**Is patient self-monitoring of oral anticoagulation safe?**

When considering the safety of self-monitoring, researchers have tried to answer two main questions:

i**) Will self-monitoring result in INR control that is at least as good as that achieved by the person attending a conventional anticoagulant clinic?**

Studies published over the last 24 years have looked at the safety of patient self-monitoring of oral anticoagulation (PST or PSM). Most of these studies were comparative – following one group who were self-monitoring and another group who were attending an anticoagulant clinic – over a period of time and then compared how often people in these two groups were at the correct INR.

These studies found that the INR control of those who were self-monitoring was at least as good as, if not better than, the INRs of those attending an anticoagulant clinic.

**ii) Are there any differences in hard clinical endpoints – i.e. thrombosis or bleeding – between self-monitoring and conventional care?**

This type of evidence is important as it measures actual clinical events.

Three large reviews that have collected together between 14 and 22 oral anticoagulation self-monitoring trials. These reviews included trials where people were self-managing and also trials where they were self-testing. The results of these trials were then combined to identify if self-monitoring causes less bleeding or clotting than conventional care. These reviews found that those who were self-monitoring their INR were less likely to have a blood clot, and also less likely to suffer from a minor bleed.

**If you would like to explore the evidence for self-monitoring in more depth, please take a look at some key published papers that are freely available**

**Individual studies**

Fitzmaurice DA, Murray ET, McCahon D, Holder R, Raftery JP, Hussain S *et al*. Self management of oral anticoagulation: randomised trial. *BMJ* 2005;**331**:1057.

*[http://www.bmj.com/content/331/7524/1057#alternate]*

This study (the SMART study) is the largest published trial from the UK demonstrating the safety of patient self-management (PSM) of oral anticoagulation.

**Reviews**

A small number of reviews have identified, selected, collated and analysed high quality clinical studies to help us further understand if patient self-monitoring of oral anticoagulation is as safe as conventional care. Two of these are listed below.

Garcia-Alamino J, Ward A, Alonso-Coello P, Perera R, Bankhead C, Fitzmaurice D *et al*. Self-monitoring and self-management of oral anticoagulation (Review). *Cochrane Database of Systematic Reviews* 2010;**4**. *[http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD003839.pub2/abstract]*

Bloomfield HE, Krause A, Greer N, Taylor BC, MacDonald R, Rutks I *et al*. Meta-analysis: Effect of Patient Self-testing and Self-management of Long-Term Anticoagulation on Major Clinical Outcomes. *Annals of Internal Medicine* 2011;**154**:472-82.

*[http://annals.org/article.aspx?articleid=746915]*