The shortcomings of current anticoagulants have led to the development of newer, albeit more expensive, oral alternatives. 

Objective: To explore the potential impact the new anticoagulants dabigatran and rivaroxaban in the local hospital setting, in terms of utilisation and subsequent costing. 

Method: A preliminary costing analysis was performed based on a prospective 2-week clinical audit (29th June - 13th July 2009). Data regarding current anticoagulation management were extracted from the medical files of patients admitted to Ryde Hospital. To model potential costing implications of using the newer agents, the reported incidence of VTE/stroke and bleeding events were obtained from key clinical trials. 

Results: Data were collected for 67 patients treated with either warfarin (n=46) or enoxaparin (n=21) for prophylaxis of VTE/stroke. At least two-thirds of all patients were deemed suitable candidates for the use of newer oral anticoagulants (by current therapy: warfarin: 65.2% (AF), 34.8% (VTE); enoxaparin: 100%, (VTE)). The use of dabigatran in VTE/stroke prevention was found to be more cost effective than warfarin and enoxaparin due to significantly lower costs of therapeutic monitoring and reduced administration costs. Rivaroxaban was more cost-effective than warfarin and enoxaparin for VTE/stroke prevention when supplier rebates (33%) were factored into costing. 

Conclusion: This study highlights the potential cost effectiveness of newer anticoagulants, dabigatran and rivaroxaban, compared to warfarin and enoxaparin. These agents may offer economic advantages, as well as clinical benefits, in the hospital-based management of anticoagulated patients.