**Warfarin**

*Warfarin prevents blood clotting by inhibiting the action of vitamin K*

**GENERIC AND PROPRIETARY NAMES**
- Warfarin.
- Marevan.

**ACTION**
- Prevents the production of clotting factors by inhibiting the action of vitamin K. This means fibrin cannot be converted into fibrinogen and blood clots are therefore less likely to form.

**CLASSIFICATION**
- Oral anticoagulants.

**INDICATIONS**
- Prophylaxis of embolisation in rheumatic heart disease and atrial fibrillation, and following heart valve insertion.
- Prophylaxis and treatment of venous thromboembolism and transient ischaemic attacks.

**CONTRAINDICATIONS**
- Peptic ulcer.
- Severe hypertension.
- Pregnancy.
- Bacterial endocarditis.

**CAUTIONS**
- Recent surgery.
- Renal and hepatic impairment.
- Breastfeeding.

**COMMON SIDE-EFFECTS**
- Haemorrhage – monitoring and dose adjustment are required.

**RARE SIDE-EFFECTS**
- Rash.
- Jaundice.
- Alopecia.
- Skin necrosis.
- Hepatic dysfunction.
- Diarrhoea.
- Nausea and vomiting.
- Pancreatitis.
- Fall in haematocrit.

**INTERACTIONS**
- The interaction profile of warfarin is extensive and complex.
- Information regarding potential drug-drug and drug-food interaction should be sought from the British National Formulary.

**ADMINISTRATION**
- Oral.

**NURSING CONSIDERATIONS**
- Warfarin takes about three days to produce its full effect, so when treating deep vein thrombosis or pulmonary embolism, a faster-acting injectable anticoagulant such as a heparin will be used initially.
- The anticoagulant effect of warfarin needs to be measured regularly (by INR blood test) and the dose of warfarin will be adjusted as necessary to make the INR fall into the appropriate range for a particular condition.
- Baseline blood tests should be taken before treatment starts, but treatment should not be delayed by waiting for the results.
- Warfarin’s effect can be altered by sudden increases or decreases in body weight.

**PATIENT TEACHING**
- The monitoring needed with this medication is a large commitment for patients in the community and they need to be educated in its risks and to understand the importance of testing and dose adjustment to ensure compliance.
- Patients need to be careful to avoid making sudden major changes to their diet, particularly consumption of green tea, salad and green vegetables.
- Cranberry juice should be avoided, as should large amounts of alcohol, as these may increase warfarin’s potency.
- Patients should carry an anticoagulation card and know to inform all health professionals that they are taking warfarin.
- It is essential patients contact their doctor if they experience any bruising, bleeding, dark stools, blood in the urine, vomiting, diarrhoea, fever or acute illness.

**REFERENCES**