An Audit of the Documentation and Correct Referral of Patients on Initiation of New Oral Anticoagulants (Dabigatran, Rivaroxaban, Apixaban)

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Peter Davies (Audit Supervisor)

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Abstract

An Audit of the Documentation and Correct Referral of Patients on Initiation of New Oral Anticoagulants (NOACs: Dabigatran, Rivaroxaban, Apixaban)

By Sabiha Fatima Hussaini (Peter Davies: Audit Supervisor), Salisbury District Hospital

Introduction and objectives

Due to the high risk of bleeding when using NOACs, it is very important to consider the risks of their use against the benefit, and clear documentation helps to achieve this. This audit has been designed to assess whether important information pertaining to NOAC use is currently being documented in patient notes, and whether patients are being correctly referred to the anticoagulation clinic when initiated on NOACs, as stipulated by the bulletin released by the Medicines Safety Group in July 2013. The following standards are expected to be adhered to by 100% of patients studied.

1. Patient referred to anticoagulation clinic using the specific referral form
2. Patient received counselling at the Anticoagulation Clinic
   - The following must be documented in patient notes:-
   3. Indication for NOAC use
   4. Dose of NOAC
   5. CHADsVASc score
   6. HASBLED score
   7. Plan and date for review

Method

The audit was proposed to and approved by the trust’s audit system, OSCA (Online System for Audit). It has been carried out as a retrospective in-house study evaluating nine outpatients and twelve inpatients. TRACE from the pharmacy JAC system was used to establish which patients had been prescribed any of the three NOACs between 1st November 2013 and 31st January 2014. Twenty one patients were selected to be evaluated.

Results

Standard 1 was adhered to by 6 sets of notes. The highest compliance was shown for Standards 2 and 4, both of which were satisfied by 12 out of 21 patients. 10 sets of notes fulfilled standard 3. Standards 4 and 5 were not routinely met, with CHADsVASc score being documented in only 4 sets of notes and HASBLED in none. None of the standards showed a significant difference in results for inpatients and outpatients except Standard 7 which was met by 1 inpatient but 4 outpatients giving a total of 5. Standard 2 is affected by Standard 1, since patients who are not referred to the anticoagulation clinic are unlikely to receive counselling there.

Recommendations and Action Plan

To improve compliance to the bulletin and reduce risk to patients it would be useful to introduce a new, coloured form for NOAC prescribing. The form could be modified from the current NOAC referral form which includes all the required information. It should be printed on duplicate paper so that one copy can be kept on the ward and another can be sent to the anticoagulation clinic as a referral. There needs to be raised awareness of the NOAC referral form and importance of clear documentation. This can be achieved by pharmacist-led discussions with prescribers and nurses across all wards highlighting the importance of documenting key points when admitting or initiating patients on NOACs. It would also be useful to explain to healthcare professionals how to fill in the referral form correctly.
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1. Background and Introduction

The NOACs (New Oral Anticoagulants); Dabigatran, Rivaroxaban and Apixaban are thrombin/factor Xa inhibitors. NOACs are now often chosen in preference over warfarin, the well-established anticoagulant, since they are known to have fewer interactions with foods and other drugs and do not require regular INR (international normalised ratio) monitoring. In addition to this the dosing regimens for the NOACs are much simpler and unvaried as opposed to warfarin for which patients usually have different doses on different days of the week and they are regularly required to change their dosing based on their INR readings. One disadvantage to NOAC use however is that due to their mode of action their efficacy cannot be monitored as they do not affect INR and therefore patient compliance is the most important factor in ensuring they receive maximum benefit from their medication. The other more significant issue with regards to NOACs is that there is no antidote for them. If a patient has a bleed whilst on warfarin they can be administered Vitamin K which will bring the INR back down. Although there are local guidelines for how to deal with haemorrhage for patients on Dabigatran or Rivaroxaban there is no specific antidote at present which is why these drugs are considered such high risk (Appendix 1 and 2). Currently a guideline has not been produced for haemorrhage with Apixaban as this was more recently introduced to the hospital.

Dabigatran was the first NOAC approved for use by NICE (National Institute of Clinical Excellence) as preventative treatment of VTE (venous thromboembolism) after hip or knee replacement surgery in 2008.\(^1\) It was later approved for use as prophylaxis of stroke and systemic embolism in patients suffering from AF (atrial fibrillation) in 2012.\(^2\) Apixaban and Rivaroxaban have now also been approved for the same indications and Rivaroxaban also has a further indication of treatment of DVT (deep vein thrombosis) and prevention of recurrent DVT and pulmonary embolism.\(^3\)\(^-\)\(^8\) The choice and dose of drug will be dependent on indication and individual patient factors such as renal function and age. When considering the risk against the benefit of NOAC use in patients suffering from atrial fibrillation the CHADsVASc score (Congestive heart failure\(\) \(\)\(\)\(1\), Hypertension\(\) \(\)\(\)\(1\), Age \(\)\(\geq\)75 years\(\) \(\)\(2\), Diabetes mellitus\(\) \(\)\(1\), Stroke \(\)\(2\), Vascular disease \(\)\(1\), Age 65-74 years \(\)\(1\), Sex category [Female \(\)\(1\)]) and HASBLED score (Hypertension \(\)\(1\), Abnormal renal/liver function \(\)\(1\), Stroke \(\)\(1\), Bleeding history or predisposition \(\)\(1\), Labile International Normalized Ratio \(\)\(1\), Elderly, Drugs/alcohol concomitantly\(\)\(1\)) should be calculated and compared.\(^9\)\(^,\)\(^10\) CHADsVASc gives an indication of the risk of stroke in the patient; patients will be considered for oral anticoagulation for any score of 1 or more while HASBLED looks at factors which increase the likelihood of bleeding in the patient with a score of 3 or more showing high risk of bleeding. The prescriber must take these both into account and decide whether the benefit of NOAC use outweighs the risk.

The Anticoagulation team at Salisbury District Hospital play a key role in the management of patients started on NOACs. Any patient who is to be started on a NOAC
whether within the hospital or by any GP in the Salisbury vicinity should be referred to the Anticoagulation clinic at this hospital. In November 2013 a referral form specifically for NOACs was introduced for the hospital and all GPs in the Salisbury area to refer patients to the clinic (Appendix 3). At the clinic they assess the patient details and work out the correct dose of drug required. They also thoroughly counsel the patient on how to take their medicine, side-effects to look out for and why they are taking it. Patient friendly booklets about the relevant NOAC are provided for the patient to take away and read before beginning their treatment. Patients are booked in for review appointments at the clinic for six weeks later and from then on the patient will have check-ups with their GPs only. The clinic also provide a helpline so anticoagulated patients experiencing issues with their medicines or suspecting an adverse reaction or any having other queries about their treatment can ring in and discuss the issue.

Unfortunately there have been cases across the UK where patients taking NOACs have had severe bleeds which has in some cases resulted in death. This has been recognised as a serious issue and the MHRA (Medicines and Healthcare Regulatory Agency) have alerted healthcare professionals to the risk of haemorrhage in patients taking these drugs. In addition to this a letter was issued to prescribers by the MHRA in September 2013 as a further warning of the risk of haemorrhage and what precautions to take when prescribing NOACs. Subsequently Salisbury District Hospital have tried to introduce measures to make the occurrence of such adverse events within this hospital less likely. This audit aims to assess whether the measures are being carried out.
2. **Aims and Objectives**

Following the recent introduction of NOACs (New Oral Anticoagulants) to Salisbury District Hospital a bulletin has been released by the Medicines Safety Group in July 2013 highlighting key details related to these drugs which must be documented in patient notes (Appendix 4). Further to this a NOAC referral form was introduced in November 2013 for any patients being started on a NOAC (Appendix 3). Due to the high risk of bleeding when using these drugs it is very important to consider the risks of their use against the benefit and clear documentation helps to achieve this. It also helps to prevent prescribing errors and thereby reduces risk to patients from their treatment. This audit has been designed to assess whether important information pertaining to NOAC use is currently being documented and whether patients are being correctly referred to the anticoagulation clinic when initiated on these drugs. Listed below are the standards that must be fulfilled for patients initiated on NOACs as outpatients or during their stay in Salisbury District Hospital as inpatients.

**2.1 Standards:**

1. Patient referred to anticoagulation clinic using the Thrombin/ Factor Xa Inhibitor Oral Anticoagulant Referral Form (Appendix 4)

2. Patient received counselling at the Anticoagulation Clinic

The following must be documented in patient notes:

3. Indication for NOAC use

4. Dose of NOAC

5. CHADsVASc score

6. HASBLED score

7. Plan and date for review

All standards are expected to be met by 100% of patients studied.
3. Method

The audit was proposed to and approved by the trust’s audit system OSCA (Online System for Clinical Audit) (Appendix 5). The audit has been carried out as a retrospective in-house study evaluating nine outpatients and twelve inpatients. TRACE from the pharmacy JAC system was used to establish which patients had been prescribed any of the three NOACs between 1st November 2013 and 31st January 2014. Twenty one patients were selected to be evaluated based on which medical notes were available to be analysed at that time. Patient notes were requested from Medical Records who pulled and gathered the notes in batches for the purposes of this audit.

In order to ascertain whether these patients had been referred to the Anticoagulation Clinic and had received counselling there it was necessary to liaise with the Anticoagulation team. They provided access to their patient review system which held the required information. It was possible to see who had received counselling and if they had not why not. Information on which patients had been referred using the specific referral form was also provided by them.

Data relevant to the standards listed in the previous section was extracted from the patients’ notes and from the Anticoagulation team and recorded on a data collection form created in-house (Appendix 6). The forms were filled as and when medical notes were provided.
4. Results and Discussion

4.1 Raw Results:

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Key:

D = Dabigatran       R = Rivaroxaban       A = Abixaban
0 = No                1 = Yes

Standard 1 = Referral formed filled?
Standard 2 = Did patient receive counselling?
Standard 3 = Indication Documented?
Standard 4 = Dose Documented?
Standard 5 = CHADSVASc Score documented?
Standard 6 = HASBLED score documented?
Standard 7 = Plan and date for review documented?
The results show that none of the standards stipulated were met by 100% of patients studied.

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<th>Percentage Achieved (%)</th>
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<td>Standard 4</td>
<td>57.1</td>
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Despite Standard 1 being very poorly fulfilled a much larger percentage of patients fulfilled Standard 2 which means patients did receive counselling at the Anticoagulation clinic even if the specific referral form was not filled in which suggests other forms of referral were used. Of the 15 patients who did not have a referral form filled for them only 3 had mention in the notes of another form of referral such as a letter. The results show that out of 21 patients initiated on NOACs only 12 of them received counselling at the Anticoagulation clinic. For 3 of the patients who did not receive counselling specific reasons had been documented as to why counselling was not possible (e.g. patient suffers from vascular dementia). This leaves 6 patients who did not receive counselling which upon analysis of the results can be traced back to the patient not being referred to the clinic by the referral form or any other means in the first place. Of the 5 patients for whom the referral form had been filled not one set of notes had a copy of the form in them. Part of the referral form is also to calculate the HASBLED score so it is surprising that the score is not documented in the notes for any of the patients who actually had a referral form filled for them.

The indication of NOAC use, Standard 3, was documented for 10 patients. For 8 out of the remaining 11 patients reference was made to conditions which would warrant NOAC use such as paroxysmal atrial fibrillation and previous transient ischaemic attack however this was documented elsewhere in the notes, was often difficult to find and was not clearly noted as a reason for using the NOAC.

Only 12 sets of notes satisfied Standard 4 which was having the dose of the NOAC documented. Having discussed with the Anticoagulation clinic it came to light that when a patient is referred to them usually they calculate the appropriate dose of medicine rather than the consultants or GPs themselves. This could provide to some extent an explanation as to why a dose was not documented for so many patients. However this does not negate the fact that it is still necessary for dose to be documented in the notes at some point as this is very important information and improvement definitely needs to be seen here.
Overall CHADsVASc and HASBLED scores, Standards 5 and 6 were very poorly considered. Only 4 sets of notes provided a CHADsVASc score however another 8 did make mention of some factors relating to the scoring system such as hypertension, diabetes and age. HASBLED score was recorded for none of the patients and in only one set of notes a HASBLED factor was considered which was that the patient was a moderate alcohol drinker. For 1 patient CHADsVASc and HASBLED scores were recorded on the Anticoagulation patient system but they were not documented in the patient notes.

Standard 7 is the only standard which shows a marked difference between outpatient and inpatient notes. This could be due to the fact that review appointments are actually made with the Anticoagulation team and therefore for inpatients this information would not necessarily be made note of in the ward notes. It was often found documented on the Anticoagulation patient review system that the patient was booked in for a review appointment.

There is no marked difference in performance between inpatients and outpatients. In terms of total number of standards fulfilled overall, across inpatients this came to 27.3% and for outpatients it was 38.1%. Analysis of the results shows no real correlation between standards except Standards 1 and 2. Different bits of essential information were missed out for different patients for different reasons and there does not seem to be any sort of trend to show that if one standard was achieved then another one was more likely to be.

It is of great import to note that when collecting data for the audit one set of notes had particularly unclear documentation. The patient was taking a NOAC but it was unclear whether this was Dabigatran or Apixaban since one was written in the drug chart and another was written in the notes. Upon further perusal a note was found from the pharmacist explaining that the patient was already taking Dabigatran on admission and they had been prescribed Apixaban in addition to this presumably because the prescriber did not know that the patient was already taking a NOAC. This was a serious risk for the patient and is a prime example of how important clear documentation is and why patients need to be referred to the Anticoagulation clinic before initiating a NOAC. Interestingly this was one of the best set of notes with regards to documentation upon initiation of a NOAC however it was unrequired as the patient was on a NOAC on admission which leads to the conclusion that better documentation is also required for patients admitted on NOACs.
4.2 Limitations of Results

This audit was designed to evaluate patients initiated on a NOAC before November. The methods used to identify patients did not actually rule out patients who were initiated before November 2013. The majority of patients were started on the NOAC after November however some were not and therefore it cannot be expected that the specific referral form introduced in November will have been filled for them. This may have skewed the results for Standard 1 however none of the patients studied had been prescribed the NOAC prior to July 2013 when the NOAC bulletin was released therefore the other Standards should have been better achieved. It may be useful in future to take into account exactly when the patient was started on a NOAC.

Although Standard 2; patients receiving counselling, seemed poorly attained it was actually dependent on the patients being referred to the Anticoagulation clinic. Analysis of the results shows that the problem is definitely due to poor referral of patients as the results show that the all patients referred to the clinic did receive counselling unless there was a particular reason why this was not possible.

The standards concerning documentation only required that certain things were documented anywhere in the notes not somewhere specific so this could be in a GP letter, on a TTO or any other place in the notes. The information was often difficult to find. The NOAC bulletin was released to ensure that details are clearly documented to prevent mistakes and optimise patient safety when using these high risk drugs however if the information is documented but difficult to find it becomes redundant and mistakes will still occur.

The sample size for this audit was relatively small and may not give a true indication of practice over the whole hospital and the Salisbury area. It may be beneficial to carry out the audit over a larger sample of patients to give more informative results.
5. **Recommendations and Conclusion**

It is clear from the results that documentation of key points in patient notes and referral of patients initiated on NOACs to the Anticoagulation clinic are not carried out to an acceptable standard within the trust. The bulletin created in response to an MHRA alert on NOACs was only released in July 2013 and this audit has been carried out within six months of this. Furthermore the NOAC referral form was introduced only three months prior to carrying out this audit. The results may be attributable to inadequate education and advertisement of the bulletin and referral form amongst healthcare professionals and it may take some more time before adhering to the standards becomes common practice. It is very important that this problem is addressed and measures should be taken to improve the situation.

Currently the trust has a separate drug chart which is completed for any patients taking warfarin. Patients taking warfarin require regular INR monitoring and the dose is often adjusted according to this hence the need for a separate chart. The chart is bright yellow which draws attention to it and thereby draws attention to the fact that the patient is taking an oral anticoagulant. These measures are taken as warfarin is recognised as a high risk drug due to the risk of bleeding associated with it and also due it having interactions with multiple other drugs and foods. No such measures are currently taken for the NOACs as regular monitoring is not required for them, dosing is usually stable and unvaried and they have little interactions with other drugs. It can however be argued that NOACs are equally high if not higher risk drugs than warfarin due to there being no antidote for them in the case that a patient does have a bleed.

In view of this it could be suggested that some such form or chart be introduced for patients using NOACs. Although this audit was only assessing documentation when a patient was initiated on a NOAC it is equally important that there is clear documentation for patients admitted on NOACs also to avoid mistakes such as prescribing two oral anticoagulants concomitantly. This would also mean that all the required information is documented in one place and is less likely to be missed. The current NOAC referral form provides sections to document all the points mentioned in the bulletin. Another form could be created with slight modifications to make it a NOAC chart combined with the NOAC referral form which could then be used for patients who are admitted on a NOAC and for patients who need to be initiated. It would be helpful to print the form on coloured paper to make it stand out from other paperwork. As it is necessary for referrals to be sent to the Anticoagulation Clinic whilst keeping a copy in the patient notes this could be made easier by having the form/ chart printed on duplicate paper which would save time rather than having to make photocopies. Having introduced these changes the most important factor in improving compliance to standards is in educating healthcare professionals. Healthcare professionals must be made aware of the form and should be encouraged to fill in all the sections appropriately. It would also be beneficial to have pharmacy led group training sessions with doctors and nurses to impress the importance of filling in the form for patients taking NOACs and at the same
time re-iterating how to appropriately refer patients to the Anticoagulation clinic using
the new combined chart and referral form.

In conclusion, at present necessary information is not being documented in the notes of
patients initiated on NOACs to a satisfactory standard and many patients are not being
referred appropriately to the Anticoagulation clinic. If the measures mentioned above
are taken with time there could be a marked improvement in the situation and care of
patients using NOACs can be optimised.
6. References


11. MHRA letter September 2013: The new oral anticoagulants Eliquis ®, Pradaxa®, Xarelto® Beware of the risk factors for bleeding, pay attention to posology, contraindications, and warnings and precautions for use to reduce the risk of bleeding.
7. Appendices

Appendix 1

[Diagram of Patient Receiving Dabigatran Therapy: Haemorrhage Protocol]

**STOP: Dabigatran**

**Contact Haematologist**

**Request**
1. Coagulation screen to include APTT and TT (Important to document time of last dose of dabigatran)
2. Full blood count and renal function / eGFR

**APTT and TT normal**

**APTT and/or TT prolonged**

**Dabigatran anticoagulant effect may be present**
(consider oral charcoal if dabigatran ingestion < 2 hours)

**Maintain BP & urine output (dabigatran 80% renal excretion)**

**MILD BLEED**

Mechanical compression
Tranexamic Acid
Oral 25 mg/kg
IV 15 mg/kg
consider giving further doses 8hry
Delay next dabigatran dose or discontinue treatment

**MAJOR BLEED**

Optimise tissue oxygenation
Control haemorrhage
- Compression
- Surgical intervention
Tranexamic Acid (25 mg/kg IV),
consider giving further doses 8hry
Red Cell transfusion
- Aim Hb > 7 g/dl
Platelet transfusion
- Aim Pt > 50 x 10⁹/l or
- If CNS bleed aim Pt > 100 x 10⁹/l

**LIFE-THREATENING BLEED**

Consider PCC*
- Octaplex 40 U/kg
(max 3000 U in one dose)
- Repeat clotting screen at 1 hour
- If inadequate reversal
  Consider
  Haemofiltration

*NB: There is only scanty data in animals on effectiveness, PCC is prothrombin & effective dose is unclear

*Major bleed: Symptomatic bleeding in a critical area or organ, such as intracranial, intraspinal, intracoarct, retroperitoneal, intra-articular, pericardial or intramuscular with compartment syndrome (Scolman et al J Thromb Haemost 2010; 8:692-694)
# Thrombin/ Factor Xa Inhibitor Oral Anticoagulant Referral Form

Please organize baseline bloods on referral to clinic. FBC, U&Es, LFTs, Clotting Screen. If available please attach copy of GP history to referral.

<table>
<thead>
<tr>
<th>Hospital no.</th>
<th>NHS no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surname</td>
<td>Forename</td>
</tr>
<tr>
<td>Dob:</td>
<td>Home tel. no.</td>
</tr>
<tr>
<td>Address</td>
<td>Work tel. no.</td>
</tr>
<tr>
<td></td>
<td>Mobile no.</td>
</tr>
<tr>
<td></td>
<td>GP name and Surgery</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Actual Body Weight</th>
<th>Creatinine Clearance</th>
</tr>
</thead>
</table>

Dose and drug prescribed:

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1</td>
</tr>
<tr>
<td>H</td>
<td>1</td>
</tr>
<tr>
<td>R2</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
</tr>
<tr>
<td>S</td>
<td>2</td>
</tr>
<tr>
<td>V</td>
<td>1</td>
</tr>
<tr>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td>Sf</td>
<td>1</td>
</tr>
</tbody>
</table>

CHADS2VASc Score – circle, add score if >2 consider anticoagulation

Hypertension is defined as systolic blood pressure >160mmHg

Abnormal renal & liver function (1 pt each)

Abnormal kidney function is defined as the presence of chronic dialysis or renal transplantation or serum creatinine >200mmol/L

Abnormal liver function is defined as chronic hepatic disease (e.g. cirrhosis) or biochemical evidence of significant hepatic derangement (e.g. bilirubin 2x upper limit of normal, in association with aspartate aminotransferase/alanine aminotransferase/alkaline phosphatase >3 x upper normal limit.

S: Stroke

B: Bleeding

L: Labile INRs

E: Elderly >65 yrs

D: Drugs or Alcohol (1 pt each)

Total score

H ASBLED SCORE please circle – Score of 3 or more indicates increased 1 year bleed risk on anticoagulation sufficient to justify caution or more regular review

<table>
<thead>
<tr>
<th>Clinical Characteristic</th>
<th>Points</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>H Hypertension</td>
<td>1</td>
<td>Hypertension is defined as systolic blood pressure &gt;160mmHg</td>
</tr>
<tr>
<td>A Abnormal renal &amp; liver function (1 pt each)</td>
<td>1 or 2</td>
<td>Abnormal kidney function is defined as the presence of chronic dialysis or renal transplantation or serum creatinine &gt;200mmol/L. Abnormal liver function is defined as chronic hepatic disease (e.g. cirrhosis) or biochemical evidence of significant hepatic derangement (e.g. bilirubin 2x upper limit of normal, in association with aspartate aminotransferase/alanine aminotransferase/alkaline phosphatase &gt;3 x upper normal limit.</td>
</tr>
<tr>
<td>S Stroke</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>B Bleeding</td>
<td>1</td>
<td>Bleeding refers to previous bleeding history and/or predisposition to bleeding e.g. bleeding diathesis, anaemia etc.</td>
</tr>
<tr>
<td>L Labile INRs</td>
<td>1</td>
<td>Labile INRs refers to unstable INRs or poor time in therapeutic range e.g. &lt;60% INR international normalized ratio</td>
</tr>
<tr>
<td>E Elderly &gt;65 yrs</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>D Drugs or Alcohol (1 pt each)</td>
<td>1 or 2</td>
<td>Drugs/Alcohol use refers to concomitant use of drugs, such as antiplatelet agents, NSAIDS, or alcohol abuse etc.</td>
</tr>
</tbody>
</table>

Total score

Past Medical history

Concomitant medications

Please print and send form to Anticoagulant Clinic, Path Lab, Level 3, Salisbury District Hospital or fax 01722 333933

For further assistance please contact the Anticoagulant Nurse Practitioners on 01722 426006

Signature of Prescriber: ___________________________ Date: ___________________________
The New Oral Anticoagulants - Dabigatran, Apixaban and Rivaroxaban

- With the increased use of these medicines, DO please become fully familiar with their names, indication(s) and dosing before prescribing (Use current BNF)
- DO please ensure their use is clearly documented within the notes, including indication, dosing, assessment (e.g. CHADSVASC/ HAS-BLED score), plan and any date(s) for review
- DO refer all patients to the anticoagulant nurse to be fully counselled
- DO follow the links detailed below for further information on treatment options and dosing

- These novel anticoagulants DO NOT require the INR monitoring as for Warfarin, because of their predictable pharmacokinetics
- Warfarin REMAINS the oral anticoagulant of choice for established patients, with appropriate target INR and regular monitoring
- They are however POTENT anticoagulants that are NOT suitable for everybody.
- There is NO effective antidote, and must be used with caution. In particular, in renal failure (major limitation) and abnormal liver function. Adherence to treatment plan is vital
- DO NOT use with other anticoagulants e.g. dalteparin

Their specific licensed indications are detailed within the formulary: ICID> Medicines Management > Joint formulary > Anticoagulants and Protamine (2.8)

Further information on prescribing can be found on our intranet: ICID>Clinical Management>Venous Thromboembolism (VTE) for individual policies

Or, the NHS Wiltshire website at: http://www.wiltshire.nhs.uk/policiesandprocedures/Wiltshire_MedicinesManagementGuidance/Policies-and-prescribing-guidance.htm

For any further information, contact:
Tamara Everington, Haematology Consultant, SDH ext 4691

S Howe – Risk Management Pharmacist June 2013

Appendix 5
Audit Title: An audit of documentation in patient notes on initiation of New Oral Anticoagulants (Dabigatran, Rivaroxaban, Apixaban) and referral of these patients to anticoagulation clinic

Pre-Registration Trainee Pharmacist

Name: Sabiha F Hussaini
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SP2 8BJ

Audit Supervisor

Name: Peter Davies
Email: peter.davies@salisbury.nhs.uk
Work phone: 01722 33 6262 (Ext 4269)
Work Address: Salisbury District Hospital
Odstock Road
Salisbury
SP2 8BJ

Background/ Rationale for Audit

Following the recent introduction of NOACs to Salisbury district hospital a bulletin has been released highlighting key details related to these drugs which must be documented in patient notes.1 Further to this bulletin a NOAC referral form was introduced in November 2013 for any patients being started on a NOAC.2 Due to the high risk of bleeding when using these drugs it is very important to consider the risks of their use against the benefit and clear documentation helps to achieve this.3

References:

1. Feedback to prescribers from the Medicines Safety Group – July 2003
2. Thrombin/ Factor Xa Inhibitor Oral Anticoagulant Referral Form
3. MHRA letter September 2013: The new oral anticoagulants Eliquis®, Pradaxa®, Xarelto® Beware of the risk factors for bleeding, pay attention to posology, contraindications, and warnings and precautions for use to reduce the risk of bleeding

Aims and Objectives

Audit whether the use of NOACs is being clearly documented in patient notes as per the July 2013 bulletin and that patients are being referred to the anticoagulation clinic appropriately.

Proposed Standards for Auditing

1. Patient referred to appropriately to anticoagulation clinic
2. Patient received counselling
3. Indication of NOAC
4. Dose of NOAC
5. CHADSVASc score
6. HASBLED score
7. Plan and date for review

The following must also be documented:

Method

Retrospective in-house study evaluating approximately ten outpatients and ten in-patients. TRACE, a program on JAC in pharmacy, will be used to ascertain which patients have had a NOAC dispensed for them and data will be extracted from these patients’ medical notes. Whether patient received counselling will be determined by discussion with staff in the Anticoagulation Clinic. Data will be collected from 1st November 2013 to 31st January 2014.
# Data collection sheet for audit of patients prescribed NOACs

<table>
<thead>
<tr>
<th></th>
<th>Hospital no.</th>
<th>Ward:</th>
<th>D.O.B:</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOAC dispensed:</td>
<td>Apixaban</td>
<td>Dabigatran</td>
<td>Rivaroxaban</td>
</tr>
<tr>
<td>Prescription type:</td>
<td>Inpatient</td>
<td>Outpatient</td>
<td></td>
</tr>
<tr>
<td>Referral form filled?</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Did patient receive counselling? [in the Anticoagulation clinic]</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

**Are the following documented in the patient NOTES?:**

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>State indication:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dose</td>
<td>Yes</td>
<td>No</td>
<td>State dose:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>State score (Or factors considered):</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHADsVASc score</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HASBLED score</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>When:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan and date for review</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>