Anticoagulation choices in non valvular AF
NICE Atrial Fibrillation Guidelines CG180: June 2014

Patient confirmed to have non valvular atrial fibrillation on ECG recording. All forms of atrial fibrillation (paroxysmal, persistent, long term and permanent) require stroke risk assessment.

Is the patient less than 65 years old with no cardiovascular risk factors? Such as diabetes, hypertension, peripheral vascular disease, ischaemia heart disease, left ventricular systolic dysfunction, congestive cardiac failure

Undertake a \( \text{CHA}_2\text{DS}_2\text{VASc} \) score
Score ≥1 for men or ≥2 for women

No thromboprophylaxis required. Do not give aspirin again unless it is indicated for other medical conditions.

Discuss with patient the risk of stroke, options for anticoagulation and bleeding risk (review HAS-BLED score). Consider:
- The patient’s clinical features and their individual preference (see patient decision aid)
  \( \text{NB. DOAC is usual treatment of choice for secondary prevention in stroke, initiated by specialist team, as faster onset of action} \)
- Can the patient take warfarin (any previous allergic response or adverse effects)?
- Does the patient have adequate venous access or near patient testing device

Initiate warfarin therapy under the direction of an anticoagulation clinic / GP with a target INR of 2.0 – 3.0

Reassess anticoagulation for patients with poor anticoagulation control shown by any of the following over a six month period:
- 2 INRs over 5.0; or 1 value over 8.0
- 2 INRs less than 1.5
- Time in therapeutic range (TTR) less than 65% (or INR in range under 50%)

Treatment is direct oral anticoagulant (DOAC)
- Apixaban
- Dabigatran
- Edoxaban
- Rivaroxaban

There are four agents licensed: Dose adjustments are required for age; renal function and body mass (refer to SPC/BNF).

Renal function, weight, FBC and bleeding risk should be checked at least every 12 months. Review compliance including the number of prescriptions issued.

These medications currently cannot be monitored. Dabigatran has a licensed antidote. The others cannot be reversed at present.

COULD INR BE IMPROVED?

GP to discuss with patient reasons for poor results:
- Cognitive function
- Adherence
- Illness
- Interacting medications
- Lifestyle factors including diet and alcohol consumption.

Yes

Continue warfarin & check INR control. Annual reassessment by the GP of FBC, U&Es, LFTs and bleeding risk

No

Prescribe warfarin

Prescribe DOAC
Updated recommendations:

- Do not offer aspirin monotherapy solely for stroke prevention to people with AF.
- Use the \textit{CHA}_2\textit{DS}_2\textit{-VASc} stroke risk score & offer anticoagulation to people with score of 2 or above taking into account the bleeding risk using the \textit{HAS-BLED} score.
- Patients should be offered a choice of all anticoagulants (warfarin, apixaban, rivaroxaban dabigatran, edoxaban); treatment should be based on their clinical features and preferences. Anticoagulation Patient decision aid, adapted from Vale of York CCG document, may be used to assist with this process.
- For patients on warfarin assess INR control at each visit. Reassess anticoagulation for a person with poor anticoagulation control shown by the following:
  - 2 INR values over 5.0 or 1 INR value higher than 8 within the past 6 months
  - 2 INR values less than 1.5 within the past 6 months
  - Time in therapeutic range (TTR) less than 65% within the past 6 months excluding measurements taken during the first six weeks.
- When reassessing anticoagulation take into account and address the following factors
  - Cognitive function
  - Adherence to prescribed therapy
  - Illness
  - Interacting drug therapy
  - Lifestyle factors including diet & alcohol consumption
- For people who are taking an anticoagulant, review the need for anticoagulation and the quality of anticoagulation \textbf{at least annually}, or more frequently if clinically relevant events occur affecting anticoagulation or bleeding risk.
- For people who are not taking an anticoagulant because of bleeding risk or other factors, review stroke and bleeding risks annually, and ensure that all reviews and decisions are documented.

<table>
<thead>
<tr>
<th>\textit{CHA}_2\textit{DS}_2\textit{-VASc score}</th>
<th>\textit{HAS-BLED} score</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHF / LVEF $&lt; 40%$</td>
<td>Hypertension</td>
</tr>
<tr>
<td>History of Hypertension</td>
<td>Abnormal renal function</td>
</tr>
<tr>
<td>Age $\geq 75$</td>
<td>Abnormal liver function</td>
</tr>
<tr>
<td>Age $= 64 – 74$ years</td>
<td>Age $\geq 65$ years</td>
</tr>
<tr>
<td>Diabetes</td>
<td>History of stroke</td>
</tr>
<tr>
<td>History of Stroke / TIA / Thromboembolism</td>
<td>Bleeding (history or pre-disposition)</td>
</tr>
<tr>
<td>History of vascular disease</td>
<td>Labile INR</td>
</tr>
<tr>
<td>Gender = female</td>
<td>Medicines use with bleeding risk</td>
</tr>
<tr>
<td></td>
<td>Alcohol or drug use</td>
</tr>
</tbody>
</table>

\textit{CHA}_2\textit{DS}_2\textit{-VASc} score: CHF / LVEF < 40\%, History of Hypertension, Age $\geq 75$, Age $= 64 – 74$ years, Diabetes, History of Stroke / TIA / Thromboembolism, History of vascular disease, Gender = female.

\textit{HAS-BLED} score: Hypertension, Abnormal renal function, Abnormal liver function, Age $\geq 65$ years, History of stroke, Bleeding (history or pre-disposition), Labile INR, Medicines use with bleeding risk, Alcohol or drug use.