

2. Alternatives to coumadin[®] (= warfarin)

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Are there any blood thinning medications other than warfarin (coumadin[®]) that can be taken as a tablet?"

None are available yet. Several are in development, but probably about four years away from coming onto the market.

[A discussion plus a table of various drugs.](#) The drug Exanta[®] (Ximelagatran) produced by Astra-Zeneca was temporarily available in Europe between 2005 and 2006, but was voluntarily withdrawn from the market on February 14, 2006.

The new anticoagulants in development have several promising features: They

- can be given orally (once or twice a day),
- do not appear to need monitoring of their blood thinning effects, i.e. it have a very predictable blood-thinning effect - "one dose fits all",
- are typically immediately active, thus initial heparin therapy in acute DVT/PE will not be necessary,
- have no interaction with vitamin K in the diet, thus patients can eat what they want,
- have a short half-life (thus, can be discontinued at times of surgery 12-24 hours before surgery).

Exanta[®]'s main downside was that it caused liver test elevation in some patients. This led the FDA to not approve the drug in the U.S. on Oct 11, 2004 and led to withdrawal of the drug from the worldwide market on Feb. 14, 2006. Diligent attention is paid with all the new drugs in development as to what their liver toxicity might be as close testing for liver test elevations are being done in the clinical trials.

References:

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4. Schulman S et al.: Secondary Prevention of Venous Thromboembolism with the Oral Direct Thrombin Inhibitor Ximelagatran (THRIVE III trial"; *New England Journal of Medicine*; Oct 30, 2003;349:1713-21.
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