

NUTRITION INFLUENCE ON ANTICOAGULATION

Setting	Warfarin	Rivaroxaban	Apixaban	Dabigatran
Dietary concerns	Warfarin resistance may occur due to a binding interaction with the enteral nutrition or the surface of the feeding tube. Consider holding the enteral feed for 1 hour before and after warfarin administration. Warfarin dose should be concentrated, administered quickly with a flush before and after administration.	15- and 20-mg tablets may be crushed and suspended in 50 mL of water for administration via nasogastric/ gastric tube; administer suspension within 4 hours of preparation and follow administration immediately with enteral feed. Avoid administration distal to stomach.	2.5- and 5-mg tablets may be crushed and suspended in 60 mL D5W and immediately given via nasogastric tube.	Capsules may not be opened; not compatible with feeding tubes.
Short bowel syndrome	Dietary changes may affect INR. Warfarin resistance may occur due to diminished absorptive surface area of the proximal small bowel.	15- and 20-mg tablets must be taken with food. Small case series suggests minimal impact of bioavailability.	None. No data at this time.	Decreased absorption and bioavailability may reduce anticoagulant effects.

(continued)

Setting	Warfarin	Rivaroxaban	Apixaban	Dabigatran
Bariatric surgery	Warfarin sensitivity may occur in the early post-operative period due to gastric pH changes and dietary changes.	No dose adjustments necessary. Patients in the early postoperative period after bariatric surgery should not receive rivaroxaban for either atrial fibrillation or VTE treatment due to low caloric diets post-operatively.	No data at this time.	Subtherapeutic anticoagulation may occur due to diminished absorptive surface area.
Feeding tubes	Warfarin sensitivity may occur in the early post-operative period due to gastric pH changes and dietary changes.	Limited data at this time—administration distal to the stomach should be avoided. Bioavailability may decline with administration into the intestine.	No data at this time—primarily absorbed in the upper GI tract with lower bioavailability when administered on the lower GI tract.	Avoid—capsules should not be broken.

D5W: 5% dextrose in water, GI: gastrointestinal, INR: international normalized ratio, VTE: venous thromboembolism