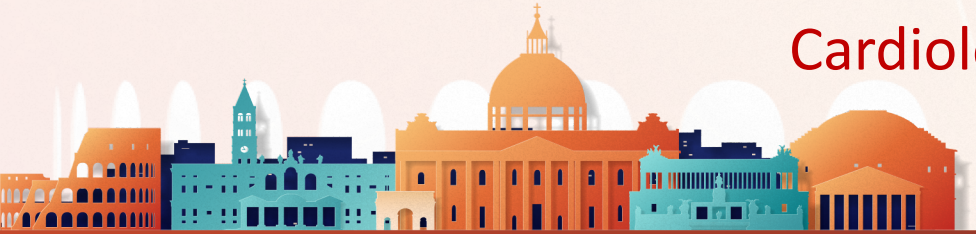
PLACE 2026
PLATFORM OF LABORATORIES FOR ADVANCES IN CARDIAC EXPERIENCE

CONGRESSO
ROMA, 25 - 27 Giugno 2026

ICTUS, PFO, FIBRILLAZIONE ATRIALE E DINTORNI

Fibrillazione Atriale nei giovani

patogenesi ed implicazioni cliniche



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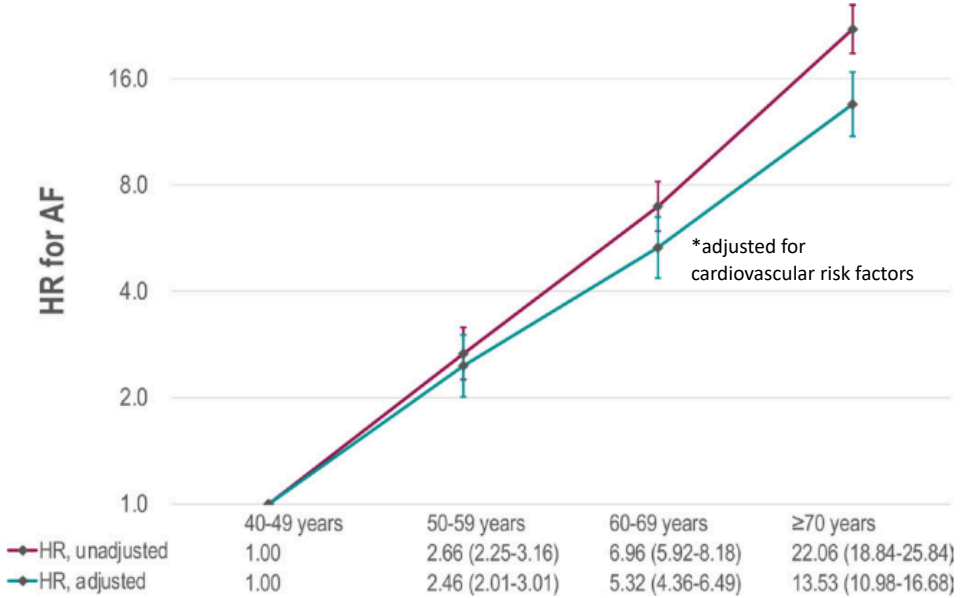
Risk of AF by age groups



early-onset AF → cutoff of 45 years

<30 year olds
Incidence rates 0.002% - 0.02%
Prevalence rates 0.002% - 0.05%

30-40 year olds
incidence 0.01% - 0.04%
prevalence 0.04% - 0.08%

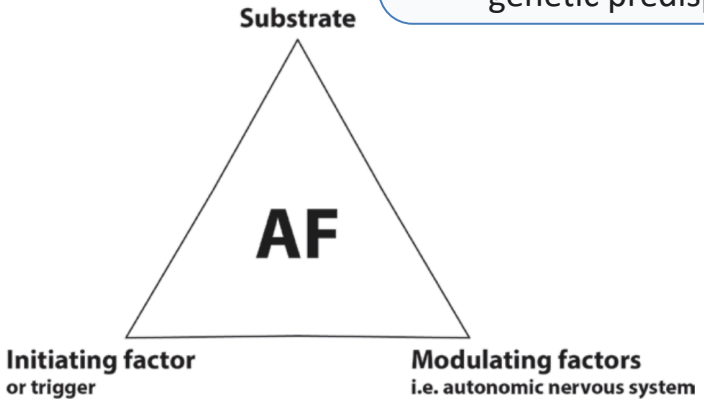
40-50 year olds
incidence 0.05% - 0.07%
prevalence of 0.3% - 0.4%

Morseth B, et al. MORGAM Consortium. Open Heart. 2021;8:e001624.

Joglar JA et al. 2023 ACC/AHA/ACCP/HRS guideline AF. J Am Coll Cardiol.
Li, H., et al. *BMC public health*, *22*(1), 2015.

Triangle of Coumel

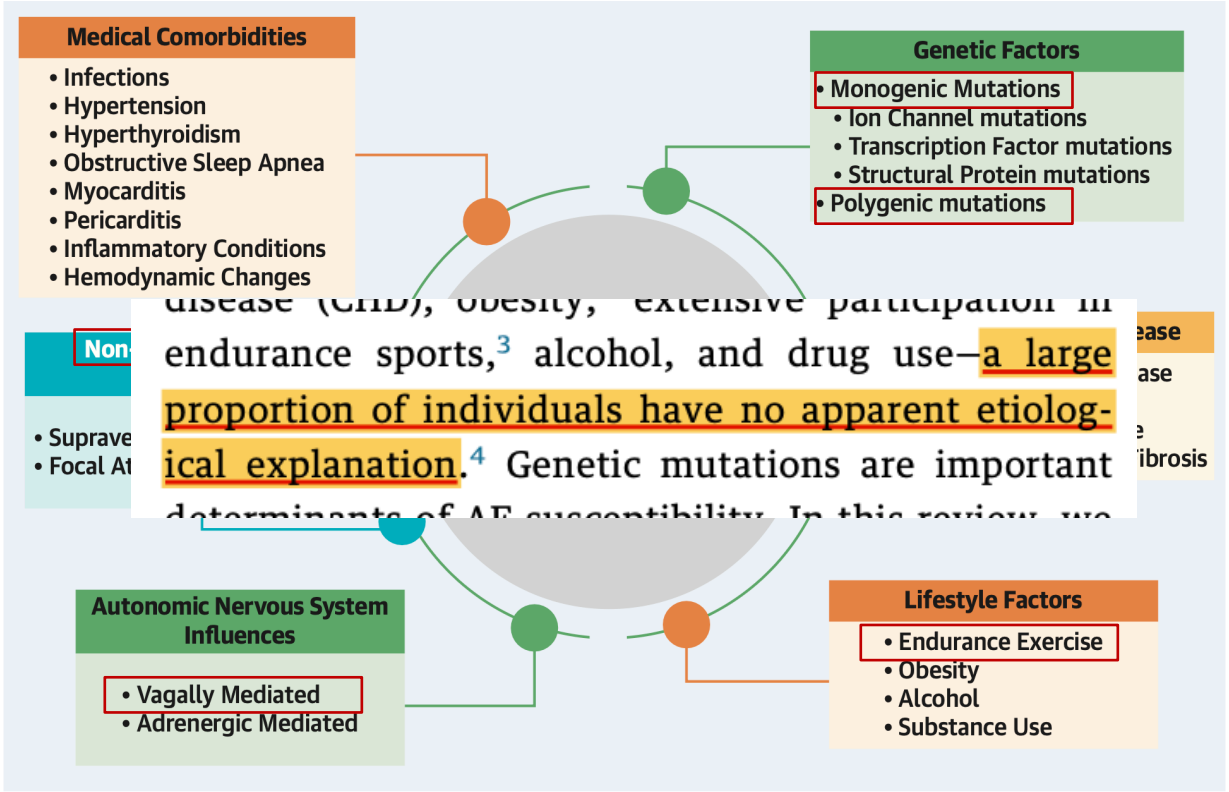
early-onset cardiomyopathies
atrial myopathy
channel disorders
genetic predisposition



Non-pulmonary
vein triggers

Autonomic nervous system
Lifestyle factors

Coumel P. (1987), *heart journal*, *8*(2), 92–



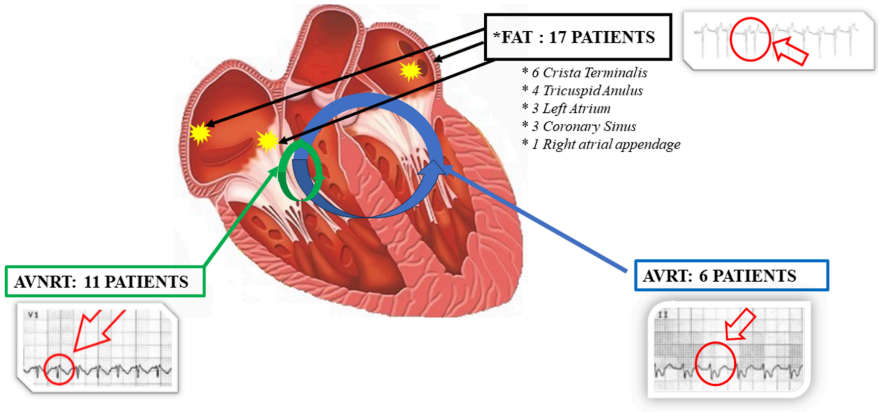
D'Elia NW, et al. JACC Clin Electrophysiol. 2025;11(5):1051-1066.

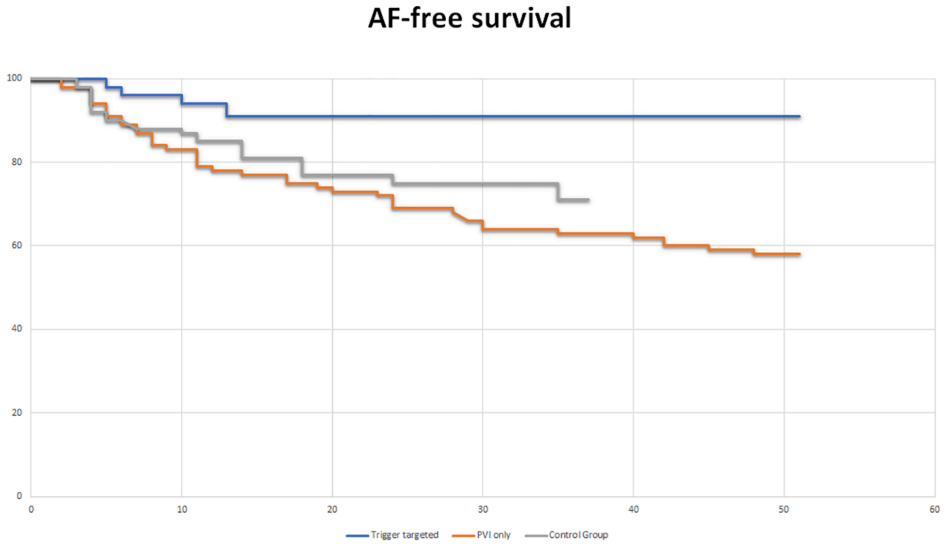
SVT trigger for AF

Prevalence <30 years was approximately 24%

Children with lone AF demonstrated a prevalence of SVT of 39%

Ceresnak SR, et al. J Pediatr. 2013;162:827–831
Yalin K, et al. Am J Cardiol. 2022;166:53–57.



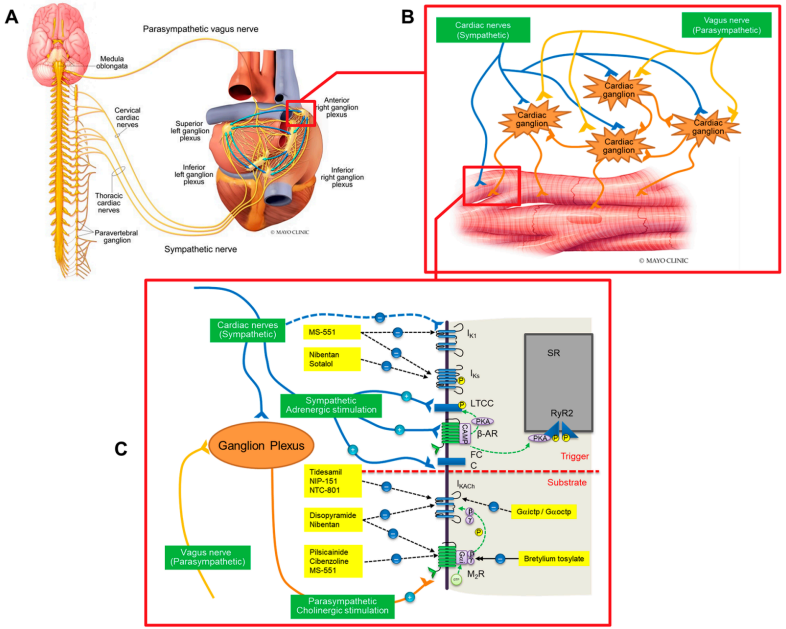


249 pazienti (54 ± 14 anni) → ablazione per FA

19% SVT indotta durante SEF (42 ± 11 anni)

Palamà Z., et al. 2023. *Frontiers*, *10*, 1115328.

Vagal-mediated AF



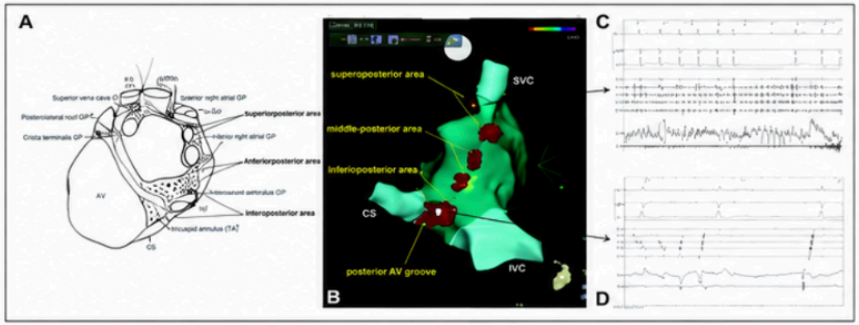
Vagal-mediated AF
More common in middle-age men and athletes
Patients with structurally normal heart or without any identifiable heart disease
Occurs with vagal stimulus such as sleep, alcohol consumption, postprandial or post-exercise
Presence mainly during the night
Preceded by bradycardia
Lower ventricular response rate
Worsen by beta-blocker
Less likely to progress to permanent AF

Rattanawong, P., et al. 2020. *Journal of atrial fibrillation*, *13*(1), 2410.

Calò et al.

34 randomized pts

Selective vs anatomic right atrial GP ablation

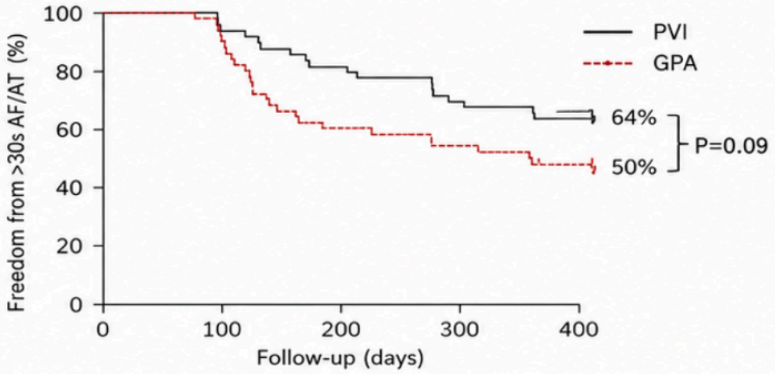


~70% efficacy
follow-up 19.7 months

GANGLIA-AF

102 randomized pts

GP ablation alone vs PVI



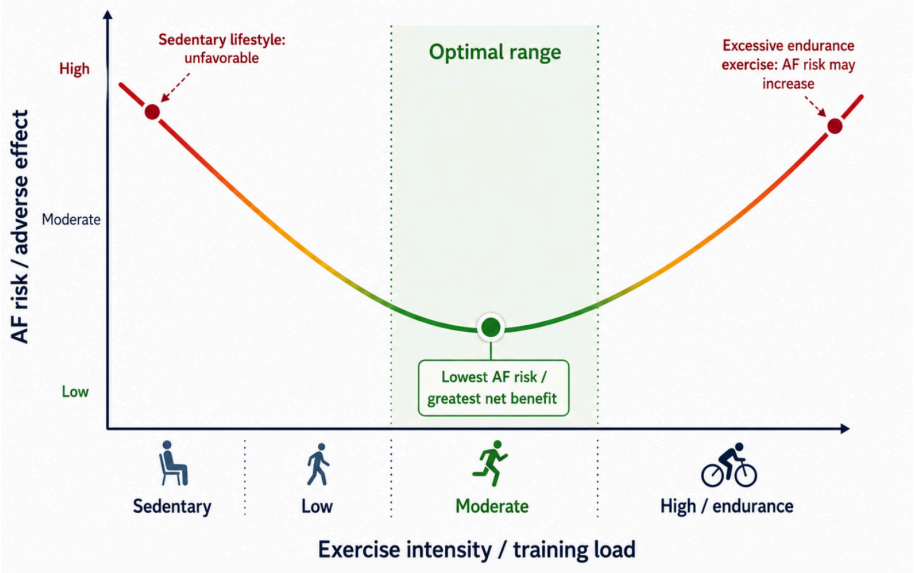
Freedom from atrial arrhythmia:
50% after GP ablation vs **64%** after PVI P=0.09

Calò et al. *Circ Arrhythm Electrophysiol* 2012;

Kim et al. *Heart Rhythm* 2022.

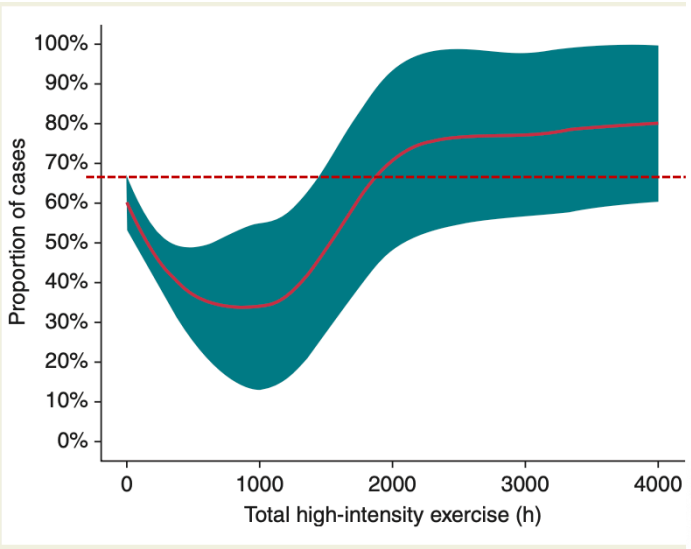
Exercise-induced AF

U-shaped curve



Modified from Calvo et al. Europace 2016

AF according to accumulated high-intensity physical exercise



Aizer et al. Am J Cardiol 2009

Exercise-induced AF

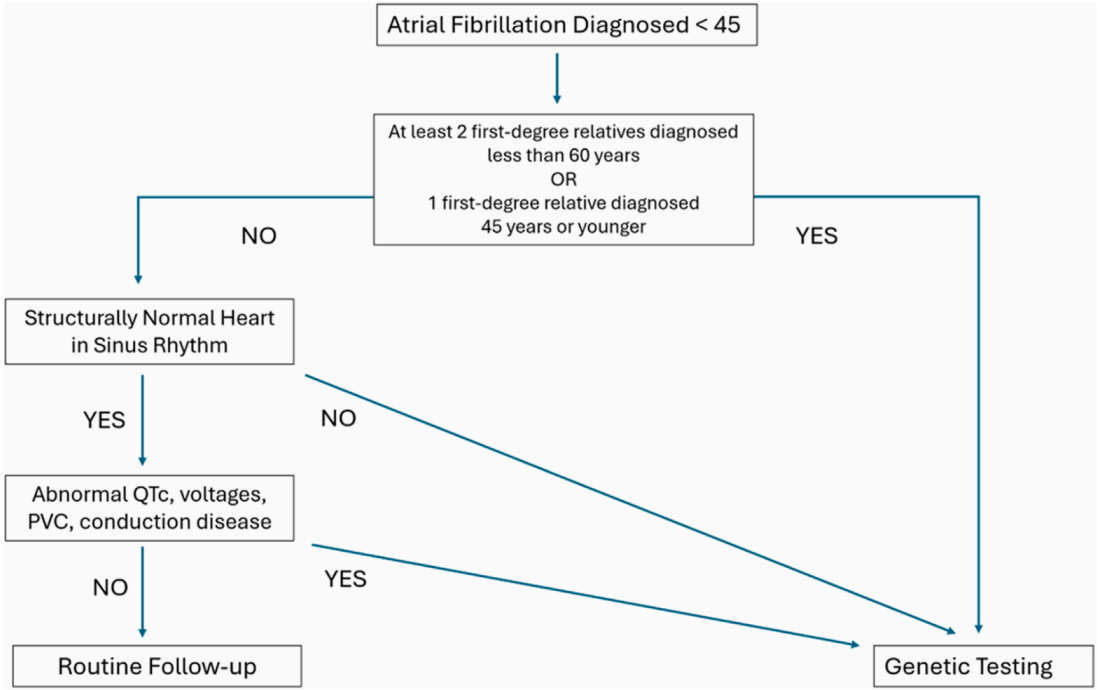
- Drugs may be limited by bradycardia or reduced performance

- In symptomatic athletes, early catheter ablation as first-line

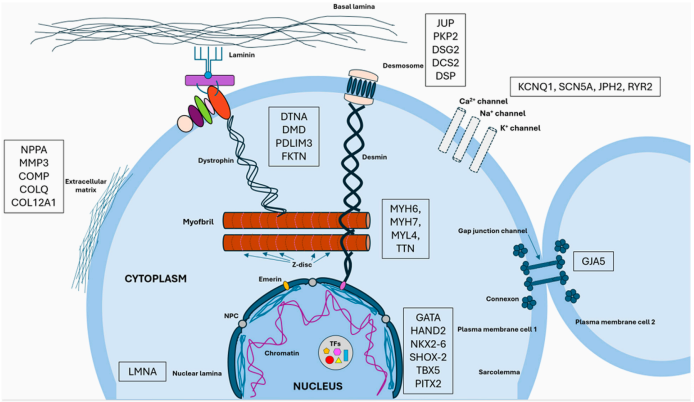
- If no documented SVT trigger: PVI-only approach is recommended

Lampert R, et al. *Heart Rhythm.* 2024;21:e151–e247

Monogenic Atrial Fibrillation – Genetic test



Patients <30 yrs have an 20% risk of a monogenic AF



D Elia MW, et al. JACC Clin Electrophysiol. 2025;11(5):1051-1066.

Laws JL, et al. Eur Heart J. 2026

NICE-yAF: Early Atrial Fibrillation in Young Patients

**sottostudio del progetto NICE-AF (NCT04320134)*

Anticoagulations

Table 10 **Updated definitions for the CHA_2DS_2-VA score**

CHA_2DS_2-VA component		Definition and comments	Points awarded[a]
C	Chronic heart failure	Symptoms and signs of heart failure (irrespective of LVEF, thus including HFpEF, HFmrEF, and HFrEF), or the presence of asymptomatic LVEF ≤40%.[261–263]	1
H	Hypertension	Resting blood pressure >140/90 mmHg on at least two occasions, or current antihypertensive treatment. The optimal BP target associated with lowest risk of major cardiovascular events is	1
		revascularization (surgical or percutaneous), and significant CAD on angiography or cardiac imaging.[267] OR Peripheral vascular disease, including: intermittent claudication, previous revascularization for PVD, percutaneous or surgical intervention on the abdominal aorta, and complex aortic plaque on imaging (defined as features of mobility, ulceration, pedunculation, or thickness ≥4 mm).[268,269]	
A	Age 65–74 years	1 point is given for age between 65 and 74 years.	1

A CHA_2DS_2-VA score of 1 should be considered an indicator of elevated thromboembolic risk for decisions on initiating oral anticoagulation.

IIa **C**

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AFNOR study

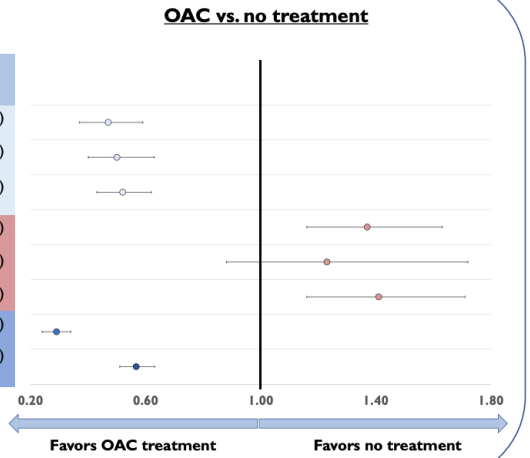
1 093 754 pts non-AF cohort

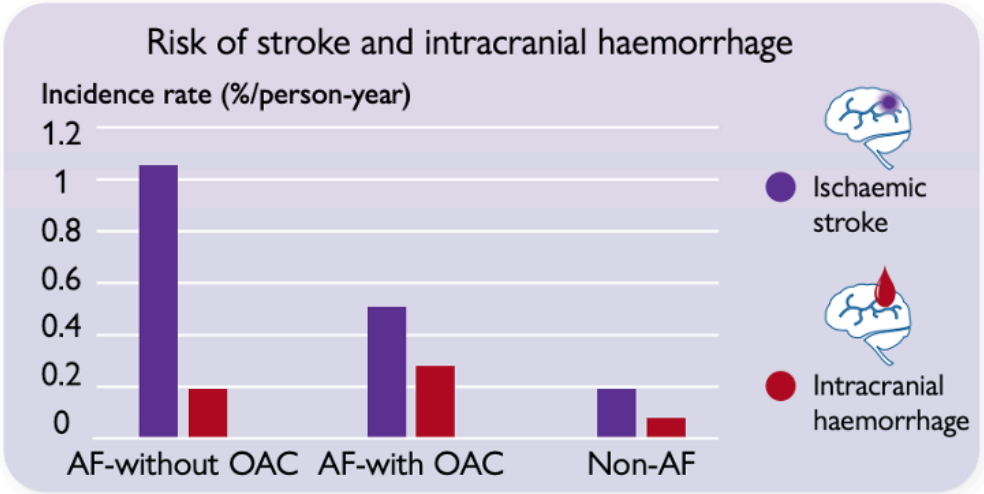
34 460 pts AF cohort

18-64 yrs -> 51%

CHA_2DS_2-VA = 1

AF patients, *without* OAC (reference group)	HR (95% CI)
Ischemic stroke	0.47 (0.37-0.59)
Ischemic stroke, systemic embolism	0.50 (0.40-0.63)
Ischemic stroke, TIA, systemic embolism	0.52 (0.43-0.62)
Major bleeding	1.37 (1.16-1.63)
Intracranial haemorrhage	1.23 (0.88-1.72)
GI bleeding	1.41 (1.16-1.71)
All cause mortality	0.29 (0.24-0.34)
Ischemic stroke, major bleeding & death	0.57 (0.51-0.63)

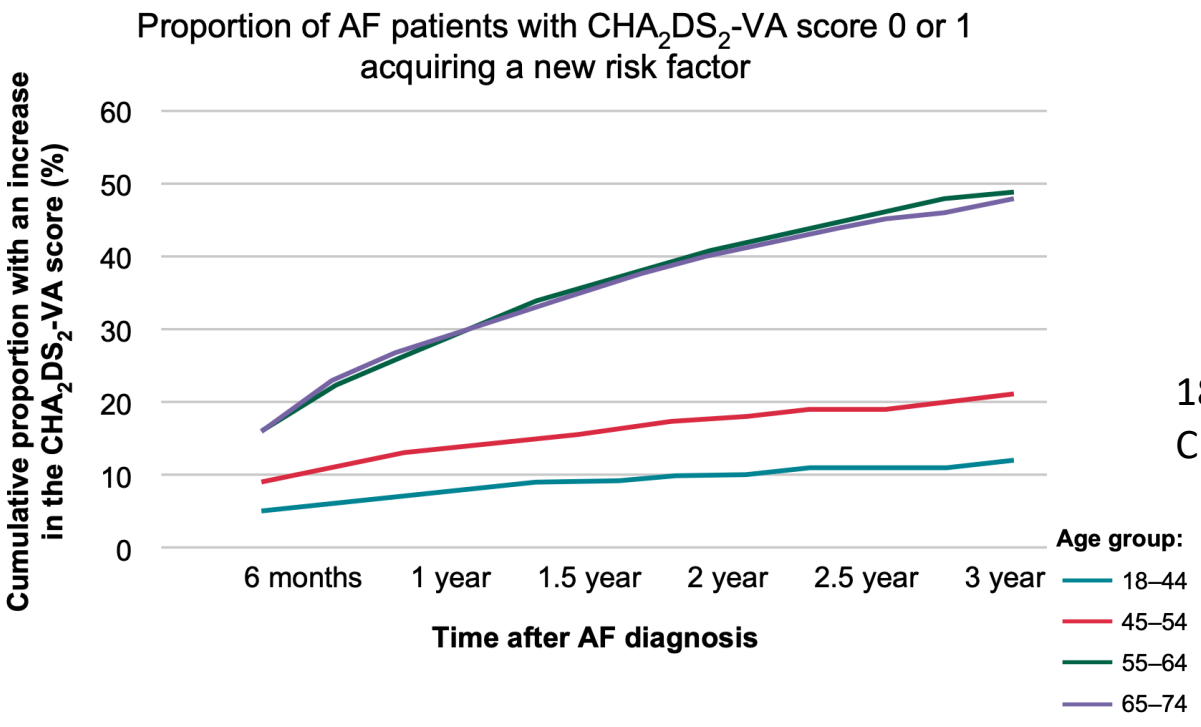


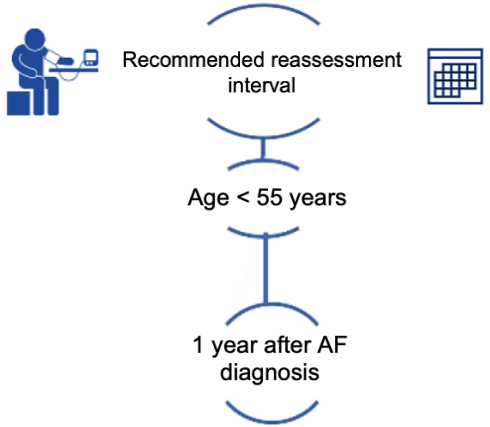


Oral anticoagulant treatment demonstrated overall favourable clinical outcomes in AF patients

Anjum M, et al. Eur Heart J. 2024;45:57–66.

Dynamic reassessment in AF and CHA_2DS_2-VA score 0 or 1





18-44 years, 8% acquired a new CHA_2DS_2-VA risk factor at 1 year

Anjum M, et al. Europace. 2025;27:euaf145.

Take-Home Messages

Identifying the underlying mechanism of early-onset AF may reveal the true therapeutic target

Distinguishing ‘truly isolated’ AF from early cardiac disease remains a major clinical challenge

AF may represent the first manifestation of an underlying cardiomyopathy or inherited arrhythmic disorder

Personalized risk stratification integrating clinical assessment, imaging, and genetics is likely to become increasingly important