

Appendix 1: Effects of dabigatran etexilate and rivaroxaban on common coagulation tests¹⁻⁵

Test	Dabigatran etexilate	Rivaroxaban
Activated partial thromboplastin time (APTT)	Prolongation, large variation among reagents	Prolongation, large variation among reagents
Prothrombin time (Quick method)	Marked prolongation	Marked prolongation
Prothrombin time (Owren method)	Moderate prolongation	Moderate prolongation
Fibrinogen (Clauss method)	Moderate to marked underestimation	Minimal effect
Thrombin time	Marked prolongation	Minimal effect
HepTest assay for monitoring heparin in plasma and whole blood	Not applicable	Marked, dose-dependent overestimation
Activated factor X (FXa) activity	Not applicable	Marked overestimation
Antithrombin (thrombin-inhibition method)	Marked overestimation	No effect
Antithrombin (FXa-inhibition method)	Minimal effect	Marked overestimation
Activated protein C resistance (APTT-based)	False-negative results	False-negative results
Activated protein C resistance (prothrombinase-activation method)	False-negative results	No effect

References

1. Stangier J, Rathgen K, Stahle H, et al. The pharmacokinetics, pharmacodynamics and tolerability of dabigatran etexilate, a new oral direct thrombin inhibitor, in healthy male subjects. *Br J Clin Pharmacol* 2007;64:292-303.
2. Kubitzka D, Becka M, Wensing G, et al. Safety, pharmacodynamics, and pharmacokinetics of BAY 59-7939 — an oral, direct factor Xa inhibitor — after multiple dosing in healthy male subjects. *Eur J Clin Pharmacol* 2005;61:873-80.
3. Lindahl TL, Baghaei F, Blixter IF, et al. Effects of the oral, direct thrombin inhibitor dabigatran on five common coagulation assays. *Thromb Haemost* 2011;105:371-8.
4. Hillarp A, Baghaei F, Fagerberg Blixter I, et al. Effects of the oral, direct factor Xa inhibitor rivaroxaban on commonly used coagulation assays. *J Thromb Haemost* 2011;9:133-9.
5. Wong PC, Crain EJ, Watson CA, et al. Favorable therapeutic index of the direct factor Xa inhibitors, apixaban and rivaroxaban, compared with the thrombin inhibitor dabigatran in rabbits. *J Thromb Haemost* 2009;7:1313-20.