

ACM Clinic Policy for Managing ‘Critical’ INRs (INR > 5) After ACM Service Hours

Instructions for physicians taking after hours calls for Critical INR for their patients registered with the ACM Clinic: please contact the ACM Clinic (contact information above) to report the patient name, INR test result, and action taken. The ACM clinic will follow up thereafter.

INR	Clinical Setting	Therapeutic Recommendation Based on Patient’s Clot & Bleed Risk		
		Clot Risk†	Low Bleed Risk	High Bleed Risk#
5.0 – 9.0	No bleeding / no spontaneous bruising	Low	Omit next 2 doses of Warfarin & recheck INR in 2 days	Omit next 1 – 2 doses of Warfarin, administer Vitamin K 1 – 2.5 mg PO x 0- 1 dose, and recheck INR in 1 – 2 days
		High†	Omit next dose of Warfarin and recheck INR in 1 day	Omit next dose of Warfarin, administer Vitamin K 1 – 2.5 mg PO x 1 dose, and recheck INR in 1 day
5.0 – 9.0	New minor bleeding*	Low	Omit next dose of Warfarin (± CBC) and recheck INR & CBC in 1 day	Omit next dose of Warfarin (± CBC), administer Vitamin K 1 – 2.5 mg PO x 0-1 dose, and recheck INR & CBC in 1 day
		High†	Omit next dose of Warfarin (± CBC) and recheck INR & CBC in 1 day	Instruct patient to go to the emergency room and to not take any more Warfarin (ACM recommends Vitamin K 1 – 4 mg PO*, with appropriate assessment of bleeding)
5.0 – 9.0	New major bleeding / any spontaneous bruising	Low or High†	Instruct patient to go to emergency room and to not take any more Warfarin (ACM Clinic recommends either Vitamin K 3 – 5 mg PO or Vitamin K in a dose of up to 10 mg by slow IV infusion ± fresh plasma or prothrombin complex concentrate – depending on urgency of situation*, with appropriate assessment of bleeding)	
> 9	No bleeding	Low or High†	Instruct patient to go to the emergency room and to not take any more Warfarin (ACM Clinic recommends Vitamin K 3 - 5 mg PO* + CBC, recheck INR in 1 day)	
	Serious or Life-threatening bleeding, major warfarin overdose	Low or High†	Instruct patient to go to the emergency room and to not take any more Warfarin (ACM Clinic recommends Vitamin K 10 mg by slow IV infusion, supplemented with fresh plasma or prothrombin complex concentrate – depending on urgency of situation, with appropriate assessment of bleeding; Vitamin K by slow IV infusion can be repeated every 12 hours*)	

Note: *Minor Bleeding is defined as bleeding that is deemed not to require medical attention. For example, mild epistaxis, mild bleeding from a wound / trauma, etc.

†High risk of clotting is defined as having one or more of the following:

- mechanical prosthetic valve(s)
- bioprosthetic valve < 3 months
- deep vein thrombosis / pulmonary embolus and < 12 weeks of therapy
- antiphospholipid syndrome or the presence of > 1 hypercoaguable state
- atrial fibrillation & evidence of valvular heart disease, prior stroke or systemic embolism and / or < 12 weeks therapy
- history of embolization on anticoagulant therapy
- acute MI and < 12 weeks of therapy

#High risk of bleeding is defined as having ≥ 2 of the following:

- age > 65 years
- history of gastrointestinal bleed within the past year
- history of stroke within the past year
- initiation of warfarin within the last month
- presence of severe liver dysfunction
- presence of ‘uncontrolled’ hypertension (i.e., blood pressure > 160/90)
- history of acute myocardial infarction within the past 3 months
- change of > 2 INR Units from most recent INR test
- renal insufficiency [serum creatinine > 130µmol/L]
- severe anemia [hematocrit <0.3]

References: Am J Med 1998;89:569-578, Am J Med 1989;87:144-152, Chest 2001;119:445S-469S.
 Courtesy of Capital Health Regional Anticoagulation Management Service, Edmonton, Alberta.