Atrial Fibrillation
Implementation challenges
Lesley Edgar
Ross Maconachie
Atrial Fibrillation

- Most common heart rhythm disturbance
- Rapid and irregular electrical signals
- Reduced efficiency of blood flow from atria to ventricles
Atrial Fibrillation

How atrial fibrillation leads to stroke

1. Atrial fibrillation in the left atrium
2. Embolus (clot) forms
3. Embolus (clot) enters blood stream and travels towards brain
4. Embolus blocks blood flow to part of the brain
5. Brain starved of oxygen leading to stroke and brain damage

NICE
Atrial Fibrillation and Stroke

• Atrial fibrillation (AF) increases the risk of stroke by five-fold
• AF is more common in men at all ages and the prevalence increases with age for both sexes
• When strokes occur in AF patients, there is evidence of increased mortality and morbidity, and longer hospital stays compared with other stroke patients
## CHA\textsubscript{2}DS\textsubscript{2} - VASc scoring for AF\textsuperscript{2}

http://eurheartj.oxfordjournals.org/content/early/2013/07/31/eurheartj.eht291

<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Congestive heart failure (or left ventricular systolic dysfunction)</td>
<td>+1</td>
</tr>
<tr>
<td>Hypertension: blood pressure consistently above 140/90 mmHg (or treated hypertension on medication)</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>Prior Stroke or TIA or thromboembolism</td>
<td>+2</td>
</tr>
<tr>
<td>Vascular disease (e.g. peripheral artery disease, myocardial infarction, aortic plaque)</td>
<td>+1</td>
</tr>
<tr>
<td>Age 65-74 years</td>
<td>+1</td>
</tr>
<tr>
<td>Sex category (i.e. female sex)</td>
<td>+1</td>
</tr>
</tbody>
</table>
### HAS-BLED score in AF

> [Link](http://eurheartj.oxfordjournals.org/content/early/2013/07/31/eurheartj.eht291)

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</thead>
<tbody>
<tr>
<td><strong>Hypertension</strong>*</td>
<td>+1</td>
</tr>
<tr>
<td>Abnormal liver function</td>
<td>+1</td>
</tr>
<tr>
<td>Abnormal renal function</td>
<td>+1</td>
</tr>
<tr>
<td>Previous Stroke</td>
<td>+1</td>
</tr>
<tr>
<td>Previous <strong>Bleeding</strong> history and/or predisposition to bleeding</td>
<td>+1</td>
</tr>
<tr>
<td>Labile INR (&lt;60% of time in therapeutic range)</td>
<td>+1</td>
</tr>
<tr>
<td>Age &gt;65 years (<strong>Elderly</strong>)</td>
<td>+1</td>
</tr>
<tr>
<td><strong>Drugs</strong> predisposing to bleeding</td>
<td>+1</td>
</tr>
<tr>
<td>Alcohol use (&gt;8 drinks/week)</td>
<td>+1</td>
</tr>
</tbody>
</table>

* Uncontrolled blood pressure e.g., systolic blood pressure >160 mmHg
Anticoagulation (Warfarin)

- When used appropriately, reduces risk of AF-related stroke by 64%. However:
  - Narrow therapeutic range
  - Multiple food and drug interactions
  - Prescribing errors and adverse events
Anticoagulation (NOACs)

• Novel oral anticoagulants – specifically designed to overcome limitations of warfarin
• Do not require monitoring or dose changes
• More than 50,000 patients studied in trials:
  – Comparable or superior to warfarin in lowering stroke risk
  – Comparable or superior to warfarin in bleeding risk
• Approved by NICE in Technology Appraisals in 2012, 2013 and 2015
Key Recommendations

• 1.5.1 Do not offer stroke prevention therapy to people aged under 65 years with atrial fibrillation and no risk factors other than their sex (that is, very low risk of stroke equating to a CHA2DS2-VASc score of 0 for men or 1 for women)
• 1.5 Anticoagulation may be with apixaban, dabigatran etexilate, rivaroxaban or a vitamin K antagonist
• 1.5.4 Discuss the options for anticoagulation with the person and base the choice on their clinical features and preferences
• 1.5.15 Do not offer aspirin monotherapy solely for stroke prevention to people with atrial fibrillation
What are the key issues?

• Unrecognised cases
• Untreated cases
• Myths about aspirin safety
• Reversibility of effect
• Cost issues
• GP resistance in high risk patients
• ED doctors seeing multiple complications
• Patient concerns
Task

• Your practice has a total list size of 10,000 individuals, each are registered with one of 8 GP Principals
• There are 250 individuals on the practice register who have Atrial Fibrillation. Nobody is quite sure who is receiving stroke prevention treatment currently
• You have good links with the local community pharmacy. There is no dedicated AF clinic; each GP manages their own cohort of patients with Atrial Fibrillation
• You have arranged a local meeting to discuss how the practice will respond to the new NICE guideline and particularly, the recommendations about NOACs
• Attending this meeting is the practice manager’s team, some of the GPs, the local community pharmacist, the cardiology specialist nurse and representatives of a local patients’ association.
Part 1

• You have been randomly allocated to a group of either (a) practice managers, (b) patients or (c) clinicians.

• From the perspective of the group that you have been allocated to, consider the challenges associated with changes to the practice’s anticoagulation strategy and their potential solutions.

• Make sure you have noted down some of the proposed actions for your practice to take back to your tables.
Part 2

• Return to your tables
• Each table will now have some people representing each of the 3 groups
• Debate among yourselves how your practice will respond to NICE’s guidance and try to resolve any conflicts between the priorities of the different groups, arguing your case based on the discussions in task 1
• At the end of this task one person will feed back on 1-2 actions that they have agreed, and give a specific example of one challenge they had to resolve in order to reach agreement