

DOAC interferences

NOTE: Individual test interferences may not be translatable to assays performed in other laboratories due to possible different methodologies.

Assay	Methodology Type	Xa Inhibitor Interference	DTI Interference
Activated Protein C Resistance	Clot based	Elevated ratio (false normal)	Elevated ratio (false normal)
Antithrombin III	Chromogenic	Falsely overestimated	Falsely overestimated
aPTT [§]	Clot based	Prolonged/ no effect*	Prolonged
aPTT LA IS	Clot based	Prolonged/ no effect*	Prolonged
Chromogenic Factor VIII	Chromogenic	Reduced/no effect	Unaffected
Chromogenic Factor X	Chromogenic	Reduced	Unaffected
Chromogenic Protein C	Chromogenic	Unaffected	Unaffected
DRVVT	Clot based	Prolonged/False positive	Prolonged/False positive
Factor levels	Clot based (unless explicitly named as chromogenic; see above)	Falsely decreased [§]	Falsely decreased [§]
Bethesda assay	Clot based	False positive	False positive
Factor XIII	Immunoassay	Unaffected	Unaffected
Free Protein S	Immunoassay	Unaffected	Unaffected
HIT PF4	Immunoassay	Unaffected	Unaffected
Platelet function aggregation**	Impedance/Luminesce	Minimal but may reduce aggregation	May reduce aggregation response to thrombin
Protein S Activity	Clot based	Falsely normal/falsely elevated	Falsely normal/falsely elevated
PT	Clot based	Prolonged/no effect*	Prolonged
PT and aPTT Mixing Study	Clot based	Inconsistent correction	Inconsistent correction
Reptilase Time [†]	Clot based	Unaffected	Unaffected

Silica clotting time	Clot based	Prolonged/False positive	Prolonged/False positive
Thrombin time ^ψ	Clot based	Unaffected	Prolonged
VWF Antigen and Activity	Immunoturbidometric	Unaffected	Unaffected

Lupus serology assays are not impacted by Xa Inhibitor nor DTI

[§] Apixaban has less effect on aPTT and aPTT based assays than rivaroxaban

*May be dependent on drug level

**DOACs can demonstrate inconsistent effects on testing

†Despite being a clot based assay, Reptilase time is unaffected by FXa inhibitors/DTIs

^ψDespite being a clot based assay, thrombin time is prolonged by DTIs but unaffected by FXa inhibitors.