Appendix IV - Guideline for Initiating Warfarin in Primary Care

General practitioners may initiate warfarin in the community, usually in older patients with atrial fibrillation, when urgent anticoagulation is not required. This guideline is only intended for initiating warfarin over several weeks **in non-acute situations**.

Anticoagulation urgency?

URGENT → **SEEK SPECIALIST ADVICE**

NON-URGENT

Warfarin sensitivity?

LIKELY → ***SENSITIVITY TO WARFARIN LIKELY***

Interacting drugs	analgesics, amiodarone, some antibacterials, St John's Wort, antiepileptics, antifungals, lipid-lowering drugs, some ulcer-healing drugs? (See BNF)
Liver disease	abnormal liver function or ↑ PTR
Other diagnoses	heart failure, low weight, age >80
Alcohol intake high	↑ γ-GT

If concerned about sensitivity, consider more frequent monitoring or start at lower dose
Consider seeking specialist advice

UNLIKELY

DAY 1 — **Start WARFARIN 2mg /day**

DAY 7 — CHECK INR

INR 3.0 or less → CONTINUE WARFARIN 2mg/DAY

INR >3.0 → REDUCE DOSE to 1mg and seek advice

DAY 14 — CHECK INR

CALCULATE CONTINUATION DOSE (see table overleaf)

DAY 21 — CHECK INR

DAY 28 — CHECK INR

DAY 35 — CHECK INR

DAY 42 — CHECK INR

DOSE ADJUSTMENT (DAYS 21 – 42)

INR 1.4 OR LESS 2 WEEKS IN A ROW	→	INCREASE DOSE BY 1mg
INR 1.5-1.9	→	INCREASE DOSE BY 0.5 mg
INR 2.0-3.0	→	SAME DOSE
INR 3.1-3.5	→	REDUCE DOSE BY 0.5mg
INR 3.6-4.0	→	REDUCE DOSE BY 1mg
INR 4.1 OR MORE	→	STOP WARFARIN FOR 2 DAYS AND REDUCE DOSE BY 1mg (consider seeking advice)

Once INR is stable, probably weeks 4-6, increase the time between monitoring for 2, then 4 and eventually to 12 weeks

TABLES FOR PREDICTING MAINTENANCE DOSE AT DAY 14

MALES ♂	
INR at Day 14	Predicted Maintenance Dose
1.0	6 mg
1.1-1.2	5 mg
1.3-1.5	4 mg
1.6-2.1	3 mg
2.2-3.0	2 mg
>3.0	1 mg

FEMALES ♀	
INR at Day 14	Predicted Maintenance Dose
1.0-1.1	5 mg
1.2-1.3	4 mg
1.4-1.9	3 mg
2.0-3.0	2 mg
>3.0	1 mg

IMPORTANT NOTES ABOUT THE GUIDELINE

- It is only intended for initiating warfarin over several weeks in non-acute situations.
- It is based on a validated protocol for similar patients being warfarinised in a hospital outpatient clinic (Oates *et al*. A new regimen for starting warfarin therapy in outpatients. *Br J Clin Pharm* 1998;*46*:157-161).
- It is intended to give an INR of 2.0-3.0 at 6 weeks. Patients with an INR target outside this range may still begin anticoagulation in this way with further adjustments made after 6 weeks.
- INRs are only required at weekly intervals.
- The dose of warfarin only changes if the INR is >3.0 or persistently <2.0.
- The INR at day 14 predicts the maintenance dose – any subsequent changes are based on routine INR checks at days 21, 28, 35 and 42.
- Once the INR is stable, the time between monitoring can be increased to 2, then 4, and eventually 12 weeks as recommended by the *British National Formulary*.
- Patients should have their liver function tests [including prothrombin time], urea and electrolytes, creatinine and full blood count measured prior to treatment.
- Patients should always be provided with a treatment booklet containing appropriate information about safe use of warfarin.

TARGETS FOR OPTIMAL ANTICOAGULATION

Target INR values are now recommended rather than ranges

Target INR	Indication
INR 2.5	treatment of DVT and PE, recurrence of venous thromboembolism when no longer on warfarin therapy, atrial fibrillation, elective cardioversion, dilated cardiomyopathy, rheumatic mitral valve disease, mural thrombus following myocardial infarction
INR 3.5	recurrent DVT *or* PE *or* arterial thromboembolism while on warfarin, mechanical prosthetic valves, symptomatic antiphospholipid antibody syndrome

Further information about oral anticoagulation can be obtained from:

- British Society of Haematology Guidelines (www.bcshguidelines.com)
- SIGN 36 on Antithrombotic Therapy (www.sign.ac.uk)