Thrombosis and Haemostasis

We have developed the Birmingham model for oral anticoagulation management in primary care based on primary research into utilization of computerised decision support software and near patient testing (MRC, HTA, Fitzmaurice, Murray). This has led to further evaluations of new technologies and quality assurance of diagnostic and monitoring devices (Fitzmaurice, Murray).

The SMART trial (MRC, Fitzmaurice, Murray) demonstrated the clinical and cost-effectiveness of patients undertaking their own management of oral anticoagulation and has led to the development of UK and International guidelines for patient self-testing and self-monitoring for oral anticoagulation (Fitzmaurice, Murray, BMJ, British Journal of Haematology).

The SAFE study (NHS-HTA, Fitzmaurice, Murray) demonstrated the cost-effectiveness of screening for atrial fibrillation in patients aged 65 and over in primary care and demonstrated that opportunistic screening can be the most effective method as long as pulse taking is undertaken when patients are seen (BMJ). Data from the SAFE study have been implemented in several NICE guidelines documents, including atrial fibrillation commissioning and treatment guidelines and care of the elderly guidelines.

The BAFTA trial (Fitzmaurice, Murray) concluded follow up having met and exceeded recruitment target (target: 930; achieved: 973), and reported important data showing extra efficacy and equivalent safety of warfarin versus aspirin in thromboprophylaxis in the very elderly (Lancet). BAFTA has immediately influenced US and UK clinical guidelines.

Dissemination of this work is facilitated through the National Centre for Anticoagulation Training (NCAT), based within PCCS (**www.anticoagulation.org.uk (http://www.anticoagulation.org.uk/)**).

We have completed a study investigating the interaction between genetic and environmental factors on individual warfarin metabolism (CP450 study) in a hospital cohort in Liverpool.

A 5 year NIHR programme in Prevention of Venous Thromboembolism (VTE) was awarded in 2010. This comprises 3 studies, EXACT: a randomised controlled trial of extended versus routine oral anticoagulation treatment for first idiopathic VTE; EXPECT: a mixed methods investigation of barriers to implementation of thromboprophylaxis against hospital acquired VTE: and a cost effectiveness exercise to determine the optimum care pathway for prevention and treatment of VTE.

We provide primary care input into the British Haematology Society, the Anticoagulation Specialists Association, the British Committee for Standards in Thrombosis and Haemostasis and the British Primary Care Anticoagulation Society (Fitzmaurice).

We provided expert advice to the Department of Health Expert Working Group on Thromboprophylaxis for hospital in-patients, which reported to the Chief Medical Officer in 2006, which has led to the CQUIN mandate that all hospital in-patient should be assessed for thrombotic risk and the production of NICE guidance for the evaluation of all patients admitted to hospital.

We have provided primary care advisor to several NICE guidelines (including management of atrial fibrillation), co-authored a systematic review of cost-effectiveness of self-management of oral anticoagulation for HTA and provide primary care advice to the NHS Heart Improvement Programme (Fitzmaurice).

3 systematic reviews funded by the HTA are currently being undertaken: 1) To identify if there are a group of patients with atrial fibrillation in whom combined oral anticoagulation and antiplatelet therapy can be advised; 2) To identify the clinical utility of laboratory identified aspirin resistance; 3) To identify a stopping rule for patients treated with oral anticoagulation for first idiopathic VTE.