Brighton and Sussex University Hospitals NHS Trust

Improving patient safety: warfarin

Effective from

July 2009

Reducing the harm caused by warfarin

Warfarin is an effective medication if taken at the right dose and with appropriate monitoring. However, nationally and internationally, warfarin is one of the major causes of drug-related morbidity and mortality.[1-3]

Action by RSCH, BGH & 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

Prescribe warfarin on the inpatient drug chart AND provide the patient with clear written instructions on the yellow card. eg. “From Friday 21/4/09, take 4mg of warfarin at NIGHT for THREE days.” See flow chart on page 5.

3 Provide accurate referral information to Anticoagulation clinic

An Anticoagulation referral form must be completed in full for all patients on warfarin. For Brighton and Hove patients, fax this to 66 4977.

For patients outside Brighton and Hove, the ward doctor is responsible for arranging a follow-up appointment either with the patient’s GP or with the patients’ local hospital anticoagulation clinic.

For action by:
- BSUH medical staff
- BSUH nursing staff
- BSUH pharmacy staff
- BSUH laboratory staff

We will also inform:
- Local GPs in surrounding PCTs
- Intermediate care facilities
- Local nursing homes
- District nurses

Further information:
- Anticoagulation Pharmacist bleep 8835
- BSUH Anticoagulation Laboratory
  ph: 01273 66 4578 fax: 01273 66 4977
- Consultant Haematologists

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

BSUH 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 5.0. Patients requiring long-term anticoagulation need to be reviewed annually by the referring Consultant.

Action by RSCH, BGH & SEH nursing staff

1mg tablet = BROWN

3mg tablet = BLUE

1 **Discharge patient in a safe manner**

Before discharge, ensure patient has:

- TTO from pharmacy containing follow-up INR appointment date and time
- Written dosing instructions for warfarin (from Dr)
- Clearly understood 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 for patient counselling and provision of a yellow warfarin book.

Action by RSCH, BGH & SEH pharmacy staff

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

For all Brighton and Hove patients TTOs should only be released from pharmacy when a confirmed anticoagulation appointment time and date is received from the lab. For out of area patients a follow-up appointment time and date must be confirmed with the prescriber and documented on the TTO.

2 **Provide patient counselling and information**

Whenever possible, all patients 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.

3 Provide patient medication information

Provide yellow warfarin information sheet with all dispensed warfarin prescriptions.

Further information on the action points

Medical Staff

1 Prescribe warfarin in a safe manner

Inpatient dosing is to be completed by 4pm. Before prescribing warfarin, review the patient's other medications and conditions, (e.g. drug interactions, pacing wires, liver impairment). Dosing guidelines are on the Trust Intranet Prescribing Guidelines.

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 sheet will be available from NHS Supplies (in press).

3 Provide accurate referral information to Anticoagulation clinic

Use the trust anticoagulant referral form. 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 Brighton and Hove patients need to attend the main RSCH clinic for a follow up appointment after discharge. This includes patients where samples are taken by the GP/ community pharmacy

Brighton and Hove GPs do NOT dose warfarin - this is a common misconception.

5 Fax referrals for all Brighton and Hove patients to the 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.

6 Contact either patient's GP or regional anticoagulation clinic for out of area patients.

For patients outside Brighton and Hove, the ward doctor is responsible for contacting the patient's GP or local hospital anticoagulation clinic to arrange follow-up.

Nursing staff

1 Discharge patient in a safe manner

On receipt of the referral form, between 9am Mon to 4.30pm Fri, BSUH Anticoagulation lab will fax the pharmacy department with the patient's Anticoagulation Clinic appointment date and time. This will be returned to the ward with the TTO and should be given to the patient.

Appointments allocated	Mon-Fri 10am-4:30pm
Transport deadline	12 noon Friday for Monday appointments 12 noon Wednesday for Thursday appointments

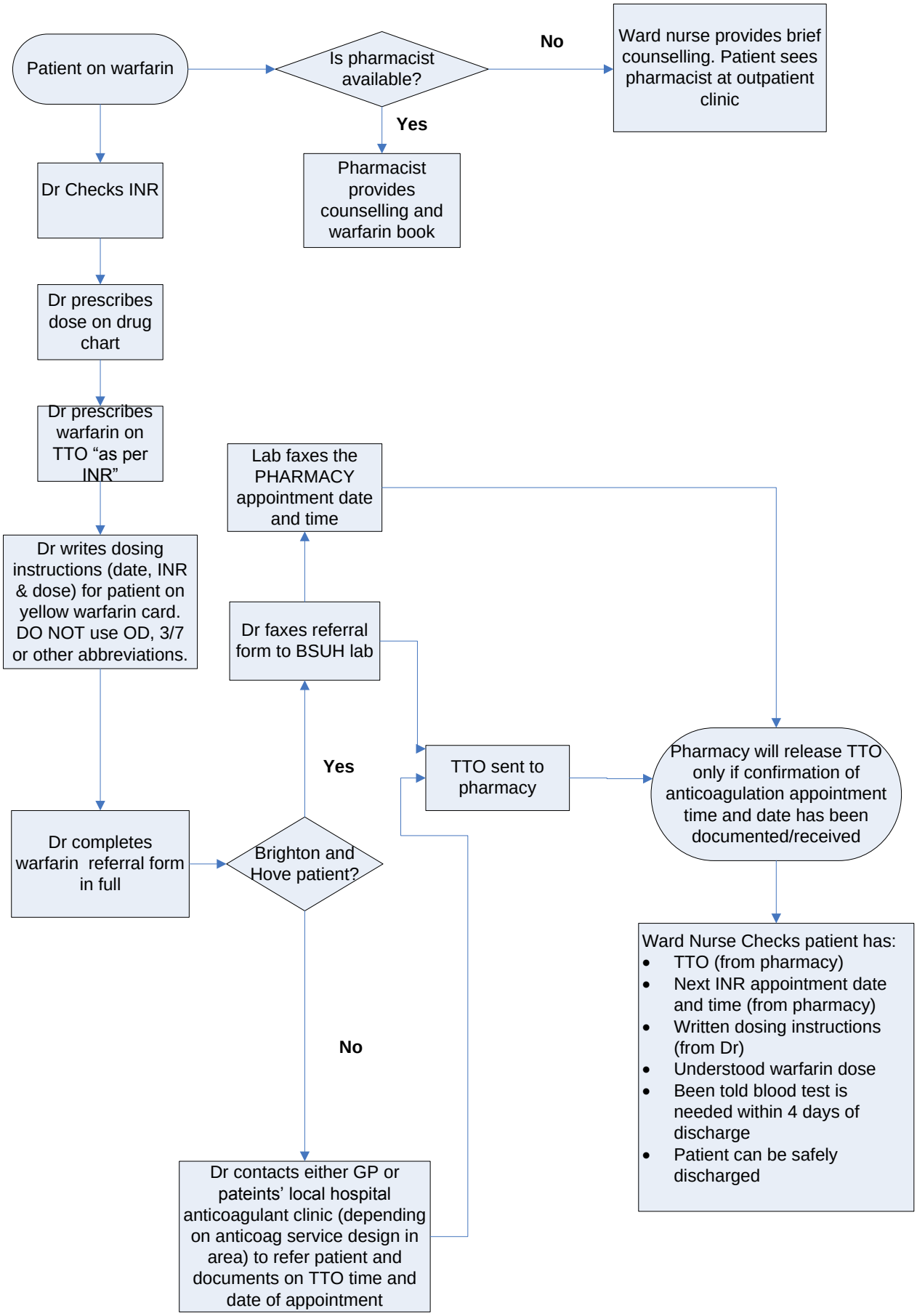
Intermediate care, eg. Knoll House, no longer accept patients unless they are provided with the INR target range, dose & appointment.

References

1 Pirmohamed M, James S, Meakin S, Green C, Scott AK, Walley TJ, et al. Adverse drug reactions as cause of admission to hospital: prospective analysis of 18 820 patients. BMJ 2004;329:15–9.

2 Wilson RM, Runciman WB, Gibberd RW, Harrison BT, Newby L, Hamilton JD. The quality in Australian healthcare study. Med. J. Australia 1995; 163:458-71.

3 Larmour I, Dolphin RG, Baxter H, Morrison S, Hooke DH, McGrath BP. A Prospective Study of Hospital Admissions Due to Drug Reactions. Australian J Hosp Pharm 1991;21:90-5.



July 2009 Warfarin Safer Discharge Process