Brighton and Sussex University Hospitals NHS Trust

Improving patient safety: warfarin

Updated February 2020

Reducing the harm caused by warfarin

Warfarin is an effective medication if taken at the right dose and with appropriate monitoring. However, both within the UK and Worldwide, warfarin is one of the major causes of drug-related morbidity and mortality.[1-4]

Action by RSCH, PRH & SEH medical staff

1 Prescribe warfarin in a safe manner

Inpatient dosing of warfarin is to be completed by the day team before the end of their shift. It is an unsafe practice for the on-call team to dose patients they are not familiar with.

2 Provide patient/carers with clear written dosing instructions on discharge

Provide the patient with clear written instructions when they leave hospital eg. “From Friday dd/mm/yy, take 4mg of warfarin at 6pm for THREE days. Next INR check date, time and location essential to ensure patient attends.

3 Provide accurate referral information on discharge

All patients who are discharged from BSUH on warfarin or any other vitamin k antagonist must have an anticoagulation referral completed. This must be done on Panda- the anticoagulation referral form can be found in Bamboo forms on the patient record. For patients living in the Brighton and Hove catchment area, the appointment will be allocated by RSCH anticoagulation administrator and will appear on the existing form on Panda within 3-4 hours on average from receipt of referral.

For patients living in Mid Sussex or out of area, the appointment will not be allocated by an administrator -the ward doctor is responsible for arranging the follow up INR

appointment either with the patient's GP or with the patients' local hospital anticoagulation clinic. This must be confirmed and details given to the patient before they leave hospital.

4 Arrange follow-up INR monitoring within FOUR days of discharge

RSCH Anticoagulation clinic only runs on Mondays and Thursdays. If a blood test is due on other days or a bank holiday Monday, the patient should return to the ward for INR and dosing by the ward doctor.

5 Ensure safe discharge and review

Discharge is not recommended if INR is greater than 5. Patients requiring long-term anticoagulation need to be reviewed annually by the referring Consultant or GP.

Action by RSCH, PRH & SEH nursing staff

1mg tablet = BROWN

3mg tablet = BLUE

1 Discharge patient in a safe manner

Before discharge, ensure patient has:

- Follow-up INR appointment date and time
- Written dosing instructions for warfarin (from doctor or pharmacist)
- Clearly understands their warfarin dose
- Been told that follow-up blood test is needed within FOUR days of discharge

2 Notify your ward pharmacist when patient is started on warfarin

Contact your ward pharmacist as soon as possible so that written and verbal information regarding the new anticoagulant can be provided. Out of hours, this information can be provided by nursing or medical staff looking after patient. This should include education about bleeding risks, interaction of warfarin with other medication and diet, duration of treatment who to contact in the event of bleeding and who will continue the management of their warfarin. The oral anticoagulation counselling checklist (insert link) should be used and yellow warfarin information booklets can be obtained either from ward stationary or from the emergency drug cupboard.

Action by RSCH, PRH & SEH pharmacy staff

1 **Provide follow-up INR appointment date and time**

Brighton and Hove catchment patients should not be discharged until the follow-up appointment details have been confirmed on Bamboo**.** TTOs should only be released from pharmacy once this has been confirmed. For Mid Sussex and out of area patients, a follow-up appointment time and date must be confirmed before discharge and documented on the TTO by the discharging doctor or pharmacist.

2 **Provide patient counselling and information**

Whenever possible, all patients newly initiated on warfarin should be counselled by the ward pharmacist prior to discharge. Provide a yellow warfarin book and transcribe the INR range, indication and duration as prescribed by medical staff. Information should include education about bleeding risks, interaction of warfarin with other medication and diet, duration of treatment who to contact in the event of bleeding and who will continue the management of their warfarin. A counselling checklist should be completed and filed in medical notes.

3 **Provide patient medication information**

Provide yellow warfarin information sheet with all dispensed warfarin prescriptions. Patients newly initiated on warfarin whose TTOs do not come to pharmacy must all be given a yellow oral anticoagulation information book on discharge (see above).

Further information on the action points

Medical Staff

1 **Prescribe warfarin in a safe manner**

Inpatient dosing is to be completed by 2pm. Before prescribing warfarin, review the patient's other medications and conditions, (e.g. drug interactions, pacing wires, liver impairment). Refer to dosing guidelines on Microguide.

2 **Provide patient with clear written dosing instructions on discharge**

Avoid medical abbreviations, like OD or 3/7. Abbreviations are easily misinterpreted by patients and staff. A standardised yellow patient dosing instruction card is available on all wards at RSCH.

3 Provide accurate information on referral form

Use the anticoagulation referral from on Panda and ensure that all relevant information is given eg loading doses and dates, indication, target range, date of event if VTE. If patient is not discharged to their home address, please write their temporary address and phone number on referral form. The discharging ward doctor is responsible for the patient's care until follow-up monitoring is arranged.

4 Arrange follow-up INR monitoring within FOUR days of discharge

All patients must have a follow up INR check within 4 days of discharge. Brighton and Hove GPs do NOT dose warfarin – there is an out-patient anticoagulation clinic at RSCH and a community warfarin service for Brighton and Hove. Patients in the PRH catchment area (Mid-Sussex) have their warfarin managed in general by their GPs so referral forms can go directly to them.

In Worthing, GPs provide a phlebotomy service but patients must be referred back to Worthing hospital anticoagulation clinic as they are responsible for dosing and management of anticoagulants.

The system is different in different areas across Sussex- extra care and attention is essential to ensure patients are followed up safely.

5 Referrals for all RSCH catchment patients to the RSCH Anticoagulation clinic

All referrals must be made to the anticoagulation clinic by 4:30pm Monday to Friday (12:00pm on Wednesday and Friday if transport is needed) in order to be processed that day. On receipt of the referral form for patients in RSCH catchment area, the RSCH Anticoagulation administrator will input appointment details onto patients Panda record and this can be viewed by accessing existing forms/anticoagulation referral.

6 Referrals for PRH catchment patients - contact GP

For patients living in Mid Sussex , the ward doctor is responsible for contacting the patient's GP to arrange follow-up.

All other out-of area patients

Contact GP or regional anticoagulation service to arrange follow up.

Intermediate care settings will not accept patients unless they are provided with the INR target range, dose & appointment.

References

1 Keeling, D., Baglin, T., Tait, C., Watson, H., Perry, D., Baglin, C, Makris, M. (2011).Guidelines on oral anticoagulation with warfarin–fourth edition. British journal ofhaematology, 154(3), 311-324.

2 National Institute for Health and Care Excellence. Atrial fibrillation: the management of atrial fibrillation. June 2014 CG 180

3 National Patient Safety Agency. Patient Safety Alert. Actions that can make anticoagulantssafer. 28th March 2007

4 Policy Research Unit in Economic Evaluation of Health and Care Interventions, Elliott RA, Camacho E, Campbell F et al. Prevalence and economic burden of medication errors in the NHS in England. 22 February 2018. http://www.eepru.org.uk/wp-content/uploads/2018/02/eepru-report-medication-error-feb-2018.pdf