

Table VIII: Guidelines for management of excessive anticoagulation with warfarin

INR and clinical scenario	Management
INR < 5.0 without significant bleeding	Review medication list for interacting medication and eliminate if possible Hold warfarin and check INR in 24 hours Restart warfarin (at 15-20% reduced dose if no interacting medication identified) when INR approaches therapeutic range (INR < 4.0) and check INR in 2-3 days and 7 days later
INR ≥ 5 but < 9 without significant bleeding	Review medication list for interacting medication and eliminate if possible Hold warfarin and check INR in 24 -48 hours If at high risk for bleeding*, give vitamin K1 1-2.5 mg PO X 1 dose Restart warfarin (at 20% reduced dose if no interacting medication identified) when INR approaches therapeutic range (INR < 4.0) and check INR in 2-3 days and 7 days later
INR ≥ 9 without significant bleeding	Review medication list for interacting medications and discontinue interacting medications Hold warfarin, give higher dose vitamin K1 1-5 mg PO and monitor INR daily Use additional vitamin K1 (1-2 mg PO) if needed If no identifiable reason for elevated INR, reduce weekly warfarin dose by at least 20% and resume warfarin when INR approaches the therapeutic range (INR < 4) Check INR 2-3 days and 7 days after warfarin restarted
Serious bleeding at any INR elevation	Hold warfarin, give vitamin K1 10 mg IV over 1 hour in monitored setting with an anaphylaxis kit at bedside Give FFP 15-20ml/kg IV or Prothrombin Complex Concentrate 25-50 units/kg IV Monitor INR closely
Life-threatening bleeding	Hold warfarin, give vitamin K1 10 mg IV over 1 hour in a monitored setting with an anaphylaxis kit at bedside Give Prothrombin Complex Concentrate 25-50 units/kg IV Monitor INR closely Vitamin K1 can be repeated in 12 hours, depending upon INR

Reference: Ansell J, et al. The pharmacology and management of the vitamin K antagonists: The Eighth ACCP Conference on Antithrombotic and Thrombolytic Therapy. Chest 2008;133:160S–198S

* Bleeding risk factors include recent surgery (within 1 month), active cancer, history of gastrointestinal bleeding or cerebrovascular accident, age > 65, serum creatinine > 1.5 mg/dL.