



## Can your practice prevent more strokes in patients with atrial fibrillation?

### Dear Practice Manager and colleagues

Reducing the risk of stroke in patients with atrial fibrillation is a high priority for patients, practices, their CCGs, the CQC and NHS England. Local general practitioners, practice nurses and practice managers have also selected increasing the use of anticoagulation in atrial fibrillation as a priority.

As part of this initiative, supported by West Yorkshire CCGs, we plan to provide regular feedback on anticoagulation prescribing. This is the first report for your practice. We will provide quarterly updates on your practice's achievement. In addition we will offer two outreach meetings (CPD accredited), computerised searches to identify patients and additional pharmacist support to review patient notes. In the outreach meetings we will work with you to create an action plan (see attached Word template) or you can use this independently.

**Please distribute this report to your practice team. We will be in touch to arrange a convenient time at a practice meeting to discuss how we can support you to protect your patients.**

We know that practices are currently under a great deal of pressure and there are increasing demands within consultations. However, the risk of stroke is 5 times higher in a person with atrial fibrillation than in someone with a normal heart rhythm. Anticoagulation treatment reduces the risk of stroke by about two thirds.

**We invite your practice to review your current levels of anticoagulation use in patients with atrial fibrillation and consider whether you can do more to protect your patients from stroke.** Even if patients have previously declined treatment, they can be offered a review as their personal risk may have changed or they may have changed their mind.

We will also send ten copies of this report for your team. If you require more please contact Dr Tom Willis on [aspire@leeds.ac.uk](mailto:aspire@leeds.ac.uk) or 0113 343 6731.

Yours sincerely



**Dr Robbie Foy**  
General Practitioner & Professor of Primary Care  
on behalf of the ASPIRE team

**“The latest guidance from NICE (2014) states that there must now be a good justification for NOT anticoagulating patients with atrial fibrillation who are at risk of stroke. In other words, anticoagulation treatment, after taking bleeding risk into account, is the expected standard of medical care.”**

**Dr Matt Fay**  
GP Bradford and Advisor to  
AF Association

**For more information on ASPIRE, please see**  
<http://medhealth.leeds.ac.uk/aspire>

## Why review anticoagulation use?

There is evidence that a substantial number of patients with atrial fibrillation (AF) are not receiving recommended treatment and are consequently at an avoidable risk of stroke. NICE estimates that with effective detection and protection with anticoagulants, 7,000 strokes and 2,000 premature deaths could be prevented each year in England. NICE recommends that you:

- **Consider anticoagulation for men with a CHA<sub>2</sub>DS<sub>2</sub>-VASc score of 1, taking the bleeding risk into account.**
- **Offer anticoagulation to people with a CHA<sub>2</sub>DS<sub>2</sub>-VASc score of 2 or above, taking bleeding risk into account.**

**You now need a good justification for NOT anticoagulating in patients with AF at risk of stroke.**

NICE<sup>7</sup> recommend both vitamin K antagonists (e.g. warfarin) or non-vitamin K antagonists (NOACs; e.g. apixaban, dabigatran or rivaroxaban). There are advantages and disadvantages to the different treatment options and patients should be allowed to make an informed decision on which treatment to accept.

## What is the evidence base on anticoagulation use in atrial fibrillation?

- Anticoagulation treatment reduces the risk of stroke by about two thirds<sup>6</sup>
- A Cochrane review<sup>1</sup> assessed the benefits of warfarin from 5 studies including over 2000 patients. Warfarin reduced all strokes and death, as well as the combined endpoint of all stroke, myocardial infarction or vascular death. **Around 25 strokes could be prevented yearly for every 1000 patients with atrial fibrillation given warfarin.**
- In one study of English general practice, only 55% of eligible patients with atrial fibrillation receive anticoagulation therapy<sup>3</sup>.
- Clinicians often misjudge the pros and cons of anticoagulation. Based on the balance between haemorrhage and thromboembolism risk, most eligible patients should be considered for anticoagulation<sup>5</sup>.
- NICE guidance states that anticoagulation **should not** be withheld solely because the patient is at risk of having a fall: the risk of a serious bleed caused by falling is very small.

## What are the risks of untreated atrial fibrillation?

- The risk of a stroke is 5 times higher in a person with AF than a person with normal heart rhythm<sup>2</sup>
- AF strokes tend to be more severe strokes<sup>2</sup>
- 25% of AF strokes are fatal compared with 15% of non-AF strokes; the increased risk of death after a stroke persists for up to 8 years.
- 80% of people suffering from an AF stroke end up in care or needing a carer.
- People with AF are nearly twice as likely to die prematurely than people with normal heart rhythm<sup>4</sup>

## Contraindications

See appendix.

## Use of the HASBLED tool

NICE<sup>7</sup> has suggested that all those with AF undergo a bleeding risk assessment using the HASBLED bleeding risk tool. **The HASBLED should not be used to preclude people from receiving anticoagulant intervention but to assess how the bleeding risk can be minimised.**

Unlike CHA<sub>2</sub>DS<sub>2</sub>-VASc score, the HASBLED score can decrease as well as increase. There are several factors that can be modified, leading to a lower score:

- High blood pressure can be controlled, reducing bleeding risk
- If renal function can be improved by altering the co-prescription then this reduces bleeding risk
- If someone has poor warfarin control (Labile INR) then changing to a non-vitamin K antagonist (NOAC) will stabilise the anticoagulation and reduce the bleeding risk
- If medications that increase bleeding (such as NSAIDs, aspirin, and SSRIs) can be replaced then this reduces the bleeding risk
- The 'elderly' item on the tool is actually a marker of frailty and should only be awarded if the patient is considered to be at high bleeding risk due to physical frailty. This should not be automatically awarded at age 65. The state can occur below the age of 65 years, but also may not be present at an age considerably beyond 65 years.

The balance of risk of stroke against a risk of bleeding can be difficult for a clinician to assess. It is in the nature of the physician to be cautious of their medical intervention but it is also the nature of the patient to wish to prevent a disabling stroke. Even in patients where the clinician may feel it is inappropriate to anticoagulate, the patient should be given the opportunity to be actively involved in the discussion and supported if they choose intervention.

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## The key message

**is that patients with atrial fibrillation who are at risk of stroke should be treated with anticoagulants unless there is strong justification not to.**

**Antiplatelets are no longer recommended for stroke prevention in AF as they are less effective but have the same contraindications.**

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## References

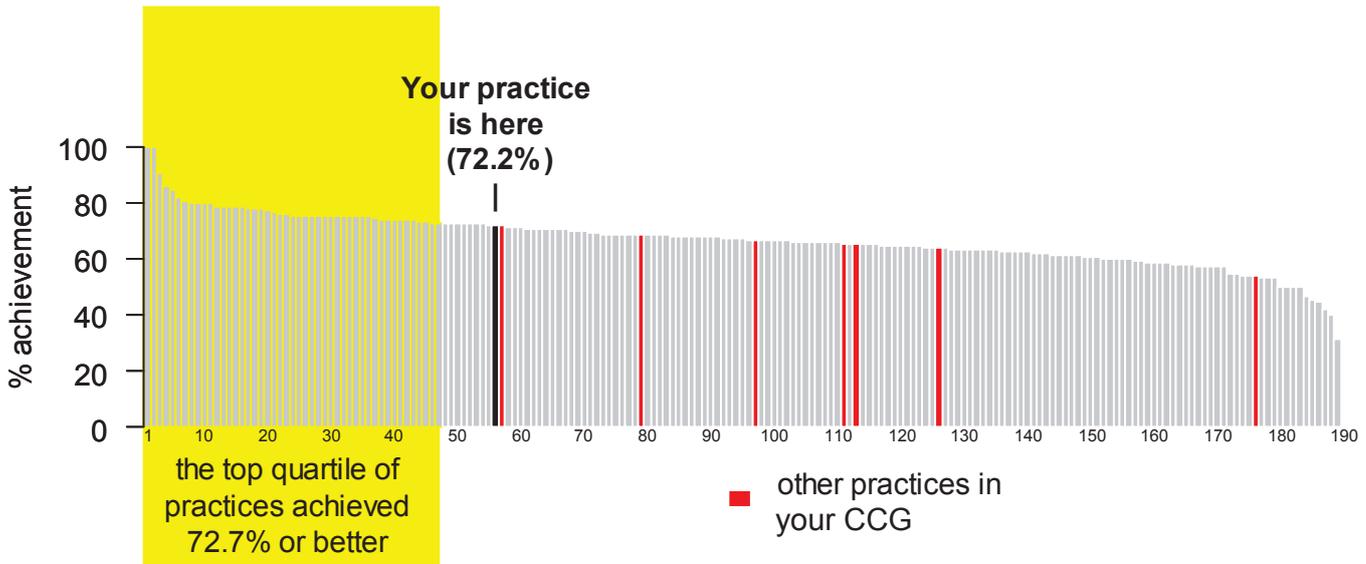
1. Aguilar MI, Hart R. *Oral anticoagulants for preventing stroke in patients with non-valvular atrial fibrillation and no previous history of stroke or transient ischemic attacks*. Cochrane Database of Systematic Reviews 2005; Issue 3. Art. No.: CD001927. DOI: 10.1002/14651858.CD001927.pub2
2. Camm AJ, et al. *2012 focused update of the ESC Guidelines for the management of atrial fibrillation: An update of the 2010 ESC Guidelines for the management of atrial fibrillation*. European Heart Journal 2012; 33, 2719-2747.
3. Cowan C, et al. *The use of anticoagulants in the management of atrial fibrillation among general practices in England*. Heart 2013; 99:1166-1172.
4. Fuster, V, et al. *2011 ACCF/AHA/HRS focused updates incorporated into the ACC/AHA/ESC 2006 guidelines for the management of patients with atrial fibrillation: a report of the American College of Cardiology Foundation/ American Heart Association Task Force on practice guidelines*. Circulation 2011; 123(10): e269-367.
5. Olesen, JB, et al. *Validation of risk stratification schemes for predicting stroke and thromboembolism in patients with atrial fibrillation: nationwide cohort study*. BMJ 2011; 342: d124.
6. Ruff, CT, et al. *Comparison of the efficacy and safety of new oral anticoagulants with warfarin in patients with atrial fibrillation: a meta-analysis of randomised trials*. Lancet 2014; 15; 383(9921): 955-62.
7. <http://www.nice.org.uk/guidance/CG180>

# How well is your practice doing?

## Achievement in participating practices across West Yorkshire 2014/15 QOF year

The graph below demonstrates:

- Your practice (black bar) and % treated according to NICE guidance (72.2%)
- Achievement throughout West Yorkshire overall (range 0% – 100%)
- The top quartile of practices within West Yorkshire (shaded area – achieving 72.7% or above)
- Other practices within your CCG (red bars, n=7)



### Your practice achievement on individual indicators

Indicators (for patients with atrial fibrillation)	Proportion of patients (%)	Number of patients	Number of patients to be reviewed	Proportion of patients to be reviewed (%)
AF register + male + CHA2DS2-VASc score = 1 + receiving anticoagulation	29.4	5/17	12	70.6
AF register + male + CHA2DS2-VASc score = 1 + receiving anticoagulation OR contraindication for anticoagulation	35.3	6/17	11	64.7
AF register + CHA2DS2-VASc score = 2 or higher + receiving anticoagulation	75.4	169/224	55	24.6
AF register + CHA2DS2-VASc score = 2 or higher + receiving anticoagulation OR contraindication for anticoagulation	82.6	185/224	39	17.4
<b>Combined indicators</b>	<b>72.2</b>	<b>174/241</b>	<b>67</b>	<b>27.8</b>

We have analysed anticoagulation treatment in 4,773 patients with AF from a random sample of 88 general practices across West Yorkshire. Anticoagulation treatment was less likely to be prescribed to females and patients aged 80 years and older. However, much variation cannot be explained away by patient (e.g. ethnicity or the number of comorbidities) or practice factors (e.g. local deprivation or the number of practice partners) and is likely to be related to differences in clinician behaviour and how individual general practices organise their care.

We estimate that there were approximately 7,170 untreated, potentially eligible patients across practices in West Yorkshire. Treating these patients with anticoagulation could prevent around 180 strokes per year.

**For every 40 at risk patients your practice treats with anticoagulation, you may be preventing one stroke per year. Could you prevent another?**

## What next?

Our team will be in touch to offer an outreach visit to support any changes your practice would like to make. Or you can use the attached template to guide a discussion about who will do what by when. It may involve one or more of the following:

1. Set up a system for opportunistic review of higher risk patients.  
Consider inviting eligible patients for discussion about anticoagulation treatment – remember that the latest guidance is that eligible patients should be anticoagulated unless there is good justification not to.
2. Run the audit template that we will provide to conduct a record review and if necessary a telephone or face-to-face review of those who are under-treated and at higher risk. Consider allocating records within the team by indicator, usual GP or to pharmacist for review and follow-up (if necessary) by usual GP. Could administrative staff identify and code patients?
3. Set a target to increase the number of patients reviewed from the last feedback report.
4. Review your progress in light of further feedback we will send you later.

If you'd like to learn more, please see:

[http://www.atrialfibrillation.org.uk/medical-professionals/training\\_courses.html](http://www.atrialfibrillation.org.uk/medical-professionals/training_courses.html)

<http://pulse-learning.co.uk/clinical-modules/cardiovascular/guideline>

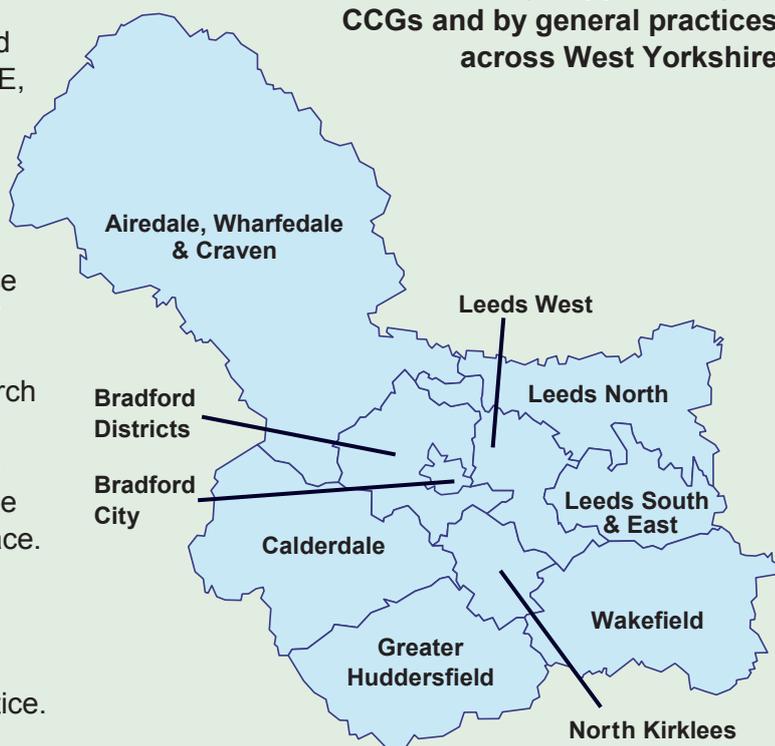
## About ASPIRE

We are a multi-disciplinary group involving experienced researchers (from Leeds, Bradford and York), general practitioners, clinical leads from NICE, managers and patients. We also have panels of patients and international experts advising our programme. For further information see: <http://medhealth.leeds.ac.uk/aspire>.

Clinical research continually produces new evidence that can benefit patients. Despite the best efforts of many professionals, this evidence does not reliably find its way into everyday patient care. Much research suggests that we can do better for our patients – everyone knows this, and knows that achieving it is often easier said than done. We also understand the many competing demands that general practices face.

Our mission is to develop and test ways to support general practices in implementing evidence-based practice effectively and realistically within the constraints and challenges of real-life general practice.

**ASPIRE is already supported by all CCGs and by general practices across West Yorkshire**



## Appendix: Contraindications to Oral Anticoagulants in Patients with Atrial Fibrillation

As a patient's relative stroke & bleeding risk can change, it is essential that all AF patients are reviewed at **LEAST** annually for a re-assessment of their stroke versus bleeding risk & the anti-thrombotic treatment option of choice. Aspirin mono-therapy is no longer recommended for stroke prevention in atrial fibrillation.

Contraindications listed below apply to **BOTH** anti-platelet agents (e.g. aspirin, clopidogrel, dipyridamole) & **ALL** oral anticoagulants (e.g. warfarin, phenindione, apixaban, dabigatran, rivaroxaban) except where indicated.

### Absolute Contraindications

- Known large oesophageal varices.
- Significant thrombocytopenia (platelet count  $<50 \times 10^9/L$ )  
*Refer to haematologist.*
- Within 72 hours of major surgery with risk of severe bleeding.  
*Defer & reassess risk postoperatively.*
- Previously documented hypersensitivity to either the drug or excipients.  
*Consider cardiology opinion.*
- Acute clinically significant bleed.  
*Defer & re-assess stroke versus bleeding risk within 3 months.*
- Decompensated liver disease or deranged baseline clotting screen (INR  $>1.5$ ).  
*Refer to Gastroenterology / Hepatology.*  
**Contraindication applies to oral anticoagulants only.**
- Pregnancy or within 48 hours post partum.  
*Seek urgent haematological advice.*  
**Contraindication applies to oral anticoagulants only.**
- Severe renal impairment (GFR  $<30$  ml/min/ $1.73$  m<sup>2</sup>): avoid dabigatran and caution/dose adjustment with apixaban and rivaroxban. Renal impairment (GFR  $<15$  ml/min/ $1.73$  m<sup>2</sup>): avoid apixaban, rivaroxaban and phenindione use.

### Relative Contraindications

- Previous history intracranial haemorrhage.  
*As some AF patients especially those considered at higher stroke risk may benefit from anti-thrombotic therapy, seek the opinion of a stroke specialist.*
- Recent major extracranial bleed within the last 6 months where the cause has not been identified or treated.  
*Decision for oral anti-thrombotic therapy should be deferred.*
- Recent documented peptic ulcer (PU) within last 3 months.  
*Decision for oral anti-thrombotic therapy should be deferred until treatment for PU completed. In all cases with history PU give PPI cover whilst on anti-thrombotic.*
- Recent history recurrent iatrogenic falls in patient at higher bleeding risk. **A patient at higher bleeding risk is assessed by having 3 or more of the following risk factors:**
  - age  $>65$  years
  - previous history bleed or predisposition to bleeding (e.g. diverticulitis)
  - uncontrolled hypertension
  - severe renal impairment (i.e. serum creatinine  $>200$  umol/L, GFR  $<30$  ml/min/ $1.73$  m<sup>2</sup> or on dialysis)
  - acute hepatic impairment (e.g. bilirubin  $>2 \times$ ULN + LFTS  $>3 \times$  ULN), chronic liver disease (e.g.cirrhosis)
  - low platelet count  $<80 \times 10^9/L$  or a thrombocytopenia or anaemia of undiagnosed cause
  - on concomitant drugs associated with an increased bleeding risk (e.g. SSRIs, oral steroids, NSAIDs, methotrexate or other immune-suppressant agents)

#### N.B. A risk of falls is not a contraindication to initiating oral anticoagulation.

*(E.g. a patient with an annual stroke risk of 5% would need to fall 295 times for fall risk to outweigh stroke reduction benefit of warfarin).*

- Dementia or marked cognitive impairment with poor medicines compliance & no access to carer support.
- Chronic alcohol abuse – especially if associated with binge drinking.

#### N.B. Poor compliance with any oral anticoagulant agent will reduce benefits but may increase risks associated with use.

Compliance can be supported by:

- Ensuring that patients have made a shared decision about the need for treatment
- Maintaining regular contact with patients
- Simplifying the number and timing of medicines prescribed

## Appendix: Contraindications to Oral Anticoagulants in Patients with Atrial Fibrillation – Supporting Information & Acknowledgements

### Background

The aim of this document is to give GPs a pragmatic decision guide on the absolute and relative contraindications to oral anticoagulants in AF management in primary care. The information given has been drawn from “expert clinical opinion” together with established documented clinical evidence where available.

### Key Supporting References

**European Society of Cardiology (ESC) Guidelines for the management of atrial fibrillation.** Eur Heart J. Aug 29 2010. <http://www.escardio.org/guidelines-surveys/esc-guidelines/GuidelinesDocuments/guidelines-afib-FT.pdf>. Recommendation that selection of anti-thrombotic therapy should be based upon the absolute risks of stroke/thrombo-embolism and bleeding and the relative risk and benefit for a given patient. Highlights the use of the ‘HAS-BLED’ bleeding risk score as a tool to assess bleeding risk in AF patients.

**Keeling D, Baglin T et al; Guidelines on oral anticoagulation with warfarin – 4th Ed 2011;** British Journal of Haematology 1365- 2141. <http://www.bcshguidelines.com/documents/warfarin4thed.pdf>. Latest updated BCSH guidance- includes statement re concomitant use of anticoagulants & anti-platelets

**Mant J Hobbs FDR, et al, Warfarin versus aspirin for stroke prevention in an elderly community population with atrial fibrillation (AF), (BAFTA RCT study):** Lancet 2007;370: 493-503. BAFTA study showed clear superiority of warfarin over aspirin with no increase in risk of major haemorrhage. Mean age of population was 81.5 years.

**Bailey RD, Hart RG, Benavante O, Pearce LA. Recurrent brain haemorrhage is more frequent than ischaemic stroke after intracranial haemorrhage.** Neurology 2001;56:773-7. Recurrent stroke among survivors of primary intracranial haemorrhage (ICH) occurs at a rate of about 4% per patient year and most are recurrent ICH. Survivors of ICH likely to have a higher risk of recurrent ICH than of ischaemic stroke with CHADS 2 score <3. (Adjusted annual stroke rate risk with CHADS2 2 score 3 is 5.9%)

**Man-Son Hing M, Nichol G, Lau A, Laupacis A. Choosing antithrombotic therapy for elderly patients with atrial fibrillation who are at risk of falls.** Arch Intern Med 1999; 159: 677-85. Showed a calculated risk of a subdural haemorrhage from falling in patients with annual stroke risk 5% would require a patient to fall 295 times for falls risk to outweigh stroke reduction benefit of warfarin.

**The ACTIVE Writing Group on behalf of the ACTIVE investigators.** Lancet 2006;367:1903–12. Study found incidence of bleeding was significantly greater with aspirin + clopidogrel compared with warfarin (19.3% vs. 16.5%; NNH 35; RR=1.21, 95% CI 1.08–1.35, P=0.001).

### Acknowledgements

ASPIRE is grateful to Dr Matthew Fay for providing the information in this Appendix. It was prepared by Dr Fay, in collaboration with Dr Paul Guyler (Lead Stroke Consultant, Southend University Hospital NHS Foundation Trust and Stroke Improvement Programme Associate) and Maria Smith (Prescribing Support Pharmacist and Clinical Lead for Anticoagulation, Aylesbury Vale CCG and Chiltern CCG).

**Wehinger C, Stollberger C, Lamger T et al. Evaluation of risk factors for stroke/embolism & of complications due to anticoagulant therapy in atrial fibrillation.** Stroke 2001;32 (10):2246-2252. Study found significant difference in bleeding complications between those patients prescribed at least three additional medicines & those prescribed less than three.

**Shireman TI, Howard PA, Kresowik TF et al. Combined anticoagulant –antiplatelet use and major bleeding events in elderly atrial fibrillation patients.** Stroke.2004;35(10)2362-2367. Found history of bleeding to be a significant independent predictor of future bleeding events.

**PROGRESS Collaborative Group. RCT of a perindopril-based BP-lowering regimen among 6,105 individuals with previous stroke or transient ischaemic attack.** Lancet. 2001 Sep 29;358 (9287):1033-41. Study showed importance of BP control in patients with cerebrovascular disease in significantly lowering risk of first ICH.

**Laupacis A, Boysen G, Connolly S et al. Risk factors for stroke & efficacy of antithrombotic therapy in AF: analysis of pooled data from five randomised controlled trials.** Archives of Internal Medicine. 1994;154(13):1449-1457. Study found both systolic and diastolic BP to be significantly higher in those patients with bleeding complications than in those without bleeding complications.

**Dite PD. Labrecque D et al. World Gastroenterology Organisation Practice Guideline Oesophageal Varices 2008.**

Oesophageal varices develop in patients with cirrhosis at an annual rate of 5–8%, but varices large enough to pose a risk of bleeding occur in only 1–2% of cases. Approx 4–30% of pts with small varices will develop large varices each year & therefore be at risk of bleeding. Mortality resulting from bleeding depends on the severity of the underlying liver disease.

**UK Teratology Information/Toxicology database report on use of Warfarin in Pregnancy.** National Poisons Information service commissioned by HPA. March 2011 <http://www.toxbase.org>

**Summary Product Characteristics for Marevan (warfarin) Pradaxa (Dabigatran); Plavix (Clopidogrel).** Electronic Medicines Compendium @ <http://www.medicines.org.uk>

