Commissioning effective anticoagulation services:

A resource pack for commissioners
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About this commissioning resource pack

Background to the revised version
In 2012 the first version of the Commissioning effective anticoagulation services for the future, resource pack was developed. This new revised version has been developed and changed significantly since November 2012.

Overview of anticoagulation
Anticoagulants are treatments prescribed to people who are at risk of blood clots, which can potentially be fatal. Anticoagulants can be prescribed to people with a range of conditions which might cause harmful clots to form. For some people short term anticoagulation therapy will be required, for example when a patient is admitted to hospital to have an operation. For others, however, anticoagulation therapy can be used to manage a long term condition or the longer term consequences of a previous cardiac event.

Given the different management and commissioning arrangements for short and long-term anticoagulation usage, this commissioning resource pack focuses on the services for patients on long term anticoagulation therapy, considering the following groups:

- people with artificial heart valves
- people who have had a heart attack or stroke
- people suffering from atrial fibrillation
- people at risk of deep vein thrombosis
- people at risk of a pulmonary embolism

Traditional anticoagulation therapy has been focused around warfarin, which requires regular monitoring in the form of blood tests and dose adjustments. However, other treatments are now available for some indications which do not require regular monitoring by healthcare professionals. This change in the treatment options for anticoagulation provides an important opportunity to consider the most appropriate service design that will bring value for money to the NHS and a good experience and high quality outcomes for patients.

The purpose of this commissioning resource pack, which has been developed with the input of a wide range of experts, is to provide a resource for commissioners and thus support the development of anticoagulation services which are appropriate for each different locality, based on the needs and preferences of service users and fit for purpose in the modern NHS.

A list of experts involved in the development of the first edition of this resource is included in Annex 1.
The case for change

It is estimated that in the UK, there are approximately 1.25 million people currently prescribed oral anticoagulant drugs, with warfarin being the most frequently prescribed oral anticoagulant in the UK\(^1\). Data suggest that the proportion of adults aged 18 years or older needing anticoagulation therapy is up to 2.4 per cent of the adult population of England, per year\(^2\). This patient population is expected to increase in the coming years as the UK population ages and more people are identified as requiring anticoagulation therapy\(^3\).

Effective anticoagulation services are required to deal with this increasing burden. The National Institute for Health and Care Excellence (NICE) published guidance for commissioners in May 2013. The *Support for commissioning: anticoagulation therapy guide*\(^4\) provides information for commissioners on the planning and commissioning of care for people receiving anticoagulation therapy, covering areas such as:

- Monitoring the safety and quality of anticoagulation therapy
- Assessing service levels
- Specifying anticoagulation therapy for people with atrial fibrillation (AF), venous thromboembolism and other conditions
- The commissioning and budgeting tool

This builds on the potential benefits in robustly commissioning an effective anticoagulation therapy service, as outlined in the original NICE guide, published in 2007. These included:

- Ensuring that appropriate patients receive anticoagulation therapy and prompt monitoring if required
- Reducing inequalities in access to anticoagulation therapy
- Improving anticoagulation control in patients, and reducing drug-associated complications
- Reducing the risk of stroke in patients with AF, which may impact positively on stroke service requirement and capacity
- Better value for money, through helping commissioners to manage their commissioning budgets more effectively and implementing more cost effective treatments – this may include opportunities for clinicians to undertake local service redesign to meet local requirements in novel ways

Despite the widely recognised benefits of anticoagulation, it is estimated that under half (48.9 per cent) of stroke patients with known atrial fibrillation were on anticoagulant treatment on admission to hospital in England, Wales and Northern Ireland between October and December 2015\(^5\).

Currently, many anticoagulation services are designed around older established treatments that require different ways of working. Taking warfarin requires regular attendance at an anticoagulation clinic to monitor and adjust treatment dose. This can have a social burden on service users and their carers, for example:
• People in full-time employment may have to attend a clinic during working hours which can be problematic and result in lost income
• Elderly patients may find it difficult to travel to a clinic regularly and may have to rely on family members or carers to take them
• The cost of travelling to a clinic regularly may be prohibitively expensive to some people
• Changing the dosage of medication can be confusing and be a patient safety risk
• People who travel regularly can be put at risk by passing through different time zones, which can disrupt their schedule

There are also healthcare costs of providing regular clinics. For example:

• Staff time in running clinics
• Costs for conducting blood tests
• Capital costs for use of a clinic unit

There are now other treatment options for anticoagulation, which have the advantage of providing a stable level of anticoagulation on a regular dose which do not require regular monitoring and adjustment. The emergence of these alternative therapies, provides the opportunity to redesign the system for delivering AF treatment and care, improve the quality of life for people with AF by reducing the number of visits they are required to make to their healthcare provider for treatment and giving them certainty over their medication as well as having the added benefit of helping make better use of NHS resources.

Alongside the possible step-change in anticoagulation services for people with an identified need for anticoagulation, there are also a significant number of people who require anticoagulation but haven’t been identified. For example, it is estimated that as many as 700,000 people in the UK may have undiagnosed atrial fibrillation. Therefore efforts to increase identification and tackle this unmet need should be considered as part of any service redesign. If people requiring anticoagulation are identified, and by implication treated, then other health service interventions may be averted and a poorer patient experience can be avoided. Updated NICE guidance from June 2014 outlines anticoagulation as a treatment option to prevent stroke in patients with atrial fibrillation. It clearly states that aspirin should not be offered solely for this purpose. Latest figures indicate that despite this guidance, 29 per cent of patients with atrial fibrillation admitted to hospital with a stroke were taking antiplatelet medication prior to admission.
The opportunities for anticoagulation services presented by the healthcare reforms

In October 2014, NHS England published the *Five Year Forward View (SYFV)*, which sets out a positive vision for the future of the NHS, based around seven new models of care.

The *SYFV* outlines what the future of the NHS will look like in five years time and focuses on a new relationship with patients and communities as well as new models of care, outlining the steps needed to achieve these goals.

The current national priorities for health and care are laid out below. Of particular interest in relation to anticoagulation services is the focus on improving access to innovation in healthcare. There is also a drive for more efficient services across the system as well as a prioritisation of prevention services, all of which can met through the commissioning of effective anticoagulation services.

**Priorities for health and care:**

| **Prevention** | • The NHS is backing national action on obesity, smoking, alcohol and other major health risks and prioritising Public Health England’s prevention strategy |
| **Integration** | • The 2015 Spending Review outlined that integration of the NHS and social care was a priority, with £120 billion to be spent a year by 2020-21 on integrating services |
| **Efficiency** | • The NHS is committed to driving efficiency and productive investment |
| **Devolution** | • A devolution revolution will give devolved areas control of their health and social care remit, such as in Manchester and London |
| **Innovation** | • The NHS is focused on accelerating health innovation such as in the Accelerated Access Review |

The *SYFV* also outlines that the traditional divide between primary care, community services and hospitals is increasingly a barrier to the personalised and coordinated health services patients need. It states that over the next five years and beyond the NHS will need to make provisions for the requirements that long term conditions bring such as improved out of hospital care, integrated services, networks of care and not just organisations. The following new models of care are seen as integral for the future of the NHS:
The SYFV and the priorities set out within it are in context that £22 billion in efficiency savings need to be made by the end of 2020\textsuperscript{10}. Considering the best way to configure and commission anticoagulation services can help to achieve these priorities. It will also help to unlock resources which can be invested to deliver improved quality and lead to longer term cost savings and improvements in clinical outcomes and patient experience.
Five steps to commissioning better outcomes in anticoagulation services

Given the competing priorities for commissioners and the complexity of commissioning anticoagulation services, ACE has identified five steps to assist commissioners in designing appropriate anticoagulation services for people who require long term treatment. These steps are as follows:

- **Step 1** Identifying need and understanding the patient population
- **Step 2** Understanding current services
- **Step 3** Developing the business case
- **Step 4** Designing the service and implementation
- **Step 5** Monitoring and incentivising quality

For each of these steps, the following sections of this pack set out the actions commissioners should take and the resources which will provide information or evidence for commissioners to achieve each step in this service redesign process.
Step 1  Identifying need and understanding the patient population

Only by understanding the population and the demand on services in each locality will it be possible to build effective anticoagulation services. Data and resources on the incidence of people requiring anticoagulation, patient pathways, patient experience and downstream consequences are all important pieces of information which are required in order to fully understand the population and to identify local need.

<table>
<thead>
<tr>
<th>Action</th>
<th>Resources</th>
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| **Identify the prevalence and incidence of people requiring anticoagulation services in the locality** | • NICE estimates that 2.4% of the population requires anticoagulation therapy
  • Local population demographics will affect prevalence estimates
  • NICE published the (Support for commissioning: anticoagulation therapy guide) in May 2013. This supports commissioners in identifying the number of people who will need access to anticoagulation services. Commissioners should understand the needs of their populations and managing those at risk using prediction techniques |
| **Patient experience**                                                 | • CVD: Primary Care Intelligence Packs
  • Cardiovascular disease profiles
  • AF: How can we do better? profiles (Stroke Association)
  • NICE anticoagulation commissioning guide
  • NICE anticoagulation commissioning and budgeting tool
  • NICE baseline assessment tool: VTE in adults
  • QOF prevalence – data tables 2014/15
  • HSCIC Indicator Portal |
| There is currently not a national patient experience survey for people using anticoagulation services | • National Cancer Patient Experience Survey |
| • The NHS Commissioning Board should consider introducing a national survey, following the model of the National Cancer Patient Experience Survey |
| • Questions could include:                                             | • How long was it from the time you first thought something might be wrong with you until you first had anticoagulation therapy?
  • Did you understand the explanation of what was wrong with you?
  • Was your need for anticoagulation therapy explained to |
you?
- Before your anticoagulation therapy started, were you given a choice of different types of treatment?
- Were the possible side effects of treatment(s) explained in a way you could understand?
- Were you involved as much as you wanted to be in decisions about which treatment(s) you would have?

- Commissioners may wish to work with their local cardiovascular network to develop a survey that could be used to measure patient experience in their locality

### Patient engagement
- Commissioners should engage the public and patients in the design of their service when assessing need
- Local HealthWatch organisations could also be used to gain insight from patients and the public on service design

### Downstream system impact
- It is important to be able to understand the downstream consequences of different service models. Information that would be useful to review and understand before making decisions about service models includes:
  - Number of strokes
  - Emergency admissions
  - Non Elective 30 day readmissions
  - Bed days
  - Mortality and morbidity
  - Major and minor bleeds
  - Litigation costs

- NHS RightCare Commissioning for Value Focus Packs
- CVD disease statistics
- Sentinel Stroke National Audit Programme (SSNAP)
- Hospital Episode Statistics
Knowing what services are delivered where is fundamental for any commissioner. Some services and models of service delivery will be right for the local population as they are, but others may need to be redesigned to be fit for purpose. Understanding what is happening now will allow commissioners to take stock of what is working well and what is working less well in their locality and inform the shape of services in the future.

<table>
<thead>
<tr>
<th>Action/information</th>
<th>Resources</th>
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<tr>
<td><strong>Mapping services</strong></td>
<td>• NHS RightCare Commissioning for Value Focus Packs</td>
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<td></td>
<td>• Local contracts</td>
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<tr>
<td></td>
<td>• Hospital Episodes Statistics for Anticoagulation, AF, Stroke services</td>
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<tr>
<td>• It is essential to know what services</td>
<td>• Local survey information</td>
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<tr>
<td>already exist to determine if they</td>
<td>• Support group and patient involvement groups</td>
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<tr>
<td>are appropriate and fit for purpose</td>
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<tr>
<td>• Information should be collected about</td>
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<td>services delivered, settings for</td>
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<tr>
<td>service delivery, people managed in</td>
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<tr>
<td>each service and outcomes achieved</td>
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<tr>
<td>• This information should include both</td>
<td>• Medicines Optimisation Dashboard</td>
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<tr>
<td>the capacity to manage current service</td>
<td>• Innovation Scorecard</td>
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<tr>
<td>demand and estimated future demand if</td>
<td>• Key therapeutic Topics</td>
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<tr>
<td>best practice is implemented</td>
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| Service user and clinical engagement    | • Feedback should be gathered from clinicians and service users about      |
|                                         | the performance of existing services                                      |
|                                         | • Information about patient reported experience and clinical outcomes      |
|                                         | should be gathered                                                         |
|                                         | • Feedback should be gathered from patient support groups and service      |
|                                         | user involvement groups                                                    |

| Prescribing data                        | • Information about prescribing should be interrogated so that the number |
|                                         | of people being prescribed each different type of anticoagulant is clear  |
|                                         | • Medicines Optimisation Dashboard                                         |
|                                         | • Innovation Scorecard                                                     |
|                                         | • Key therapeutic Topics                                                   |
| Registries | • Data already routinely collected in registries should be interrogated  
• Outcomes data published by public health observatories should also be utilised to build a picture of the current service and outcomes  
• Data should be collected about post thrombotic syndrome | • Guidance on Risk Assessment and Stroke Prevention for Atrial Fibrillation (GRASP-AF)  
• CVD: Primary Care Intelligence Packs  
• Cardiovascular disease profiles  
• AF: How can we do better? profiles (Stroke Association)  
• QOF achievements and exceptions data 2014/15  
• HSCIC Indicator Portal |
| --- | --- |
| Adverse incidents | • The number and severity of adverse events should be considered  
• The downstream consequences of these adverse events should also be captured so that the full implications and costs of an adverse event are understood | • Local datasets |
| Costing | • Costs of each different element of existing services should be determined  
• These costs should be, where possible, broken down to individual elements or bundles of cost | • NICE Costing Report: atrial fibrillation & costing template  
• NICE Costing Report: VTE  
• NICE anticoagulation commissioning and budgeting tool |
In order to change services it will be important to set out a clear business case for change. This should set out the narrative for the future of anticoagulation services in the locality and present the evidence to support specific recommendations about what services should be commissioned in an area.

### Action/information

#### Service need and configuration

- There are a number of questions about service need and configuration which should be considered in the business case, including:
  - What are the needs of my local population who require anticoagulation?
  - What methods can I use to better understand those needs?
  - Are we using risk stratification techniques to understand need?
  - Is information from patients being collected on services they want, ie through personalised care planning?
  - What skill mix do we need to meet the needs of my local population?
  - What are the training needs of the workforce – are there gaps?
  - How as providers can we ensure we have staff with the skills to deliver?

### Clinical guidelines

- Clinical guidelines should be followed, where appropriate, to support commissioners in understanding what they should be purchasing, to make the case for change
- Up-to-date guidelines will assist commissioners in understanding how to commission against an evidence based pathway
- A one size fits all approach to anticoagulation services is unlikely to meet the needs of all service users

### Resources and partners

- NICE CG180: Atrial fibrillation
- NICE atrial fibrillation quality standard
- NICE anticoagulation commissioning guide
- NICE CG92: Venous thromboembolism
- NICE CG144: VTE in adults
### Cost
- Costs for different models of care should be determined
- Future costs for the consequences of treatment should be estimated
- Short-term costs for disbanding existing clinics should be modelled
- Costs for self care education, including the savings and benefits, should be identified

### Modelling health gain
- Health improvement of new service provision should be modelled to determine impact on patients
- Money saved by adjusting service models should be established
- Number of hospital bed days, readmissions, emergency admissions and deaths which could be saved by commissioning different services should be modelled

### NICE CG180: costing template
- NHS RightCare Commissioning for Value Focus Packs
- CCG outcomes indicator set
- NHS Outcomes Framework 2016/17
- NICE anticoagulation commissioning and budgeting tool
- Sentinel Stroke National Audit Programme (SSNAP)
- Cardiovascular disease statistics
- Hospital Episode Statistics
Once the broad concepts presented in the business case are agreed, it will be important that commissioners work closely with providers to design and implement a service which is fit for purpose and responsive to service users’ needs. This will need to take a number of factors into account, including service specifications, workforce issues, educational needs for both service users and healthcare professionals, clinical outcomes and patient experience.

### Action

#### Service specification and identifying providers
- Detailed service specifications should be developed to determine the shape of services going forward
- Service specifications should be based on the latest clinical and professional guidelines
- A range of providers who may wish to bid for services should be identified

#### Implementation of NICE guidance
- The NICE Implementation Collaborative was set up in 2012 to identify barriers to the implementation of NICE guidance, with the aim of ensuring patients get quicker and more consistent access to approved treatments. The NIC NOAC report identifies factors inhibiting the prescription of NOACs and ways to overcome those barriers

#### Education standards
- Professional education should be provided and included in service design to ensure that professionals are able to provide high quality services

### Resources
- NICE CG180: Atrial fibrillation
- NICE anticoagulation commissioning guide
- NICE Implementation Collaborative NOAC consensus report
- NICE CG180: atrial fibrillation
- NICE CG92: Venous thromboembolism
- NICE QS93: quality standard for atrial fibrillation
- NICE guidance on self-management for patients on warfarin
- Self management UK
- Information prescription service
• Where patients will be engaged in supported self-management of their condition appropriate information must be provided and patient education made available to effectively support them
• Workforce development will be needed to deliver new models of care
• Consider investment in self-care training, including e-learning

**Clinical outcome indicators**

<table>
<thead>
<tr>
<th>Indicators should be developed to measure clinical outcomes, for example:</th>
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<tbody>
<tr>
<td>- Minimum time in therapeutic range</td>
</tr>
<tr>
<td>- Year on year improvement in percentage of people in range</td>
</tr>
<tr>
<td>- Percentage of unscheduled admissions and readmissions</td>
</tr>
<tr>
<td>- Number of adverse events which did not result in an unplanned admission</td>
</tr>
<tr>
<td>Indicators should be developed by clinicians in consultation with service users</td>
</tr>
</tbody>
</table>

**Patient experience measures**

| NHS England should consider introducing a national survey, following the model of the National Cancer Patient Experience Survey |
| Questions could include: |
| - How long was it from the time you first thought something might be wrong with you until you first had anticoagulation therapy? |
| - Did you understand the explanation of what was wrong with you? |
| - Was your need for anticoagulation therapy explained to you? |
| - Before your anticoagulation therapy started, were you given a choice of different types of treatment? |
| - Were the possible side effects of treatment(s) explained in a way you could understand? |
| - Were you involved as much as you wanted to be in decisions about which treatment(s) you would have? |

**Supporting self care e-learning**

| CCG outcomes indicator set NHS Outcomes Framework 2016/17 |
| NHS Outcomes Framework 2016/17 |
| NHS RightCare Commissioning for Value Focus Packs |
| Hospital Episode Statistics |

**National Cancer Patient Experience Survey**
Monitoring and incentivising quality is essential to commissioning an effective anticoagulation service. There are a number of mechanisms that commissioners can use to hold their local service providers to account. Set out below are some of the levers that commissioners may wish to consider putting in place with providers.

<table>
<thead>
<tr>
<th>Action/information</th>
<th>Resources and partners</th>
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<tbody>
<tr>
<td><strong>Commissioning for Quality and Innovation</strong></td>
<td>• CQUIN payment framework</td>
</tr>
<tr>
<td>• The Commissioning for Quality and Innovation (CQUIN) programme offers an opportunity to incentivise providers to make improvements in a particular area of care</td>
<td>• Medicines Optimisation Dashboard</td>
</tr>
<tr>
<td>• Local CQUINs could be developed by commissioners and agreed with providers of anticoagulation services</td>
<td>• Innovation Scorecard</td>
</tr>
<tr>
<td>• CQUINS to consider including are the percentage of all CVD patients</td>
<td>• NHS England Innovation Exchange</td>
</tr>
<tr>
<td>‐ provided with written information about managing their International Normalised Ratio (INR) level</td>
<td>• Quality Requirements for VTE assessment</td>
</tr>
<tr>
<td>‐ offered ongoing education and support</td>
<td>• NICE QS93: quality standard for atrial fibrillation</td>
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<tr>
<td>‐ who recall being involved in discussions about their anticoagulation treatment</td>
<td>• NICE QS3: VTE in adults</td>
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<tr>
<td>‐ with a record that they are taking their anticoagulation treatment as prescribed</td>
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<tr>
<td>‐ who understand the information given to them and who can participate in decision-making about their treatment</td>
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<tr>
<td>‐ offered a choice of anticoagulation treatment</td>
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<tr>
<td>• The NHS Safety Thermometer is a local improvement tool for measuring, monitoring and analysing patient harms and ‘hardm free’ care. Using 2014/15 CQUIN guidance, it outlines a step-by-step process to help commissioners understand data, use it to set improvement goals and measure improvement over time.</td>
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<tr>
<td><strong>Quality accounts</strong></td>
<td>• Quality accounts</td>
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<tr>
<td>• Suggest that examples of good practice in provision of anticoagulation services is included in a provider’s Quality Account</td>
<td></td>
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</tbody>
</table>
• The number of national clinical audits a provider has participated in is already included in the quality account, but specific audits could be mentioned

Audit standards
• National clinical audits should be used as a service improvement tool
• Data from different national clinical audits and other NHS data sources (including Hospital Episode Statistics) should be linked and analysed to build a holistic picture of what is happening to patients receiving anticoagulation

• Sentinel Stroke National Audit Programme (SSNAP)
• Myocardial Ischaemia National Audit Project

Annex 1 – Experts involved in the development of the first edition of this resource

• Diane Eaton, Project Manager, AntiCoagulation Europe UK
• Dr Matthew Fay, GP, Westcliffe Medical Centre, Bradford
• Lucy Grothier, Network Director, South London Cardiac and Stroke Network
• Jo Jerrome, Assistant Director, Atrial Fibrillation Association
• Eve Knight, Chief Executive, AntiCoagulation Europe UK
• Michaela Nuttall, CVD Nurse Specialist, Bromley PCT
• Wendy O’Connor, Lead for network anticoagulation working group and British Heart Foundation Cardiac Physiology Trainer, Merseyside and Cheshire Clinical Network
• Catherine Shannon, Arrhythmia Nurse Specialist, The Royal Sussex County Hospital
Annex 2 - References
