Assessment of an education and guidance program for apixaban adherence in non-valvular atrial fibrillation: the randomised AEGEAN study

Assessment of an Education and Guidance program for Eliquis Adherence in Non-valvular atrial fibrillation

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AEGEAN rationale

• VKAs have several drawbacks limiting their use:
  – a narrow therapeutic range, extensive drug and food interactions, frequent bleeding complications, the need for frequent INR monitoring and dose adjustments\(^1\)

• NOACs have overcome many of the drawbacks of VKAs\(^2\)

• However adherence to NOACs could be sub-optimal because they do not require routine monitoring in anticoagulation clinics\(^2\)

• The impact of a proactive educational program on adherence to anticoagulation therapy for Stroke Prevention in Atrial Fibrillation (SPAF) is unknown

AEGEAN objectives

Primary Objective:
• To assess the impact of an educational program on implementation phase adherence in patients taking apixaban for SPAF. Assessed at 24 weeks after initiation using an EMD, Helping Hand®

Secondary Objectives:
• To assess the impact of an educational program on persistence at 24 weeks in patients taking apixaban
• To identify predictive risk factors linked to non-adherence in patients treated with apixaban
• To evaluate impact of an educational program on efficacy/safety profile of apixaban

EMD, electronic monitoring device; SPAF, stroke prevention in atrial fibrillation
AEGEAN study design

- **AF patients**
- **OAC indication**
- **VKA treated (1/3)**
- **ASA treated allowed**

24 WEEKS

- **Apixaban**
  - **Primary Standard of Care**
- **Apixaban**
  - **Additional Educational Program**

Adherence

**Primary Endpoint**

**Standard of care:** usual information about apixaban treatment

**Additional educational program:**
- an additional patient education booklet explaining AF and anticoagulant treatment for stroke prevention
- reminder tools: key ring, short message service (SMS) alert on mobile phone, or SmartPhone application
- access to a virtual clinic organized at country level utilising the staff from existing anticoagulant clinics
AEGEAN study design

**Standard of care**: usual information about apixaban treatment

**Additional educational programme**:
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- reminder tools: key ring, short message service (SMS) alert on mobile phone, or SmartPhone application
- access to a virtual clinic organized at country level utilising the staff from existing anticoagulant clinics
Adherence to twice daily apixaban during implementation was defined as follows:

**Day of adherence:** 24-hour window during which:
- Apixaban was taken twice daily as prescribed (one tablet two times per day)

If only one tablet was missed in isolation (i.e. if no tablet was missed the previous days), it was considered as a day of adherence.

**Day of non-adherence:** 24-hour window during which:
- Two consecutive tablets within 24 hours were missed
- One tablet was missed for several consecutive days – the first day was considered a day of adherence; subsequent days were considered days of non-adherence
- One tablet was missed on alternate days – every second day with a missed tablet was a day of non-adherence

Persistence was defined as the absence of permanent discontinuation. Permanent discontinuation was defined as no doses taken for at least 30 consecutive days.
Adherence (primary endpoint)

- **Standard of Care** (n=583)
- **Additional Educational Programme** (n=579)

* Primary Endpoint (24 weeks)

Week 4:
- Standard of Care: 94.32%
- Additional Educational Programme: 93.88%

Week 12:
- Standard of Care: 92.30%
- Additional Educational Programme: 91.80%

Week 24:
- Standard of Care: 88.51%
- Additional Educational Programme: 88.34%

p = 0.89
Persistence at 24 weeks:
Overall: 90.8%
SOC: 90.5%
AEP: 91.1%

p=0.76

<table>
<thead>
<tr>
<th></th>
<th>AEP</th>
<th>SOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number still persistent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AEP</td>
<td>556</td>
<td>554</td>
</tr>
<tr>
<td></td>
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<td>523</td>
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<td>466</td>
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</table>
Clinical outcomes at Week 24 (adjudicated)

<table>
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<tr>
<th>Event</th>
<th>Standard of Care (N = 583)</th>
<th>Educational Program (N = 579)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># of Patients n (%)</td>
<td># of Patients n (%)</td>
</tr>
<tr>
<td>Death</td>
<td>4 (0.7)</td>
<td>6 (1.0)</td>
</tr>
<tr>
<td>Cardiovascular death</td>
<td>4 (0.7)</td>
<td>2 (0.4)</td>
</tr>
<tr>
<td>Stroke, TIA, SE</td>
<td>1 (0.2)</td>
<td>7 (1.2)</td>
</tr>
<tr>
<td>Ischaemic stroke</td>
<td>1 (0.2)</td>
<td></td>
</tr>
<tr>
<td>Haemorrhagic stroke</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TIA</td>
<td>0</td>
<td>1 (0.2)</td>
</tr>
<tr>
<td>SE</td>
<td>0</td>
<td>4 (0.7)</td>
</tr>
<tr>
<td>Myocardial infarction</td>
<td>2 (0.3)</td>
<td>4 (0.7)</td>
</tr>
<tr>
<td>Venous thromboembolism</td>
<td>0</td>
<td>2 (0.4)</td>
</tr>
<tr>
<td>Pulmonary embolism</td>
<td>0</td>
<td>1 (0.2)</td>
</tr>
<tr>
<td>Deep vein thrombosis</td>
<td>0</td>
<td>2 (0.4)</td>
</tr>
<tr>
<td>Major or CRNMB</td>
<td>8 (1.4)</td>
<td>10 (1.7)</td>
</tr>
<tr>
<td>Major bleeding (including fatal)</td>
<td>3 (0.5)</td>
<td>5 (0.9)</td>
</tr>
<tr>
<td>Clinically relevant non-majour bleed</td>
<td>5 (0.9)</td>
<td>5 (0.9)</td>
</tr>
<tr>
<td>Fatal bleeding</td>
<td>0</td>
<td>1 (0.2)</td>
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</table>

SE, systemic embolism; TIA, transient ischaemic attack; CRNMB Clinically relevant non major bleeding
AEGEAN conclusions

• The study shows
  – a high adherence rate (88%) in the first 6 months of apixaban twice daily treatment for SPAF
  – a high persistence rate (90.8%) in the first 6 months of apixaban twice daily treatment for SPAF

• There was no additional value of a proactive educational program on adherence in the first 6 months of treatment

• Long-term adherence as well as the value of an educational program beyond 6 months will be further evaluated in the second part of AEGEAN

SPAF, stroke prevention in atrial fibrillation