

SUPRATHERAPEUTIC INR

Ansell et al, Pharmacology and Management of Vitamin K Antagonists. *Chest* (2008). 133:160S-198S. American College of Chest Physicians (ACCP) Guidelines, 8th ed.

2008 ACCP Treatment Guideline for Managing Supratherapeutic INR

INR	Therapeutic Intervention
< 5	Hold dose and restart coumadin when INR is therapeutic
5 - 9	If no significant bleed : Hold coumadin +/- give vit K 1-2.5 mg po
> 9	If no significant bleed : Hold coumadin and vit K 2.5-5 mg po
Serious bleeding	Hold coumadin, vit K 10 mg slow IVP , FFP / factor concentrates

SQ **vitamin K** is less consistently absorbed than PO route.

Speed of INR reduction:

- 1-5 mg vitamin K – causes INR reduction in 24-48 hrs
- >5 mg vitamin K – causes INR reduction in 24 hours

Hylek et al. Acetaminophen and other risk factors for excessive warfarin anticoagulation. *JAMA* 1998;279: 657-62.

* Risk for intracranial hemorrhage increases dramatically @ INR>4.

* Retrospective case-control study of patients with INR>6.

* Enrolled 93 cases, 196 controls

Causes for supratherapeutic INR>6:

Risk factor	OR	Likely explanation
Advanced malignancy	16.4	Direct effect of malignancy on coag factors, Side effect chemotx or radiation tx Potentiates warfarin
Acetaminophen intake		
4.5-9.1 g/wk	6.8	
>9.1 g/wk	10	
New medication	8.5	Potentiates warfarin directly or P450 inhib'n, In 60% of cases = Abx cause
Excess warfarin intake	8.1	
Decreased oral intake	3.6	Decreased amount of vitamin K intake
Acute diarrheal illness	3.5	Decreased absorption of vitamin K
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Vitamin K intake	0.7	
Alcohol use	0.2	Stimulation of P450 system
1 drink QOD-2 drinks QD		