

Vitamin K1 (Phytomenadione) is used to reverse excessive anticoagulation caused by warfarin and super-warfarin overdose.

Indications

Acute warfarin overdose

- See 'Anticoagulant: warfarin' guideline

Anticoagulant rodenticides overdose

- See 'Anticoagulant long-acting rodenticides' guideline

Contraindications:

- Known hypersensitivity

Adverse effects:

- Anaphylaxis (more common when Vitamin K1 is administered intravenously)
- Facial flushing, sweating, unusual taste
- Venous irritation or phlebitis

NOTE:

- Menadione (Vitamin K3 should **NOT** be used as a substitute for Vitamin K1)
- Vitamin K1 is not indicated for treatment of excessive coagulation secondary to direct acting oral anticoagulants (DOACs) e.g., dabigatran / rivaroxaban/ apixaban

Presentation

- 10 mg/1mL ampoule (Konakion[®] MM)
- 2 mg /0.2mL ampoule (Konakion[®] MM Paediatric)
- 10 mg capsule

Dose and Administration

Patients with life-threatening haemorrhage / active uncontrolled haemorrhage / haemodynamic instability

- 10 mg Vitamin K1 intravenously (paediatric dose 0.25 mg/kg)
- 4 factor- plasma concentrate 25-50 units/kg IV via slow injection and FFP 15ml/kg IV

Patients WITHOUT life-threatening haemorrhage / active uncontrolled haemorrhage / haemodynamic instability

- Vitamin K1 dosing will depend on the type of anticoagulant causing excessive anticoagulation (warfarin or super-warfarins, whether the patient usually requires anti-coagulation, and whether the patient requiring anticoagulation has an absolute indication (e.g., mechanical cardiac valve or high-risk of thrombosis)

See 'Anticoagulant guidelines: warfarin OR long-acting rodenticides' guidelines for specific dosing

- The oral route is preferred for Vitamin K1 maintenance therapy as it is associated with less adverse effects
- Intravenous Vitamin K1 preparation can be given orally

Therapeutic Endpoint:

- Stable coagulation state as clinically indicated
- Stabilization may require > 48 hours, and sometimes weeks-months treatment with long-acting rodenticides

Pregnancy:

- Vitamin K1 is considered safe in pregnancy