Atrial fibrillation around the World – Continental Perspectives

Europe

Heart House,
26th March, 2015

John Camm
Prevalence of Atrial Fibrillation
A Global Disease

United States: 2.7 million (2010)
>12 million (2050)

Europe: 6 million (2011)

India: 1.2 million (2008)

Brazil: 4.8 million (2009)

China: 8 million (2008)

Japan: 0.9–1.7 million* (2009)

Australia: 0.5 million (2011)

742.5 millions (2013)
Europe, Population : AF @ 1.5% = 11.1 million
## Recommendation for screening of AF

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Class^a</th>
<th>Level^b</th>
<th>Ref^c</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opportunistic screening for AF in patients ≥65 years of age using pulse-taking followed by an ECG is recommended to allow timely detection of AF.</td>
<td>I</td>
<td>B</td>
<td>14, 15</td>
</tr>
</tbody>
</table>

AF = atrial fibrillation; ECG = electrocardiogram.

^aClass of recommendation.

^bLevel of evidence.

^cReferences.

www.escardio.org/EHRA
Action in the Community

- Take the pulse
- Record ECG
Global Atrial Fibrillation Registry

INR Control by Region

* P < 0.005 vs North America
Top-line messages from ESC guidelines 2012

- A shift in identifying low-risk over high-risk AF patients
- Antiplatelet therapy (aspirin +/- clopidogrel) only in patients that:
  - refuse or can’t tolerate OACs
- NOACs have similar efficacy and safety to warfarin
- AADs should be used in patients with structural heart disease and no haemodynamic instability

www.escardio.org/EHRA
PREFER in AF and EuroHeart Surveys
Anticoagulation by CHADS\(_2\) /CHA\(_2\)DS\(_2\)VASc
Comparison Pre 2010 to Post 2010


Kirchhof P, et al. EHRA Late Breakers, 2013

www.escardio.org/EHRA
Use of NOACs is Europe
GARFIELD Registry

<table>
<thead>
<tr>
<th></th>
<th>Cohort 1</th>
<th>Cohort 2</th>
<th>Cohort 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>VKA±AP</td>
<td>53.3</td>
<td>48.5</td>
<td>41.1</td>
</tr>
<tr>
<td>FXa±AP</td>
<td>2.6</td>
<td>6.8</td>
<td>17.7</td>
</tr>
<tr>
<td>DTI±AP</td>
<td>1.6</td>
<td>7</td>
<td>8.7</td>
</tr>
<tr>
<td>None</td>
<td>30.2</td>
<td>26.2</td>
<td>19.8</td>
</tr>
<tr>
<td>AP</td>
<td>12.3</td>
<td>11.5</td>
<td>12.7</td>
</tr>
</tbody>
</table>

Treatment at diagnosis by cohort

2011: 53.3% VKA±AP, 2.6% FXa±AP, 1.6% DTI±AP, 30.2% None, 12.3% AP
2012: 48.5% VKA±AP, 6.8% FXa±AP, 7% DTI±AP, 26.2% None, 11.5% AP
2013: 41.1% VKA±AP, 17.7% FXa±AP, 8.7% DTI±AP, 19.8% None, 12.7% AP
# NOAC uptake in Europe

A dash indicates missing data

<table>
<thead>
<tr>
<th>Country</th>
<th>First patient on NOAC</th>
<th>Patients on NOACs</th>
<th>End of enrolment period</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>After 6 months</td>
<td>After 12 months</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
<td>n/N</td>
</tr>
<tr>
<td>Austria</td>
<td>MAR 2010</td>
<td>18.8</td>
<td>3/16</td>
</tr>
<tr>
<td>Poland</td>
<td>JUL 2010</td>
<td>3.0</td>
<td>4/133</td>
</tr>
<tr>
<td>Germany</td>
<td>AUG 2010</td>
<td>4.3</td>
<td>19/438</td>
</tr>
<tr>
<td>Spain</td>
<td>NOV 2010</td>
<td>2.7</td>
<td>8/301</td>
</tr>
<tr>
<td>France</td>
<td>JAN 2011</td>
<td>1.9</td>
<td>3/162</td>
</tr>
<tr>
<td>Italy</td>
<td>MAR 2011</td>
<td>2.3</td>
<td>7/301</td>
</tr>
<tr>
<td>Norway</td>
<td>MAY 2011</td>
<td>5.9</td>
<td>1/17</td>
</tr>
<tr>
<td>Finland</td>
<td>JUN 2011</td>
<td>3.1</td>
<td>2/65</td>
</tr>
<tr>
<td>Denmark</td>
<td>SEP 2011</td>
<td>25.0</td>
<td>20/80</td>
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<tr>
<td>UK</td>
<td>FEB 2012</td>
<td>1.4</td>
<td>4/276</td>
</tr>
<tr>
<td>Sweden</td>
<td>APR 2012</td>
<td>4.0</td>
<td>4/99</td>
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<tr>
<td>Belgium</td>
<td>JUN 2012</td>
<td>50.0</td>
<td>108/216</td>
</tr>
<tr>
<td>Ukraine</td>
<td>JUL 2012</td>
<td>8.4</td>
<td>34/404</td>
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<tr>
<td>Hungary</td>
<td>AUG 2012</td>
<td>7.5</td>
<td>13/174</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>SEP 2012</td>
<td>9.6</td>
<td>33/344</td>
</tr>
<tr>
<td>Netherlands</td>
<td>OCT 2012</td>
<td>5.2</td>
<td>10/192</td>
</tr>
<tr>
<td>Russia</td>
<td>OCT 2012</td>
<td>13.9</td>
<td>57/411</td>
</tr>
</tbody>
</table>
NICE: NVAF Algorithm for Stroke Prevention

**Stroke risk**

- **CHA\(_2\)DS\(_2\)-VASc**

**Bleeding risk**

- **HAS-BLED**

Discuss risks and benefits of Anticoagulation

Identify low risk patients i.e. CHA2DS2-VASc = 0 (men) or 1 (women)

Discuss the options for Anticoagulation with the person and base the choice on their clinical features and preferences

Vitamin K antagonists (VKA)

Non-VKA oral anticoagulant

Assess Anticoagulation control

Non- VKA C/I or not tolerated

Left atrial appendage occlusion

People who choose not to have treatment

No antithrombotic therapy

Low Risk

Annual review for all patients

NICE AF Guideline June 2014
Left Atrial Ablation (and AAD)

No or minimal structural heart disease

Paroxysmal

Patient choice

Catheter ablation

dronedarone, flecainide, propafenone, sotalol

Patient choice

amiodarone

† = more extensive left atrial ablation may be needed

* usually pulmonary vein isolation is appropriate

Persistent

Relevant structural heart disease

Yes

HF

No

Due to AF

amiodarone

Patient choice

†† = contraindicated with LVH

† = more extensive left atrial ablation may be needed

amiodarone

Catheter ablation

‡‡ = caution with coronary heart disease


www.escardio.org/EHRA
Conclusions

• There are approximately 10 million people in Europe with atrial fibrillation
• Screening is strongly supported by professional societies but is not routinely implemented in any country
• Europe has strong and continually updating guidelines in atrial fibrillation at both continental and national level
• Guideline implementation is generally weak in many countries, but is improving
• Europe comprises countries with widely divergent economies and politics
• Equality of care (equity of access to treatment), although sought for, is not by any means achieved
• The European commission is keen to include atrial fibrillation/stroke amongst those chronic diseases for which therapies should be uniform throughout Europe
Symptomatic -v- Asymptomatic

Cardiovascular Health Study

Prevalence of AF (%)

- Asymptomatic
- Symptomatic
- All

Women

"It's only the tip of the iceberg"

Edward J Smith, Captain of the Titanic