

# ELECTRA

5-6 DÉCEMBRE 2024

HOTEL VILLA MASSALIA,  
MARSEILLE | FRANCE

18<sup>èmes</sup> journées françaises  
pratiques de rythmologie  
& de stimulation cardiaque

COMITÉ  
D'ORGANISATION

Frédéric FOSSATI, Lille  
Maxime GUENOUN, Marseille  
Arnaud LAZARUS, Paris  
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***Session : La FA asymptomatique en 2024***

# FA asymptomatique : Faut-il anticoaguler?

Eloi Marijon

Hôpital Européen Georges Pompidou

**ELECTRA, 05/12/2024, Marseille**



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# **FA asymptomatique : Faut-il anticoaguler?**

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# Definitions

Clinical concept	Definition	Device-detected subclinical AF	
Clinical AF	<p><u>FA</u> (asymptomatique ou symptomatique), documentée par au moins <u>1 dérivation ECG</u>, (quelle qu'elle soit...), <u>validée</u> par un médecin, <i>Le cut-off de 30 secondes reste « traditionnel »...</i></p>		<p><u>FA asymptomatique</u>, documentée par un appareil permettant d'avoir un <u>monitoring continu</u>...</p>



# Device-detected AF — Should We Anticoagulate?

## ASSERT Study

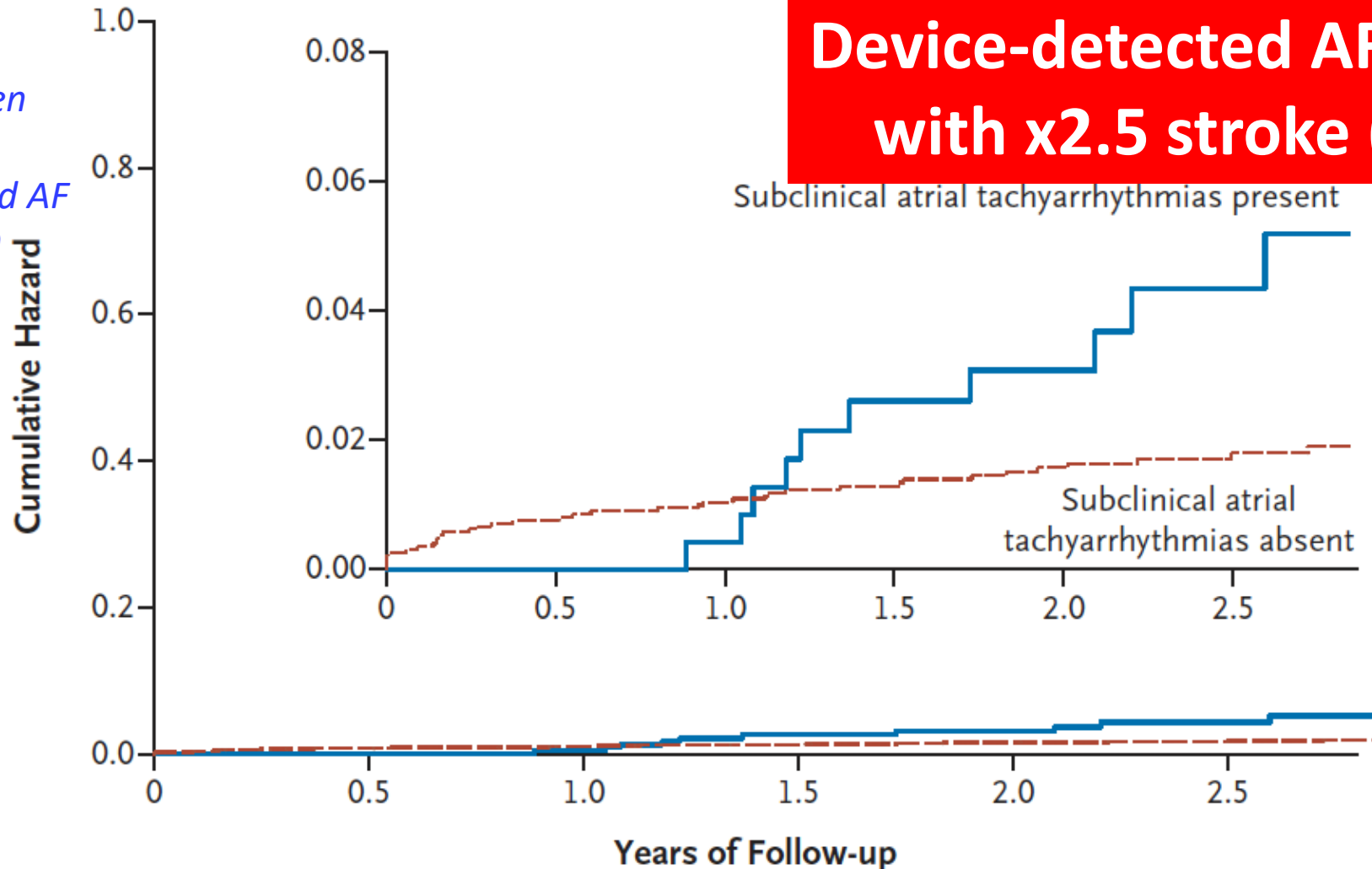
2580 Pts (>65yo + HBP)

w/o Hx AF

PM/ICD (looking at AHRE 3 months, then 2.5 y of FU)

35% device-detected AF

Anticoagulation = 0



**Device-detected AF associated with x2.5 stroke (P=0.007)**

Subclinical atrial tachyarrhythmias present

Subclinical atrial tachyarrhythmias absent



## STROKESTOP Study

28,768 subjects (75yo)

Invited for AF screening

30s ECG twice daily – 2 weeks

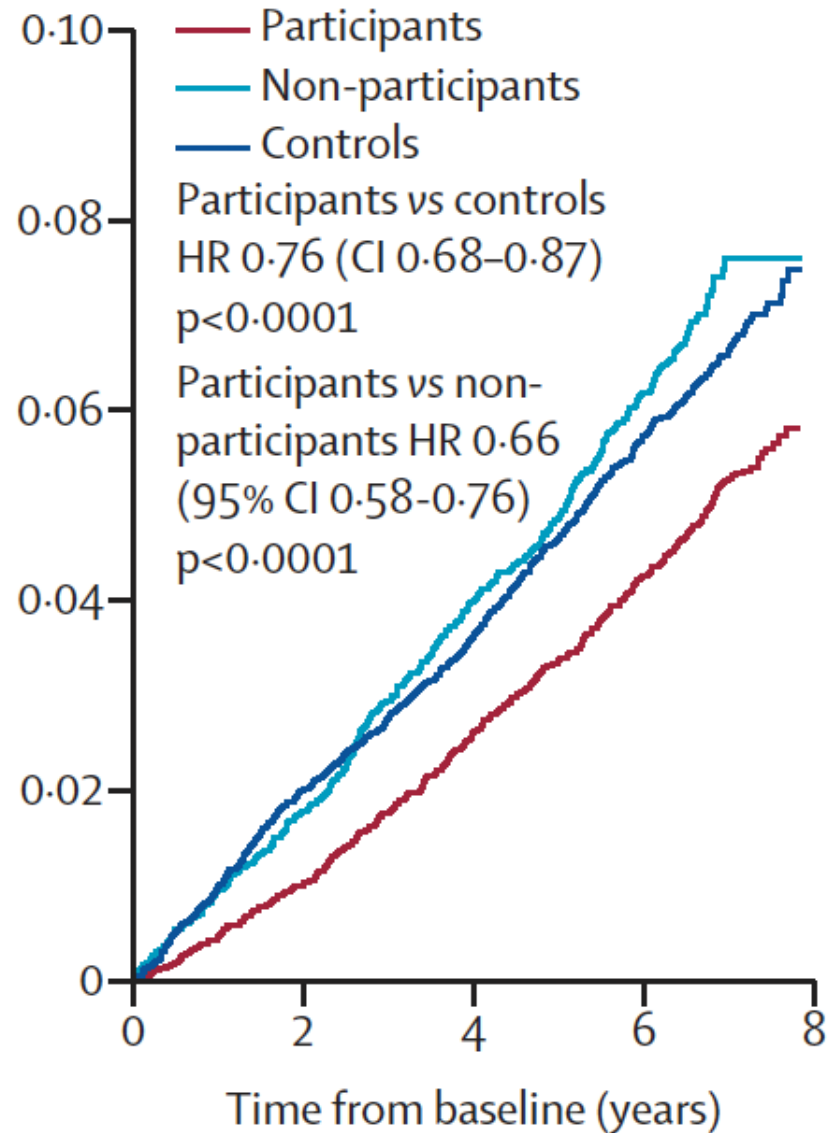
Anticoag. if Afib

FU 7 yrs

EP: stroke-TE/bleeding/death



**31.9% in the screening group vs. 33.0% in the control group (HR 0.96, p=0.045)**



Svennberg E et al Lancet 2021



**Why Should  
*Device-Detected AF*  
Not Be Considered  
Clinical AF?**



# #1–High Prevalence of AHRE (Atrial High-Rate Episodes) in Patients Undergoing Continuous Monitoring

Study	Number of patients	Mean age (years)	% male	Duration of follow-up	Definition of AHRE	Patients with AHRE	on of up	Definition of AHRE	Patients with AHRE
TRENDS (2010)	163	74.0 ± 9.1 in patients with AHRE; 72.8 ± 9.9 in patients without AHRE	71.1% in patients with AHRE; 62.7% in patients without AHRE	1.1 ± 0.7 years	Atrial rate >175 b.p.m. for ≥5 min	45/163 (27.6%)			
TRENDS (2012)	1368	70.2 ± 11.8	66.2%	1.1 ± 0.7 years	Atrial rate >175 b.p.m. for ≥5 min	416/1368 (30.4%)			
ASSERT (2012)	2580	77 ± 7 in patients with AHRE; 76 ± 7 in patients without AHRE	56.3% in patients with AHRE; 58.6% in patients without AHRE	Mean 2.5 years	Atrial rate ≥190 b.p.m. for >6 min; all episodes confirmed by manual expert review	261/2580 (10.1%) within 3 months after device implantation: 633/2566			
							33 days	≥1 min (the AIDA algorithm) Atrial rate >180 b.p.m. for ≥1 min; sustained AF >250 b.p.m. for >1 min	179/354 (50.6%) 126/231 (54.5%) (AF)
							27 months	Atrial rate >220 b.p.m.	160/312 (51.3%)

**[≥6 min, ≥175bpm]**  
**Approximately 1% per month**

Gonzalez et al. (2014)	224	74 ± 12	53%	6 months after PM implantation	Any device-detected AHRE ≥5 min	39/224 (17.4%)	14 days	AHRE ≥5 min	77/262 (29%)
IMPACT (2015)	2718	Median 64.4	73.7%	Median 701 days	Atrial rate ≥200 b.p.m. for ≥36 of 48 atrial beats	945/2718 (34.8%)	ths	Atrial rate >180 b.p.m. for ≥1 min	53.8% in patients without previous AT; 88.6% in patients with previous AT
Witt et al. (2015)	394	Median 67 years (59–74)	74%	Median 4.2 years (2.5–6.6)	Manufacturer-specific nominal settings for AF detection; AHREs >6 min	79/394 (20.0%)	349 ± 147	Atrial rate ≥180 b.p.m. for ≥5 min	150/1482 (10.1%)
Turakhia et al. (2015)	187	68 ± 8.4	99.5%	120 days	AF ≥6 min	70.1% (26.2% ≥6 min of AF; 24.6% ≥1 h of AF; 19.3% ≥5.5 h of AF)	1.4 years (0.1–	Atrial rate >175 b.p.m. for ≥20 s	1389/2486 (55.9%)
RATE Registry (2016)	5379	73.6 ± 11.8 in patients with PM; 64.5 ± 12.6 in patients with ICD	54.1% with PM; 72.4% with ICD	Median 22.9 months	≥3 premature atrial complexes	145/300 (48%) with PM and 155/300 (52%) with ICD of the representative random sample studied			

**Bertaglia E et al Europace 2019**



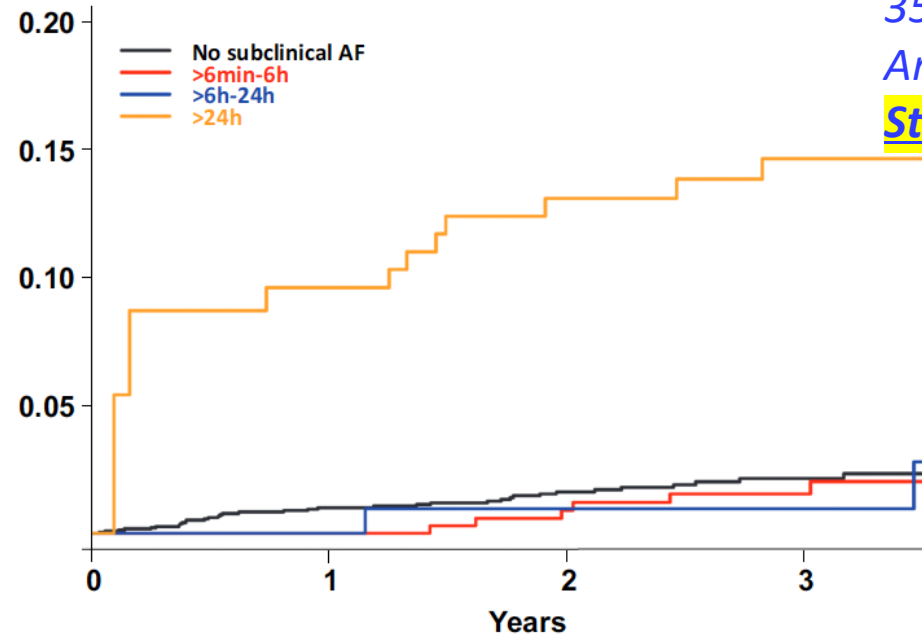
Metaanalysis ACTIVE-A/AVERROES

6563 Pts  
Aspirine-treated  
Clinical AF

# #2-Low Stroke Rate

ASSERT Study  
2580 Pts (>65yo + HBP)  
w/o Hx AF  
PM/ICD (looking at  
AHRE 3 months, then  
2.5 y of FU)  
35% device-detected AF  
Anticoagulation = 0  
**Stroke rate 1.5%/Yr**

Subclinical AF in ASSERT  
untreated or aspirin (approx. 60%)



Vanassche T et al Eur Heart J 2015

Van Gelder IC et al Eur Heart J 2017





# #3–No Net Benefit for Anticoagulation of Device-detected AF

**STROKE  
(ischemic)  
AND  
PERIPHERAL  
EMBOLISM**

## **Major BLEEDING,**

Une hémorragie majeure est définie par l'ISTH comme une hémorragie remplissant au moins l'un des critères suivants :

1. **Hémorragie fatale.**
2. **Localisation critique** (cérébrale, intraoculaire, péricardique, intra-articulaire, rétropéritonéale, etc.).
3. **Hémorragie entraînant une chute d'hémoglobine  $\geq 2$  g/dL** ou nécessitant une transfusion d'au moins 2 unités de sang ou de globules rouges.

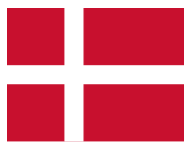
**hemostasis**



**AF in 31.8% (ILR group) vs. 12.2% in the control group (3.17, p<0.0001)**

**Stroke: 4.5% (ILR) vs. 5.6% among controls (HR 0.80, p=0.11)**

**Major bleeding: 4.3% (ILR) versus 3.5% among controls (HR 1.26, p=0.11)**



**LOOP Study**

*6004 Pts (70-90 yo + 1 RF)*

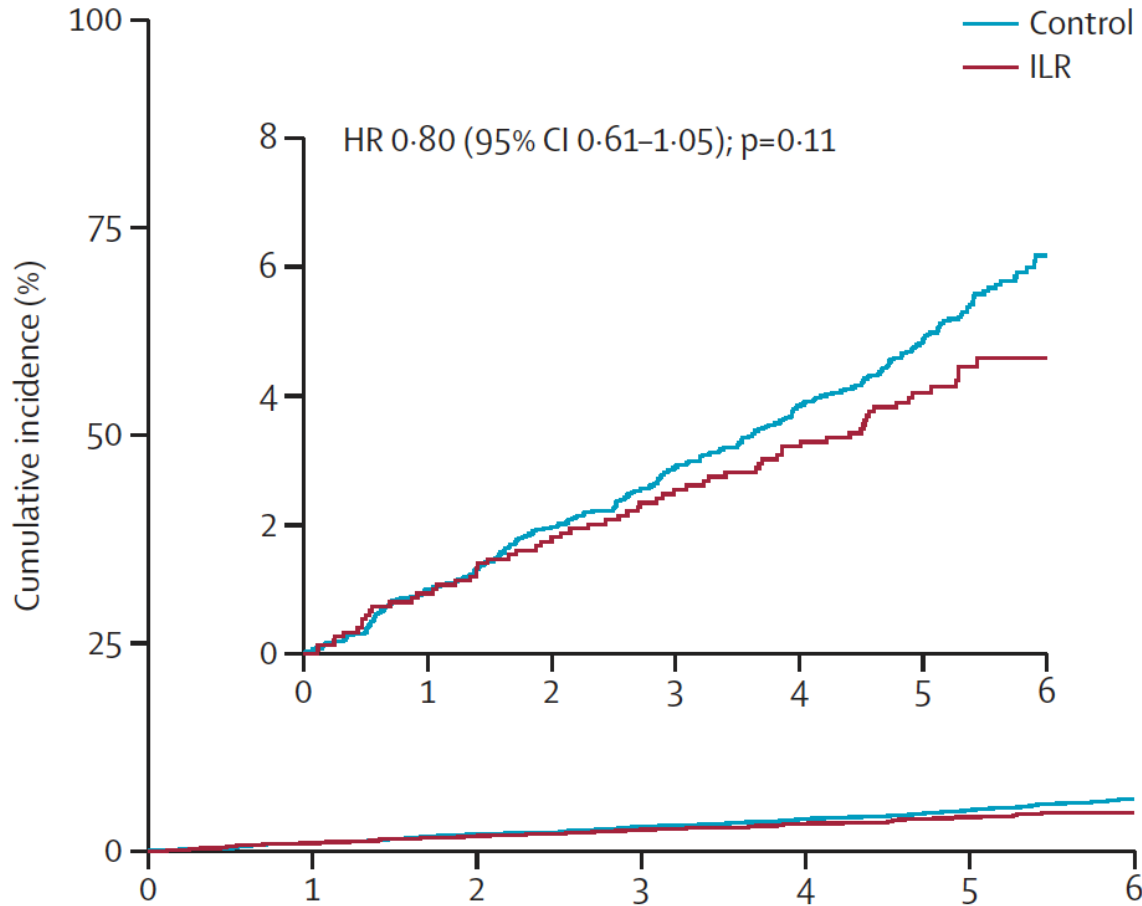
*w/o Hx AF, 4 centers*

*ILR vs no ILR (1:3)*

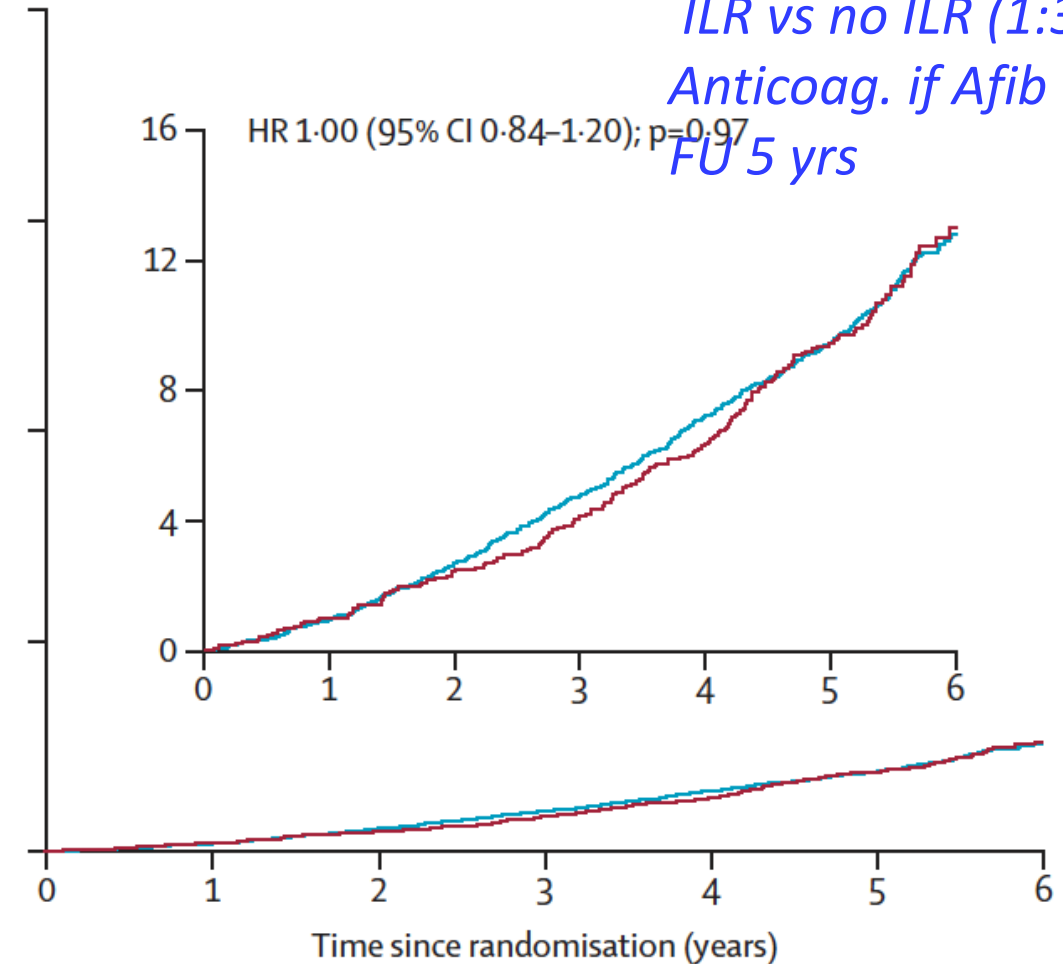
*Anticoag. if Afib (≥6min)*

*FU 5 yrs*

**A** Stroke or systemic arterial embolism

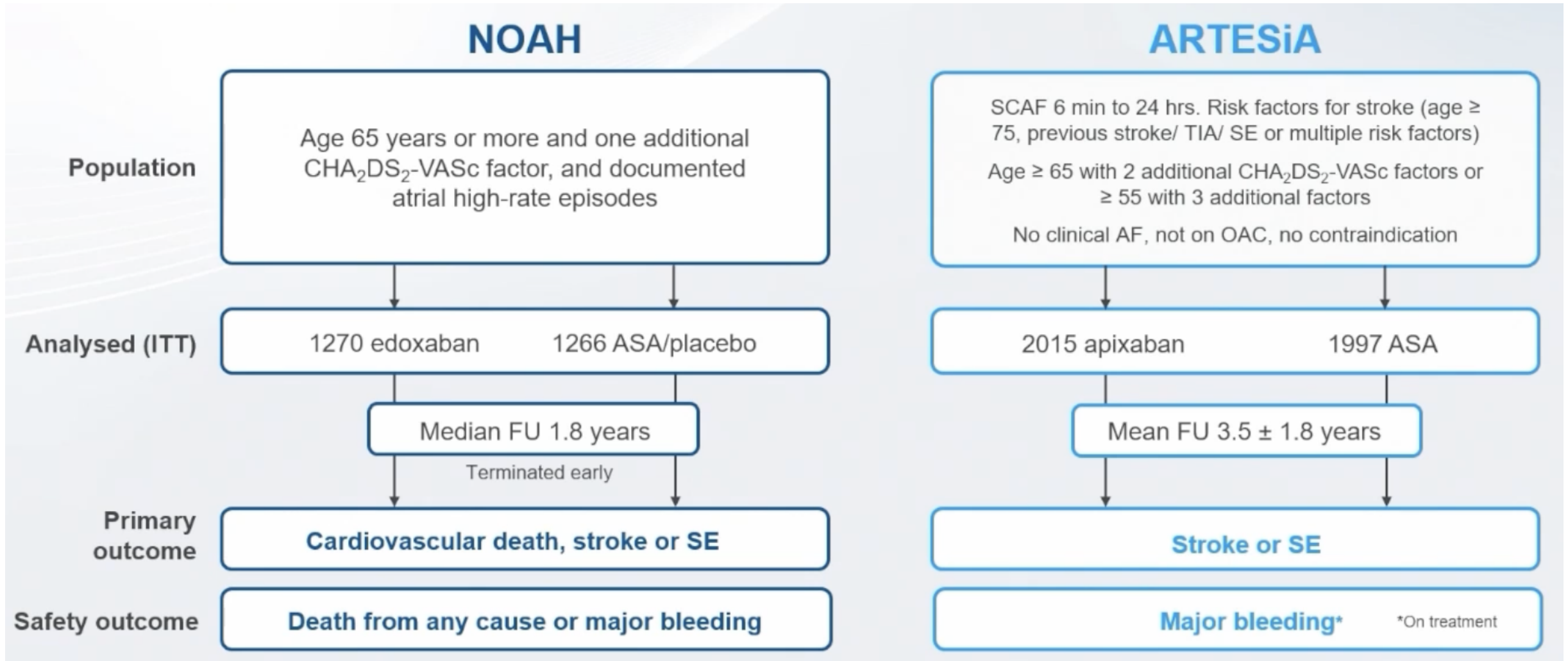


**D** All-cause death



**Svensden JH et al Lancet 2021**





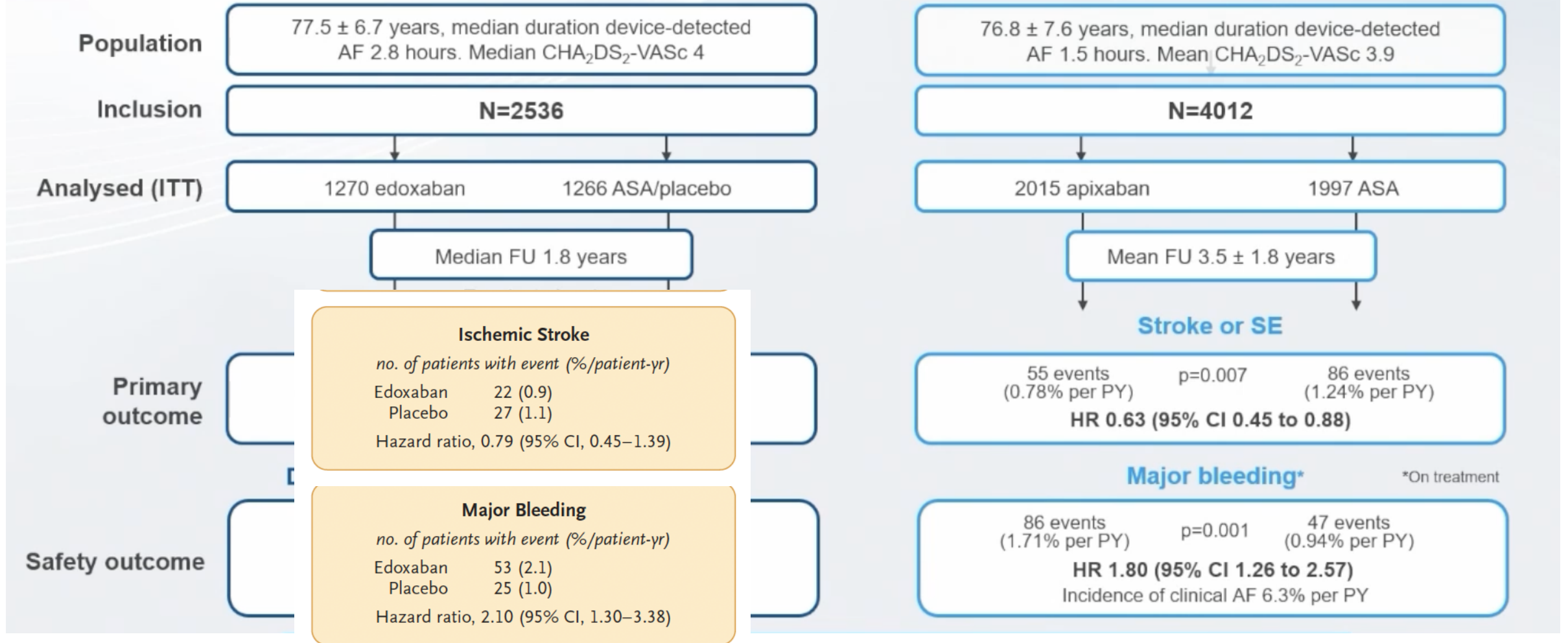
Kirchhof P et al N Engl J Med 2023

Healey J et al N Engl J Med 2024



## NOAH

## ARTESiA



Kirchhof P et al N Engl J Med 2023

Healley J et al N Engl J Med 2024

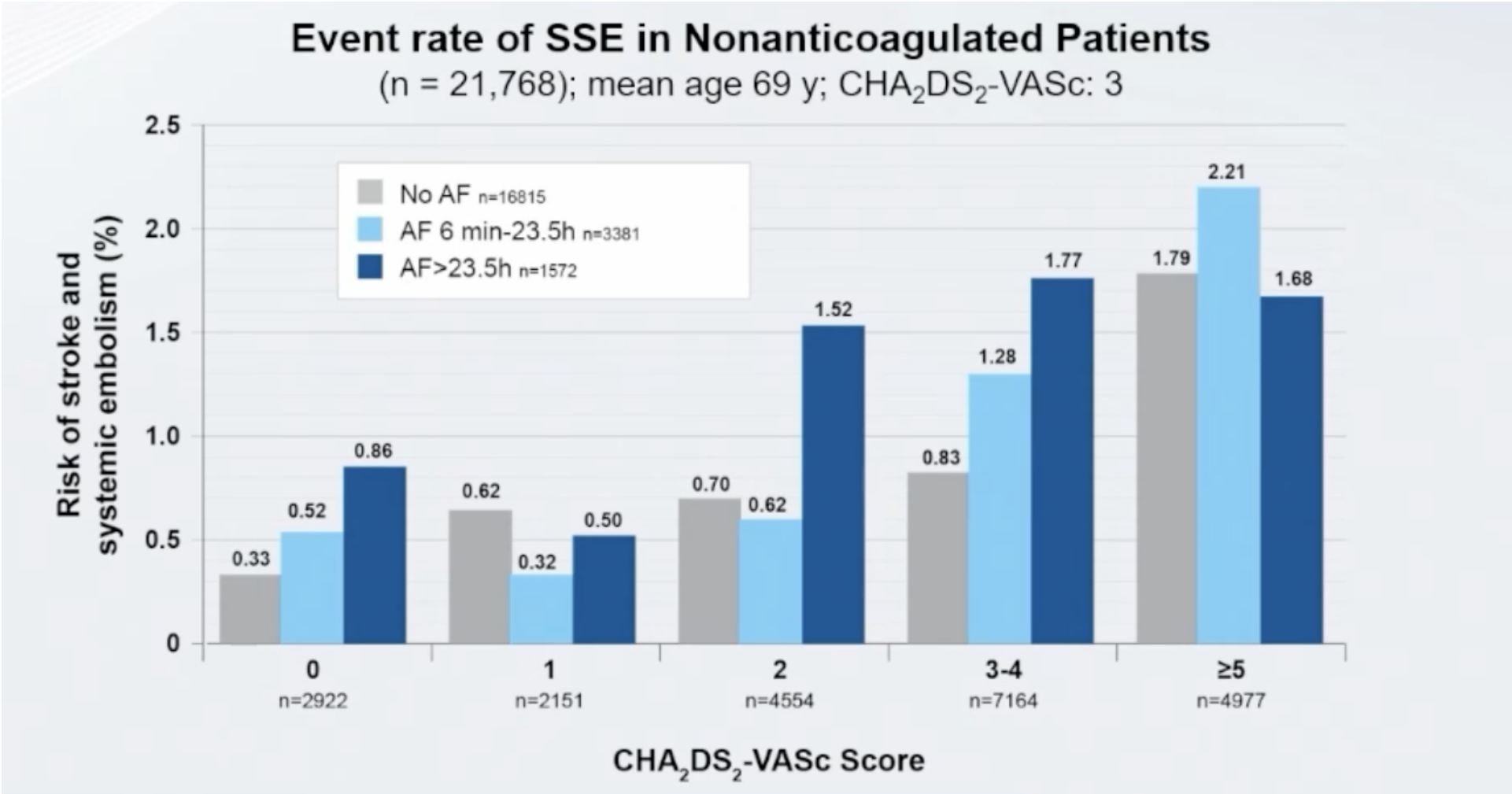


Endpoint	% stroke NOAC	% stroke ASA / placebo	RR (95% CI)
Ischemic stroke	0.7%	1.1%	0.68 (0.5-0.92)
Stroke, peripheral			
arterial			
MI,			
Total			
Major bleeding	1.8%	1.1%	1.62 (1.05-2.5)

**NNT=217 to prevent 1 stroke per year.**  
*≠ results of RCTs in clinical AF (eg NNT=48)*



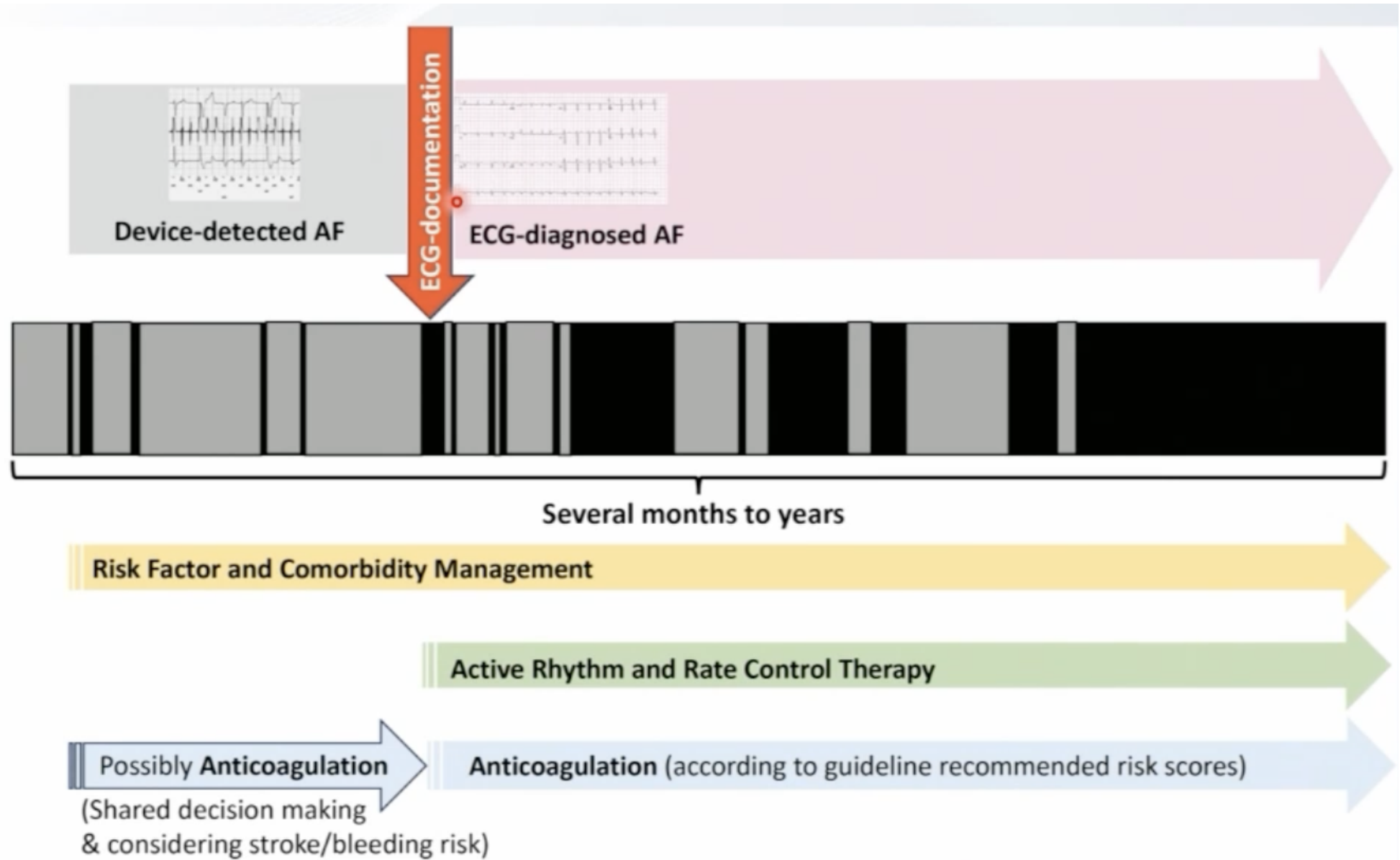
# AF Duration/Burden and CHADS<sub>2</sub>-VASc Score Can Help Refine Stroke Risk and Determine Requirement for Anticoagulation



Kaplan RM et al Circulation 2019



**Time in  
Sinus Rhythm &  
Atrial Fibrillation**



# ESC 2024 Guidelines



Direct oral anticoagulant therapy may be considered in patients with asymptomatic device-detected subclinical AF and elevated thromboembolic risk to prevent ischaemic stroke and thromboembolism, excluding patients at high risk of bleeding.<sup>281,282</sup>

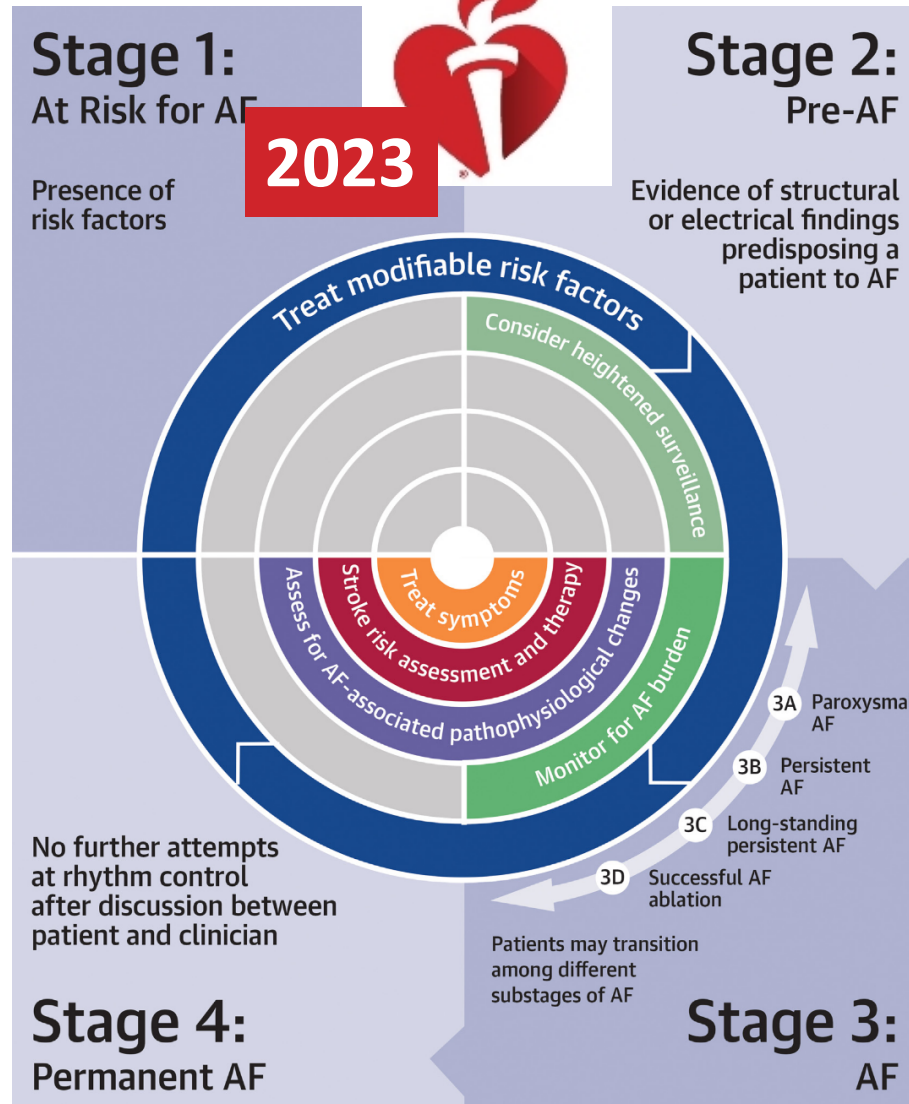
**IIb**

**B**





# Concept de Prévention Primaire



**Recommendation Table 32** — Recommendations for primary prevention of AF (see also Evidence Table 32)

Recommendation	Class <sup>a</sup>	Level <sup>b</sup>
Maintaining optimal blood pressure is recommended in the general population to prevent AF, with ACE inhibitors or ARBs as first-line therapy. <sup>1205–1207</sup>	I	B
Appropriate medical HF therapy is recommended in individuals with HFrEF to prevent AF. <sup>133,136,1208–1211</sup>	I	B
Maintaining normal weight (BMI 20–25 kg/m <sup>2</sup> ) is recommended for the general population to prevent AF. <sup>208,1212,1213</sup>	I	B
Maintaining an active lifestyle is recommended to prevent AF, with the equivalent of 150–300 min per week of moderate intensity or 75–150 min per week of vigorous intensity aerobic physical activity. <sup>1214–1219</sup>	I	B
Avoidance of binge drinking and alcohol excess is recommended in the general population to prevent AF. <sup>1220–1223</sup>	I	B
Metformin or SGLT2 inhibitors should be considered for individuals needing pharmacological management of diabetes mellitus to prevent AF. <sup>1210,1211,1224–1226</sup>	IIa	B
Weight reduction should be considered in obese individuals to prevent AF. <sup>1212,1227–1231</sup>	IIa	B



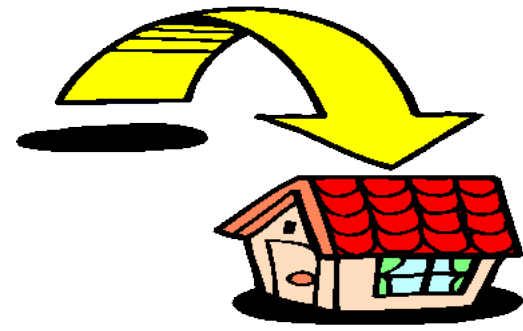
**2024**

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# Take-Home Messages

## Device-detected AF: Faut-il anticoaguler?



- Very frequent (1% per month)
- Higher risk of stroke vs. no device-detected AF
- But overrisk for stroke remains low (1% per year)
- No net clinical benefit of anticoagulation overall
- Looks reasonable for AF episode  $\geq 24$ h duration in patient with CHADSVA $\geq 4$
- Looking forward to consider AF burden into risk stratification in the future!
- **Do not focus too much on anticoagulation issue. you have so many other issues to look at (actually more effective to reduce the risk of stroke!!)**



Merci pour votre  
Attention!



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# Messages from ARTESiA and NOAH-AFNET 6

Numerically lower rate of stroke on apixaban (0.78% per patient-year) vs 1.21% per patient-year on ASA (HR 0.64; 95% CI; 0.46-0,90)

Disabling or fatal strokes were reduced by half in the apixaban group as compared with the ASA group

Lower power of NOAH-AFNET6 trial to detect a difference due to smaller sample size, shorter follow-up, premature termination and use of composite outcome that included cardiovascular death