

Footnotes

¹ Discussion on coagulation tests can be found in the following study:

- [Dabigatran etexilate--a novel, reversible, oral direct thrombin inhibitor: interpretation of coagulation assays and reversal of anticoagulant activity](#). Van Ryn J, Stangier J, Haertter S, Liesenfeld KH, Wienen W, Feuring M, Clemens A. *Thromb Haemost.* 2010 Jun;103(6):1116-27. doi: 10.1160/TH09-11-0758. Epub 2010 Mar 29.

For an update on the Hemoclot Direct Thrombin Inhibitor Assay (A rapid, established, standardized and calibrated assay which provides accurate and consistent results when assessing the anticoagulant activity of dabigatran) please contact your Haematology laboratory or see the following study:

- [Using the HEMOCLOT direct thrombin inhibitor assay to determine plasma concentrations of dabigatran](#). Stangier J, Feuring M. *Blood Coagulation and Fibrinolysis.* 2012;23(2):138–143.

² A recent study by Eerenberg et al. suggests prothrombin complex concentrates are not effective:

- [Reversal of rivaroxaban and dabigatran by prothrombin complex concentrate: a randomized, placebo-controlled, crossover study in healthy subjects](#). Eerenberg ES, Kamphuisen PW, Sijpkens MK, Meijers JC, Buller HR, Levi M. *Circulation.* 2011;124(14):1573–1579). doi: 10.1161/CIRCULATIONAHA.111.029017. Epub 2011 Sep

Background reading

The following articles provide useful information and reference points:

- [The use, misuse and abuse of dabigatran](#) Attia J R and Pearce R. *Med J Aust* 2013; 198 (7): 356-357. doi: 10.5694/mja12.10729
- [Dabigatran etexilate--a novel, reversible, oral direct thrombin inhibitor: interpretation of coagulation assays and reversal of anticoagulant activity](#). Van Ryn J, Stangier J, Haertter S, Liesenfeld KH, Wienen W, Feuring M, Clemens A. *Thromb Haemost.* 2010 Jun;103(6):1116-27. doi: 10.1160/TH09-11-0758. Epub 2010 Mar 29.
- Pharma's [Dabigatran](#) page lists information including a link to the "[Guidelines for management of bleeding with dabigatran](#)". Available from <http://pharmac.govt.nz/healthpros/MedicineInformation/Dabigatran>. Retrieved 4 February 2013.

Dabigatran - Guideline

- [Dabigatran versus Warfarin in Patients with Atrial Fibrillation](#)
Connolly, Stuart J.; Ezekowitz, Michael D.; Yusuf, Salim; Eikelboom, John; Oldgren, Jonas; Parekh, Amit; Pogue, Janice; Reilly, Paul A. et al. N Engl J Med 2009 361:1139–1151
doi:10.1056/NEJMoa0905561
- [Reversal of rivaroxaban and dabigatran by prothrombin complex concentrate: a randomized, placebo-controlled, crossover study in healthy subjects](#). Eerenberg ES, Kamphuisen PW, Sijpkens MK, Meijers JC, Buller HR, Levi M. Circulation. 2011;124(14):1573–1579. doi: 10.1161/CIRCULATIONAHA.111.029017. Epub 2011 Sep 6.
- [Using the HEMOCLOT direct thrombin inhibitor assay to determine plasma concentrations of dabigatran](#). Stangier J, Feuring M. Blood Coagulation and Fibrinolysis. 2012;23(2):138–143. doi: 10.1097/MBC.0b013e32834f1b0c.
- **Dabigatran (Pradaxa) and risk of bleeding: Information for health professionals.** Available from <http://www.tga.gov.au/safety/alerts-medicine-dabigatran-111005.htm>. Retrieved 22 April 2013.
- [Effects of the oral, direct thrombin inhibitor dabigatran on five common coagulation assays](#). Lindahl T L, Baghaei F, Fagerberg Blixter I, Gustafsson K M, Stigendal L, Sten-Linder M, Strandberg K and Hillarp A. Thromb Haemost 2011; 105 (2): 371–378 doi: 10.1160/TH10-06-0342
- [The acute management of haemorrhage, surgery and overdose in patients receiving dabigatran](#). Alikhan R, Rayment R, Keeling D et al. Emerg Med J published online February 22, 2013. doi: 10.1136/emered-2012-201976

Experimental future options

- [Effect of non-specific reversal agents on anticoagulant activity of dabigatran and rivaroxaban: a randomised crossover ex vivo study in healthy volunteers](#). R. Marlu, Hodaj E, Paris A, Albaladejo P, Crackowski J L and Pernod G. Thromb Haemost. 2012 Aug; 108 (2): 217 – 224. Doi 10.1160/TH12-03-0179
- [The use of FEIBA in the correction of coagulation abnormalities induced by dabigatran](#). Khoo TL, Weatherburn C, Kershaw G, Reddel CJ, Curnow J, Dunkley S Int J Lab Hematol. 2013 Apr;35(2):222-4. doi: 10.1111/ijlh.12005. Epub 2012 Sep 28. (Accessed via CIAP)