

The 2024 European Society of Cardiology Atrial Fibrillation Guidelines: A Moving Goalpost

Gheorghe-Andrei Dan ^{1,2} and Antoni Martinez-Rubio ^{3,4,5}

1. Carol Davila University of Medicine and Pharmacy, Bucharest, Romania; 2. Academy of Romanian Scientists, Bucharest, Romania; 3. Department of Cardiology, University Hospital of Sabadell, Sabadell, Spain; 4. Institut d'Investigació i Innovació I3P, Sabadell, Spain; 5. Universitat Autònoma de Barcelona, Barcelona, Spain

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Correspondence: Gheorghe-Andrei Dan, Carol Davila University of Medicine, 37 Dionisie Lupu str, 020021 Bucharest, Romania. E: andrei.dan@gadan.ro

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“Cucullus non facit monachum” (the cowl does not make the monk) – old proverb

When new international guidelines are published, clinicians expect to see a paradigm shift, new answers to challenging clinical issues, revisions to previous recommendations in light of new evidence and concise, practical management algorithms. Several aspects of AF management have changed since the publication of the previous European Society of Cardiology (ESC) guidelines for AF 4 years ago.¹ These include novel patient screening recommendations, stroke prevention strategies for patients with subclinical AF, anticoagulation guidance for special situations (e.g. extreme body weight, severe renal failure, dialysis and a history of intracerebral haemorrhage), increased recognition of genetic factors and the role of artificial intelligence and machine learning in the management of AF.

Like their predecessor, the current guidelines are described as being “patient-centred”, as they should be, and their foundational concept is encapsulated in the acronym CARE:

- Comorbidity and risk factor management;
- Avoid stroke and thromboembolism;
- Reduce symptoms by rate and rhythm control; and
- Evaluation and dynamic reassessment.²

Is this a new and revolutionary approach, or does it herald the emergence of a new management paradigm? The answer is simply “no”. The 2020 ESC guidelines for the management of AF had already introduced a structured approach to AF management under the acronym ABC:

- Anticoagulation/Avoid stroke;
- Better symptom control; and
- Cardiovascular and comorbidity optimisation.

The integrated ABC approach was tested in several studies and found to be associated with a reduction in all-cause mortality, cardiovascular mortality, ischaemic stroke and major bleeding compared with usual care.^{3,4} One study based on the ABC algorithm was presented at the ESC 2024 congress alongside the new guideline (*Figure 1*).⁵

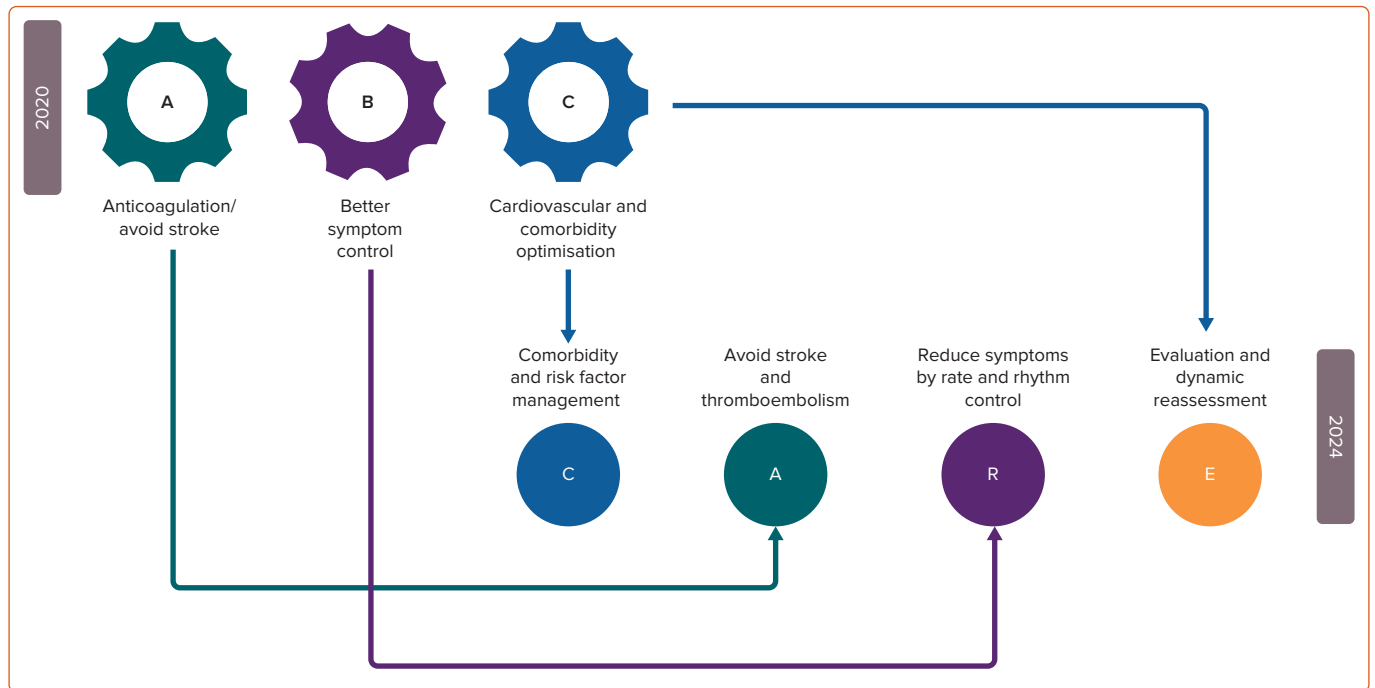
The 2023 American College of Cardiology, American Heart Association, American College of Chest Physicians and Heart Rhythm Society guidelines for AF management also adopted an integrated approach with the introduction of the acronym SOS:⁶

- Stroke risk;
- Optimise all modifiable risk factors; and
- Symptom management.

The introduction of similar algorithms (albeit with different names) with every new guideline does little to enhance implementation and may generate confusion. Moreover, in our view, the CARE acronym does not align with the sequence of clinical steps taken by clinicians managing patients presenting with AF. According to CARE, the first step should be to address comorbidities (e.g. hypertension, heart failure, diabetes, obesity and obstructive sleep apnoea). This makes sense for AF prevention but not for the management of patients at first presentation, when the main concern is stroke prevention due to its immediate and catastrophic consequences; this priority is better captured by the ABC or SOS algorithms.

Stroke prevention recommendations in the 2024 ESC AF guidelines remain consistent with the previous guidelines, emphasising risk assessment using the CHA₂DS₂-VA score, a derivative of CHA₂DS₂-VASc that excludes female sex as a risk modifier. Only very low-risk patients (CHA₂DS₂-VA = 0) are excluded from anticoagulation therapy, while those with a low/moderate score of 1 are still given a class 2a recommendation to receive anticoagulation treatment. The exclusion of the female sex has sparked debate among

Figure 1: From ABC to CARE, an Academic Scrabble



The European Society of Cardiology AF guidelines acronym changed from ABC in 2020 to CARE in 2024.

practitioners, but the decision to exclude female sex as a risk modifier is based on the ESC guidelines authors' belief that "the inclusion of gender complicates clinical practice both for healthcare professionals and patients. It also omits individuals who identify as non-binary, transgender, or are undergoing sex hormone therapy." However, over the last few years, scientific grounds for omitting sex are based on recent studies demonstrating the attenuation of stroke risk between men and women.^{7,8}

Further to anticoagulation and stroke risk, the use of alternative validated stroke risk scores is accepted by the newer ESC guidelines, but concern exists that the use of several scores to determine bleeding risk could lead to confusion. The 2024 guidelines continue to recommend against stopping anticoagulation therapy based on bleeding risk factors alone and do not endorse any structured bleeding risk score assessment tool. The omission of the HAS-BLED score, a simple and validated bleeding risk score previously included in the 2010, 2012 and 2020 guidelines, raises questions. Notably, US guidelines have retained the HAS-BLED score alongside renal and hepatic function assessments for monitoring AF patients receiving anticoagulation therapy.⁶

A key positive aspect of the 2024 ESC AF guidelines is the explicit recommendation to avoid combining oral anticoagulants with antiplatelets for stroke prevention, limiting combination therapy to a maximum of 12 months in cases such as chronic coronary syndrome or peripheral arterial disease. The newer guidelines reaffirm the preference for direct oral anticoagulants (DOACs) over warfarin and adherence to specific dosing guidelines for each DOAC, avoiding off-label dose reduction.

Rhythm and rate control strategies remain largely unchanged. An important update, based on the recently published results of the CASTLE-AF and CABANA trials and conclusions from EAST-AFNET, is the class 1 recommendation for ablation as a first-line therapy in patients with paroxysmal AF and in those with heart failure where AF is a potential cause of tachycardiomyopathy.⁹ Notably, digoxin has been reinstated in the current guidelines as a first-line medication for rate control despite its

modest effectiveness in controlling heart rate during exercise and ongoing concerns about its impact on outcomes.^{10,11}

For chronically anticoagulated patients, both cardioversion (electrical or pharmacological) and a wait-and-see approach are equally recommended (class 2a), which may cause confusion among practitioners, particularly as there is no class 1 recommendation in this area. Short-term anticoagulation (4 weeks) after cardioversion is recommended by the 2024 guidelines, even for patients with a CHA₂DS₂-VA score of 0, despite relatively scarce evidence to support this recommendation. Short-term anticoagulation is optionally recommended for episodes lasting less than 24 hours, a position less cautious than the 2020 ESC guidelines and US guidelines, which limit the duration to 12 hours.⁶

One of the most challenging aspects of the 2024 ESC guidelines for clinicians is the selection of optimal candidates for rhythm control versus rate control strategies; unfortunately, and in contrast to US guidelines, the newer ESC guidelines provide neither a systematic approach nor a list of factors favouring one strategy over the other.^{2,12}


Several new recommendations in the 2024 ESC guidelines are notable and of practical interest:

- Avoid switching between DOACs or from a DOAC to warfarin for secondary stroke prevention in patients already receiving anticoagulant therapy.
- Prefer warfarin over DOACs in patients over 75 years who tolerate therapy well and remain within the therapeutic range (based on the FRAIL-AF study¹³).
- Recommend anticoagulation treatment for all patients with hypertrophic cardiomyopathy and AF regardless of their stroke risk score.
- Individualise management strategies for AF triggered by acute or chronic conditions. Recommendations for AF triggered by acute or chronic conditions are appropriately individualised.

A very welcome section of the 2024 ESC guidelines recommends structured approaches for specific clinical situations. However, detailed guidance on managing AF in patients with heart failure with reduced ejection fraction or severe renal or hepatic disease is unexpectedly absent. While dynamic reassessment strategies (the E in the CARE acronym) are detailed, they lack clarity and practical applicability, relying primarily on updates to simple stroke and bleeding risk scores over time.¹⁴

The AGREE II framework emphasises (in its fourth domain) the need for new guidelines to provide specific, unambiguous recommendations with clearly differentiated therapeutic options and easily identifiable key points.¹⁵ The authors of the 2024 ESC guidelines deserve warm congratulations and recognition for their great efforts to refine previous

guidelines and incorporate sound recommendations based on recent evidence. However, we believe that some aspects of the latest ESC guidelines fall short of clinicians' expectations regarding the provision of clear solutions to many emerging challenges, several of which were mentioned in the introduction of this overview.

Science and medical knowledge progress rapidly and undergo transformative changes continuously over time. Determining the critical moment when enough knowledge has accumulated or substantially changed to warrant the development of new guidelines is certainly a major challenge. The 2024 ESC AF guidelines provide an update to previous recommendations; however, whether they will lead to a substantial improvement in the CARE of AF patients remains to be seen. 

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