

Prediction of risk of recurrence of venous thromboembolism following treatment for a first unprovoked venous thromboembolism: systematic review, prognostic model and clinical decision rule, and economic evaluation

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Plain English summary

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Venous thromboembolism (VTE) refers to a blood clot within either the leg or the lung. Typical treatment for a VTE involves blood thinners for at least 3 months. Some patients may require longer treatment if they are considered to be at high risk of a second clot.

This project aimed to identify, develop and evaluate methods for deciding whether or not a patient with VTE is at high risk of a second clot, and should therefore continue with treatment for longer periods of time.

In order to identify a patient's risk of a second clot, several patient characteristics such as sex and age were combined in a clinical prediction tool. For example, the tool predicts that a 60-year-old male with a first clot in the lung has a high risk of a second clot, and therefore may be considered for extended treatment to prevent a second clot. The tool showed good reliability when examined in new data and therefore improves on existing research.

Additionally, we evaluated the value for money of using the prediction tool in clinical care to decide how long to treat for.

The evidence presented here suggests the prediction tool may help to make decisions about how long to treat individual patients for, in order to reduce the chance of a second clot, improve quality of life and reduce costs involved in treatment and patient care.

Further research is needed to develop a similar tool for predicting the effect of continued treatment on a patient's risk of bleeding.

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