Instructions for the GP Practice - The Administration of Oral Vitamin K (Phytomenadione) for reversal of excess oral anticoagulation with Vitamin K antagonists

1. Oral vitamin K is indicated for reversal of excess oral anticoagulation with warfarin, coumarin and phenadione, when the INR is greater than 6.0, but less than 8.0, and in the absence of major bleeding. Reversal of anticoagulation takes 8 – 12 hours for maximum effect. Excessive vitamin K dose (e.g. > 2mg po) should be avoided as it can cause subsequent warfarin resistance.

2. GP surgerys in Kettering, Corby, Wellingborough and East Northants can order the packs of phytomenadione via the Prescribing and Medicines Management Team (sue.barron@neneccg.nhs.uk or tel 01604 651359). Each box contains five 0.2ml ampoules of phytomenadione10mg/ml (2mg) and five oral dispensers. The vitamin K made available to GP Practices is licensed for specific oral use.

3. Generally the Anticoagulant Nurse Specialist will communicate with the surgery and discuss the case especially regarding:

    a. the presence and severity of any bleeding symptoms
    b. possible causes for loss of anticoagulant control

4. The process requires a GP to make the decision about who will receive vitamin k based on the Anticoagulant Nurse Specialist advice. No prescription is required because the supply is available but a record of the administration should be made in the patient's clinical notes. The Anti Coagulant Nurse Specialist will ensure that all patients presenting at the Practice have their "Yellow" Anti-coagulation book to show the GP, PN or DN.

5. GP can then administer the vitamin K to the patient or alternatively request PNs or DNs (housebound patients only) to administer the vitamin K to the patient. The vitamin K dose usually prescribed is 2mg orally. The date must be checked on the ampoule. The liquid is withdrawn via an oral dispenser and can be expelled straight onto the patient's tongue or alternatively it may be mixed with 20 mls of water/juice and given as a drink.

6. On the day of the high INR result, (INR greater than 6.0, but less than 8.0), omit anticoagulation medication and administer vitamin K. The INR should be checked the following day.

7. **Schedule for rechecking of INR and resumption of oral anticoagulation**

    a. If the following day is a normal working day (e.g. not a weekend or bank holiday) then all patients should have their INR checked the following morning, and the anticoagulant service will advise about subsequent warfarin dosing

    b. If the following day is a weekend or bank holiday
        i. patients with uncomplicated AF should be advised to withhold warfarin until the next normal working day when they should have their INR checked before contacting the anticoagulant service for dosing advice.
        ii. patients with AF complicated by previous emboli, with mechanical mitral valve, or risk of recurrent VTE will need to attend MAU the following day for INR checking and warfarin dosing by the medical team (who can contact Haematologist on call if required). The patient will then be advised to contact the Anti Coagulant Nurse Specialist the next working day. It is envisaged that the numbers of patients falling in to this category will be extremely small, but they have been included in the guidance for completeness of the service.

8. If the patient is unable to swallow or absorb vitamin K orally, it would be appropriate to admit the patient to hospital.

9. If the patient were actively bleeding, this would warrant admission.

10. Following any such episode requiring vitamin K administration please ensure that the patient contacts the Anticoagulation Nurse Specialists, (01536 492690) Monday to Friday between 09.00 to 17.30hrs. This will ensure the patient's individual record is updated.