



Medication Safety Series: MSS 5

Warfarin

On Admission:

- Confirm the following information from either the **yellow anticoagulant book** or the usual **anticoagulant monitoring team** ([appendix](#)) and document on electronic patient record as part of medicines reconciliation:
 - ✓ Indication e.g. Atrial Fibrillation, Pulmonary Embolism.
 - ✓ Duration of treatment (including date of initiation or date to be discontinued if appropriate).
 - ✓ Desired therapeutic range and target INR e.g. range 2-3, target 2.5.
 - ✓ Current dose
 - ✓ Date of last INR and INR result
 - ✓ Date of next appointment.
 - ✓ Name and contact details of usual anticoagulant monitoring team.
- Inform the usual anticoagulant monitoring provider ([appendix](#)) of the patient's admission to hospital.
- Prescribe warfarin on the Trust prescription chart **and** on the oral anticoagulation supplementary chart.
- Agree the appropriate frequency of INR monitoring required during admission and document on electronic patient record.

During Admission

For **ALL** patients during admission:

- Agree the appropriate frequency of INR monitoring required for each individual patient and document on electronic patient record.
- Ensure warfarin is prescribed daily until the next INR monitoring appointment is due.
- Warfarin is a **CRITICAL MEDICINE** - omission or patient refusal of administration should prompt nursing staff to seek immediate medical advice
- For patients who are non-compliant with warfarin, treatment with LMWH should be considered, then re-titration of warfarin as appropriate.

During Admission

Patients commencing warfarin **AFTER** admission:

- Check for interactions with existing medication/conditions
- Provide initial counselling on warfarin following the counselling points set out in the yellow anticoagulant book. Document this on electronic patient record.
- Prescribe warfarin on the Trust prescription chart and on the oral anticoagulation supplementary chart. The acute hospital team will advise titration doses of warfarin, and LMWH cover during titration if required.
- Document the following information on the electronic patient record:
 - ✓ Indication e.g. Atrial Fibrillation, Pulmonary Embolism.
 - ✓ Duration of treatment (including date of initiation or date to be discontinued if appropriate).
 - ✓ Desired therapeutic range and target INR e.g. range 2-3, target 2.5.
 - ✓ Starting dose
 - ✓ Date of next INR check

On Discharge (or prolonged leave):

- Usual anticoagulant monitoring team should be contacted and advised of the patient's discharge. An appointment date and time should be arranged ([appendix](#))
- If a further supply of warfarin is required, the strength of warfarin tablets should be in line with the local policy ([appendix](#)). Normally only 1 mg and 3 mg tablets are supplied.
- Discharge letter to include the following information:
 - ✓ Current dose
 - ✓ Date of last INR and INR result
 - ✓ Date and time of next appointment.
 - ✓ Name and contact details of usual anticoagulant monitoring team.
- A counselling refresher should be offered if the patient has commenced warfarin during their inpatient stay
- Anticoagulant book to be completed with relevant INR, current dose and date/time of next appointment.

Appendix – Warfarin monitoring service provision in TEWV by locality

County Durham and Darlington

- Belmont and Sherburn Surgery - Tel: 0191 3009661 (Intrahealth provide service)
- Bewick Crescent Surgery, Newton Aycliffe - Tel: 01325 316637
- City Hospitals Sunderland NHS Foundation Trust - Tel: 0191 5656256
- Clemitsons Pharmacy, Crook - Tel: 01388 762533
- County Durham and Darlington Foundation Trust - Tel: DMH 01325 743118 or BAGH 01388 455280 or UHND (switch) 0191 3332333
- Coxhoe Medical Practice - Tel: 0191 3770215
- Deneside Medical Centre, Seaham - Tel: 0191 5130884
- Dixon and Hall, Stanley, Durham - Tel: 01207 235281
- Dr Jones & Partners, Sedgefield - Tel: 01740 620300
- Dr Wood & Partners, Spennymoor - Tel: 01388 811455
- Easington South Health - Tel: 07786 961837 – number is valid but need NHS number (no patient names and most patients monitored by own GP)
- Haven Surgery, Burnhope - Tel: 01207 214707
- Intrahealth, William Brown Centre, Peterlee - Tel: 0191 5181564
- John Low Ltd, Consett - Tel: 01207 504131
- Leadgate Surgery - Tel: 01207 215151
- M and M Chemists, Newgate Street, Bishop Auckland - Tel: 01388 450943
- Oakfields Health Centre, Hamsterley Colliery - Tel: 01207 560206
- Peaseway Medical Centre, Newton Aycliffe - Tel: 01325 528000
- Shotton Medical Practice - Tel: 0191 5261643
- The Medical Group, Meadowfield Surgery - Tel: 0191 3780651

Teesside

Every GP practice in Stockton, Middlesbrough and Redcar & Cleveland provides monitoring services to their own patients.

In Hartlepool all practices currently provide near patient testing for warfarin in stable patients. The only patients retained by secondary care are unstable or complex, e.g. pregnancy.

York and North Yorkshire

Scarborough & Bridlington

Patients in the community are managed by their registered GP surgery where a near patient testing and dosing service is provided. This may be provided with the support of the district nursing team for housebound patients.

Harrogate

Patients in Harrogate (except Dr Sweeney’s Practice, Kings Rd), Ripon, Knaresborough and part of Wetherby (Dr Mates Practice) are all looked after by the Pharmacist outreach service run from Harrogate District Hospital (01423 553085); patients with the remaining Wetherby practices are managed by the Leeds service. There is a dose by post service and clinics in several GP practices. Nidderdale and Masham practices do their own monitoring.

Hambleton & Richmondshire (Northallerton and surrounds)

All GP practices provide a near-patient testing service, with only complex patients managed by secondary care

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Whitby

All GP practices provide a near-patient testing service, with only complex patients managed by secondary care

York and Selby

All managed by the GPs by point of care testing, with the exception of 5 practices (Tadcaster, Beech tree, Sherburn, East parade and Escrick) who will be managed by an external provider - Intra health.

Renal patients receiving haemodialysis will continue to be managed by the inpatient renal team.

Warfarin and LMWH supply arrangements – acute sector

Trust	Warfarin supplied	Preferred LMWH
County Durham and Darlington NHS Foundation Trust	Usually only dispense 1 mg tablets. (would get 500 micrograms tablets in for individual patients only if they came in on them)	Enoxaparin
North Tees & Hartlepool NHS Foundation Trust	1 mg & 3 mg 500 micrograms tablets not stocked 5 mg tablet supplied on demand only	Tinzaparin – thromboprophylaxis and treatment Enoxaparin for ACS – due to be changed over to fondaparinux
South Tees Hospital NHS Foundation Trust	Generally supply 1 mg and 3 mg. 5 mg stocked. 500 micrograms ordered only on request	Dalteparin
York Teaching Hospital NHS Trust (including Scarborough Hospital)	Full range stocked, but generally restrict discharge prescriptions to 1 mg & 3 mg	Dalteparin Enoxaparin used in cases of poor renal function. Fondaparinux for ACS
Harrogate and District NHS Foundation Trust	1 mg & 3 mg 500 micrograms tablets not stocked 5 mg tablet only supplied to patients if on a higher dose	Tinzaparin (Enoxaparin used in cases of poor renal function)