2020 ESC Guidelines for the Diagnosis and Management of Atrial Fibrillation

Wednesday | November 18, 2020 | 12:00 – 1:00PM ET

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**Guest Speaker**
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Disclosures

The following speaker disclosures have the following relevant financial relationships with commercial interests:

Arthur L. Allen, PharmD, CACP
- Janssen, Portola (Speakers Bureau), BMS/Pfizer Alliance, Boehringer-Ingelheim, Roche (Consultant)

Geoffrey Barnes, MD, MSc
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Gregory Y H Lip, MD
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- BMS/Pfizer, Boehringer Ingelheim, and Daiichi-Sankyo (Speaker)

Diane Wirth, ANP-BC, CACP
- Janssen Pharmaceuticals (Consultant / Speaker Bureau)
AFib Guidelines

Key Topics:
- Who gets anticoagulation?
- What anticoagulant to give?
- How to manage bleeding?
- When to use mechanical stroke prevention?
2020 ESC Guidelines- AFib
### 2020 ESC Guidelines -> AFIB

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class I</td>
<td>Evidence and/or general agreement that a given treatment or procedure is beneficial, useful, effective.</td>
<td>Is recommended or is indicated</td>
</tr>
<tr>
<td>Class II</td>
<td>Conflicting evidence and/or a divergence of opinion about the usefulness/efficacy of the given treatment or procedure.</td>
<td>Should be considered</td>
</tr>
<tr>
<td>Class IIa</td>
<td>Weight of evidence/opinion is in favour of usefulness/efficacy.</td>
<td>Should be considered</td>
</tr>
<tr>
<td>Class IIb</td>
<td>Usefulness/efficacy is less well established by evidence/opinion.</td>
<td>May be considered</td>
</tr>
<tr>
<td>Class III</td>
<td>Evidence or general agreement that the given treatment or procedure is not useful/effective, and in some cases may be harmful.</td>
<td>Is not recommended</td>
</tr>
</tbody>
</table>

*EHJ 10.1093/eurheartj/ehaa612*
**2020 ESC Guidelines -> AFIB**

<table>
<thead>
<tr>
<th>Level of evidence A</th>
<th>Data derived from multiple randomized clinical trials or meta-analyses.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of evidence B</td>
<td>Data derived from a single randomized clinical trial or large non-randomized studies.</td>
</tr>
<tr>
<td>Level of evidence C</td>
<td>Consensus of opinion of the experts and/or small studies, retrospective studies, registries.</td>
</tr>
</tbody>
</table>
## 2020 ESC Guidelines - Who Gets Anticoagulation?

<table>
<thead>
<tr>
<th>CHA(_2)DS(_2)-VASc</th>
<th>ACC/AHA 2019</th>
<th>ESC 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHA(_2)DS(_2)-VASc = 0</td>
<td>No anticoagulant for 0 (men) or 1 (women)</td>
<td>Reassess @ 4-6 months after initial assessment (IIa)</td>
</tr>
<tr>
<td>CHA(_2)DS(_2)-VASc = 1</td>
<td>Consider for 1 (men) or 2 (women)</td>
<td></td>
</tr>
<tr>
<td>CHA(_2)DS(_2)-VASc ≥ 2</td>
<td>OAC for ≥2 (men) or ≥3 (women)</td>
<td></td>
</tr>
<tr>
<td>AF &lt; 48 hours with cardioversion</td>
<td>Pre: none Post: 4 weeks if CHA(_2)DS(_2)-VASc ≥ 2 (men) ≥3 (women)</td>
<td>Pre: none Post: 4 weeks (C-V 0/1), long-term otherwise</td>
</tr>
<tr>
<td>AF &gt; 48 hours with cardioversion</td>
<td>Pre: 3 weeks (or imaging) Post: 4 weeks</td>
<td>Pre: 3 weeks (or imaging) Post: 4 weeks (C-V 0/1), long-term otherwise</td>
</tr>
</tbody>
</table>

*JACC 2019;74:104-132 & EHJ 10.1093/eurheartj/ehaa612*
2020 ESC Guidelines -> HAS-BLED

### Table 10: Clinical risk factors in the HAS-BLED score

<table>
<thead>
<tr>
<th>Risk factors and definitions</th>
<th>Points awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>H Uncontrolled hypertension</td>
<td>1</td>
</tr>
<tr>
<td>SBP &gt;160 mmHg</td>
<td></td>
</tr>
<tr>
<td>A Abnormal renal and/or hepatic function</td>
<td>1 point for each</td>
</tr>
<tr>
<td>Dialysis, transplant, serum creatinine &gt;200 µmol/L, cirrhosis, bilirubin &gt; \times 2 upper limit of normal, AST/ALT/ALP &gt; 3 \times upper limit of normal</td>
<td></td>
</tr>
<tr>
<td>S Stroke</td>
<td>1</td>
</tr>
<tr>
<td>Previous ischaemic or haemorrhagic* stroke</td>
<td></td>
</tr>
<tr>
<td>B Bleeding history or predisposition</td>
<td>1</td>
</tr>
<tr>
<td>Previous major haemorrhage or anaemia or severe thrombocytopenia</td>
<td></td>
</tr>
<tr>
<td>L Labile INR</td>
<td>1</td>
</tr>
<tr>
<td>TTR &lt;60% in patient receiving VKA</td>
<td></td>
</tr>
<tr>
<td>E Elderly</td>
<td>1</td>
</tr>
<tr>
<td>Aged &gt;65 years or extreme frailty</td>
<td></td>
</tr>
<tr>
<td>D Drugs or excessive alcohol drinking</td>
<td>1 point for each</td>
</tr>
<tr>
<td>Concomitant use of antiplatelet or NSAID; and/or excessive* alcohol per week</td>
<td></td>
</tr>
<tr>
<td>Maximum score</td>
<td>9</td>
</tr>
</tbody>
</table>

**HAS-BLED score**

Now a Class 1 Recommendation

*A history of falls is not an independent predictor of bleeding on OAC*

**EHJ 10.1093/eurheartj/ehaa612**
A high bleeding risk score should not lead to withholding OAC, as the net clinical benefit of OAC is even greater amongst such patients (IIIB)

Reassess risk benefit at regular intervals (IB)
If warfarin and TTR< 70 → DOAC
Which Anticoagulant to Give?

• Direct Oral Anticoagulant > Warfarin for non-valvular AF (class 1A)

• Exceptions:
  • Mechanical valve
  • Moderate-severe mitral stenosis

# Anticoagulant Prescribing per ESC

**Table 11** Dose selection criteria for NOACs

<table>
<thead>
<tr>
<th>Dose Level</th>
<th>Dabigatran</th>
<th>Rivaroxaban</th>
<th>Apixaban</th>
<th>Edoxaban</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard dose</strong></td>
<td>150 mg b.i.d.</td>
<td>20 mg o.d.</td>
<td>5 mg b.i.d.</td>
<td>60 mg o.d.</td>
</tr>
<tr>
<td><strong>Lower dose</strong></td>
<td>110 mg b.i.d.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Reduced dose</strong></td>
<td></td>
<td>15 mg o.d.</td>
<td>2.5 mg b.i.d.</td>
<td>30 mg o.d./15 mg o.d.</td>
</tr>
</tbody>
</table>
| **Dose-reduction criteria** | Dabigatran 110 mg b.i.d. in patients with: | Rivaroxaban CrCl 15 - 49 mL/min | Apixaban At least 2 of 3 criteria: | Edoxaban If any of the following:  
  - Age $\geq$ 80 years  
  - Concomitant use of verapamil, or  
  - Increased bleeding risk |  
  - CrCl 30 - 50 mL/min,  
  - Body weight $\leq$ 60 kg, or  
  - Serum creatinine $\geq$1.5 mg/dL (133 μmol/L)  
  - Concomitant use of verapamil, quinidine, or dronedarone |

b.i.d. = bis in die (twice a day); CrCl = creatinine clearance; o.d. = omni die (once daily).

*Antplatelet therapy should not be used for stroke prevention in AF patients-IIIa*

IIIa → Evidence or general agreement that the given treatment or procedure is not useful/effective, and in some cases may be harmful.

_EHJ 10.1093/eurheartj/ehaa612_
Bleeding Management

- Dabigatran → Idarucizumab
- Rivaroxaban or apixaban → andexanet alpha

Mechanical Stroke Prevention?

- Surgical occlusion of LA appendage → consider during cardiac surgery in patients with AF (ACC & ESC)
- Percutaneous LA appendage occlude placement → consider if contraindication to long-term anticoagulation (ACC & ESC)

**Table 12  Antithrombotic therapy after left atrial appendage occlusion**

<table>
<thead>
<tr>
<th>Device/patient</th>
<th>Aspirin</th>
<th>OAC</th>
<th>Clopidogrel</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watchman/low bleeding risk</td>
<td>75 - 325 mg/day indefinitely</td>
<td>Start warfarin after procedure (target INR 2 - 3) until 45 days or continue until adequate LAA sealing is confirmed by TOE. NOAC is a possible alternative</td>
<td>Start 75 mg/day when OAC stopped, continue until 6 months after the procedure</td>
<td>Some centres do not withhold OAC at the time of procedure (no data to support/deny this approach)</td>
</tr>
<tr>
<td>Watchman/high bleeding risk</td>
<td>75 - 325 mg/day indefinitely</td>
<td>None</td>
<td>75 mg/day for 1 - 6 months while ensuring adequate LAA sealing</td>
<td>Clopidogrel often given for shorter time in very high-risk situations</td>
</tr>
<tr>
<td>ACP/Amulet</td>
<td>75 - 325 mg/day indefinitely</td>
<td>None</td>
<td>75 mg/day for 1 - 6 months while ensuring adequate LAA sealing</td>
<td>Clopidogrel may replace long-term aspirin if better tolerated</td>
</tr>
</tbody>
</table>

Post-procedural management of AFIB and ACS/PCI-2020 ESC
## ESC Guideline Updates

### Table 4  Classification of AF

<table>
<thead>
<tr>
<th>AF pattern</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>First diagnosed</td>
<td>AF not diagnosed before, irrespective of its duration or the presence/severity of AF-related symptoms.</td>
</tr>
<tr>
<td>Paroxysmal</td>
<td>AF that terminates spontaneously or with intervention within 7 days of onset.</td>
</tr>
<tr>
<td>Persistent</td>
<td>AF that is continuously sustained beyond 7 days, including episodes terminated by cardioversion (drugs or electrical cardioversion) after ≥7 days</td>
</tr>
<tr>
<td>Long-standing</td>
<td>Continuous AF of &gt;12 months' duration when decided to adopt a rhythm control strategy.</td>
</tr>
<tr>
<td>permanent</td>
<td></td>
</tr>
<tr>
<td>Permanent</td>
<td>AF that is accepted by the patient and physician, and no further attempts to restore/maintain sinus rhythm will be undertaken. Permanent AF represents a therapeutic attitude of the patient and physician rather than an inherent pathophysiological attribute of AF, and the term should not be used in the context of a rhythm control strategy with antiarrhythmic drug therapy or AF ablation. Should a rhythm control strategy be adopted, the arrhythmia would be re-classified as 'long-standing persistent AF'.</td>
</tr>
</tbody>
</table>

### Terminology that should be abandoned

- **Lone AF**
  - A historical descriptor. Increasing knowledge about the pathophysiology of AF shows that in every patient a cause is present. Hence, this term is potentially confusing and should be abandoned.  

- **Valvular/non-valvular AF**
  - Differentiates patients with moderate/severe mitral stenosis and those with mechanical prosthetic heart valve(s) from other patients with AF, but may be confusing and should not be used.

- **Chronic AF**
  - Has variable definitions and should not be used to describe populations of AF patients.

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AF = atrial fibrillation.

*EHJ 10.1093/eurheartj/ehaa612*
ESC Guidelines: New/Changed Rec

• Re-assess stroke and bleeding risk periodically → anticoagulation still appropriate?
• Estimated bleeding risk (e.g., HAS-BLED) should NOT be a sole deciding factor against anticoagulation
• Clinical pattern of AF (e.g., first detected, paroxysmal) should NOT influence anticoagulation decision
• Anticoagulation for 3 weeks (or imaging) recommended prior to catheter ablation procedure & at least 2 months after ablation
  • Do not interrupt anticoagulation for procedure
  • Continue OAC post ablation based on C-V score, not “success” of procedure
• If treated with VKA and TTR<70%, consider switching to DOAC
• After ICH if ischemic stroke risk high, (re-)initiation of OAC, with preference for NOACs over VKAs in NOAC-eligible patients, should be considered in consultation with a neurologist/ stroke specialist after considering risks/benefits

EHJ 10.1093/eurheartj/ehaa612
Panel Discussion
HASBLED Discussion

Regular Bleeding Risk Assessment Associated with Reduction in Bleeding Outcomes: mAFA-II Trial.

Changes in OAC use and the number of bleeding events over a 12-month period among patients receiving the mAFA intervention or usual care.

Major bleeding events included intracranial bleeding, major bleeding, and other extracranial bleeding.

https://doi.org/10.1016/j.amjmed.2020.03.019
AF Association: AF Video Library

16 - 22 NOVEMBER 2020

https://heartrhythmalliance.org/afa/uk/af-video-library
Join us for our next webinar highlighting

Treatment of Cancer-Associated Venous Thromboembolism (VTE)

Friday | December 11, 2020 | 11:00 AM - 12:00 PM ET

The subject matter faculty will discuss management strategies for the treatment of cancer-associated venous thromboembolism (VTE) based on the landmark trials, meta-analysis, and published guidelines. A new AC Forum Rapid Resource on this topic will also be shared and discussed.

**Faculty**
- Marc Carrier, MD, MSc
- Nathan Clark, PharmD
- Ryan Fleming, PharmD
- David Garcia, MD
- Tzu-Fei Wang, MD, MPH

**Earn Free CE’s**

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