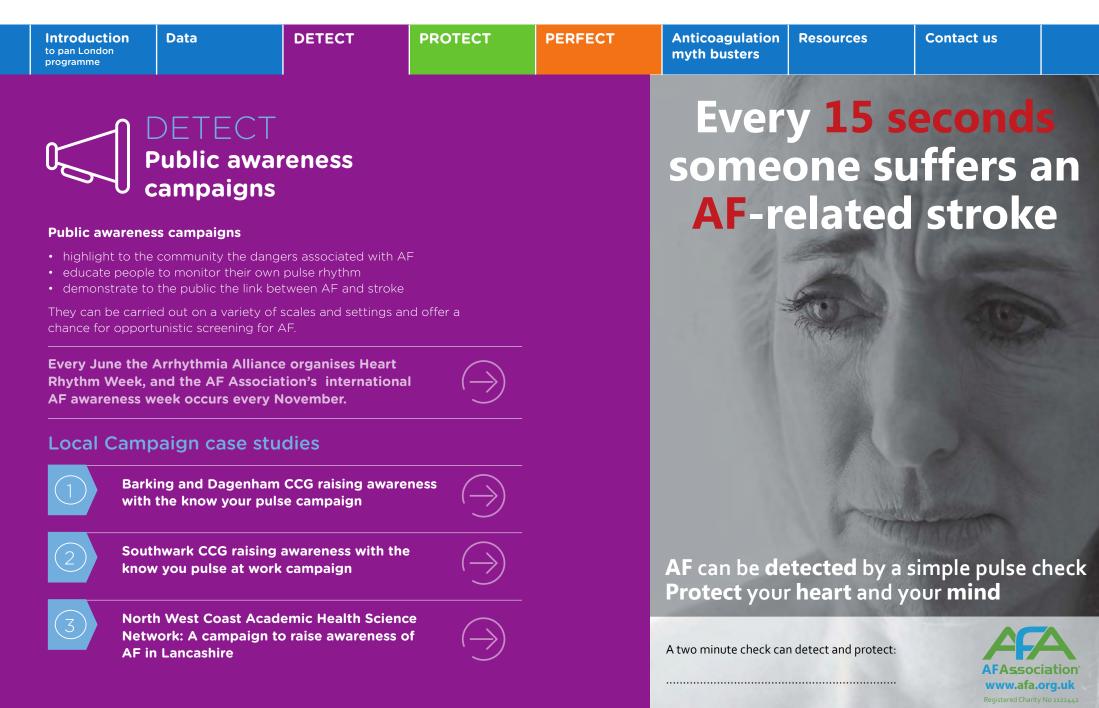
Click here to download the business case model and report (Microsoft 2010 Version)

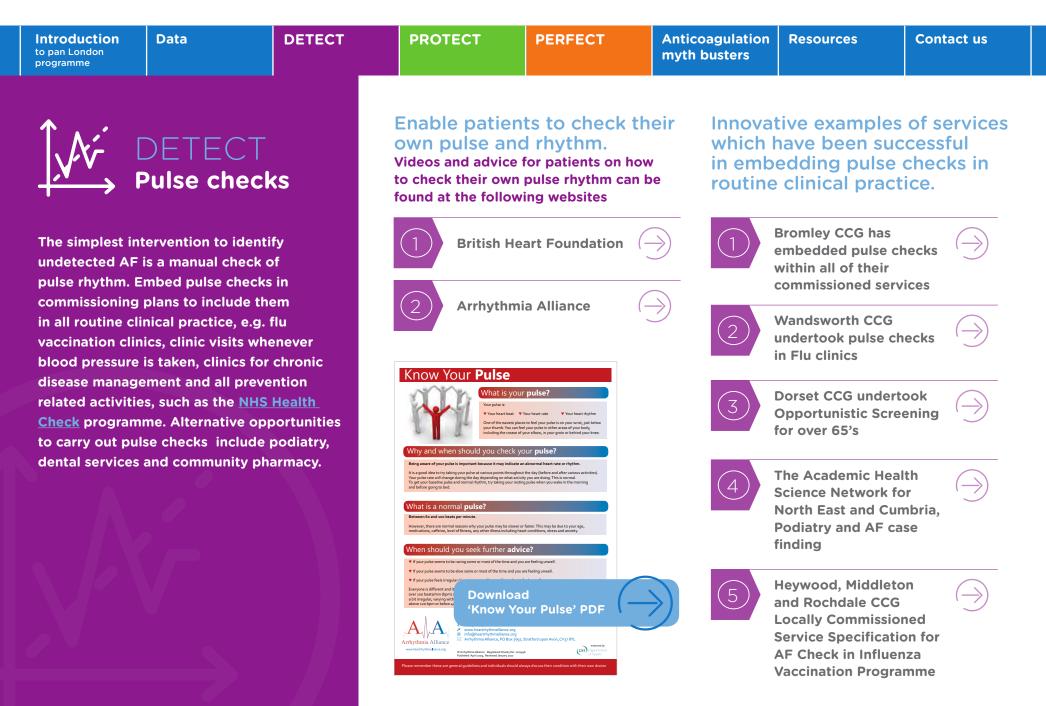
Click here to download the Business Case model and report (Microsoft 2016 Version)

If you would like support in generating your local business case using this tool please contact your local AHSN This is an important resource for our members across London. Identifying the right investment at the right place in the AF patient pathway will directly translate into more lives saved. The AF Care Pathway Business Case Model can be used to guide clinical and health investment decisionmaking at every level."

Helen Williams, Consultant Pharmacist from Health Innovation Network.







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Detection Devices

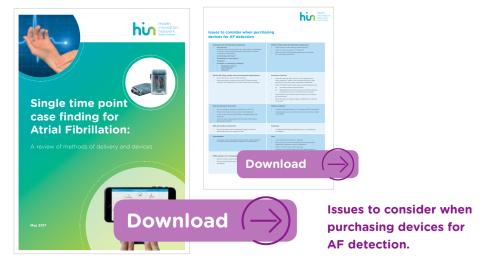
The use of detection devices will enhance an AF detection programme by improving accuracy when identifying AF (compared to pulse checks alone), and therefore reduce the need for unnecessary and costly 12 lead electrocardiograms (ECGs).

Some devices produce an ECG reading of the heart's electrical activity, which can be shared upon referral, and will assist further investigations for paroxysmal AF.

The Health Innovation Network AF detection device review is a detailed report defining the current technology and software designs available to enhance AF detection. It contains examples of how to use these devices to improve actual prevalence in a variety of settings, and contains further information on:

- Rationale for screening
- Strategies for AF detection
- Diagnostic accuracy of AF detection devices
- Barriers, enablers & strategies for screening programmes using detection devices
- Factors to consider when choosing a detection device
- Product information on selected detected devices

#### Health Innovation Network's **AF Detection Devices Review**



#### Case studies of successful examples of using detection devices in a variety of settings.



**Chelsea and** Westminster Hospital **NHS Foundation** Trust use of Samsung smartphone and a hardware/software solution called Kardia mobile, from AliveCor

Southwark CCG

at the workplace





North West Coast AHSN. Innovative approaches to increase the identification of AF in the community and primary care





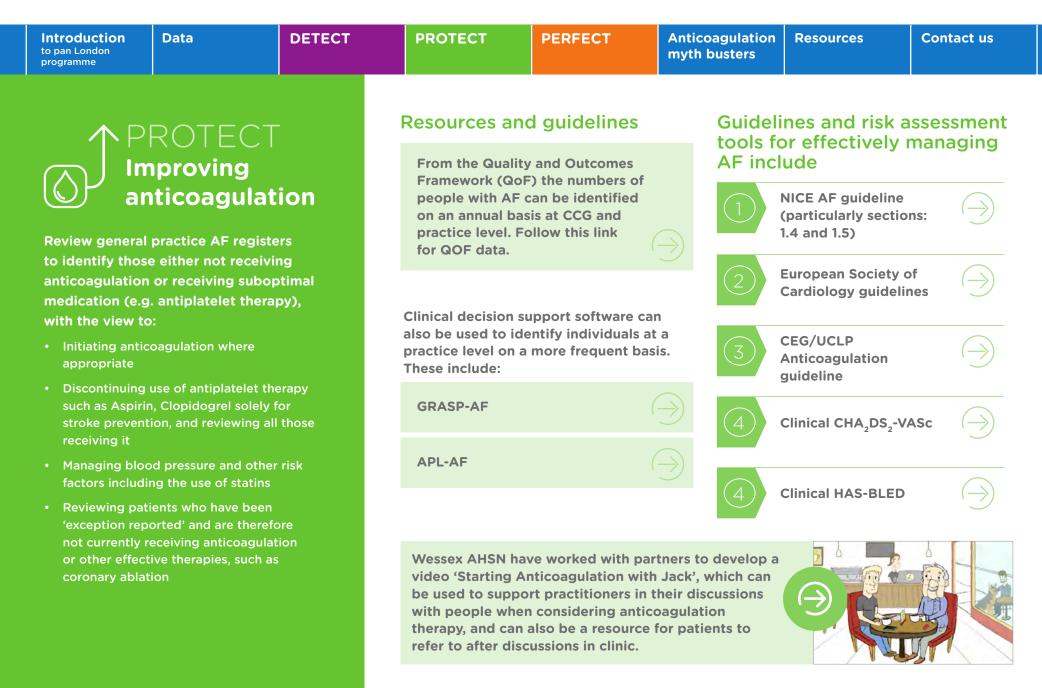
**QIPP** Case study. use of Microlife Watch **BP Home A** 



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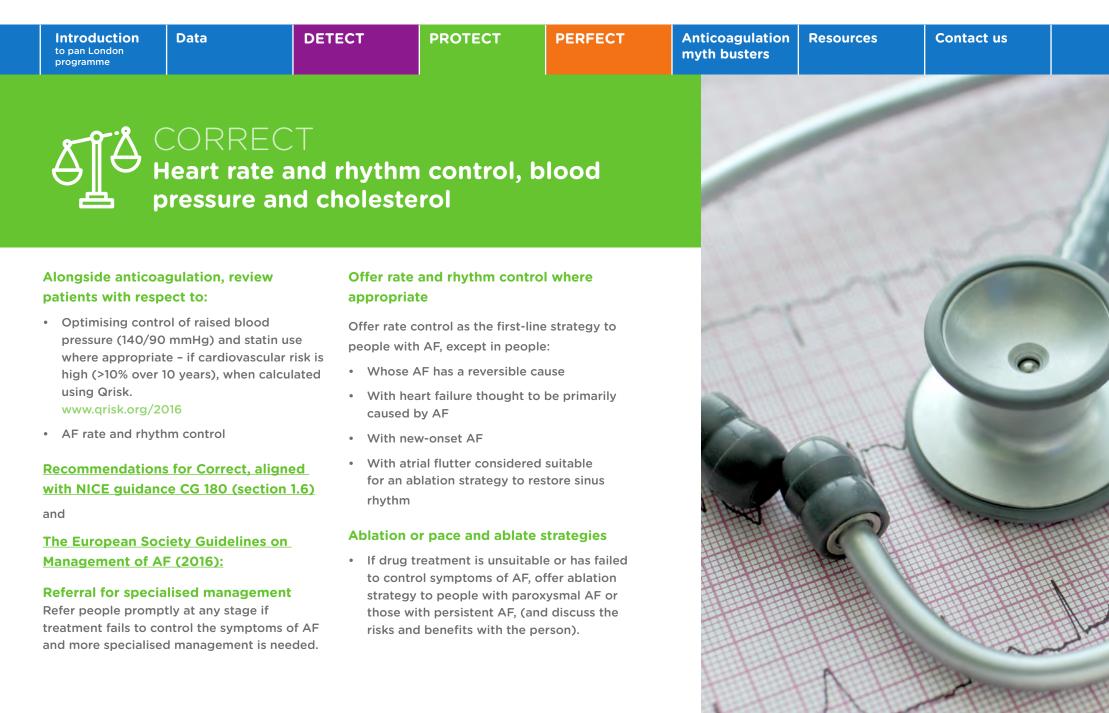
CCG Infographics



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to pan London	When consist preference There are a Service spect Newham CCG Att Visit Here > The London Strot assist commission against best prace Camden CCG ser community-base commissioners w anticoagulation t accountability, co Visit Here > Community-I	idering initiation is to provide for number of re- ifications rial Fibrillation Pathwork have to benchmark the stice Visit Here > vice specification pro- d anticoagulation ser ill need to consider w herapy service, e.g. pontract management based models of care have	on and/or mot this service 'cle sources and ex ay Commissioning Mo ave developed a check eir anticoagulation ser ovides an overview of o vices, including key pa when commissioning at atient eligibility criter and governance arrang f good practice we been established a	myth busters	ticoagulation, ' in community	, the y settings. Don. help choose th each patient ation decision versity vice, f choice"	e	
(DOACs)) in a community setting may reduce delays in	Southwark and L	the country, which have delivered improvements in anticoagulation, for example: NHS Blackpool makes effective use of GRASP-AF: Visit Here > Southwark and Lambeth CCGs, Optimising Anticoagulation for AF in Primary Care, use of virtual clinics Visit Here >				Primary care 		
treatment, improve patient satisfaction, improve patient adherence to treatment, and yield efficiency savings.	Industry solu Helicon Health is is part of the Dig	tions a web-based service ital Health.London Ad	to support people wit ccelerator Visit Here › F management Visit H	th AF, and i	East Midlands Clinic Considerations for in Non-Valvular AF		$\bigcirc$	

The terms DOACS (Direct Oral Anticoagulants) and NOACs (Non-vitamin K antagonist Oral Anticoagulants) refer specifically to the newer anticoagulant agents. The terms are used interchangeably within this toolkit depending on where the specific documents or guidelines originated.



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Introduction to pan London programme DETECT

PROTECT



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Even when people with AF are correctly diagnosed and treatment started, strokes still can and do occur, often due to poor quality of anticoagulation and poor adherence to treatment. Patients supported in the correct use of anticoagulation treatment have less risk of adverse events such as bleeding.

A high quality anticoagulation service allows people with AF to be supported with their choice of anticoagulation, to self-monitor their INR, and provides education on access and adherence to treatment.

The resources in this section will help you improve your anticoagulation service

- Quality of anticoagulation management
- Self-monitoring and self-management please refer to pan-London information on patient self-monitoring
- Promoting adherence during anticoagulant therapy



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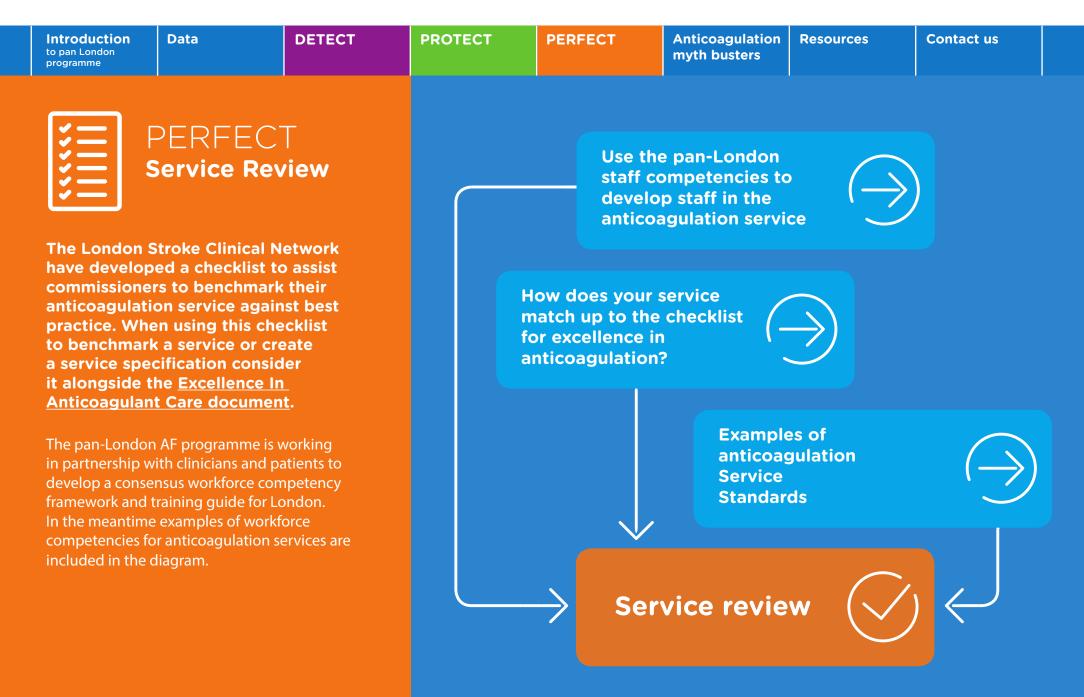


Key components of a high quality anticoagulation service include:

- Patient education about the benefits and risks of anticoagulation treatment and the importance of medication adherence
- Support for patients and carers in the choice of treatment options
- Support for patients to self monitor and self manage their anticoagulation therapy
- Staff education to improve skills for supporting self-monitoring and improve adherence
- Robust mechanisms in place to assess "time in therapeutic range" (TTR) information, with clear protocols to optimise the quality of anticoagulation control
- Key performance indicators (e.g. referral to treatment time, TTR, adverse events, number of patients self-monitoring/managing warfarin)
- Annual review of the service

**Excellence in anticoagulant** care is a guide for commissioners and service providers, to help deliver a high quality anticoagulation service.







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### Anticoagulation Myth Busters

As treatment guidance has developed, there remains some common questions and misconceptions relating to AF anticoagulation therapy. Within this section, we aim to identify common myths and questions and provide evidence based answers.

Antiplatelet agents (such as aspirin or clopidogrel) can be used to reduce stroke risk in patients with Atrial fibrillation	Aspirin should always be continued with anticoagulants if a patient has cardiovascular disease	<b>DOACs cannot</b> be reversed and are therefore unsafe	I cannot give anticoagulation to an elderly or frail patient in case they fall
<b>DOACs do not</b> interact with other medication	For the answers to these and much more information click here	My patient is renally impaired, so they cannot have an Oral Anticoagulant	All patients must stop anticoagulant agents prior to dental procedures
I need to give heparin bridging to my patients with AF when they are taking warfarin or DOACs	$\bigcirc$	I don't need to monitor my patients bloods when they are on a DOAC	I have decided to put my patient on a DOAC, which one is the best? And at what dose?
My newly diagnosed AF patient is on a DOAC already for joint replacement, so they are already antico- agulated for their AF	My patient is unable to swallow therefore cannot have a DOAC	Patients with any form of valve disease are not suitable for DOACs	<b>DOACS</b> , like warfarin, can interact with food

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## Resources, London CCGs AF Infographics

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## Resources, London CCGs AF Infographics

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## Acknowledgments

The pan-London AF team would like to thank the following individuals and organisations for their input to this toolkit through sharing their resources, best practice, time and knowledge.

#### Charities

Anticoagulation Europe

Arrhythmia Alliance

Atrial Fibrillation Association

**British Heart Foundation** 

Stroke Association

Thrombosis UK

**Matt Kearney**, National clinical lead for CVD prevention, NHS England

**Tony Rudd**, National clinical lead for stroke, NHS England

#### The members of:

The excellence in anticoagulation working group (London region)

The AF self-monitoring and selfmanagement group (London region)

The anticoagulation adherence working group (London region)

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## Contact Us



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