

# Capsule Commentary on Phibbs et. al., At-Home versus In-Clinic INR Monitoring: A Cost-Utility Analysis from The Home INR Study (THINRS)

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J Gen Intern Med 31(9):1082  
DOI: 10.1007/s11606-016-3751-x  
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Warfarin can substantially reduce the risk of ischemic stroke, but has significant limitations, including an increased risk of bleeding, inconvenient monitoring, and interactions with numerous foods and drugs. As a result, the quality of warfarin use has been less than optimal.<sup>1</sup> This has led to a search for viable alternatives, including patient self-monitoring. A recent meta-analysis of 22 studies found that self-testing improved outcomes, but could not judge its cost-effectiveness.<sup>2</sup> The current study by Phibbs et al.<sup>3</sup> addresses this gap in evidence.

The Home INR Study (THINRS) tested the clinical benefit of patient self-monitoring for INR versus the standard clinical care.<sup>4</sup> The THINRS investigators found that self-monitoring had equivalent outcomes to traditional monthly monitoring and led to higher self-reported health-related quality of life as measured by the Health Utilities Index. Phibbs and colleagues<sup>3</sup> have followed these findings up with a cost-utility analysis to address the question: “*Is this parity in outcomes but improvement in health-related quality of life worth paying for?*”.

The metric the authors use to address this question is the incremental cost-effectiveness ratio (ICER). The investigators conclude that the modest increased cost of weekly self-monitoring over monthly clinic testing (\$976 for two years) had an ICER of \$5,566 per quality-adjusted life year, a finding that was robust to varying the key assumptions in this cost-effectiveness analysis. They conclude that this is less

expensive than the incremental cost-effectiveness ratio of other commonly accepted interventions. Whether we are convinced by this analysis’ result depends entirely on whether we believe their assumptions about the two inputs to the ICER, cost and quality of life. First, while costs were rigorously measured, they are in the context of the VA healthcare system and so may not be generalizable to other clinical settings. For health-related quality of life, while the Health Utilities Index is commonly used, it is unclear whether other measures such as the EQ-5D, which is preferred by many in the field including UK’s NICE, would identify the same modest level of improvement.

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**Compliance with Ethical Standards:**

**Conflict of Interest:** The author declares that he does not have a conflict of interest.

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