Atrial fibrillation (AF) occurs in 2-4% of the population in developed nations like Australia. AF-related stroke accounts for at least 25% of ischaemic stroke in Australia and is associated with significant mortality and disability.¹

The basics of stroke prevention in AF:
- Assess stroke risk using CHA₂DS₂-VASc score
- Assess and correct reversible bleeding factors
- Shared decision making with patient to determine anticoagulation prescription
- Monitor therapy regularly

1. Assess stroke risk using CHA₂DS₂-VASc score

- Calculate the CHA₂DS₂-VASc score
- Low-risk patients who are not anticoagulated should be re-evaluated using the CHA₂DS₂-VASc score yearly
- Stroke risk factors may change over time due to aging or development of new co-morbidities

2. Assess and correct reversible bleeding factors

- Reversible bleeding factors should be identified and corrected in AF patients for whom anticoagulation is indicated.
- Bleeding risk scores should not be used to avoid anticoagulation in patients with AF – net clinical benefit almost always favours stroke prevention over major bleeding.

Potentially modifiable bleeding risk factors include:
- Hypertension
- Frailty and falls
- Labile international normalised ratio (INR)
- Excess alcohol (>8 drinks/week)
- Concomitant medications e.g. antiplatelet agents, non-steroidal anti-inflammatory drugs (NSAIDs)
- Impaired renal or hepatic function
- Peptic ulceration
- Anaemia

References
3. Shared decision making with patient to determine anticoagulation prescription

Oral anticoagulation (OAC) is recommended to prevent stroke and systemic embolism in patients with non-valvular AF based on CHA2DS2-VA score

- Non-vitamin K oral anticoagulants (NOACs; apixaban, dabigatran or rivaroxaban) are recommended in preference to warfarin
  - If a patient is already on warfarin it is reasonable to change to NOAC, taking into consideration patient wishes
- Antiplatelet therapy is not recommended for stroke prevention regardless of stroke risk
- Decisions about OAC should be made with integrated care: multidisciplinary teams; patient-centred care with a focus on shared decision-making; and application of eHealth.

<table>
<thead>
<tr>
<th>Why NOACs over warfarin?</th>
<th>CHA2DS2-VA score</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ As good as or better than warfarin in reducing stroke and systemic embolism</td>
<td>≥ 2</td>
<td>OAC recommended</td>
</tr>
<tr>
<td>✓ Lower risk of intracranial haemorrhage</td>
<td>= 1</td>
<td>Consider OAC†</td>
</tr>
<tr>
<td>✓ Easier for patients and physicians to use</td>
<td>= 0</td>
<td>OAC not recommended</td>
</tr>
</tbody>
</table>

† Note PBS criteria for NOACs

Start/continue anticoagulation as above in*:
- Asymptomatic patients with AF detected on opportunistic screening
- Patients who have had catheter ablation or surgical ablation of AF
- Patients who have undergone cardioversion
- Patients who have atrial flutter

NOAC for prevention of emboli in atrial fibrillation – dose adjustments in Australia

<table>
<thead>
<tr>
<th>NOAC</th>
<th>Full dose</th>
<th>Dose reduction</th>
<th>Indications for dose reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apixaban</td>
<td>5 mg bd</td>
<td>2.5 mg bd</td>
<td>At least two of the following: aged 80 years or more, weight 60 kg or less, serum creatinine 133 micromol/L or more</td>
</tr>
<tr>
<td>Rivaroxaban</td>
<td>20 mg daily</td>
<td>15 mg daily</td>
<td>CrCl 30-49 mL/min and/or combination with DAPTab</td>
</tr>
<tr>
<td>Dabigatran</td>
<td>150 mg bd</td>
<td>110 mg bd</td>
<td>Aged 75 years or more and/or CrCl 30-50 mL/min and/or increased risk of major bleeding (e.g. combination with DAPTc)</td>
</tr>
</tbody>
</table>

a If DAPT is required with anticoagulation and another indication(s) for dose reduction, consider using single antiplatelet therapy.  

b In patients receiving rivaroxaban who require antiplatelet therapy following stenting, consider early de-escalation to single antiplatelet therapy plus oral anticoagulant.  

c bd, twice daily; CrCl, creatinine clearance; DAPT, dual antiplatelet therapy; NOAC, non-vitamin K oral anticoagulant

Special situations and the use of oral anticoagulants:
- If antiplatelet agents are also indicated (acute coronary syndrome and/or a stent in the last twelve months)
  - carefully assess the bleeding risks
  - minimise the duration of triple therapy
  - only use aspirin and clopidogrel if dual antiplatelet therapy is required
  - discontinue all antiplatelet therapy 12 months after acute coronary syndrome and/or stent implantation  
- If creatinine clearance is <30mL/min, use warfarin

4. Monitor therapy regularly

- Monitor treatment adherence and persistence regularly using accessible and patient-centred strategies
- Monitor renal function for patients on NOACs

Approximately one-third to half of patients discontinue therapy within 2.5 years of initiation.

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