2020 ESC/EACTS Guidelines for: Diagnosis and Management of Atrial Fibrillation

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Key recommendations and changes are highlighted here.

Definition and Diagnosis of AF

- Clinical AF: Symptomatic or asymptomatic AF that is documented by surface ECG. A single lead ECG of ≥30 seconds or a standard 12-lead ECG of AF is required to establish the diagnosis of clinical AF (IB).
- Subclinical AF includes asymptomatic atrial high-rate episode (AHRE) confirmed to be AF, atrial flutter (AFL), or atrial tachycardia (AT), or asymptomatic AF episodes detected by insertable cardiac monitor or wearable monitor. There is no surface ECG tracing of AF.

Structured characterisation of AF

- Terminology including Lone AF, Chronic AF, Valvular/Non-valvular AF is potentially confusing and should be abandoned.
- **4S-AF scheme** for 'structured characterisation' of AF. All patients with AF should undergo clinical assessment of **S**troke risk, **S**ymptom status, **S**everity of AF burden, and **S**ubstrate severity (4S-AF), to streamline the assessment of AF patients at different healthcare levels, inform treatment decision-making, and facilitate optimal management of AF patients (IIA).

Screening for AF

- Systems used for AF screening includes pulse palpation, automated BP monitors, single-lead ECG devices, photoplethysmography devices, smartphones, wrist bands, and watches.
- When AF is detected by a screening tool and is not based on an ECG recording (e.g. with devices using photoplethysmography) or in case of uncertainty in the interpretation of device-provided ECG tracing, including mobile or wearable devices, a confirmatory diagnosis has to be obtained using a single-lead ECG tracing of ≥30 seconds or 12-lead ECG showing AF to establish a definitive diagnosis of AF (IB).
- Opportunistic screening for AF by pulse taking or ECG rhythm strip is recommended in patients ≥65 years of age. (IB) and Systematic ECG screening should be considered to detect AF in individuals aged ≥75 years, or those at high risk of stroke (IIa B).

Integrated AF management and ABC pathway:

- The introduction of tools to measure quality of care and identify opportunities for improved treatment quality by keeping patients in a central role in decision making. The structured assessment of patient-reported outcome (PRO) measures should be considered to document and measure treatment success (upgrade to I from IIa).

- The guidelines advocate the ABC pathway for integrated care management, which comprises 'A' for Anticoagulation/Avoid stroke, 'B' for Better symptom Control, and 'C' for Comorbidity/Cardiovascular risk factor optimisation.

Prevention of thrombo-embolic events in AF

- Oral anticoagulation (OAC) is recommended for stroke prevention in AF patients with CHA2DS2-VASc score ≥2 in male or ≥3 in female (Class IA), and it should be considered in patients with a CHA2DS2-VASc score of 1 in male or 2 in female (IIa). Patients at “low risk” (CHA2DS2-VASc score = 0 in male, or 1 in female) should not be offered antithrombotic therapy.
- In patients on vitamin K antagonist (VKA) and time in therapeutic range (TTR) <70%, recommended options are switching to a non-vitamin K antagonist oral anticoagulants (NOACs) but ensuring good adherence and persistence with therapy [excluding patients with mechanical heart valves or moderate-to-severe mitral stenosis] (upgrade to I from IIb).
- For bleeding risk assessment, a formal structured risk-score based bleeding risk assessment (HAS-BLED score) is recommended to help identify non-modifiable and address modifiable bleeding risk factors in all AF patients, and to identify patients potentially at high risk of bleeding (HAS-BLED score ≥ 3) who should be scheduled for early and more frequent clinical review and follow-up (upgrade to I from IIa).
- In AF patients with acute coronary syndrome (ACS) undergoing an uncomplicated percutaneous coronary intervention, early cessation of aspirin ≤1 week and continuation of dual therapy with an OAC and a P2Y12 inhibitor (preferably clopidogrel) for up to 12 months is recommended. Triple therapy with aspirin, clopidogrel, and an OAC for longer than 1 week after an ACS should be considered when risk of stent thrombosis outweighs the bleeding risk, with the total duration ≤1 month.
- Beta-blockers should not be used routinely for the prevention of postoperative AF in patients undergoing noncardiac surgery (downgrade to III).

Rhythm control/catheter ablation of AF

- Catheter ablation for AF has taken a leading role and is now recommended after one failed or intolerant class I or III anti-arrhythmic drugs (AAD) therapy to improve symptoms of AF recurrence in patients with paroxysmal AF, or persistent AF (upgrade to I from IIa). Complete electrical isolation of the pulmonary veins is recommended during all AF catheter ablation procedures (class I).
- The primary indication for rhythm control using cardioversion, AADs, and/or catheter ablation is reduction in AF-related symptoms and improvement of quality of life.
- AF catheter ablation is now recommended as first-line therapy in patients with AF and tachycardia-induced cardiomyopathy, to reverse the LV dysfunction (upgrade to I from IIa). In patients with AF and normal LVEF, catheter ablation is not recommended as it failed to reduce total mortality or stroke.

Other key messages

Strict control of risk factors including hypertension, obesity, obstructive sleep apnoea, hyperlipidaemia and avoidance of triggers for AF are important strategies to improve outcome of rhythm control (class I).

Patients with AHRE should be regularly monitored for progression to clinical AF and changes in the individual thrombo-embolic risk. In patients with longer AHRE (especially >24 h) and a high CHA2DS2-VASc score, OAC may be considered.

Comparing with the most recent (draft) AF NICE guidance, the main recommendations which differ from ESC include:

Using ORBIT bleeding risk score over HAS-BLED when starting on OAC.

Anticoagulation with either apixaban or dabigatran to people with atrial fibrillation and a CHA2DS2-VASc score of 2 or above, taking into account the risk of bleeding. If apixaban and dabigatran are not tolerated in people with atrial fibrillation, offer anticoagulation with either edoxaban or rivaroxaban.

For adults with atrial fibrillation who are already taking a NOAC other than apixaban and dabigatran or a vitamin K antagonist and are stable, discuss the option of switching treatment at their next routine appointment.

Consider digoxin monotherapy as initial rate control for people with non-paroxysmal atrial fibrillation if the person does no or very little physical exercise or other rate-limiting drug options are ruled out because of comorbidities or the person's preferences