Service	NHS Nottingham & Nottinghamshire ICB Warfarin Anticoagulation Monitoring Local Enhanced Service (Level 2, 3 & 4)
Commissioner Lead	[redacted]
Provider Lead	GP Practices of Nottingham & Nottinghamshire ICB
Period	1 April 2024 to 31 March 2026
Date of Review	Annually

1. Population Needs

1.1 National/local context and evidence base

Warfarin is being used in the management of increasing numbers of patients and conditions including patients' post-myocardial infarction, atrial fibrillation, DVTs and other disorders and stroke prevention. While it is a very effective drug in these conditions, it can also have serious side effects, e.g. severe haemorrhage. These side effects are related to the International Normalised Ratio (INR) level, which measures the delay in the clotting of the blood caused by the warfarin. While the "normal" INR is 1, the specific range of INR values depends on the disease and the clinical conditions. Warfarin monitoring aims to stabilise the INR within set limits to help prevent serious side effects while maximising effective treatment.

Evidence Base

The role of anticoagulation in the primary and secondary prevention of ischaemic stroke and other conditions is well established. There are a number of groups of patients who benefit from anticoagulation therapy, including those with heart valves, recurrent thrombosis or atrial fibrillation (AF) and they all need ongoing monitoring to ensure that dosing is adjusted to maintain the optimum effect and to reduce the risk of adverse events and complications.

Historically the anticoagulation care pathway crossed secondary and primary care, thereby the anticoagulation service has been delivered in different ways for patients. It is important to provide this care as close to home for patients as possible in order to enhance the patient experience, the access and the quality of the service.

The national benchmark indicative rate for people requiring anticoagulation therapy is 2.40% or 2,400 per 100,000 of the population aged 18 years or overs. This rate includes people who require anticoagulation therapy because of AF, and those who have other indications such as recent deep vein thrombosis or other conditions leading to thromboembolism. (Source: NICE - Support for commissioning: anticoagulation therapy, 2013, page 15).

Areas with a relatively elderly population might be expected to have a higher rate as there is increasing prevalence and incidence of AF with increasing age. Areas with a population with increased risk factors for AF may also be expected to have a higher rate.

General Overview

This service will provide a safe and effective local drug monitoring service for patients prescribed warfarin.

The patient's registered GP practice remains responsible for prescribing warfarin. This does not form part of this enhanced service.

New anticoagulant agents, Direct Oral Anticoagulants (DOACs) have become available over recent years (dabigatran, apixaban and rivaroxaban). These agents do not require INR monitoring and are excluded from this service.

2. Outcomes

2.1 NHS Outcomes Framework Domains & Indicators

Domain 1	**Preventing people from dying prematurely**	**x**
Domain 2	**Enhancing quality of life for people with long-term conditions**	**x**
Domain 3	**Helping people to recover from episodes of ill-health or following injury**	
Domain 4	**Ensuring people have a positive experience of care**	**x**
Domain 5	**Treating and caring for people in safe environment and protecting them from avoidable harm**	**x**

2.2 Local defined outcomes

- Standardised, clinically effective care provided for patients receiving anticoagulation therapy, whilst minimising the risks associated with anticoagulation.
- A local point of contact, which is accessible, timely and promotes continuity of care and communication with the patient.
- Complete and accurate documentation of the clinic process.
- Patients educated in understanding their treatment, in terms of their condition requiring anticoagulation therapy, target range for INR, the effects of over and under anticoagulation, diet, lifestyle and drug interactions.
- Staff providing any aspect of care within this service specification will have the necessary training and skills to do so.
- Supervision and governance of patients who self-test including calibration of patient's meters.

3. Scope

3.1 Aims and objectives of service

Aim

This Nottingham & Nottinghamshire anticoagulation monitoring service is designed to be one in which:

- Delivery of a community-based monitoring service is cost effective, clinically appropriate and in line with NICE, the British Committee for Standards in Haematology and the National Patient Safety Agency guidance.
- Reduction of unnecessary attendances at secondary care by managing patients who are within the agreed criteria within the community setting.
- Ensures a consistent approach to testing, sampling and dosing across primary care.
- Provision of patient education as part of care delivery to improve patient understanding and management.

Overall management will be based on systematic call and recall service. Management of the patients across the interface should be in accordance with the agreed pathways.

Objectives

- To provide standardised and clinically effective anticoagulation monitoring to patients receiving Warfarin anticoagulation therapy whilst minimising the risks associated with anticoagulation.
- To optimise care to patients receiving Warfarin anticoagulant therapy in terms of accessibility, continuity and waiting times.
- To assist optimum management of INR control.
- To ensure complete and accurate documentation of the clinic process.
- Improve patient satisfaction.
- Improve access to health services in the community.
- To provide a service at an appropriate time, location and environment.
- Improve communication and point of care between patient and practice regarding warfarin management.
- Provide care of testing closer to patients and in a more convenient and familiar setting.
- Reduce impact on secondary care for point of care testing and medicines management.

The service shall:

- Maintain a register of all patients receiving Warfarin anticoagulation therapy.
- Provide a package of care for patients receiving Warfarin anticoagulation therapy.
- Provide each patient with a treatment plan and to review the need for continuation of therapy at each visit and annually.
- Ensure that the patients' blood clotting (INR) is being monitored regularly and that the INR level is safe before issuing repeat prescriptions for oral anticoagulants. Refer to the latest INR result available before issuing a repeat prescription.
- Monitor patients in accordance with recommendations from the anticoagulation clinic and take appropriate clinical action if INR is abnormal.
- Develop a call / recall system as clinically appropriate and a mechanism for DNAs or requests for prescriptions when bloods have not been taken.
- Educate patients in understanding their treatment, in terms of their condition requiring Warfarin anticoagulation therapy, target range for INR, the effects of over and under anticoagulation, diet, lifestyle and drug interactions.
- Develop a written protocol for the provision of this service. The protocol must be reviewed annually.
- Ensure local pathways based on NICE guidance are followed and refer to secondary care services if appropriate.
- Ensure that specialist advice is sought regarding any complications of treatment.
- Ensure only trained staff provide the service. Staff will be expected to attend regular training courses, be assessed on a regular basis and hold appropriate professional qualifications.
- Ensure that all equipment used is maintained and calibrated in accordance with the manufacturer's guidelines. The cost of this will be met by the provider.
- Ensure that there is adequate back up/contingency plans in place for the continued provision of the service in the event of breakdown of equipment, key staff absence or supply chain problems.
- Provide all premises, staffing, equipment and consumables required to carry out the service.
- Deal with any complaints received from patients about the service and reporting the complaint and the response to NHS Nottingham & Nottinghamshire ICB Patient Experience Team. Complaints will be dealt with according to NHS ICB timescales.

3.2 Service Description / Care Pathway

Service Model: Anticoagulation service levels.

Taken from the Standard Operating Procedure for the Provision of a Community Anticoagulation Service, originally produced in January 2010 by Nottinghamshire County tPCT, reviewed by Nottingham North & East CCG, March 2014, and Mansfield & Ashfield and Newark & Sherwood CCGs, November 2018. To note, the continuing impact of COVID-19 and winter pressures on clinical

staff in primary and secondary care means that the planned review of the SOP will be undertaken in 2024/25.

Level 2	GP Practice completes the blood draw; laboratory undertakes the INR tests and doses. Depending on the results; the secondary care laboratory notifies the patient and / or the GP Practice of the INR result and the dose. If there is a change to dose: The GP Practice communicates the results, dose and books the retest appointment direct with the patient. • if the INR is >8 the GP Practice (or Out of Hours provider on their behalf) will endeavour to contact the patient the same day • if the INR is <8 but >5 the practice will endeavour to contact the patient the same or the next day If there is no change to dose: The secondary care laboratory communicates the results to the GP Practice and patient. As indicated by the results, the patient contacts the GP Practice to book the retest appointment.	**Anticoagulation Monitoring**
Level 3	GP Practice takes the blood samples, undertakes the tests, indicates the dose and communicates the results to the patient.	
Level 4	GP Practice **initiates** and continues treatment, takes the blood samples, undertakes the tests, indicates the dose and communicates the results to the patient. **This level applies for the first year only, in subsequent years the patient is considered to be at Level 3**	**Anticoagulation Initiation**

Primary Care Anticoagulation Service

Overall responsibility for the care of the patient continues to reside with the registered GP practice outside of this Local Enhanced Service who will be prescribing warfarin for anticoagulation therapy, and includes:

- Being aware of appropriate advice and guidelines for anticoagulant care.
- Giving advice on duration and intensity of anticoagulation.
- Being aware of the potential effects of additional therapy given to a patient on anticoagulants, and arranging earlier INR testing as required.
- Arranging referral / admission to hospital if required.
- Issuing anticoagulation therapy prescriptions.
- Completing the annual review of patients on long term anticoagulation therapy.
- Ensuring that all patients receive appropriate monitoring, either with a primary care anticoagulation service provider or in secondary care.

Provision of a Level 3 / Level 4 service will be enabled by using point of care testing devices, phlebotomy where appropriate and computer decision support software (CDSS) for dosing.

The service will be provided through a combination of practice appointments and telephone calls. Domiciliary visits for phlebotomy in the patient's home will be undertaken for appropriate patients and, based on the level of service provided will include INR testing. Dosing for domiciliary patients will take place after the visit should a change require authorisation by a GP or authorised prescriber.

Change in Level of Service Delivery

In advanced of any change to the level of service to be delivered (minimum 2 months), the practice must contact:

1. the Secondary Care Anticoagulation Team to agree a timely and safe transfer process of patients from secondary care to the GP practice or from the GP Practice to secondary care, and to provide assurance of their service delivery.
2. the Primary Care Commissioning Team nnicb-nn.primarycarenotts@nhs.net to confirm the start date of the new level of service for payment purposes, allowing time to liaise with acute contracting teams.

3.4 Population covered

Patients registered with a Nottingham & Nottinghamshire ICB GP practice.

3.5 Any acceptance and exclusion criteria and thresholds

Identifying Patients for transfer into Primary Care

Secondary Care provider Haematology Departments will be responsible for identifying and determining which patients can be transferred into primary care (in accordance with the agreed criteria).

Patient acceptance criteria:

- Adults 18 years and above.
- Newly diagnosed and to be initiated on warfarin and achieved in-range within 6 weeks of initiation.
- Existing warfarin patients who have demonstrated a 70% time in therapeutic range (TTR) for duration of care under Secondary Care.
- Existing warfarin patients who have maintained a 70% time in therapeutic range (TTR) for duration of care under the GP practice.
- Existing stable patients post discharge with 72 hour discharge plan.
- Patients who are currently self-monitoring.

Patient exclusion criteria:

Warfarin monitoring for patients with the following conditions must not be managed in Primary Care:

- Children under 16 years of age.
- Pregnant women.
- Existing warfarin patients who haven't demonstrated 70% TTR whilst under the care of Secondary Care.
- Existing warfarin patients who have not maintained 70% TTR whilst under the care of the practice.
- Newly diagnosed (AF) patients who have not achieved a stable INR within 6 weeks whilst under the care of the practice.
- People undergoing chemotherapy.
- Confirmed DVT/PE*.
- Liver failure (contraindicated as unstable for warfarin).

*The clinical pathway for these patients post diagnosis is more complex, therefore Secondary Care will continue to provide the anticoagulation treatment during the first month.

Other conditions have caution but may be managed in primary care based on an individual risk assessment that it is clinically appropriate and safe to do so, and the GP Practice is clinically

competent to do so. This should be agreed between the primary and secondary care lead clinicians, and the patient. These include:

- A known hereditary or acquired bleeding disorder.
- Alcoholics - due to instability in anticoagulation management.
- Severe malnourishment - due to absorption difficulties.
- Mentally ill with no carer support in the community.
- Dementia with no carer support in the community.
- Liver failure.
- Severe renal impairment.
- Documented evidence of CNS haemorrhage.
- Severe heart failure.
- Uncontrolled severe hypertension.
- Gastro-intestinal bleeding in the last 6 months.
- Homozygous protein C deficiency (risk of skin necrosis).
- Any other condition considered too complex to manage in primary care.

Discharge Criteria
Patients will be discharged from the primary care service when their requirement for anticoagulation monitoring comes to an end (for some patients this could be a life-long requirement).

3.6 Interdependence with other services/providers

Establish key working relationships and interdependencies with:

- Secondary care Haematology Department.
- PCN Pharmacy staff and ICB Prescribing Team / Medicines Optimisation Team.
- Any other agencies involved in the care of patients requiring anticoagulation.

4. Applicable Service Standards

4.1 Applicable national standards (e.g. NICE)
The provider must ensure that they are aware of, compliant with, and can provide evidence if required, to demonstrate compliance with all relevant standards including adherence to the relevant NICE guidelines where applicable.

4.2 Applicable standards set out in Guidance and/or issued by a competent body (e.g. Royal Colleges)
The provider must ensure they are aware of, compliant with and provide evidence if required to demonstrate compliance with any relevant standards.

4.3 Applicable local standards
The provider must ensure that they are aware of, compliant with, and can provide evidence if required to demonstrate compliance with all local policies, procedures and guidance. CQC registration is completed, and the Regulations for Service Providers and Managers met (https://www.cqc.org.uk/guidance-providers/regulations). Staff involved in delivering this service should be adequately trained and supervised as determined by the provider and must have suitable indemnity.

- Nottinghamshire Area Prescribing Committee website https://www.nottsapc.nhs.uk/
- Nottinghamshire Standard Operating Procedure - For the provision of a Community Anticoagulation Monitoring Service (originally produced by NHS Nottinghamshire County tPCT, January 2010, reviewed and amended by Nottingham North & East CCG, March 2014 and Mansfield & Ashfield and Newark & Sherwood CCGs, November 2018). Review delayed by COVID-19.
- BMJ Learning: https://new-learning.bmj.com/

Serious Incidents (SI's) and Patient Safety Incidents (PSI's)
It is a condition of participation in this service that providers will report all incidents where a patient has experienced harm to the ICB, in line with the Patient Safety Incident Response Framework (PSIRF). Providers and commissioners must engage in open and honest discussions to agree the appropriate and proportionate response. If deemed to be a Serious Incident the incident will be logged by the ICB on the current serious incident management system STEIS (the Strategic Executive Information System) or any other data base as directed by national guidance.

Safety Alerts
Providers must ensure that they are aware of and have a process in place for managing any safety alerts from the following sources that apply to any equipment or patient safety concerns associated with this enhanced service and that these are acted upon:

- Medicines and Healthcare products Regulatory Agency (MHRA): http://www.mhra.gov.uk/#page=DynamicListMedicines
- Local or national clinical guidance.
- National and local formularies.

Where requested details of action taken must be reported back to the ICB within the designated timescale.

4.3.1 Infection Prevention and Control

Good infection prevention and prudent antimicrobial use are essential to ensure that people who use health and social care services receive safe and effective care. Effective prevention of infection must be part of everyday practice and be applied consistently by everyone (The Health Act 2008) Registered providers should meet the requirements of The Health and Social Care Act 2008. The provider should:

- Have systems in place to manage and monitor the prevention of infection, including regular audit and training. Infection prevention and control training for all staff every 2 years and hand hygiene yearly for all clinicians.
- Provide and maintain a clean and appropriate environment in managed premises that facilitates the prevention and control of infections and meets national estates guidance and local IPC guidance.
- Ensure appropriate antimicrobial use to optimize patient outcomes and to reduce the risk of adverse events and antimicrobial resistance.
- Provide suitable accurate information on infections to service users, their visitors and any person concerned with providing further support or nursing/medical care in a timely manner.
- Ensure prompt identification of people who have or are at risk of developing an infection so that they receive timely and appropriate treatment to reduce the risk of transmitting infection to others.
- Systems to ensure that all care workers are aware of and discharge their responsibilities in the process of preventing and controlling infection.
- Provide adequate isolation facilities.
- Secure adequate access to laboratory support.
- Have and adhere to infection prevention and control policies that are based on national and local guidance.
- Have a system in place to manage the occupational health needs and obligations of staff in relation to infection and vaccination.
- Have robust systems and processes in place to manage pandemics at a practice level including the management and reporting of staff outbreaks.

Safeguarding
All staff working in this service area will be trained and competent in safeguarding children and adults as outlined in the Intercollegiate Guidance:

Children: https://www.rcpch.ac.uk/resources/safeguarding-children-young-people-roles-competencies

Adults: https://www.rcn.org.uk/Professional-Development/publications/adult-safeguarding-roles-and-competencies-for-health-care-staff-uk-pub-007-069

Looked After children: Looked After Children: Roles and Competencies of Healthcare Staff | Royal College of Nursing (rcn.org.uk)

All staff will comply with Nottingham and Nottinghamshire safeguarding children and adult procedures which can be accessed via these links:

Safeguarding Children Procedures City & County:
https://nottinghamshirescb.proceduresonline.com/

Safeguarding Adult Procedures Nottinghamshire: https://nsab.nottinghamshire.gov.uk/procedures/

Safeguarding Adult Procedures Nottingham City: https://www.nottinghamcity.gov.uk/information-for-residents/health-and-social-care/adult-social-care/adult-safeguarding

On the request of the commissioner, the provider will provide evidence to give assurance of compliance with safeguarding standards.

5. Applicable quality requirements and CQUIN goals

5.1 Quality Assurance Warfarin Patients

Level 3 / Level 4 Service Providers

Internal Quality Control (IQC)
Those providers using near patient testing must perform internal quality control procedures in accordance with the manufacturer's instructions. These are used to establish whether the particular technique is performing consistently over a period of time, to ensure day-to-day consistency. Many manufacturers of Near Patient Testing (NPT) monitors and test strips for INR determination have control materials or electronic devices available for the purpose of IQC.

External Quality Control (EQC)
The service will also be required to register and participate in an accredited external quality assurance scheme (NEQAS). The registration is the responsibility of the GP Practice provider.

5.2 Self-Testing Patients

Quality Control for self-testing patients
The internal quality control for the CoaguChek machines will be cross checked against GP practice machines:

- With every new box of test strips.
- If an unusually result is obtained (high or low).
- If an unusual occurrence occurs which may affect the results i.e. dropping the machine/accidental damage/spills or if the storage conditions of the test strips are in doubt.

Six month review for self-testing patients

- The patient will attend the practice every 6 months for their machines to be tested against the provider's machine for NEQAS.
- The patient will bring their CoaguChek machine, lancets and test strips to this review so the patient's technique can be reviewed. Patients with CoaguChek S machines are requested to perform an internal quality control test at this review.

- If patients repeatedly fail to attend for this review support will be withdrawn from self-testing and the practice will need to inform the patient that they will be required to attend the practice for their sample, test and dosing to maintain patient safety.

Maintenance of patients own CoaguChek machines

- The patient is responsible for requesting test strips from their registered practice.
- General maintenance of the machine is the responsibility of the patient. The booklet supplied with the machine should be referred to for care advice. If problems are experienced with the machine the patient should contact the Roche technical helpline.
- Patients with CoaguChek S machines are responsible for storing test strips and IQC in a refrigerator between 2-8 degrees centigrade (normal fridge temperature).

5.3 Clinical Governance for Warfarin

- A 'system of clinical governance' means a framework through which the provider endeavours to continuously improve the quality of its services and safeguard high standards of care by creating an environment of clinical excellence.
- The provider is responsible for all aspects of clinical governance for the management of anticoagulation patients within their practice. Therefore, GP practices are advised to contact their indemnity companies to ensure they have an adequate level of cover.
- Once an individual practitioner has completed their training and the patient records for target patient population have been transferred to the practice, the responsibility for the management of these patients rests with the practice in accordance with the agreed point of care testing (POCT) timetable agreed with Secondary Care. Secondary Care Haematology Department is available to offer support and advice to individual cases, as and when required.

Each provider is responsible to respond appropriately as soon as a serious untoward incident has been identified, and the incident should be managed as per the ICB incident reporting and management procedure referred to in section 4.3.

6. Location of Provider Premises

The Provider's Premises:
The Service will be provided within the boundaries of Nottingham & Nottinghamshire ICB. Providers must have adequate mechanisms and facilities including premises and equipment as are necessary to enable the proper provision of this service.

Location(s) of Service Delivery
The Provider is required to carry out the service within a recognised primary care setting registered for the purpose of healthcare.

Days/Hours of operation
As a minimum the service will operate Monday to Friday 8am to 6.30pm, GP core opening hours. The service will be expected to provide a variety of clinic times providing choice for the patient and will vary from provider to provider.

7. Contract

The contract will run from 1st April 2024 to 31st March 2026.

The notice period is three months for termination under General Condition 17.2 in writing to the Primary Care Commissioning Team nnicb-nn.primarycarenotts@nhs.net

Change in Level of Service Delivery
In advanced of any change to the level of service to be delivered (minimum 2 months), the practice must contact:

1. the Secondary Care Anticoagulation Team to agree a timely and safe transfer process of patients from secondary care to the GP practice or from the GP Practice to secondary care, and to provide assurance of their service delivery.
2. the Primary Care Commissioning Team nnicb-nn.primarycarenotts@nhs.net to confirm the start date of the new level of service for payment purposes, allowing time to liaise with acute contracting teams.

Remuneration and Outcome Measures
GP practices will be paid based on the level of service to be provided as indicated by the practice at the start of the contract term, or during the contract term with a minimum 2 months' notice of the new level of service to be delivered, for each patient covered by the enhanced service:

Level 2 [redacted] per patient per annum.
Level 3 [redacted] per patient per annum.
Level 4 [redacted] per patient per annum.
Level 4 Initiation - a one off payment of [redacted] per patient for initiation completed by the practice.

Payment will be made in arrears on submission of the completed LES claim form in relation to this service.

Level 3 & 4 providers only – any Q4 payment due is linked to the completion and submission with your Q4 LES Claim Form, of the Warfarin Anticoagulation Monitoring Annual Audit (Appendix 1).

Quarterly LES Claim Form Submission Deadlines
All practices should have processes and alerts in place to ensure LES requirements are met and submissions made by the deadline date.

Practices are reminded that records relating to the completion and submission of the claim, including confirmation of date of submission, are kept within the practice to support the claim. These records may be examined by the ICB for verification purposes as part of an annual review or at any other notified time.

Completed claim forms to be submitted by the deadline date to the Primary Care Commissioning Team nnicb-nn.primarycarenotts@nhs.net

LES Claim Forms will **not** be accepted after the deadline date (except in exceptional circumstances) which will lead to loss of practice income.

Q1 deadline 31 July
Q2 deadline 31 October
Q3 deadline 31 January
Q4 deadline 30 April

Quarterly Data Set

AC1: Anticoagulation monitoring in Primary Care
- **AC1: Level 2:** Total number of patients to be claimed for in this quarter
- **AC1: Level 3:** Total number of patients to be claimed for in this quarter
- **AC1: Level 4:** Total number of patients to be claimed for in this quarter

AC2: Anticoagulation initiated by the Practice this quarter
- **AC2: Level 4:** Number of patients to be claimed for in this quarter

Level 4 applies for the first year only. In subsequent years the patient is considered to be at Level 3

SystmOne
For SystmOne practices, as part of F12 there are now 2 reports for Anticoagulation in the F12 Local Enhanced Services Claims folder which makes it simple to find the numbers for claiming. These

reports show patients coded as below (consider using the F12 LES templates for the service where green stars indicate the codes to add for claiming purposes).

The F12 reports *will* account for any current active patients AND any deducted *within* that quarter where you have been caring for them.

EMIS
Unfortunately, EMIS reports cannot be shared centrally in the way we as SystmOne, therefore practices will need to write these searches for themselves currently– the same codes and criteria should be used for reporting purposes, however.

Report Name	Criteria and requirements	F12 Template
AC1: Anticoagulation monitoring in PC	Any patient with the code (279231000000108) **added this quarter AND** on an oral anticoagulant	Warfarin (Anticoagulants) monitoring (if using)
AC2: Anticoagulation **initiated** by the practice this quarter	Any patient with the code (279231000000108) **added** in the quarter	

Note: If the correct codes have not been entered and the report numbers do not correspond with the work you believe you have done then you *can* still claim based on what you consider you have done as a practice noting you may be required to participate in audit. If you have any queries on the searches please contact the F12 Pathway Team support@nottsf12.freshdesk.com

---

Annual Assurance

- Confirmation that the practice can produce and maintain an up to date register of all patients receiving anticoagulation therapy under this service, indicating patient name, date of birth, the indication for, and length of, treatment, including the target INR.
- Practice can demonstrate the systematic call and recall of patients on this register is taking place in a general practice setting.
- The practice has implemented a failsafe mechanism, to contact the patient with dose changes the same day (if INR > 8), or the same or next day (if INR <8 but > 5).
- Practice can produce evidence of annual review undertaken of all patients on long term anticoagulation therapy – Level 3 & 4 providers only (Appendix 1).
- Practice can provide evidence of appropriate training and competency of any health professionals involved in the care of patients under Level 3 and Level 4. Evidence of such training and competency should be retained at the practice and produced on request of Nottingham & Nottinghamshire ICB, except BMJ modules where certificate of completion should have been submitted to the ICB prior to service commencement. BMJ Modules: https://new-learning.bmj.com/

Providers will be required to:

- Comply with requests from Nottingham & Nottinghamshire ICB to provide information as it may reasonably request for the purposes of monitoring the providers' performance of its obligations under this service.
- Participate in an audit relating to this service as requested by Nottingham & Nottinghamshire ICB, if required.

Appendix 1: Warfarin Anticoagulation Monitoring Annual Audit – Level 3 & 4 Providers Only

Submit completed form to nnicb-nn.primarycarenotts@nhs.net with your Q4 LES Claim Form to release Q4 payments due: Deadline 30 April

The NPSA safety indicators for patients starting on oral anticoagulant treatment	
Percentage of patients following loading protocol.	
Percentage of patients developing INR > 5.0.	
Percentage of patients in therapeutic range at discharge.	
Percentage (incidence) of patients suffering a major bleed in first month of therapy, and percentage suffering major bleed with INR above therapeutic range.	
Percentage of new referrals to community based anticoagulation service with incomplete information for example, diagnosis, target INR, stop date for anticoagulant therapy, dose of Anticoagulation Therapy on discharge and list of other drugs on discharge.	
Percentage of patients that were not issued with patient-held information and written dosage instructions at start of therapy.	
Percentage of patients that were discharged from hospital without an appointment for the next INR measurement or for consultation with appropriate healthcare professional to review and discuss treatment plan, benefits, risks and patient education.	
The NPSA safety indicators for patients established on oral anticoagulation treatment	
Proportion of patient time in range	
Percentage of INRs > 5.0	
Percentage of INRs > 8.0	
Percentage of INRs > 1.0 below target (e.g. percentage of INRs < 1.5 for patients with target INR of 2.5)	
Percentage of patients suffering adverse outcomes categorised by type e.g. major bleed.	
Percentage of patients lost to follow up (and risk assessment of process management for identifying patients lost to follow up).	
Percentage of patients with unknown diagnosis, target INR or stop date.	
Percentage of patients with inappropriate target INR for diagnosis, high or low.	
Percentage of patients without written patient education information.	