

# Evidence stacks up for INR self-monitoring

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Patients on long-term anticoagulation therapy who test their own blood-clotting time from home and continue to be managed by their GP are significantly less likely to experience a thromboembolic event, according to Oxford University researchers.

Point-of-care testing has now made it possible for people on long-term oral [anticoagulation therapy](#) to monitor their own blood clotting time, which is measured as the international normalised ratio (INR). Patients can either adjust their own medication according to a pre-determined dose-INR schedule (self-management), or they can call into a clinic to be told the appropriate dose adjustment (self-monitoring).

In their Cochrane systematic review, the researchers describe data from 28 randomised trials of 8,950 participants done in eleven different countries that compare self-monitoring and self-management with standard monitoring.

The results from 18 trials which measured thromboembolic events showed almost a halving of thromboembolic events with self-monitoring and self-management in comparison to standard monitoring. The review also found reduced mortality in trials of [patients](#) who self-managed, but not in those who self-monitored, and no effect on major haemorrhage. However, data from recent studies show a beneficial effect of self-monitoring.

Lead author Professor Carl Heneghan, Director of Oxford University's Centre for Evidence-Based Medicine in the Nuffield Department of

Primary Care Health Sciences, said:

"There are more than 1.2 million people in the UK on warfarin [therapy](#), of whom fewer than 2 per cent self-monitor their INR levels despite mounting evidence that self-monitoring alone can cut the risk of death by nearly two fifths and more than halve the risk of strokes.

"Our review of the latest research finds that self-monitoring alone does indeed result in a statistically significant reduction in thromboembolic events, whereas our previous review did not find this effect.

"Suitable patients still need to be identified and educated for self-monitoring as it is not feasible for everyone, but the evidence clearly demonstrates that self-monitoring can improve the quality of oral anti-coagulation therapy and adds weight to the argument that more patients should be given the opportunity to benefit from this treatment approach."

The review is an update on a previous [review](#) carried out by the same researchers in 2010. It includes 10 new studies of 4,227 participants which substantially strengthened the available evidence.

The authors conclude that future studies should set out to understand why people decide to use self-management (or not) and identify ways to improve its uptake and effectiveness.

**More information:** Self-monitoring and self-management of oral anticoagulation, Heneghan CH, Garcia-Alamino JM, Spencer EA, Ward AM, Perera R, Bankhead C, Alonso-Coello P, Fitzmaurice D, Mahtani KR, Onakpoya IJ. *Cochrane Database of Systematic Reviews* 2016, Issue 7. Art. No: CD003839. [DOI: 10.1002/14651858.CD003839.pub3](https://doi.org/10.1002/14651858.CD003839.pub3)

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