### Atrial Fibrillation and Stroke

AF is the most common form of heart arrhythmia and increases a person’s risk of stroke five-fold. These strokes tend to be more severe than non-AF related strokes and can lead to greater disability and mortality. Prescribing anticoagulants for patients with AF is an effective and low risk method of reducing the likelihood of stroke.

### Risk of Harm

With almost any risk of bleeding, the benefits of anticoagulation outweigh the risk. Warfarin has an NNT of 25 and an NNH of 53 – NNH for death or lasting disability is > 200.

### Falls and Anticoagulants

The risks associated with bleeding after a fall are low enough to virtually never outweigh the benefit to the patient from stroke prevention.

### NICE Recommendations

All the options for anticoagulation should be considered and the advantages and disadvantages of the different treatments available should be discussed with the patient before choosing a particular drug.

### Aspirin is Not Effective in AF

Aspirin is no longer recommended for stroke prevention in people with AF, and should not be prescribed unless there is another indication for its use.

### If Unsure of Diagnosis

If unsure of diagnosis, seek advice from the on call consultant cardiologist via WSH switchboard. Please email an ECG to WSHCardiology@nhs.net prior to telephoning.

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**Atrial Fibrillation Anticoagulation Guidance**

**Atrial Fibrillation (AF) Detected**

- Assess stroke risk using CHA²DS²VASc score

### CHA²DS²VASc Stroke Risk Score

<table>
<thead>
<tr>
<th>Component</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>C (Congestive Heart Failure / LV dysfunction)</td>
<td>1</td>
</tr>
<tr>
<td>H (Hypertension)</td>
<td>1</td>
</tr>
<tr>
<td>A (Age 75 years)</td>
<td>2</td>
</tr>
<tr>
<td>D (Diabetes mellitus)</td>
<td>1</td>
</tr>
<tr>
<td>S (Previous stroke/TIA/embolism)</td>
<td>2</td>
</tr>
<tr>
<td>V (Vascular disease (MI, PVD))</td>
<td>1</td>
</tr>
<tr>
<td>A (Age 65-74 years)</td>
<td>1</td>
</tr>
<tr>
<td>Sc (Sex category: female)</td>
<td>1</td>
</tr>
</tbody>
</table>

**Maximum score:** 9

### Adjusted Stroke Rate

<table>
<thead>
<tr>
<th>CHA²DS²VASc Score</th>
<th>Adjusted Stroke Rate (Ischaemic strokes over 1 yr.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2 per 1000</td>
</tr>
<tr>
<td>2</td>
<td>8 per 1000</td>
</tr>
<tr>
<td>3</td>
<td>12 per 1000</td>
</tr>
<tr>
<td>4</td>
<td>17 per 1000</td>
</tr>
<tr>
<td>5</td>
<td>27 per 1000</td>
</tr>
</tbody>
</table>

*Anticoagulation with warfarin/DOAC reduces the risk of stroke by approximately two-thirds.*

### Recommendations

- **CHA²DS²VASc score ≥ 2**: Offer anticoagulation
- **CHA²DS²VASc score = 1**: Consider anticoagulation if male
- **CHA²DS²VASc score = 0**: Relatively low risk – *no antithrombotic treatment*. Review annually.

Reduce bleeding risk by addressing any modifiable risk factors such as:

- Hypertension, especially systolic > 160mmHg
- Labile INR or TTR < 65% in warfarin patients
- Medication predisposing to bleeding e.g. antiplatelets, NSAIDS, etc.
- Excess alcohol (≥ 14 units per week)

**Recommend anticoagulation with a DOAC or warfarin, explaining benefits and risks.**

**If absolute contraindication to anticoagulant and/or unmodifiable high bleeding risk:** *No antithrombotic treatment.*

**Aim to start anticoagulation within 48 hours. See overleaf for DOAC prescribing guidance.**
DOAC Prescribing Guidance

- Does the patient have a contraindication to a DOAC?
- Drug interactions – see SPC
- Non-bioprosthetic heart valve/metal valves or known severe mitral stenosis
- Indication not licensed
- CrCl < 15ml/min
- Known poor compliance

Yes → Consider warfarin

No

Recurrent stroke/TIA despite well controlled warfarin – Consider agent with superior efficacy for preventing ischaemic stroke and haemorrhagic stroke

- Dabigatran 150mg
- Apixaban
- Edoxaban

High risk of major bleeding [HAS-BLED* ≥ 3 or recent upper GI bleed]

- A high bleeding risk (HAS-BLED) score should not generally result in withholding anticoagulation. Bleeding risk factors should be identified and treated.

High risk of GI bleed

- Apixaban
- Edoxaban
- Dabigatran

CrCl 15-49ml/min

Patient has medication in compliance aid

Preference for once daily dosing

Three months after implantation of a bioprosthetic heart valve the site will be re-endothelialised such that DOAC therapy can then be safely used

Apixaban

Edoxaban

Rivaroxaban

HAS-BLED ≥ 3

Apixaban

Edoxaban

Dabigatran

110mg

Apixaban

Edoxaban

Rivaroxaban

Apixaban

Rivaroxaban

Edoxaban

Apixaban

Rivaroxaban

Edoxaban

Rivaroxaban

*Further information on HAS-BLED score can be accessed via the following link: https://www.msdmanuals.com/medical-calculators/HASBLED-ja.htm

Bibliography

8. The Keele anticoagulation decision tool


Based on guidance produced by Cambridgeshire and Peterborough CCG, with the permission of the South West Cardiovascular Clinical Network