An update on antithrombotic medicines

A stroke risk assessment tool, e.g. CHA_2DS_2-VASc, should be used in all patients with non-valvular atrial fibrillation to determine if they are likely to benefit from anticoagulant treatment. Previously, patients with non-valvular atrial fibrillation and a CHA_2DS_2-VASc score of zero were offered aspirin in preference to an anticoagulant. However, it is now recommended that these patients should not be treated with either an anticoagulant or an antiplatelet at this time. Currently it is recommended that all patients with atrial fibrillation who have a CHA_2DS_2-VASc ≥ 1 should be considered for anticoagulant treatment and the risks and benefits discussed with the patient.

The risk of bleeding should always be considered before discussing anticoagulation treatment, however, this risk should not be overstated. The HAS-BLED tool is recommended in order to identify modifiable risk factors that can be managed in patients undergoing anticoagulation treatment. HAS-BLED may also be useful in balancing the risks versus benefits of anticoagulation treatment in patients with atrial fibrillation who have a CHA_2DS_2-VASc score of 1. However, HAS-BLED should not be used to determine whether a patient should be offered anticoagulation treatment as this decision should be based on stroke risk estimation. A HAS-BLED score > 2 is associated with a clinically significant risk of major bleeding.

Patient preference is important when deciding if warfarin or dabigatran is the most appropriate anticoagulant in patients with non-valvular atrial fibrillation. Table 1 can be used as an aide when having this discussion with patients. Patients and clinicians are likely to find dabigatran more convenient than warfarin because there is no need to perform INR monitoring. On balance the evidence suggests that dabigatran is at least as effective and may be safer than warfarin for the prevention of ischaemic stroke and systemic embolism.

Ticagrelor is generally preferred for patients following an acute coronary syndrome

Following an acute coronary syndrome it is increasingly likely that patients will be treated with ticagrelor, twice daily, in preference to clopidogrel, once daily; both are used in combination with aspirin. Research has identified genetic polymorphisms in the CYP2C19 enzyme that metabolises clopidogrel, which may influence treatment efficacy. Due to ethnic differences in the prevalence of these alleles it is particularly important that Māori and Pacific patients should be preferentially treated with ticagrelor over clopidogrel.

Table 1: Advantages and disadvantages of dabigatran compared with warfarin for patients with non-valvular atrial fibrillation

The advantages of dabigatran compared with warfarin	The disadvantages of dabigatran compared with warfarin
■ Superior ability to prevent stroke ■ INR testing and dose adjustments are not required ■ Onset of anticoagulation is rapid ■ Does not accumulate in the liver ■ Fewer interactions with other medicines and foods ■ A reduced risk of intracranial haemorrhage	■ An increased incidence of gastrointestinal adverse effects ■ Twice daily dosing required ■ Caution is required in patients with chronic kidney disease ■ There is currently no reversal agent to prevent haemorrhage ■ A small absolute increase of acute coronary syndrome

Peer group discussion points:

1. How do you currently manage patients with non-valvular atrial fibrillation who have a low stroke risk, i.e. a CHA_2DS_2-VASc score of zero? Do you currently recommend aspirin for these patients?
2. The risk of intracranial bleeding can be concerning for some patients who are likely to benefit from anticoagulation. How do you balance the need to inform the patient of the risks of treatment against the risk of unduly alarming them?
3. Do you prefer warfarin or dabigatran as the first-line anticoagulant for patients with non-valvular atrial fibrillation? Why?
4. Following an acute coronary syndrome ticagrelor or clopidogrel is generally initiated in secondary care in combination with aspirin. Beyond 12 months of dual antiplatelet treatment the risk of significant bleeding is generally thought to outweigh the risks of atherothrombotic events. How do you ensure that patients do not receive dual antiplatelet treatment beyond the recommended duration?
5. Have you been involved in the decision of whether or not to continue an antithrombotic medicine in a patient undergoing a planned and/or routine surgical procedure? If so, what was the specific scenario and what decision did you make?

Original article in BPJ 67 (April, 2015)