Anticoagulation Options and Self Testing

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The Relationship between AF stroke and palpitations
## Benefit and Risk

<table>
<thead>
<tr>
<th>CHA₂DS₂-VASc</th>
<th>HAS-BLED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Congestive heart failure history / LV dysfunction</td>
<td>Hypertension</td>
</tr>
<tr>
<td>Hypertension history</td>
<td>Abnormal liver function</td>
</tr>
<tr>
<td>Age 75 or over</td>
<td>Abnormal renal function</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>Stroke</td>
</tr>
<tr>
<td>Stroke / TIA / thromboembolism history</td>
<td>Bleeding</td>
</tr>
<tr>
<td>Vascular disease history</td>
<td>Labile INR</td>
</tr>
<tr>
<td>Age 65 - 74</td>
<td>Age greater than 65</td>
</tr>
<tr>
<td>Sex - male</td>
<td>Drugs (antiplatelet agents or nonsteroidal anti-inflammatory drugs)</td>
</tr>
<tr>
<td>Sex - female</td>
<td>Alcohol</td>
</tr>
</tbody>
</table>
Your stroke risk is 3

IF NOT TREATED...
it is estimated that 37 in 1000 people with this score would suffer an AF related stroke in the next 12 months.
It is estimated that 963 people will not have a stroke.

IF ANTICOAGULATED...
the prediction would fall to 12 in 1000 in the next 12 months.
It is estimated that 988 people will not have a stroke.

Your major bleed risk is 2

IF NOT TREATED...
it is estimated that 7 in 1000 people with this score would suffer a major bleed in the next 12 months.
It is estimated that 993 people will not have a major bleed.

IF ANTICOAGULATED...
we would predict an additional 12 in 1000 bleeds in the next 12 months (19 in 1000 altogether).
It is estimated that 981 people will not have a major bleed.

Sometimes it is difficult to understand how much we should act upon different levels of risk. To help you to weigh up the risks being presented to you, the following list shows the likelihood of certain events happening to average individuals in the UK:
# How Can We Relate This to Daily Living?

<table>
<thead>
<tr>
<th>Event</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Death in a road traffic accident in the UK in 1 year</td>
<td>0.06 in 1,000 (1 in 17,700)</td>
</tr>
<tr>
<td>Death by an accident at home</td>
<td>0.14 in 1,000 (1 in 7,100)</td>
</tr>
<tr>
<td>Needing emergency treatment in the next year after being injured by a bed, mattress or pillow</td>
<td>0.5 in 1,000 (1 in 2,000)</td>
</tr>
<tr>
<td>Needing emergency treatment in the next year after being injured by a can, bottle, or jar</td>
<td>1 in 1,000</td>
</tr>
<tr>
<td>Getting four balls in the UK national lottery</td>
<td>5 in 1,000</td>
</tr>
<tr>
<td>Dying of any cause in the next year</td>
<td>10 in 1,000</td>
</tr>
<tr>
<td>Dying on the road over 50 years of driving</td>
<td>12 in 1,000</td>
</tr>
<tr>
<td>Being a victim of burglary in the UK in 1 year</td>
<td>20 in 1,000</td>
</tr>
<tr>
<td>Getting three balls in the UK national lottery</td>
<td>91 in 1,000</td>
</tr>
</tbody>
</table>
Anticoagulation is more effective at preventing AF related stroke than aspirin.
Decision Making

Dose adjustments in AF

**Rivaroxaban**

- Patient has risk factor for stroke
  - Estimate CrCl
    - <15 mL/min
      - Not recommended
    - 15-49 mL/min*
      - 15 mg OD
    - ≥50 mL/min
      - 20 mg OD

*For treatment of DVT and PE, patients should be treated for 15 mg OD for three weeks. Thereafter, the recommended dose is 20 mg OD. The dose should be reduced from 20 mg to 15 mg OD if assessed risk of bleeding outweighs risk for recurrent DVT and PE.

**Apixaban**

- Patient has risk factor for stroke
  - Estimate CrCl
    - <15 mL/min
      - Not recommended
    - 15-29 mL/min
    - ≥30 mL/min
      - 2.5 mg BID
      - 5 mg BID

**Dabigatran**

- Patient has risk factor for stroke
  - Estimate CrCl
    - <30 mL/min
    - 30-50 mL/min
    - >50 mL/min
      - Age >80 years
      - Age ≥75 years or High risk of bleeding
      - Age <75 years
      - Age 75-80 years
      - Age >80 years
        - Low thromboembolic risk and high bleeding risk
          - 110 mg BID
          - 110 mg BID
          - 150 mg BID
          - 150 mg BID
          - 110 mg BID
          - 150 mg BID
          - 110 mg BID
          - 110 mg BID

**Edoxaban**

- Patient has risk factor for stroke
  - Estimate CrCl
    - <15 mL/min
    - 15-49 mL/min
    - ≥50 mL/min
      - 60 mg OD
      - ≤80 kg
      - ≤60 kg Potent P-gp inhibitors
        - 30 mg OD
        - 30 mg OD
        - 30 mg OD

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1. Rivaroxaban SmPC; 2. Apixaban SmPC; 3. Dabigatran SmPC; 4. Edoxaban SmPC.
MEET JACK, WHY JACK?!
Is aimed at patients and their families to help them understand anticoagulation, the risks and what to do if they are worried.
Starting Anticoagulation with Jack

This video shows Jack and his story of starting anticoagulation medicines.

It can be viewed at: www.wessexahsn.org.uk/jack

There is also a printable leaflet and links to further information.
Self Testing....what are the challenges?

- Fear – is it safe?
- Costs – can we afford the strips?
- Patient has to buy the machine
- Not commissioned
- No guidance in place
- No governance framework
- Unsure who should take responsibility
- No process if things go wrong
Benefits

• Patient outcomes
  – Self-management and self-monitoring have demonstrated improved time in therapeutic range (TTR), and thus a reduction in thromboembolic events, bleeds and associated overall costs.

• Patient satisfaction
  – Care is provided closer to home, patient satisfaction is improved and patients are given greater ownership over their own healthcare, in line with national priorities.

• Operational efficiency
  – Frequency of clinic visits is reduced from an average of 14 per year to 2 per year
  – The time taken to dose a patient is reduced
  – Enables centralisation of service into a hub/s, combining fragmented services. Location is less imperative as patients will only be required to visit the hub twice per year
Costs

- Only one device on the market – coaguchek
- Costs to patient = £299
- 5 year lifespan
- Costs to GP on prescription Coaguchek strips
  - £135 / 48 strips
AF toolkit  Detect, Protect and Perfect
Working together across London to prevent AF related strokes

PERFECT
Educational resources for patients and staff

Staff
National Patient Safety Alert - actions that can make anticoagulant therapy safer
Commissioning effective anticoagulation services for the future
Don't wait to anticoagulate - Medication FAQ
Practical guide on use of DOACs
Promoting adherence during anticoagulant therapy

Factsheets on anticoagulation self-monitoring
Pan London patient information leaflet
Coaguchek - Because it's my life
Information on patient self-testing and self-management of oral anticoagulation
Pan-London information on patient self-monitoring (for staff)

Service users
Online support websites for service users:
European Heart Rhythm Association
Atrial Fibrillation Association
Anticoagulation Europe
Don't wait to anticoagulate - Medication FAQ for patients
Anticoagulation Options and Self Testing

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