

Anticoagulation Impact on Coagulation Testing

Class of Drug	<u>UFH</u>	<u>LMWH & Fondaparinux</u>	<u>Vitamin K Antagonists</u>	<u>Direct Thrombin Inhibitors</u>	<u>Xa Inhibitors</u>
Drugs for each class	Heparin	Enoxaparin (Lovenox) Dalteparin (Fragmin)	Warfarin (Coumadin, Jantoven)	Dabigatran (Pradaxa), Argatroban, Hirudin Bivalirudin	Rivaroxaban (Xarelto), Apixaban (Eliquis), Edoxaban (Savaysa and Lixiana)
<u>Assay</u>	<u>UFH</u>	<u>LMWH & Fondaparinux</u>	<u>Vitamin K Antagonists</u>	<u>Direct Thrombin Inhibitors</u>	<u>Xa Inhibitors</u>
aPTT	Prolonged	Variable; no effect to prolonged	No effect in short term, prolonged with stable therapy	Prolonged	Prolonged
PT/INR	No effect with therapeutic dose, potential prolongation with supratherapeutic dose	No effect with therapeutic dose, potential prolongation with supratherapeutic dose	Prolonged	Prolonged	Prolonged
Thrombin Clot Time	Prolonged	Prolonged	No effect	Prolonged	No effect
Fibrinogen@	May be falsely low	No effect	No effect	May be falsely low	No effect
PTT 50:50 mixing study (non-incubated)	Incomplete correction (inhibitor)	Incomplete correction (inhibitor)	Correction into reference range	Incomplete correction (inhibitor)	Incomplete correction (inhibitor)
PT 50:50 mixing study (non-incubated)	Often not indicated	Often not indicated	Variable; long term therapy may show incomplete correction	Incomplete correction (inhibitor)	Incomplete correction (inhibitor)
Chromogenic anti-Xa activity	Increased anti-Xa activity*	Increased anti-Xa activity*	Not clinically indicated	No anti-Xa activity#	Increased anti-Xa activity#

@ Clauss methodology;

* depending on ATIII activity (exogenous AT varies from lab to lab);

no FDA-approved laboratory assay -Notes: Impact on each reagent/assay system will vary; DOAC quantitative measurements (drug concentration) are only available as laboratory-developed assays and are available as send out tests only.