Anticoagulation in Non-valvular Atrial Fibrillation

### Determining Need for Anticoagulation

- The need to anticoagulate is primarily based on ischemic stroke risk
- CHA₂DS₂-VASC is the recommended ischemic stroke risk tool
- Bleed risk and patient preference should also be considered
- Aspirin is NOT recommended for stroke prevention in patients with high stroke risk

### Anticoagulant Selection

**CHA₂DS₂-VASC Scoring Tool**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Congestive heart failure</td>
<td>1</td>
</tr>
<tr>
<td>Hypertension</td>
<td>1</td>
</tr>
<tr>
<td>Age &gt; 75 years</td>
<td>2</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>1</td>
</tr>
<tr>
<td>Stroke/TIA or thromboembolism (prior)</td>
<td>2</td>
</tr>
<tr>
<td>Vascular disease (MI, PAD, or aortic plaque)</td>
<td>1</td>
</tr>
<tr>
<td>Age 65-74 years</td>
<td>1</td>
</tr>
<tr>
<td>Sex Category (Female)</td>
<td>1</td>
</tr>
</tbody>
</table>

**Score**

- 0: No risk
- 1: Intermediate risk
- 2: High risk

**AHA/ACC Recommendation**

- Score ≥2: High-risk anticoagulate
- Score ≤1: Consider oral anticoagulant or ASA

**No tx**

- With Aspirin
- With antiocoagulant

**Yearly Stroke Risk (%)**

- 0: No risk
- 1.3: Low risk
- 10: Moderate risk
- 50: High risk

### Anticoagulation

**Pros**

- Inexpensive
- Can be monitored
- Less GI bleeding
- Once daily dosing

**Cons**

- Many food/drug interactions
- Frequent INRs and dose changes
- May require bridging around procedures
- More intracranial bleeds

**Dosing**

- Initial: 5mg/day (consider 2.5mg if high bleed risk)
- Subsequent dosing based on INR with target range of 2-3

**Contraindications/Precautions**

- Pregnancy (except mechanical heart valves)
- Concomitant use of antibiotics, antifungals, herbal products, and inhibitors/inducers of CYP2C9, 1A2, and/or 3A4.

**Assessment/Monitoring**

- Baseline: INR and CBC
- INRs 3-5 days after initiation and approx. 7 days after dose changes
- INRs can be gradually spaced out if stable

### Warfarin (Coumadin®)

- And DOAC bleed risk proc. unless pt has high bleed risk. (see table below)
- See warfarin embolism, interacting medication, and reinforce patient education.

### Doxaxaban

- (Eliquis®)

- Less major bleeding and lower all-cause mortality compared to warfarin
- Only DOAC to not have higher risk of GI bleed compared to warfarin

**VASc Scoring Tool**

- Total score=

| Sex Category (Female) | 1 |
| Age > 75 years       | 2 |
| Diabetes mellitus    | 1 |
| Hypertension         | 1 |
| Congestive heart failure | 1 |
| Stroke/TIA or thromboembolism | 1 |
| Vascular disease (MI, PAD, or aortic plaque) | 1 |

- Points
  - 0: Low
  - ≥1: Intermediate
  - ≥2: High

### Dabigatran (Pradaxa®)

- Has an effective reversal agent but may not be readily available at all facilities
- Only DOAC to be superior to warfarin in ischemic stroke prevention

**DOACs**

- Has a more direct effect on clotting
- Fewer drug interactions
- No frequent monitoring and changes
- Can be reversed

### Edoxaban (Savaysa®)

- Less major bleeding compared to warfarin once/daily dosing
- Inferior stroke prevention in patients with CrCl >50 mL/min

### Rivaroxaban (Xarelto®)

- Once/daily dosing
- Should be taken with largest meal of the day
- More GI bleeding compared to warfarin

### For additional information about anticoagulation in Atrial Fibrillation, visit www.anticoagulationtoolkit.org
References


- Drug package inserts
  - Apixaban: https://packageinserts.bms.com/pi/pi_eliquis.pdf
  - Dabigatran: http://docs.boehringer-ingelheim.com/Prescribing%20Information/PIs/Pradaxa/Pradaxa.pdf
  - Edoxaban: http://dsi.com/prescribing-information-portlet/getPIContent?productName=Savaysa&inline=true

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