

Fairview Health Services
Warfarin Reversal Guidelines

*Approved by: Fairview Transfusion Committee, Fairview System Anticoagulation Subcommittee, Dr. Mark Reding (Hematology).
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CLINICAL STATUS	INR	INTERVENTION	
<u>NO Bleeding</u>	Above goal but < 4.5	Lower warfarin dose <u>or</u> simply omit the next dose.	
	4.5-9.9	PREFERRED treatment (per CHEST guidelines): Omit the next 1 to 2 doses of warfarin and resume at an appropriately adjusted dose when the INR is therapeutic <hr/> <i>If the INR remains the same or continues to rise despite holding ≥ 3 warfarin doses, can consider giving a <u>small</u> dose of vitamin K:</i> <ul style="list-style-type: none"> ▪ HIGH thrombosis risk (e.g. prosthetic heart valves) - Avoid giving vitamin K if possible. If necessary, can give a <u>small</u>, dose of 1-2 mg oral vitamin K once ▪ For all other patients - give 2.5 mg oral Vitamin K once 	
	≥ 10	<ol style="list-style-type: none"> 1. <u>Hold Warfarin therapy</u> AND 2. <u>Give oral vitamin K (phytonadione):</u> <ul style="list-style-type: none"> ▪ For HIGH thrombosis risk (e.g. prosthetic heart valves) - give 1-2 mg PO Vitamin K once ▪ For all other patients - give 2.5-5 mg PO Vitamin K once AND 3. OPTIONAL: for those patients at a very high risk for bleeding, can consider giving FFP* 	
<u>Bleeding OR Urgent Procedure Required</u>	Any INR	Mild/Moderate Bleeding <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 5px;">OR</div> ACTIVE Warfarin Patient Requires Surgical Procedure in 24 hrs	Major/Life-Threatening Bleeding <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 5px;">OR</div> ACTIVE Warfarin Patient Requires EMERGENCY Surgical Procedure
		<ol style="list-style-type: none"> 1. <u>HOLD Warfarin therapy</u> AND 2. <u>Give IV Vitamin K</u> (give over 30 min): <ul style="list-style-type: none"> ▪ INR 1.8-4.5: give 2 mg^s IV Vitamin K once ▪ INR 4.5-9.9: give 5 mg^s IV Vitamin K once ▪ INR > 10: give 10 mg^s IV Vitamin K once <p><i>IF INR remains above desired range on AM of procedure, AND there are NO contraindications* present, can consider:</i></p> <ul style="list-style-type: none"> ▪ Fresh frozen plasma* 4-6 units 	<ol style="list-style-type: none"> 1. <u>HOLD Warfarin therapy</u> AND 2. <u>Give Vitamin K 10 mg IV x 1 STAT</u> (give over 30 min) AND 3. <u>Give Kcentra® (4 factor PCC) STAT:</u> <i>(followed by an INR recheck in 30 minutes)</i> <ul style="list-style-type: none"> ▪ INR < 2 AND Life-Threatening Bleed (e.g. ICH, severe GIB) Consult appropriate service (e.g. Neurosurgery, GI) and consider giving Kcentra 25 units/kg* IV once ▪ INR 2-3.9-----Kcentra 25 units/kg* IV once (Max 2500 units) ▪ INR 4-6-----Kcentra 35 units/kg* IV once (Max 3500 units) ▪ INR > 6-----Kcentra 50 units/kg* IV once (Max 5000 units) <p>IF INR remains > 2 after Kcentra AND/OR patient is still bleeding heavily after Kcentra, <u>CONSULT HEMATOLOGY</u> & consider:</p> <ul style="list-style-type: none"> ▪ Giving 4-6 units of FFP* (fresh frozen plasma) ▪ Giving pro-hemostatic agents (eg. Tranexamic Acid) ▪ If patient bleeding despite the above measures, consider Recombinant factor VII (NovoSeven®) 20 mcg/kg IV once

INR=International Normalized Ratio; FFP=Fresh Frozen Plasma; PCC=Prothrombin Complex Concentrate

*FFP may not be appropriate pre-transplant/post-transplant patients where exposure to blood products may precipitate antibody formation OR in patients who are significantly fluid overloaded (1 unit of FFP = 300 mL)