

**Version  
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# ESSENTIAL MESSAGES FROM ESC GUIDELINES

Committee for Practice Guidelines

To improve the quality of clinical practice and patient care in Europe



## **AFib**

**GUIDELINES FOR THE MANAGEMENT  
OF ATRIAL FIBRILLATION**

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# ESC ESSENTIAL MESSAGES

## 2016 ESC GUIDELINES FOR THE MANAGEMENT OF ATRIAL FIBRILLATION\*

The Task Force for the Management of Atrial Fibrillation  
of the European Society of Cardiology (ESC).

Developed in collaboration with the European Association for  
Cardio-Thoracic Surgery (EACTS), and with the special contribution of the  
European Heart Rhythm Association (EHRA) of the ESC

Endorsed by the European Stroke Organisation (ESO)

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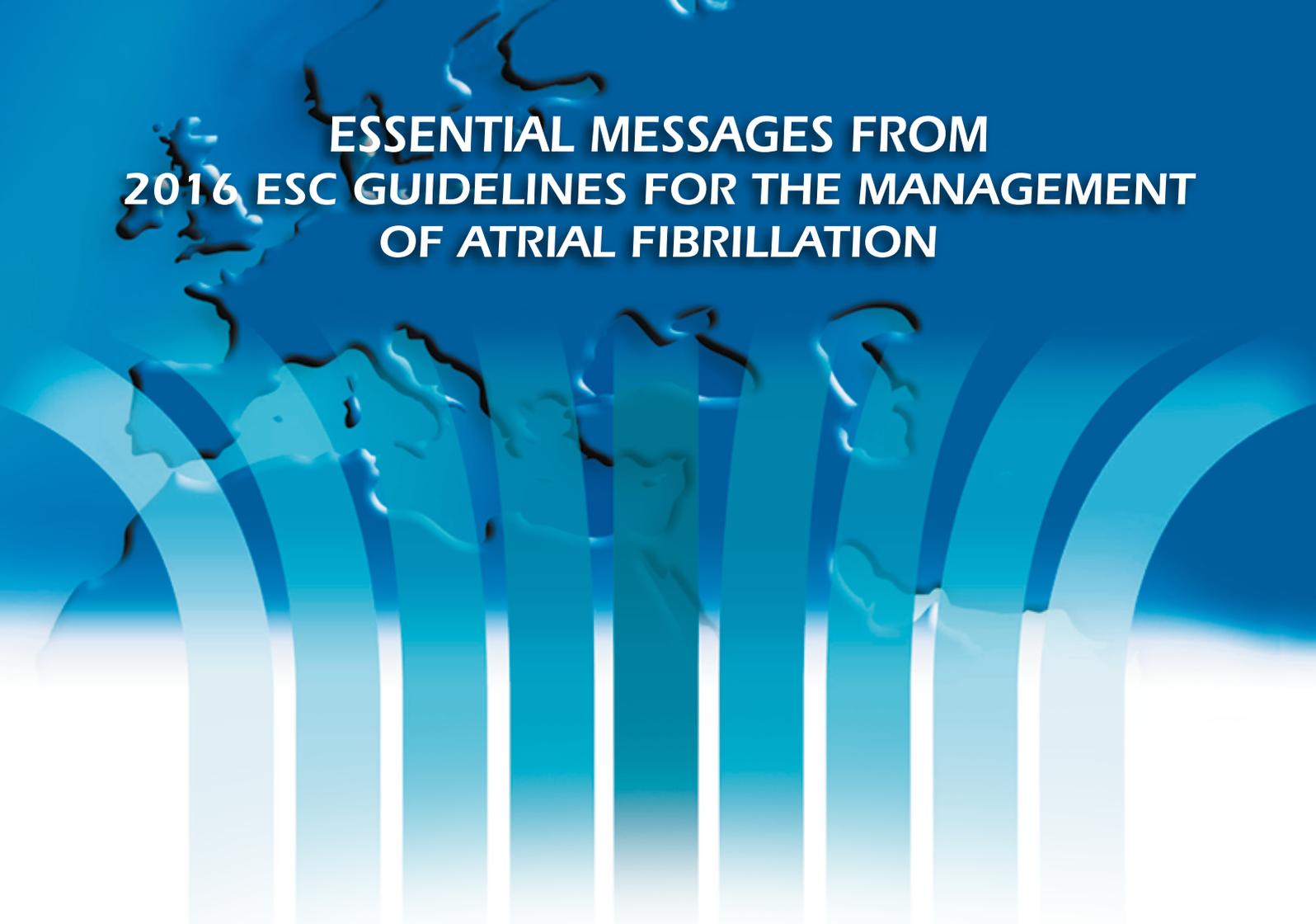
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Special thanks to Dipak Kotecha for his contribution.

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# ESSENTIAL MESSAGES FROM 2016 ESC GUIDELINES FOR THE MANAGEMENT OF ATRIAL FIBRILLATION

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# Take home messages

## 1. Atrial fibrillation (AF) is:

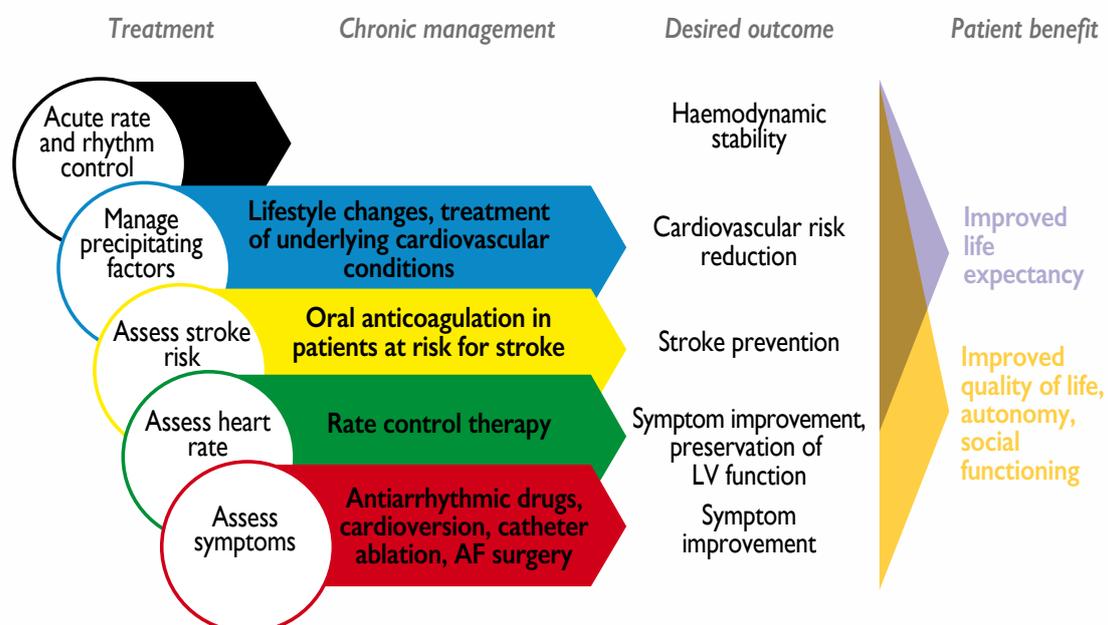
- The most common heart rhythm disorder, with a steep rise predicted in the number of patients in coming years.
- One of the major causes of stroke, heart failure, sudden death, and cardiovascular morbidity.
- Associated with poorer quality of life and symptoms including lethargy, palpitations, breathlessness, chest tightness, sleeping difficulties, and psychosocial distress.

## 2. Diagnosis & screening:

- The diagnosis of AF requires an electrocardiogram (ECG) showing irregular RR intervals and no distinct P waves for at least 30 seconds.
- ECG screening is useful in populations at risk of AF or those at high risk of stroke, including stroke survivors and older patients.

## 3. Prevention & general management:

- Treat underlying cardiovascular conditions adequately to prevent AF, such as hypertension, ischaemia, valvular heart disease and heart failure.
- Evaluate AF-related symptoms using the modified European Heart Rhythm Association (EHRA) score.



# Take home messages

Modified EHRA score	Symptoms	Description
1	None	AF does not cause any symptoms
2a	Mild	Normal daily activity not affected by symptoms related to AF <sup>a</sup>
2b	Moderate	Normal daily activity not affected by symptoms related to AF, but patient troubled by symptoms <sup>a</sup>
3	Severe	Normal daily activity affected by symptoms related to AF
4	Disabling	Normal daily activity discontinued

AF = atrial fibrillation; EHRA = European Heart Rhythm Association.

<sup>a</sup>EHRA Class 2a and 2b can be differentiated by evaluating whether patients are functionally affected by their AF symptoms. AF-related symptoms are most commonly fatigue/tiredness and exertional shortness of breath, or less frequently palpitations and chest pain.

## 4. Patient involvement:

- Provide tailored information and education to AF patients to empower them to support the management of their condition.
- Propose life style changes to all suitable AF patients to make their management more effective.

## 5. Stroke prevention:

- Use oral anticoagulation in all AF patients unless they are at low risk for stroke based on the CHA<sub>2</sub>DS<sub>2</sub>-VASc score, or have absolute contraindications for anticoagulant therapy.
- When initiating anticoagulation, a non-vitamin K antagonist oral (NOAC) is preferred, except in patients with moderate-to-severe mitral stenosis, mechanical heart valves or severe kidney disease.
- Anticoagulate patients with atrial flutter similar to atrial fibrillation.
- Reduce modifiable bleeding risk factors in all AF patients on oral anticoagulation, e.g. by treating hypertension, minimising the use of antiplatelets and NSAIDs, treating anaemia, eliminating causes for blood loss, maintaining stable INR values in patients on vitamin K antagonists, and moderating alcohol intake.
- Do not use aspirin or other antiplatelets for stroke prevention in AF.

## 6. Heart rate control:

- Check ventricular rate in all AF patients and use rate control medications to achieve lenient rate control (<110 bpm at rest).
- Use increased dosage or additional rate control therapy in patients that continue to have symptoms due to AF.
- Assessment of cardiac function (e.g. using echocardiography) can guide the choice of appropriate rate control therapy.

# Take home messages

## 7. Rhythm control:

- Restoring and maintaining sinus rhythm is aimed at improving AF-related symptoms in suitable patients.
- Do not use rhythm control therapy in asymptomatic AF patients, or those with permanent AF.

### a. Acute rhythm control

- Electrical and pharmacological cardioversion can be used to restore sinus rhythm in selected patients, after considering and managing the risk of stroke.

### b. Anti-arrhythmic drugs

- Select anti-arrhythmic drugs based on their safety profile.
- Use shorter duration of therapy where possible, and combine with weight reduction, blood pressure control, heart failure treatment and moderate exercise to reduce AF burden.

### c. Catheter ablation

- Consider catheter ablation (pulmonary vein isolation) when antiarrhythmic drugs fail, or in selected patients as first-line therapy for symptomatic paroxysmal AF.
- Anticoagulation for stroke prevention should be continued indefinitely in patients at high risk of stroke, even after apparently successful ablation of AF.

### d. Surgical AF ablation

- Ablation can be performed in symptomatic patients during cardiac surgery for other reasons, or by stand-alone surgery either using open-chest techniques or by thoracoscopy.
- Anticoagulation for stroke prevention should be continued indefinitely in patients at high risk of stroke, even after apparently successful ablation of AF.

## 8. Integrated care & the AF Heart Team approach

- An integrated, structured approach to AF care is recommended to facilitate consistent, guideline-adherent AF management for all patients, with the potential to improve outcomes.
- Integrated care includes a multidisciplinary approach with cooperation of nurses specialising in AF, primary care physicians, cardiologists, stroke specialists, allied health practitioners and informed patients.
- For complex and difficult decisions, particularly for patients after failed rhythm control, an AF Heart Team should advise future management, consisting of a cardiologist, interventional electrophysiologist and cardiac surgeon, all with experience in managing AF.

# Major gaps in evidence

## 1. Phenotypes of AF

Atrial fibrillation has different causes in different patients. More research is needed to identify and treat distinct types of AF.

## 2. How much AF constitutes a mandate for therapy?

Adequately powered studies are required to evaluate the diagnostic accuracy of new technologies for screening AF, the diagnostic yield in different populations, and the implications on anticoagulant and other therapy.

## 3. Stroke risk in specific populations

Specific AF groups should be studied to better characterize their risk for AF, stroke, and other complications, including patients with one stroke risk factor, women and non-Caucasian patients.

## 4. Anticoagulation

### a. After 'successful' rhythm control:

Currently, anticoagulation should be continued in AF patients at risk of stroke, even after successful restoration of sinus rhythm. Controlled trials are required to evaluate the safety and timing of termination of anticoagulation in these patients.

### b. For cardioversion:

Oral anticoagulation is recommended for cardioversion of new-onset AF over 48 hours, but safety may be further improved by initiating pre-cardioversion anticoagulation at <24 hours.

### c. In patients with chronic kidney disease:

There is very little evidence on the effects of anticoagulation in patients with GFR <30 mL/min, or on renal replacement therapy, groups at high risk of both stroke and bleeding.

### d. After a bleed or stroke:

Even after major or intracranial bleeding, reinitiating anticoagulation may still have a net clinical benefit. Patients with a prior ischaemic stroke are at the highest risk of recurrent events.

## 5. Left atrial appendage (LAA) occlusion for stroke prevention

LAA occluders have yet to be tested against NOACs, or for the most common clinical indication, patients with absolute contraindication for oral anticoagulation.

## 6. Comparison of rate control agents

Rate control is almost universally used but there is very limited evidence comparing the effects of different agents.

## 7. Key questions on catheter ablation

Can rhythm control therapy convey a prognostic benefit in AF? How effective is ablation in persistent and long-standing persistent AF? What is the optimal technique for repeat catheter ablation?

## 8. Key questions on surgical AF ablation

What are the benefits and risks of thoracoscopic AF ablation? Does surgical LAA exclusion prevent strokes in AF? What lesion sets and energy sources should be used in concomitant AF surgery?

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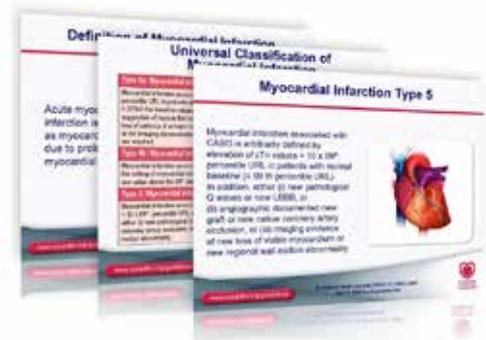
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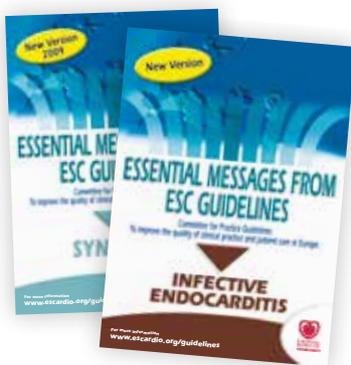
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The following material was adapted from the ESC 2016 Guidelines for the management of atrial fibrillation  
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