

WARFARIN SLOW START REGIMEN

This warfarin induction regimen¹ should be used for both inpatient and outpatient initiation of warfarin for suitable patients (see indications and exclusions below).

For outpatient use, patients should be referred to DRI anticoagulant clinics using the Anticoagulation Referral Form, **stating indication and marked 'Slow-start regimen' AFTER** the patient has been started on the treatment.

Referrals should be faxed to 01302381487

If started as an inpatient, follow regimen below. At discharge, refer patient to the DRI anticoagulant clinic using the Anticoagulation Referral Form, accompanied by a copy of the warfarin prescription chart(s). All patients referred to the Anticoagulant clinic are seen within 7 days or earlier if clinically indicated.

Background

Patients not requiring rapid anticoagulation can be safely managed using a slow loading regimen which results in therapeutic anticoagulation within 3-4 weeks in the majority of patients. This appears to avoid over-anticoagulation and bleeding associated with rapid loading². This regimen is suitable for use in both the secondary and primary care setting and allows for induction of anticoagulation therapy requiring only weekly monitoring.

Indications:

For use in patients for whom immediate anticoagulation is not required.

These include:

- chronic or paroxysmal atrial fibrillation;
- selected patients with left ventricular thrombus;
- selected patients with mitral stenosis;
- stroke outpatients in sustained AF who have waited 14 days following the acute event with a CT head scan that has excluded haemorrhage;
- selected patients with pulmonary hypertension.

Exclusion Criteria:

Patients requiring immediate anticoagulation.

These include

- deep vein thrombosis;
- pulmonary embolus;
- mechanical prosthetic cardiac valve insertion;
- arterial embolus;
- selected patients with atrial fibrillation, left ventricular thrombus, mitral stenosis;
- pulmonary hypertension associated with venous thromboembolic disease.

Aim:

To initiate warfarin therapy with a target INR 2.5

Regimen:

1. Ensure the patient has no contraindications to warfarin and confirm with a senior member of the medical team that the slow start regimen is appropriate. Generally if a patient is taking aspirin, this should be continued until the INR is therapeutic then STOPPED.
2. Ensure baseline bloods (FBC, U&E, LFT, coagulation screen) are satisfactory. If in doubt, discuss with the patient's consultant. If baseline INR > 1.2, seek haematology advice.
3. Explain to the patient the indication for warfarin treatment and the risks and benefits of it.
4. Prescribe 2mg of warfarin daily at 6pm for 1 week. For inpatients prescribe on the warfarin prescription and monitoring chart. Clearly mark the indication: Atrial Fibrillation Slow Start Regimen .
5. Repeat INR after 7 days of warfarin therapy.
6. Adjust dose as per nomogram overleaf.
7. In patients at discharge should be referred to the anticoagulant clinic using the Anticoagulation Referral Form, accompanied by a copy of the warfarin prescription chart(s).

References

1. Oates A. Jackson P.R. Austin C.A. Channer K.S. A new regimen for starting warfarin anticoagulation in out-patients. *British Journal of Clinical Pharmacology* 1998 46 157-61
2. Guidelines on oral anticoagulation (warfarin): third edition- 2005 update British Committee for Standards in Haematology www.bcshguidelines.com/pdf/OAC_guidelines_190705.pdf

NOMOGRAM FOR WARFARIN SLOW START REGIMEN

Day 1

Baseline INR <2 seconds prolonged
Start 2mg warfarin/day at 6pm
Repeat INR in 7 days

Day 8

INR <2

INR >2

Continue present dose warfarin.
Repeat INR in 7 days.

Warfarin sensitive.
Discuss with Haematologist

Day 15

Check INR
Adjust dose according to table below.
Predicted maintenance dosage of warfarin based on the sex of the patient and the INR after 2 weeks of warfarin 2mg/day

Male		Female	
INR at week 2	Maintenance dose	INR at week 2	Maintenance dose
1.0	6mg/day	1.0-1.1	5mg/day
1.1-1.2	5mg/day	1.2-1.3	4mg/day
1.3-1.5	4mg/day	1.4-1.9	3mg/day
1.6-2.1	3mg/day	2.0-3.0	2mg/day
2.2-3.0	2mg/day	3.0-4.0	1mg/day
3.0-4.0	1mg/day	-----	-----

If INR >4.0 omit warfarin for 2 days and reduce daily dose by 1mg

Recheck INR after a further week and adjust dose as below

Day 21

INR <2

INR 2-3

INR >3

Increase daily warfarin dose by 1mg.
Repeat INR in 7 days.
Continue in this fashion until INR >2.0.

Continue present dose of warfarin.
Repeat INR in 7 days.
Fine tune warfarin dose if INR fluctuates.

Fine tune warfarin dose / omit doses if necessary.

By the time the patient has been taking warfarin for 6 weeks the INR should be in the therapeutic range. Fine tuning of the warfarin dose by using alternate day regimens (e.g. 2mg/3mg alternate days) can be used if INR fluctuating. Any bleeding complications must be discussed with a Consultant Haematologist.