Patient Self Management of Oral Anticoagulation

<table>
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<th>Date:</th>
<th>April 2004</th>
<th>Date of Last Review:</th>
<th>New Policy</th>
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<tbody>
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<td>Policy:</td>
<td>It is the responsibility of referring and treating clinicians to ensure compliance with this policy. Referrals for treatment should be made through the local commissioned service pathway where available. Where a local commissioned pathway is not available clinicians need to apply to the exceptional cases panel for approval of funding - click here to access the funding request form. This policy does not preclude the use of the strips and coagulometer under the supervision of trained professionals in primary care.</td>
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**Definition:** Patient self management refers to a care model in which patients on oral anticoagulation therapy, measure their own International Normalised Ratio (INR), interpret the result themselves, and adjust their dosage according to the value obtained and within the range recommended for treatment. It differs from patient self testing in which a patient measures their own INR, but has to contact health professionals for interpretation and dose adjustment.

**Estimated number of people affected:** It is estimated that around 1% of the populations of many countries receive oral anticoagulation therapy. Although national data are not routinely collected in the UK, it was estimated that around 470,000 people in the UK were taking Warfarin in 2001. Currently, in Cambridgeshire and Peterborough, there are an estimated 6,791 patients on Warfarin. This figure represents ONLY those patients attending the three major anticoagulation clinics in the area - Addenbrooke’s, Hinchingbrooke and Peterborough Hospitals. Patients attending GP clinics only and those currently in hospital were not included.

**Resource implications:** The resource implications of patient self management include increased capital costs associated with each patient having their own coagulometer (£400 each), increased frequency of testing (every 3 – 7 days) and the cost of training patients and health workers on self management programmes (no estimates). Currently, test strips (CoaguChek, Roche) are available on prescription at a cost of £30.00 for 12 strips or £117.30 for 48 strips. However, the monitor itself is not available on prescription.

**Health benefits:** International evidence has shown the superior efficacy of patient self management compared to the traditional model of patients attending clinics. Patients on self management achieved better therapeutic control, and it is more cost effective (reliable, convenience and reduce risks) compared with routine care. Self management can also increase a patient’s quality of life. However, achieving these benefits in patient self management programmes depends partly on the criteria used to select patients and on the training given to the selected patients and their health professionals.
Health benefits continued:
Furthermore, these evidences are from countries outside Britain, and where results from routine practices are poor and anticoagulation clinics are not as established or widespread as they are in Britain. Also, most of the studies considered quality control for clinics measuring INR as essential, but did not adequately address issues of quality control in patients measuring their own INRs.
This policy does not preclude use of the strips and meters under the supervision of trained professionals in primary care.

Risks:
For every patient on oral anticoagulation, a “therapeutic target range” known as International Normalised Ratio (INR) has been established within which the patient must be maintained for therapeutic or preventive efficacy. The risk of adverse events, thrombotic or haemorrhagic episodes, increases exponentially when the INR values fall below 2.0 or rise above 4.5. The risk of bleeding due to overdosing occur in 4% - 40% of patients treated with Warfarin for over three months.

Priority:
Based on the relative lack of UK evidence on cost-effectiveness, and the concerns about quality control in patient self management of anticoagulation, this CPF policy does NOT support widespread use of patient self management until there is robust evidence applicable to the UK. In addition, developments on the future potential on the Warfarin alternative, Ximelagatran (Exanta), should be closely monitored.

GLOSSARY (ref 13)
Coagulometer: electronic device that measure INR.
Haemorrhagic: blood loss from the vessels which naturally contain it.
Oral Anticoagulation: medication taken by mouth to prevent clotting of the blood.
Thrombotic: clotting of the blood.

REFERENCES: