

2020 ESC Guidelines for the Diagnosis and Management of **Atrial Fibrillation**


Highlights


Prevalence of **Atrial Fibrillation**


The currently estimated prevalence of AF in adults is between **2% and 4%**, and a 2.3-fold rise is expected¹

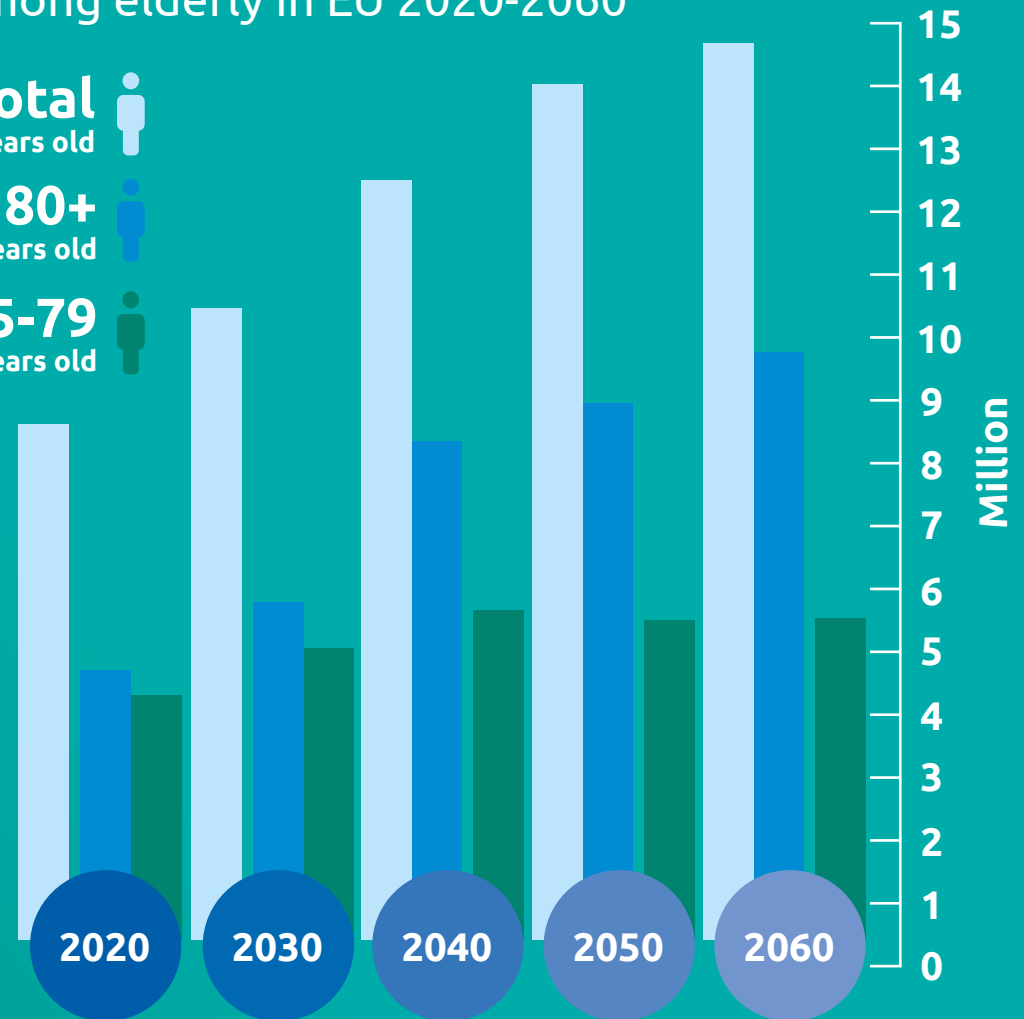
Projected increase in AF prevalence among elderly in EU 2020-2060¹



Total 
65+ Years old

80+ 
Years old

65-79 
Years old



Atrial Fibrillation-Related Outcomes¹

AF-Related Outcomes

Frequency in AF¹

AF-Related Outcomes

Death



1.5-3.5 fold increase

Depression
in 16-20%
(even suicidal
ideation)



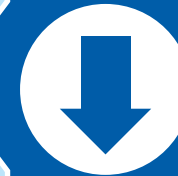
Depression

Stroke



20-30% of
all ischaemic strokes,
10% cryptogenic
strokes

>60% of patients



Impaired
Quality of Life
(QoL)

Left Ventricle
Dysfunction/
Heart Failure



In 20-30% of
AF patients

10-40% annual
hospitalization rate



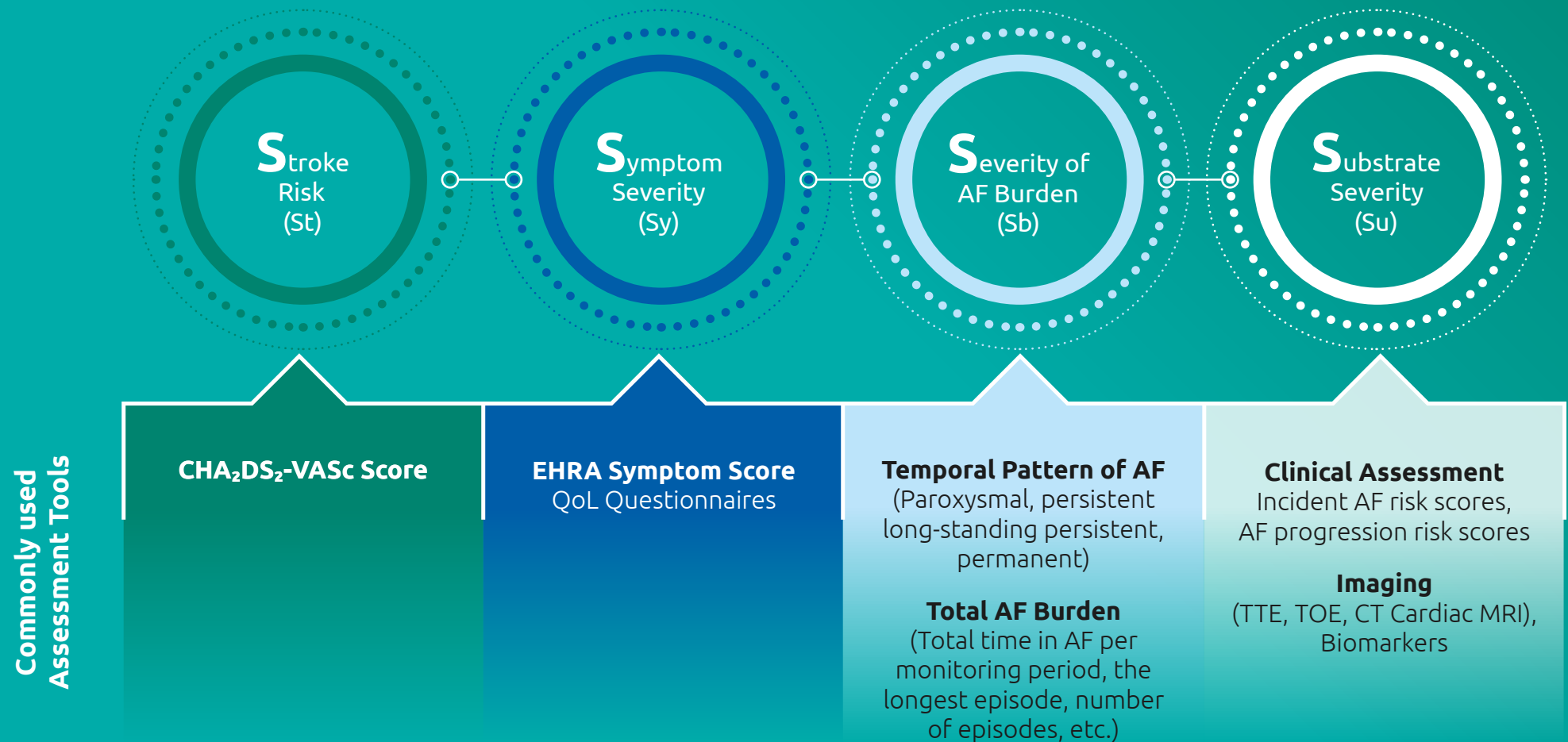
Hospitalizations

Cognitive
Decline/
Vascular
Dementia



Hazard Ratio
1.4/1.6 (irrespective
of stroke history)

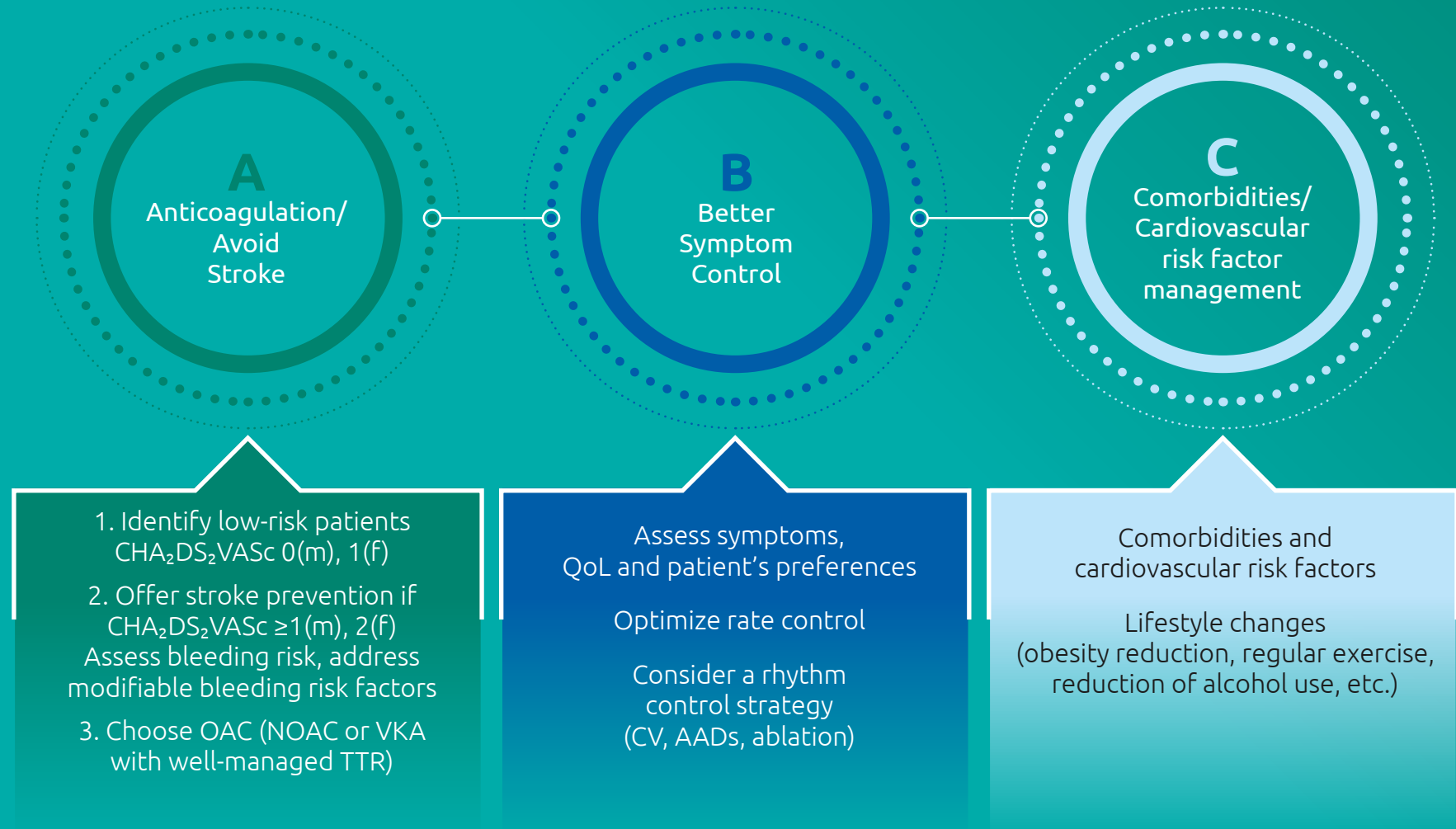
Paradigm Shift from AF Classification to a structured characterization of AF using the 4-S Scheme¹



ABC Pathway: Atrial Fibrillation Better Care

Structured management of AF patients to **improve outcomes**¹

Treat AF: The ABC Pathway

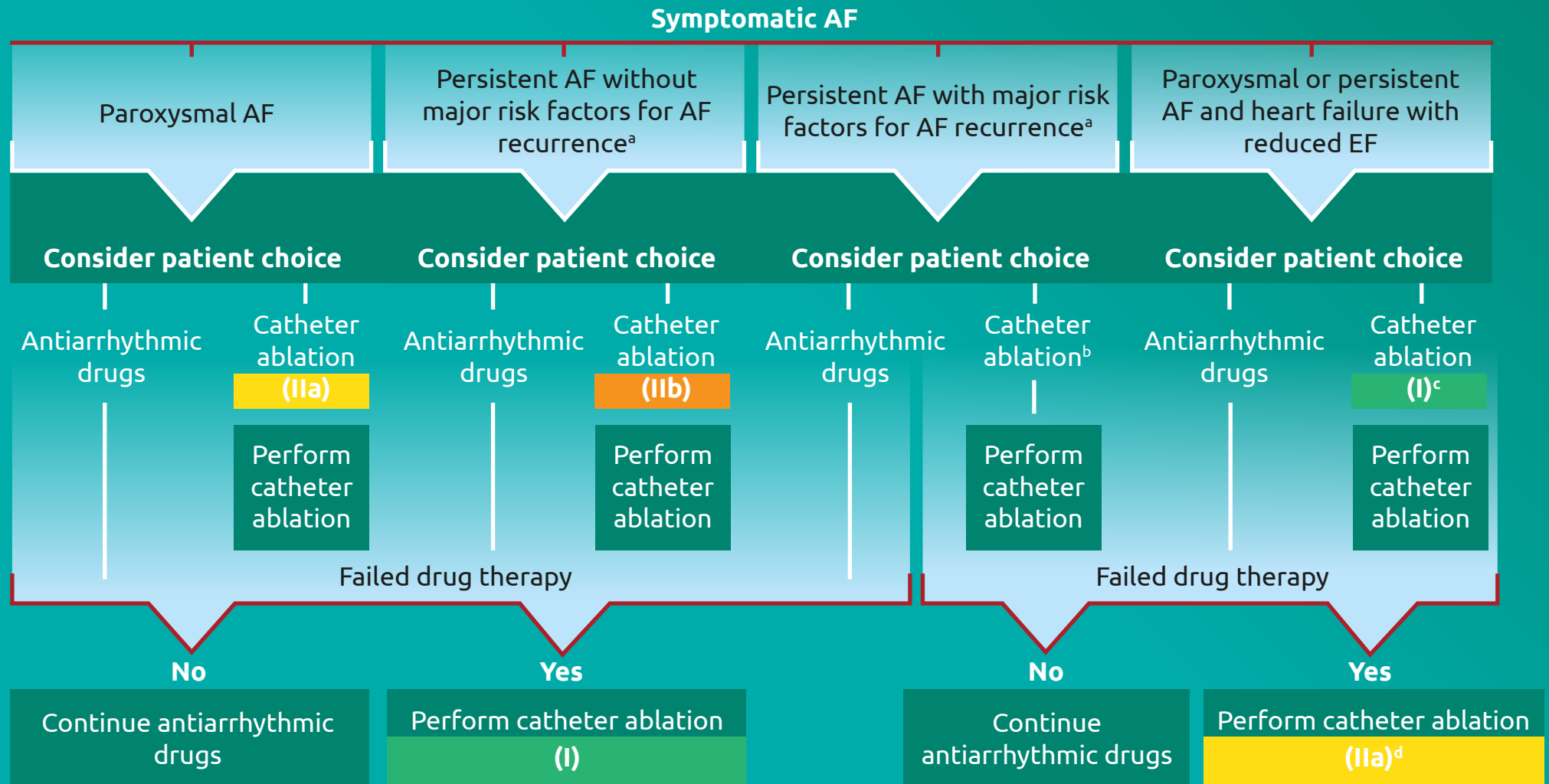


ESC Levels of evidence & classes of recommendations¹

Level of evidence A	Data derived from multiple randomized clinical trials or meta-analyses.
Level of evidence B	Data derived from a single randomized clinical trial or large non-randomized studies.
Level of evidence C	Consensus of opinion of the experts and/or small studies, retrospective studies, registries.

Definition		Wording to use
Class I	Evidence and/or general agreement that a given treatment or procedure is beneficial, useful, effective.	Is recommended or is indicated
Class II	Conflicting evidence and/or a divergence of opinion about the usefulness/efficacy of the given treatment or procedure.	
Class IIa	Weight of evidence/opinion is in favour of usefulness/efficacy.	Should be considered
Class IIb	Usefulness/efficacy is less well established by evidence/opinion.	May be considered
Class III	Evidence or general agreement that the given treatment or procedure is not useful/effective, and in some cases may be harmful.	Is not recommended

Indications of AF Catheter Ablation is effective in maintaining Sinus Rhythm & improving symptoms in patients with AF¹



Key Guidelines Updates - AF Ablation¹

2016	Class	Level	2020	Class	Level
AF catheter ablation after drug therapy failure					
Catheter or surgical ablation should be considered in patients with symptomatic persistent or long-standing persistent AF refractory to AAD therapy to improve symptoms, considering patient choice, benefit and risk, supported by an AF Heart Team	IIa	C	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 paroxysmal AF or persistent AF without major risk factors for AF recurrence .	I	A
			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 persistent AF with major risk factors for AF recurrence .	I	B
First-line therapy					
Catheter ablation of AF should be considered as first-line therapy to prevent recurrent AF and to improve symptoms in selected patients with symptomatic paroxysmal AF as an alternative to antiarrhythmic drug therapy, considering patient choice, benefit, and risk.	IIa	B	AF catheter ablation for PVI should be considered as first-line rhythm control therapy to improve symptoms in selected patients with symptomatic paroxysmal AF episodes as an alternative to AAD class I or III, considering patient choice, benefit, and risk.	IIa	B
			AF catheter ablation for PVI may be considered as first-line rhythm control therapy to improve symptoms in selected patients with symptomatic persistent AF without major risk factors for AF recurrence as an alternative to AAD class I or III, considering patient choice, benefit, and risk.	IIb	C
AF ablation should be considered in symptomatic patients with AF and HFrEF to improve symptoms and cardiac function when tachycardiomyopathy is suspected.	IIa	C	AF catheter ablation for PVI may be considered as first-line rhythm control therapy to improve symptoms in selected patients with symptomatic persistent AF without major risk factors for AF recurrence as an alternative to AAD class I or III, considering patient choice, benefit, and risk.	I	B
			AF catheter ablation: <ul style="list-style-type: none"> • Is recommended to reverse LV dysfunction in AF patients when tachycardia-induced cardiomyopathy is highly probable, independent of their symptom status. • Should be considered in selected AF patients with HF with reduced LVEF to improve survival and reduce HF hospitalization 	IIa	B
Techniques and technologies					
Catheter ablation should target isolation of the pulmonary veins using radiofrequency ablation or cryotherapy balloon catheters.	IIa	B	AF catheter ablation for PVI should be considered as first-line rhythm control therapy to improve symptoms in selected patients with symptomatic Paroxysmal AF episodes as an alternative to AAD class I or III, considering patient choice, benefit, and risk.	I	A

AF Catheter Ablation

Extracts from the 2020 Guidelines on AF¹

10.2.2.3 Atrial fibrillation catheter ablation

*“AF catheter ablation is a **well-established** treatment for the prevention of AF recurrences. When performed by appropriately trained operators, AF catheter ablation is a safe and superior alternative to AADs for maintenance of sinus rhythm and symptom improvement.”*

10.2.2.3.1 Indications

“Differentiation of persistent and long-standing persistent AF was omitted because the latter only expresses the duration of persistent AF above an arbitrary and artificial cut-off at 12 months’ duration. The significance of such a cut-off as a single measure has never been substantially proven.”

“...ablation should be considered in patients with HFrEF [heart failure with reduced ejection fraction] who have been selected for rhythm control treatment to improve QoL and LV function, and to reduce HF [heart failure] hospitalization and, potentially, mortality.”

After the 2020 ESC Guidelines on AF were developed, the Cryo-FIRST, EARLY AF and STOP AF First trials demonstrated that first-line cryoablation can reduce atrial arrhythmia recurrence more effectively than AAD therapy in drug treatment naïve patients with symptomatic paroxysmal AF. Both therapy approaches had similar safety profile.²⁻⁴ **Learn more at: www.medtronic.eu/cryoablation.**

References

1. Hindricks, G., et al. 2020 ESC Guidelines for the diagnosis and management of atrial fibrillation developed in collaboration with the European Association of Cardio-Thoracic Surgery (EACTS). European Heart Journal. 2020. 00, 1-126.
2. Kuniss et al. Catheter Cryoablation Versus Antiarrhythmic Drug as First-Line Therapy of Paroxysmal Atrial Fibrillation (Cryo-FIRST). Presented at the German Cardiac Society conference DGK 2020.
3. Wazni, O., et al. Safety and Efficacy of cryoballoon catheter ablation as a first line treatment for patients with paroxysmal atrial fibrillation: primary results of the randomized STOP AF First study. New England Journal of Medicine. 2020.
4. Andrade, J. et al. Cryoablation or Drug Therapy for Initial Treatment of Atrial Fibrillation. New England Journal of Medicine. 2020.

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