## Warfarin reversal guidelines

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<th>Clinical Setting</th>
<th>Action</th>
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| INR higher than therapeutic range but < 4.5; bleeding absent | • Lower or omit the next dose of warfarin. Measure INR 1-2 day intervals and resume therapy at a lower dose when the INR approaches the therapeutic range.  
• If the INR is only minimally raised above the therapeutic range (up to 10%), repeat INR in 2 days. Dose reduction may not be necessary  
• Can manage as an outpatient unless high risk or other indications for admission. |
| INR 4.5-10; bleeding absent | • Cease warfarin therapy; assess causes of elevated INR (e.g. antibiotic therapy).  
• Only if bleeding risk is high and circumstances dictate that a more rapid reversal is required, give vitamin K₁ (2.0 mg orally or 1 mg IV)  
• Measure the INR within 24 hrs, resume warfarin at reduced dose once INR approaches therapeutic range.  
• In-patient management may be appropriate via short stay ED or “medical assessment”. |
| INR > 10; bleeding absent | • Where there is a low risk of bleeding, cease warfarin therapy, give 5.0 mg vitamin K₁ orally or 3.0 mg IV.  
• Where there is high risk of bleeding, cease warfarin therapy, give 5 mg vitamin K₁ IV.  
• Use of Prothrombinex-VF™ (25-50 IU/kg) and FFP (150-300mls) with no bleeding is rarely indicated consult with senior ED and admitting specialists.  
• For all patients measure the INR in 6-12 hours. Resume warfarin therapy when INR approaches therapeutic range. |
| Any clinically significant bleeding where warfarin-induced coagulopathy is considered a contributing factor | • Cease warfarin therapy, give 5-10 mg vitamin K₁ IV, as well as Prothrombinex-VF™ (25-50 IU/kg), add FFP (150-300 mls) for life or organ threatening bleeding.  
• If FFP is unavailable, cease warfarin therapy, give 5-10 mg vitamin K₁ IV, and (Prothrombinex-VF™ 25-50 IU/kg).  
• If Prothrombinex-VF™ is unavailable, cease warfarin therapy, give 5-10 mg vitamin K₁ IV, and 15 mls/kg of FFP.  
• Assess patient continuously until INR < 5.0, and bleeding stops, for operative intervention and when bleeding is major or life threatening an INR of < 1.5 is often considered satisfactory, consult with referral partners. |
| Minor bleeding where warfarin-induced coagulopathy is considered a contributing factor | • Use standard measures such as pressure to stop bleeding.  
• Where INR is between 4.5-10 and standard measures do not work then use Vit K 2.0 mg orally or 1.0 mg IV, continue standard measures.  
• Where INR > 10 seek haematological opinion to discuss management options. |

Use konakion™ IV vitamin K₁ preparation for oral administration

*Developed by the ECI from “An update of consensus guidelines for warfarin reversal” Huyen A Tran, Sanjeev D Chunilal Huy Tran Erica M Wood and Alex S Gallus Medical Journal of Australia 2013;198(4):198-199*