

National Patient Safety Agency (NPSA) Alert 18 – Anticoagulants: ‘Actions that can make anticoagulant therapy safer’

Regional Working Group recommendations for implementation in Northern Ireland

Introduction

The Regional Working Group for the NPSA Alert 18 – Anticoagulants: ‘Actions that can make anticoagulant therapy safer’ was set up with a remit to review and produce recommendations for the local implementation of the NPSA Alert 18, across primary and secondary care in Northern Ireland, (Appendix 1).

Multidisciplinary membership of the Regional Working Group has ensured the inclusion of all relevant staff groups in the agreements reached by the group.

The Regional Working Group has agreed the following recommendations to be considered for local implementation:

Training and competency assessment

NPSA Recommendation 1: Ensure all staff caring for patients on anticoagulant therapy have the necessary work competences. Any gaps in competence must be addressed through training to ensure that all staff may undertake their duties safely.

Competences are descriptors of the performance criteria, knowledge and understanding that are required to undertake work activities. They describe what individuals need to do, and to know, to carry out the activity – regardless of who performs it.

It is very unlikely that all of the competences listed below will be appropriate for any one individual or team, but more likely that the relevant competences will be drawn from the list to form a framework against which an individual must be assessed before commencing duties

in the management of patients on anticoagulants.

- Initiating anticoagulant therapy in adult patients
- Maintaining oral anticoagulant therapy in adult patients
- Managing anticoagulants in patients requiring dental surgery
- Dispensing oral anticoagulants
- Preparing and administering heparin therapy for adult patients
- Reviewing the safety and effectiveness of an anticoagulant service
- Anticoagulant therapy in paediatric patients

In order to achieve an initial competency in the above areas, it is recommended that education and training be incorporated into the undergraduate curriculum for all nursing, pharmacy, biomedical science, dental and medical students, thus ensuring consistency in the educational content delivered within each profession.

Following this, Trusts and Boards must implement a competency assessment programme, with the frequency of re-assessment being annual.

The Regional Working Group emphasises the significant training requirement within this alert, in terms of initial and ongoing training, and resources will be required to fulfil this training recommendation.

The Regional Working Group has recommended that this would be best approached through the introduction of 'anticoagulant practitioners', who would oversee the development and co-ordination of training programmes, annual audit requirements, among other process related duties. This would ensure a consistent and transferable training programme regionally.

Guidelines

NPSA Recommendation 2: Review and, where necessary, update written procedures and clinical protocols for anticoagulant services to ensure they reflect safe practice, and that staff are trained in these procedures.

Standardisation of protocols/procedures is well recognised as good practice for the management of certain clinical conditions.

Regional standardisation of clinical protocols will reduce variation in practice, thus minimising risk, which should ultimately improve patient safety.

A sub-group of the Regional Working Group has been convened to take forward the development of regional guidelines for anticoagulant management. The membership of this group is as follows:

- Dr Kathryn Boyd, Consultant Haematologist, SHSCT
- Dr Anne Kyle, Consultant Haematologist, NHSCT
- Dr Fergal McNichol, Consultant Haematologist, WHSCT
- Dr Stephen Hull, Consultant Endocrinologist, Belfast Trust
- Dr Margaret Bowers, Consultant Haematologist, SEHSCT
- Dr Colin Rafferty, GP, Ballyclare
- Dr Gary Benson, Director, N Ireland Haemophilia and Thrombosis Centre
- Ms Lyn Watt, Anticoagulant Pharmacist, SHSCT
- Ms Joanne McKnight, Anticoagulant Nurse, SEHSCT

Audit

NPSA Recommendation 3: Audit anticoagulant services using BSH/NPSA safety indicators as part of the annual management audit programme. The audit results should inform local actions to improve the safe use of anticoagulants, and should be communicated to clinical governance, and drugs and therapeutics committees (or equivalent). Commissioners and external organisations should use this information as part of the commissioning and performance management process.

Annual medicines management programmes should include audit of anticoagulant services using locally and nationally recognised safety indicators.

Additional safety indicators should also be developed locally to audit the use of fractionated and unfractionated heparin products.

Trusts and Boards should utilise IT software solutions for the efficient collection of audit data; however, the following aspects may have resource requirements:

- IT software systems in data collection
- Audit design and roll-out
- Data analysis personnel

The 'anticoagulant practitioner' would have a role to play in this element.

The Regional Working Group recommends that support be made available from GAIN (Guidelines and Audit Implementation Network) to meet the audit requirements of the alert for both primary and secondary care, thus ensuring a regional outcome from audit results.

Patient-held information (yellow) booklet

NPSA Recommendation 4: Ensure that patients prescribed anticoagulants receive appropriate verbal and written information at the start of therapy, at hospital discharge, on the first anticoagulant clinic appointment, and when necessary throughout the course of their treatment. The BSH and the NPSA have updated the patient-held information (yellow) booklet.

The Regional Working Group recommends that all Trusts and Boards must provide patients with the updated BSH/NPSA 'yellow' booklet pack when initiating oral anticoagulants, and provide patients with subsequent 'record books' when necessary.

The new pack contains 3 parts:

- Anticoagulant alert card
- General information about the safe use of oral anticoagulants – this part must be kept by the patient at all times so as to be readily available for reference.
- Blood test results and dosage information ('Record book') – this part must be completed following every INR blood test and dose adjustment. This booklet is not intended to be held by the patient at all times, and subsequent supplies of the 'Record book' must be provided as necessary.

Supplies of the complete NPSA pack and subsequent NPSA record books will be available through CSA.

Additional funding will be required from the DHSSPS to make this change to practice, and for ongoing financial support of this change.

It is estimated that the degree of funding will be in the region of £7,000 annually.

Any concerns or suggestions for improvement to the layout or content of the NPSA booklets will be addressed to Professor David Cousins at the NPSA via the NI Medicines Governance Team.

Monitoring of INR results and repeat prescribing/dispensing

NPSA Recommendation 5: Promote safe practice with prescribers and pharmacists to check that patients' blood clotting (INR) is being monitored regularly and that the INR level is safe before issuing or dispensing repeat prescriptions for oral anticoagulants.

Prescribing and dispensing professionals must ensure that it is safe to prescribe and dispense oral anticoagulants prior to issuing or dispensing a repeat prescription for oral anticoagulants.

This could be assisted through the utilisation of prescribing and dispensing software, which should include functionality to enable the date of the last clinic appointment, the latest INR result and current dose to be checked prior to issuing or dispensing a repeat prescription for anticoagulants.

Funding will be required within Trusts and Boards to introduce, or improve existing software systems, in order to meet this NPSA recommendation.

Prescribing of medications which interact with oral anticoagulants

NPSA Recommendation 6: Promote safe practice for prescribers' co-prescribing one or more clinically significant interacting medicines for patients already on oral anticoagulants: to make arrangements for additional INR blood tests, and to inform the anticoagulant service that an interacting medicine has been prescribed. Ensure that those dispensing clinically significant interacting medicines for these patients check that these additional safety precautions have been taken.

All prescribing and dispensing professionals must be aware of those medications that interact with oral anticoagulants, and take appropriate measures to ensure the safety of the patient when prescribing and dispensing interacting medications.

IT software packages should be utilised which allow for the identification of interacting medicines during prescribing and dispensing.

This functionality is available in primary care IT systems, however this is presently not the case in secondary care, but this could be rectified by the introduction of the new hospital pharmacy computer system.

Dental practitioners

NPSA Recommendation 7: Ensure that dental practitioners manage patients on anticoagulants according to evidence-based therapeutic guidelines. In most cases, dental treatment should proceed as normal and oral anticoagulants treatment should not be stopped or the dosage decreased inappropriately.

Dental practitioners should display and provide information regarding safe practice, to patients who are on anticoagulant therapy when dental therapy is required.

Posters and leaflets are available from www.npsa.nhs.uk/health/alerts

Standardisation of warfarin and intravenous sodium heparin

NPSA Recommendation 8: Amend local policies to standardise the range of anticoagulant products used, incorporating characteristics identified by patients as promoting safer use.

Warfarin

Warfarin strengths in Northern Ireland have been successfully rationalised to 1mg and 3mg tablets to minimise the risk of confusion between different strengths. These will continue to be the recommended strengths of warfarin tablets used in Northern Ireland and all users are reminded of the importance of ensuring this consistent approach.

Additional supplementary information concerning warfarin tablet strengths must continue to be included with the anticoagulant record books used in Northern Ireland. This will be displayed in the format of a sticker which will be applied to the record book by the CSA (Appendix 2).

Patients being managed on oral anticoagulants other than warfarin are beyond the scope of these recommendations, and will need separate consideration.

Heparin

Trusts should rationalise strengths of intravenous sodium heparin to a standardised ready-to-administer infusion of sodium heparin (1000 units presented in 1ml ampoule, vial or pre-filled syringe), and minimise the use of concentrated heparin products.

Trusts must undertake risk assessment of any strengths of sodium heparin other than 1000 units/ml stocked within the organisation.

The word 'units' must be used at all times when prescribing injectable heparin in units (enoxaparin prescribed in mg). Abbreviations such as 'U' must not be used.

Social care settings

NPSA Recommendation 9: Promote the use of written safe practice procedures for the administration of anticoagulants in social care settings. It is safe practice for all dose changes to be confirmed in writing by the prescriber. A risk assessment should be undertaken on the use of Monitored Dosage Systems for anticoagulants for individual patients. The general use of Monitored Dosage Systems for anticoagulants should be minimised, as dosage changes using these systems are more difficult.

All social care settings (i.e. registered facilities providing care where medicines are used) should have procedures in place for the safe administration and monitoring of anticoagulants in social care. These should include procedures for the storage of oral anticoagulants in use, and the management of dose changes to anticoagulants, which requires written confirmation by the prescriber when a dose of anticoagulant changes.

Oral anticoagulants should not normally be included in Monitored Dosage Systems, however if they are included, they should be risk assessed by the social care organisation for this usage.

Appendix 1

Regional Working Group NPSA Alert 18 – Anticoagulants

Dr Mike Scott (Chairperson), Head of Pharmacy and Medicines Management, NHSCT

Anna Lappin, Medicines Governance Pharmacist, NHSCT

Dr Peter Howard, Consultant Geriatrician, NHSCT

Dr Denis Boyd, Medical Advisor, Primary care, NHSSB

Dr Colm Rafferty, General Practitioner, Ballyclare GP Practice

Dr Denis Morrison, Director of Pharmaceutical Services, NHSSB

Dr Robert Thompson, Chair NI GP Clinical Governance Group, SHSSB

Dr Katherine Boyd, Consultant Haematologist, SHSCT

Lyn Watt, Anticoagulant Pharmacist, SHSCT

Dr Gary Benson, Director, N Ireland Haemophilia and Thrombosis Centre

Mrs Hazel Baird, Head of Governance and Patient Safety, NHSCT

Dr Margaret Bowers, Consultant Haematologist, SEHSCT

Dr Russell McLaughlin, Consultant A&E, SEHSCT

Mrs Alison Campbell, Clinical Pharmacy Co-ordinator, SEHSCT

Mr Michael Donaldson, Dental Services, NI

Oriel Brown, Nurse Advisor, BHSSB

Veranne Lynch, Senior Prescribing Advisor, BHSSB

Joanne Knight, Anticoagulant nurse, SEHSCT

Remit

- Review the NPSA safety alert 18 and agree a regional approach (? where possible) to action points and implementation
- Represent the views of your profession/speciality at regional level to allow the work to progress in a consistent manner
- Provide feedback on the work of the group to your local implementation group and professional/speciality groups

Appendix 2

Taking warfarin safely

It is very important to take the correct dose of warfarin.

- Taking too much increases the risk of bleeding.
- Taking too little makes blood clots more likely to form.

Warfarin comes in four different strengths. It is easy to become confused between them. Taking the wrong strength can be dangerous.

To reduce confusion,

- **only 1mg and 3mg warfarin tablets will be used**
- 5mg and 0.5mg tablets will no longer be prescribed and pharmacies will not stock them
- repeat prescriptions will be changed to the 1mg and 3mg tablets if necessary

You must make sure that you know how to make up your warfarin dose using the 1mg and 3mg tablets.

If you are unsure, do not guess. Ask your doctor, nurse or pharmacist to explain how to make up your dose.

This change is in the strength of tablets available. It does not affect the total number of milligrams of warfarin you take.