

Programme de cardiologie générale s'adressant à tous les cardiologues, urgentistes, médecins généralistes, diabétologues et chirurgiens vasculaires de la Réunion.



### Les recommandations ESC 2020 sur la prise en charge de la fibrillation atriale

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### 2020 ESC Guidelines for the diagnosis and management of atrial fibrillation developed in collaboration with the European Association of Cardio-Thoracic Surgery (EACTS)

The Task Force for the diagnosis and management of atrial fibrillation of the European Society of Cardiology (ESC)

Developed with the special contribution of the European Heart Rhythm Association (EHRA) of the ESC

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85

90

Age (years)

95

<b>Clinical Presentation</b>	AF-related OUTCOMES		
Asumatamatic ar	AF-Related Outcome	Frequency in AF	Mechanism(s)
Silent (!)	Death	1.5 - 3.5 fold increase	Excess mortality related to: • HF, comorbidities • Stroke
Symptomatic Palpitations, dyspnoea,	Stroke	20-30% of all ischaemic strokes, 10% of cryptogenic strokes	Cardioembolic, or     Related to comorbid     vascular atheroma

### Table 6 EHRA symptom scale

Score	Symptoms	Description
1	None	AF does not cause any symptoms
2a	Mild	Normal daily activity not affected by symptoms related to AF
2ь	Moderate	Normal daily activity not affected by symptoms related to AF, but patient troubled by symptoms
3	Severe	Normal daily activity affected by symptoms related to AF
4	Disabling	Normal daily activity discontinued

Cardiogenic shock			Drug side effects
↓ Haemodynamically stable   ←	Impaired quality of life	>60% of patients	<ul> <li>Related to AF burden, comorbidities, psychological functioning and medication</li> <li>Distressed personality type</li> </ul>
	Hospitalizations	10-40% annual hospitalization rate	AF management, related to HF, MI or AF related symptoms     Treatment-associated complications

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### FA : CC et ABC

CC

Stroke : risque AVCi

score CHA2DS2-VASc



ABC Traiter la FA : ABC С Comorbidités Bon contrôle et risque des symptômes Cardiovasculaire Comorbidités et **Evaluation des** prise en charge des symptômes, QdV et avis du patient facteurs de risque Cardiovasculaires **Optimisation du** Mode de vie contrôle de la FC (réduction de Envisager un l'obésité, exercice physique, réduction

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de l'alcool, etc.

### Confirm AF

### 3.2 Diagnostic criteria for atrial fibrillation

The diagnosis of AF requires rhythm documentation with an electrocardiogram (ECG) tracing showing AF. By convention, an episode lasting at least 30 s is diagnostic for clinical AF.<sup>6</sup>

### **Recommendations for diagnosis of AF**

Recommendations	Class <sup>a</sup>	Level <sup>b</sup>	
<ul> <li>ECG documentation is required to establish the diagnosis of AF.</li> <li>A standard 12-lead ECG recording or a single-lead ECG tracing of ≥30 s showing heart rhythm with no discernible repeating P waves and irregular RR intervals (when atrioventricular conduction is not impaired) is diagnostic of clinical AF.<sup>6</sup></li> </ul>	1	B	© ESC 2020

### Confirm AF



### AF SCREENING

#### RISKS

- Abnormal results may cause anxiety
- ECG misinterpretation results may lead to overdiagnosis and overtreatment
- ECG may detect other abnormalities (true or false positives) that may lead to invasive tests and treatments that have the potential for serious harm (e.g., angiography / revascularisation with bleeding, contrast-induced nephropathy and allergic reactions to the contrast)

BENEFITS	L
Prevention of:	L
Stroke/SE using OAC in patients at risk	L
Subsequent onset of symptoms	L
Prevention/reversal of:	L
Electrical/mechanical atrial remodelling	L
AF-related haemodynamic derangements	L
Atrial and ventricular tachycardia-induced cardiopmyopathy	L
Prevention/reduction of:	L
AF-related morbidity; hospitalization; mortality	L
Reduction of:	L
<ul> <li>The outcomes associated with conditions / diseases associated with AF that are discovered and treated as a consequence of the examinations prompted by AF detection</li> </ul>	

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Figure 7 Potential benefits from and risks of screening for AF. AF = atrial fibrillation; ECG = electrocardiogram; OAC = oral anticoagulant; SE = systemic embolism.



	Sensitivity	Specificity	
Pulse taking <sup>203</sup>	87 - 97%	70 - 81%	
Automated BP monitors <sup>204–207</sup>	93 - 100%	86 - 92%	
Single lead ECG <sup>208-211</sup>	94 - 98%	76 - 95%	Ucu
Smartphone apps <sup>188,189,191,195,212,213</sup>	91.5 - 98.5%	91.4 - 100%	000
Watches <sup>196,198,213,214</sup>	97 - 99%	83 - 94%	0





#### Fréquence cardiaque supérieure à 120 — • Moyenne de 147 BPM

Cet ECG n'a pas été utilisé pour rechercher une FA car votre fréquence cardiaque était supérieure à 120 BPM.

Si vous obtenez ce résultat à plusieurs reprises ou que vous ne vous sentez pas bien, consultez votre médecin.



#### Denis

Date de naissance : 27 nov. 1955 (63 ans)

# Fibrillation auriculaire — 🎔 Moyenne de 106 BPM Cet ECG présente des signes de FA. Si ce résultat vous surprend, consultez votre médecin.

25 mm/s, 10 mm/mV, Dérivation DI, 513 Hz, iOS 12.4, watchOS 5.3, Watch4,4 — La forme d'onde est similaire à un ECG à une dérivation (DI). Pour en savoir plus, consultez le mode d'emploi.

### AF screening

Recommendations for screening to detect AF				
Recommendation	Class <sup>a</sup>	Level <sup>b</sup>		
Opportunistic screening for AF by pulse taking or ECG rhythm strip is recommended in patients ≥65 years of age. <sup>188,211,223,225</sup>	1	в		
It is recommended to interrogate pacemakers and implantable cardioverter defibrillators on a regular basis for AHRE. <sup>c224,226</sup>	Т	в		
<ul> <li>When screening for AF it is recommended that:<sup>217,218</sup></li> <li>The individuals undergoing screening are informed about the significance and treatment implications of detecting AF.</li> <li>A structured referral platform is organized for screen-positive cases for further physician-led clinical evaluation to confirm the diagnosis of AF and provide optimal management of patients with confirmed AF.</li> <li>Definite diagnosis of AF in screen-positive cases is established only after physician reviews the single-lead ECG recording of ≥30 s or 12-lead ECG and confirms that it shows AF.</li> </ul>	I	в	ESC 2020	
Systematic ECG screening should be considered to detect AF in individuals aged ≥75 years, or those at high risk of stroke. <sup>212,224,227</sup>	lla	в	0	

### Classification

- Les définitions de FA paroxystique, persistante, persistante de longue durée, ou permanente restent identiques.
- Il est recommandé de ne plus utiliser les terminologies "FA isolée", "FA valvulaire" ou "FA non valvulaire", ou encore "FA chronique".

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. <sup>147</sup>
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 <sup>148</sup> and should not be used.
Chronic AF	Has variable definitions and should not be used to describe populations of AF patients.
AF = atrial fibrillation.	

### Caractériser la FA : les 4 S







### A - Anticoagulation/Avoid stroke





## Recommendations for the prevention of thromboembolic events in AF (1)



Recommendations	Class	Level
For stroke prevention in AF patients who are eligible for OAC, NOACs are recommended in preference to VKAs (excluding patients with mechanical heart valves or moderate-to-severe mitral stenosis).	I	Α
For stroke risk assessment, a risk-factor–based approach is recommended, using the $CHA_2DS_2$ -VASc clinical stroke risk score to initially identify patients at 'low stroke risk' ( $CHA_2DS_2$ -VASc score = 0 in men, or 1 in women) who should not be offered antithrombotic therapy.	I	Α
OAC is recommended for stroke prevention in AF patients with $CHA_2DS_2$ -VASc score $\geq 2$ in men or $\geq 3$ in women.	1	Α

## Recommendations for the prevention of thromboembolic events in AF (2)



Recommendations	Class	Level
OAC should be considered for stroke prevention in AF patients with a CHA <sub>2</sub> DS <sub>2</sub> -VASc score of 1 in men or 2 in women. Treatment should be individualized based on net clinical benefit and consideration of patient values and preferences.	lla	В
For bleeding risk assessment, a formal structured risk-score-based bleeding risk assessment 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 who should be scheduled for early and more frequent clinical review and follow-up.	I	В
For a formal risk-score–based assessment of bleeding risk, the HAS-BLED score should be considered to help address modifiable bleeding risk factors, and to identify patients at high risk of bleeding (HAS-BLED score ≥3) for early and more frequent clinical review and follow-up.	lla	В

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## Recommendations for the prevention of thromboembolic events in AF (4)



Recommendations	Class	Level
<ul> <li>In patients on VKAs with low time in INR therapeutic range (e.g. TTR &lt;70%), recommended options are:</li> <li>Switching to a NOAC but ensuring good adherence and persistence with therapy; or</li> </ul>	I	В
<ul> <li>Efforts to improve TTR (e.g. education/counselling and more frequent INR checks).</li> </ul>	lla	В
Antiplatelet therapy alone (monotherapy or aspirin in combination with clopidogrel) is not recommended for stroke prevention in AF.	ш	Α
Estimated bleeding risk, in the absence of absolute contraindications to OAC, should not in itself guide treatment decisions to use OAC for stroke prevention.	ш	Α
Clinical pattern of AF (i.e. first detected, paroxysmal, persistent, long-standing persistent, permanent) should not condition the indication to thromboprophylaxis.	ш	В

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## Recommendations for the prevention of thromboembolic events in AF (5)



Recommendations for occlusion or exclusion of the LAA	Class	Level
LAA occlusion may be considered for stroke prevention in patients with AF and contraindications for long-term anticoagulant treatment (e.g. intracranial bleeding without a reversible cause).	llb	В
Surgical occlusion or exclusion of the LAA may be considered for stroke prevention in patients with AF undergoing cardiac surgery.	llb	С

### **Subclinical AF and AHRE**



#### THE RISK OF STROKE (re-assess regularly)

**Clinical AF** 



### Figure 17 Indications for catheter ablation of symptomatic AF



<sup>a</sup>Sgnificantly enlarged LA volume, advanced age, long AF duration, renal dysfunction, and other cardiovascular risk factors. <sup>b</sup>In rare individual circumstances, catheter ablation may be carefully considered as first-line therapy. <sup>c</sup>Recommended to reverse LV dysfunction when tachycardiomyopathy is highly probable.<sup>d</sup>To improve survival and reduce hospitalization.

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# Recommendations for rhythm control/catheter ablation of AF (2)



Recommendations	Class	Level
AF catheter ablation after failure of drug therapy		
AF catheter ablation for PVI is recommended for rhythm control after one failed or intolerant class I or III AAD, to improve symptoms of AF recurrences in patients with		
<ul> <li>Paroxysmal AF, or</li> </ul>	1	Α
<ul> <li>Persistent AF without major risk factors for AF recurrence, or</li> </ul>		Α
<ul> <li>Persistent AF with major risk factors for AF recurrence</li> </ul>		В
AF catheter ablation for PVI should be considered for rhythm control after one failed or intolerant to beta-blocker treatment to improve symptoms of AF recurrences in patients with paroxysmal and persistent AF.	lla	В

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# Recommendations for rhythm control/catheter ablation of AF (3)



Recommendations	Class	Level
First-line therapy		
AF catheter ablation for PVI should/may be considered as first-line rhythm control therapy to improve symptoms in selected patients with symptomatic:		
<ul> <li>Paroxysmal AF episodes, or</li> </ul>	lla	В
<ul> <li>Persistent AF without major risk factors for AF recurrence.</li> </ul>	llb	С
as an alternative to AAD class I or III, considering patient choice, benefit, and risk.		

# Recommendations for rhythm control/catheter ablation of AF (4)



Recommendations	Class	Level	
First-line therapy (continued)			
AF catheter ablation:			
<ul> <li>Is recommended to reverse LV dysfunction in AF patients when tachycardia-induced cardiomyopathy is highly probable, independent of their symptom status.</li> </ul>	I	В	
<ul> <li>Should be considered in selected AF patients with HF with reduced LVEF to improve survival and reduce HF hospitalization.</li> </ul>	lla	В	
AF catheter ablation for PVI should be considered as a strategy to avoid pacemaker implantation in patients with AF-related bradycardia or symptomatic pre-automaticity pause after AF conversion considering the clinical situation.	lla	С	

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# Recommendations for rhythm control/catheter ablation of AF (5)



Recommendations	Class	Level
Techniques and technologies		
Complete electrical isolation of the pulmonary veins is recommended during all AF catheter-ablation procedures.	1	А
If patient has history of CTI-dependent AFL or if typical AFL is induced at the time of AF ablation, delivery of a CTI lesion may be considered.	llb	В
Use of additional ablation lesions beyond PVI (low voltage areas, lines, fragmented activity, ectopic foci, rotors, and others) may be considered but is not well established.	llb	В

# Recommendations for rhythm control/catheter ablation of AF (6)



Recommendations	Class	Level
Lifestyle modification and other strategies to improve outcomes of ablation		
Weight loss is recommended in obese patients with AF, particularly those who are being evaluated to undergo AF ablation.	Т	В
Strict control of risk factors and avoidance of triggers are recommended as part of a rhythm control strategy.	Т	В





Figure 18 Contribution of AF risk factors to the development of an abnormal substrate translating into poorer outcomes with rhythm control strategies

Several AF risk factors may contribute to the development of LA substrates and thus affect the outcome of AF catheter ablation, predisposing to a higher recurrence rate. Aggressive control of modifiable risk factors may reduce recurrence rate

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# **Recommendations for stroke risk management peri catheter ablation (1)**



Recommendations	Class	Level
In AF patients with stroke risk factors not taking OAC before ablation, it is recommended that preprocedural management of stroke risk includes initiation of anticoagulation and: • Preferably, therapeutic OAC for at least 3 weeks before ablation, or	I	С
<ul> <li>Alternatively, the use of TOE to exclude LA thrombus before ablation.</li> </ul>	lla	С
For patients undergoing AF catheter ablation who have been therapeutically anticoagulated with warfarin, dabigatran, rivaroxaban, apixaban, or edoxaban, performance of the ablation procedure without OAC interruption is recommended.	I	A

## **Recommendations for stroke risk management peri catheter ablation (2)**



Recommendations	Class	Level
<ul> <li>After AF catheter ablation, it is recommended that:</li> <li>Systemic anticoagulation with warfarin or a NOAC is continued for at least 2 months post ablation, and</li> <li>Long-term continuation of systemic anticoagulation beyond 2 months post ablation is based on the patient's stroke risk profile and not on the</li> </ul>	I	С
apparent success or failure of the ablation procedure.		





#### Aggressive Risk Factor Management

Weight Management and Exercise



Smoking Cessation & Alcohol Abstinence (or reduction to 30g per week)

Components of risk factor modification in ARREST-AF and LEGACY studies

#### Lau DH. Circulation. 2017;136:583–596.

#### Impact of Body Mass Index on the Outcomes of Catheter Ablation of Atrial Fibrillation: A European Observational Multicenter Study

Rui Providência, MD, PhD; Pedro Adragão, MD, PhD; Carlo de Asmundis, MD, PhD; Julian Chun, MD; Gianbattista Chierchia, MD, PhD; Pascal Defaye, MD; Frédéric Anselme, MD, PhD; Antonio Creta, MD; Pier D. Lambiase, PhD; Boris Schmidt, MD; Shaojie Chen, MD; Diogo Cavaco, MD; Ross J. Hunter, MD; João Carmo, MD; Stephane Combes, MD; Shohreh Honarbakhsh, BSc; Nicolas Combes, MD; Maria João Sousa, MD; Zeynab Jebberi, MD; Jean-Paul Albenque, MD; Serge Boveda, MD, PhD

100 80-Freedom from AF/AT relapse (%) 60-40-20-0-12 24 36 48 60 Follow-up Duration (Months)

	0M	12M	24M	36M	48M	60M
<b></b> <25Kg/m <sup>2</sup>	711	437	216	91	52	16
<b></b> 25-30Kg/m <sup>2</sup>	1,092	606	289	151	82	30
30-35Kg/m²	508	268	113	48	27	9
<b></b> ≥35Kg/m²	186	79	24	8	5	1

Freedom from atrial arrhythmia relapse stratified by BMI class for all patients

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### FA : CC et ABC

CC

Stroke : risque AVCi

score CHA2DS2-VASc



ABC Traiter la FA : ABC С Comorbidités Bon contrôle et risque des symptômes Cardiovasculaire Comorbidités et **Evaluation des** prise en charge des symptômes, QdV et avis du patient facteurs de risque Cardiovasculaires **Optimisation du** Mode de vie contrôle de la FC (réduction de Envisager un l'obésité, exercice physique, réduction

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