Eviter le premier AVC en cas de FA

Dr Walid AMARA

Disclosures

- Consulting and Speaker’s fees from Bayer, BMS, Pfizer, Biotronik, Medtronic, Boston Scientific, Saint Jude Medical, Microport, Novartis.

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ESC GUIDELINES

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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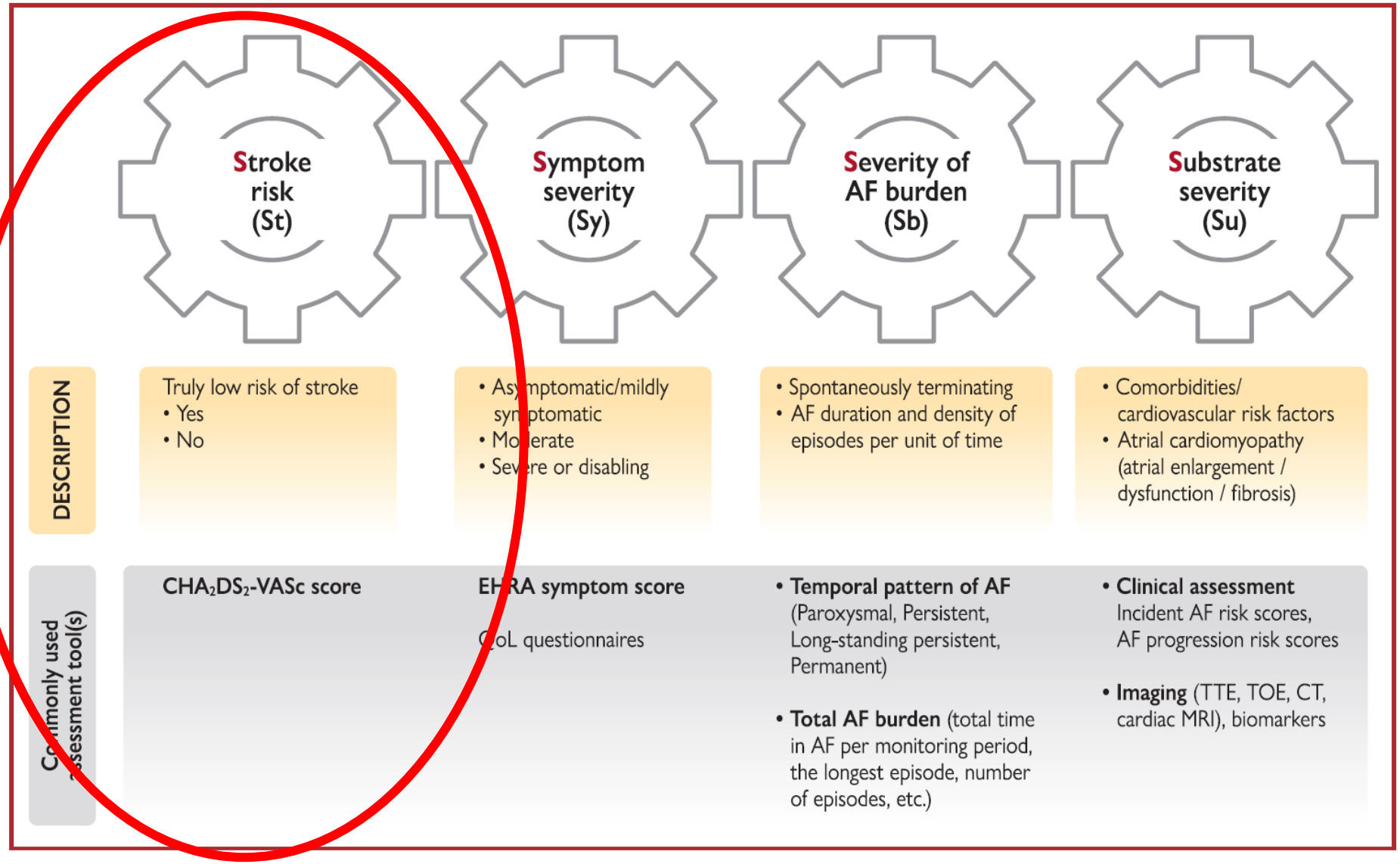
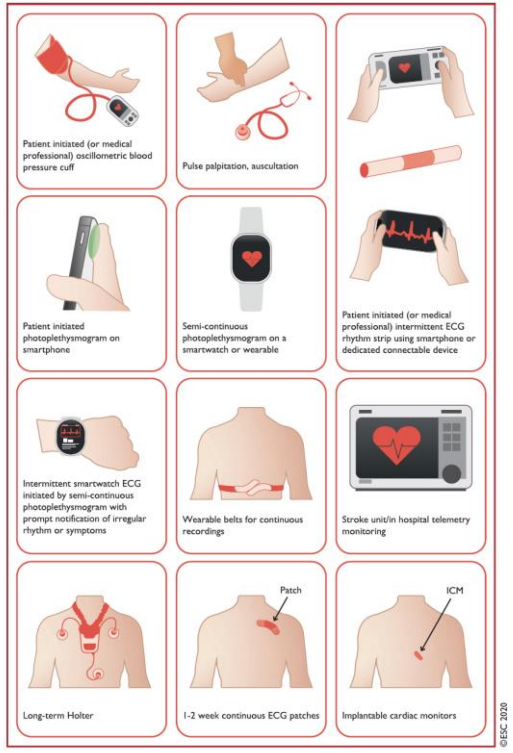
4S-AF scheme as an example of structured characterization of AF.



AF Screening



- pulse palpation
- automated BP monitors
- single-lead ECG devices
- photoplethysmography (PPG) devices OR other sensors (using seismocardiography, accelerometers, and gyroscopes, etc.) used in applications for smartphones, wrist bands, and watches
- intermittent smartwatch detection through PPG or ECG recordings.

Recommendations for screening to detect AF

Recommendation	Class[a]	Level[b]
Opportunistic screening for AF by pulse taking or ECG rhythm strip is recommended in patients ≥65 years of age.[188,211,223,225]	I	B
It is recommended to interrogate pacemakers and implantable cardioverter defibrillators on a regular basis for AHRE.[c224,226]	I	B
When screening for AF it is recommended that:[217,218] • The individuals undergoing screening are informed about the significance and treatment implications of detecting AF. • 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. • 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.	I	B
Systematic ECG screening should be considered to detect AF in individuals aged ≥75 years, or those at high risk of stroke.[212,224,227]	IIa	B

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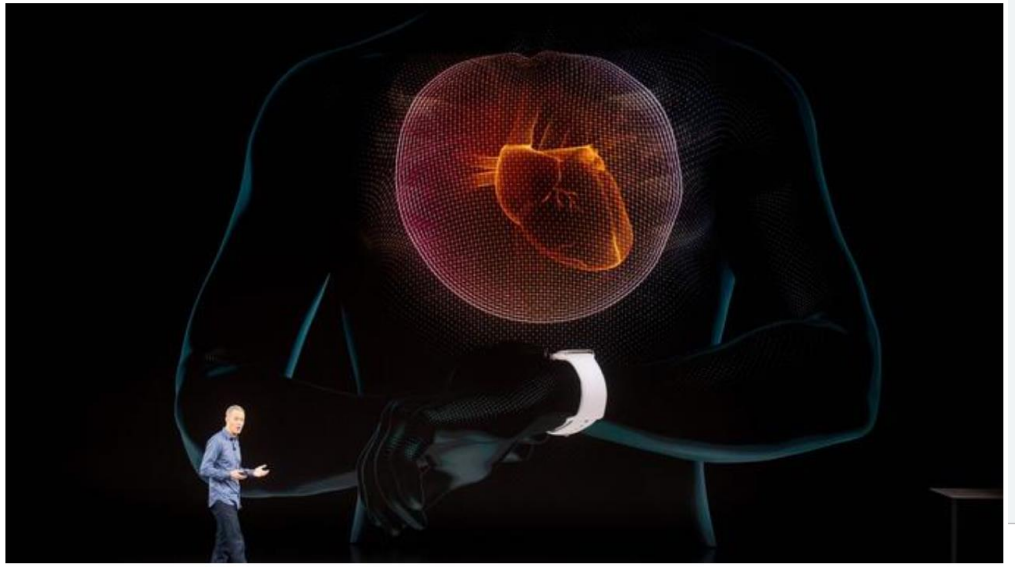
L'électrocardiogramme par l'Apple Watch: peut-être efficace, mais pas forcément utile

Par Soline Roy | Mis à jour le 18/09/2018 à 10:23 / Publié le 18/09/2018 à 10:23



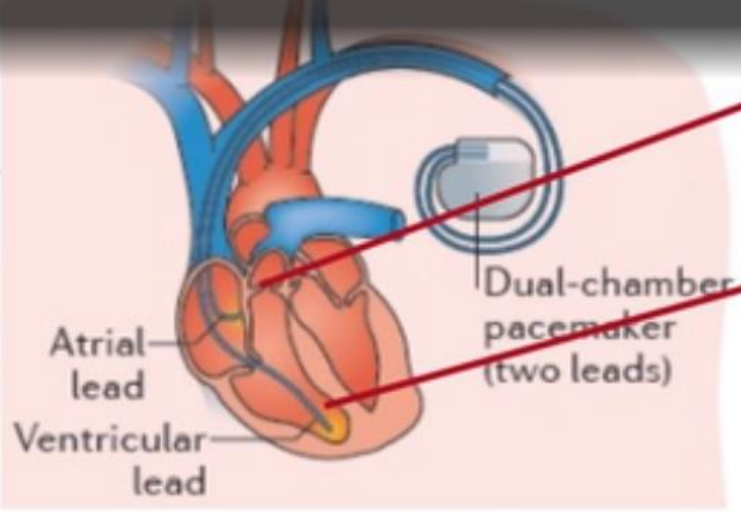
Apple Heart Study

The Apple Heart Study app uses data from Apple Watch to identify irregular heart rhythms, including those from potentially serious heart conditions such as atrial fibrillation. Apple is conducting this research study in collaboration with Stanford Medicine to improve the technology used to detect and analyze irregular heart rhythms, like atrial fibrillation - a leading cause of stroke.

We need You

Apple and Stanford Medicine are committed to making it easy for people to participate in medical research, because more data can lead to discoveries that save lives. Early detection of irregular heart rhythms may prevent more serious health issues.

Anyone 22 years or older who has an iPhone 5s or later, an Apple Watch Series 1 or later and who meet other study eligibility criteria can join other people from across the United States who are committed to heart health.

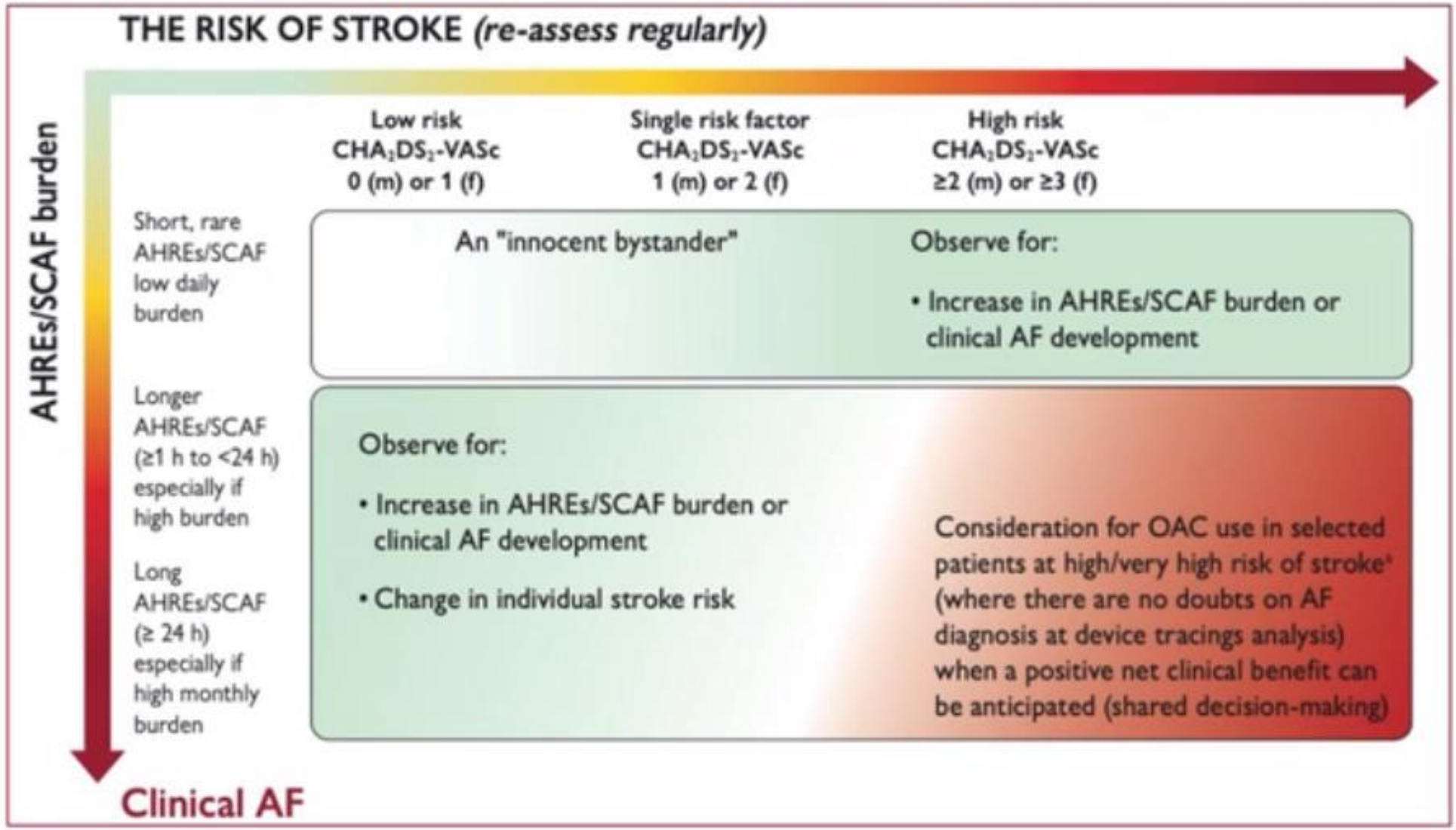


Atrial lead (>175/m)

Ventricular lead

	Currently used terms
Atrial High Rate Episodes (AHRE)	Refers to individuals *without symptoms attributable to AF,* in w *clinical AF is NOT previously detected (that is, there is no surfac tracing of AF)* **AHRE** – events fulfilling programmed or specified criteria for AH that are detected by CIEDs with an atrial lead allowing automat continuous monitoring of atrial rhythm and tracings storage. Cl recorded AHRE need to be visually inspected because some AH be electrical artefacts/false positives.
Subclinical AF	**Subclinical AF** includes AHRE confirmed to be AF, AFL, or an AT, o episodes detected by insertable cardiac monitor or wearable mon and confirmed by visually reviewed intracardiac electrograms or E recorded rhythm.

Proposed management of AHRE/subclinical AF



[a]Highly selected patients (e.g. with previous stroke and/or age ≥75 years, or ≥3 CHA_2DS_2-VASc risk factors, and additional non-CHA_2DS_2-VASc stroke factors such as CKD, elevated blood biomarkers, spontaneous echo contrast in dilated LA, etc); selected patients (e.g. with previous stroke and/or age ≥75 years, or ≥3 CHA_2DS_2-VASc risk factors , etc).

Six-month incidence of transition to higher AHRE burden[a]
(*n* = 6580, pooled from three prospective studies)[469]

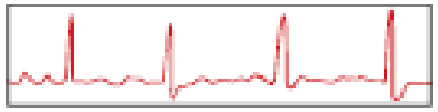
	Baseline burden			
6-month progression	5 min to <1 h	1 h to <6 h	6 h to <12 h	12 h to <23 h
Transition to ≥1 h	33.5%			
Transition to ≥6 h	15.3%	42.2%		
Transition to ≥12 h	8.9%	27.5%	55.8%	
Transition to ≥23 h	5.1%	16.0%	40.6%	63.1%

Stroke rates[b] per AHRE burden and CHA_2DS_2VASc category
(*n* = 21 768 device patients not taking OAC)[466]

	Baseline maximum daily burden		
CHA_2DS_2-VASc score	No AF	AF 6 min–23.5 h	AF >23.5 h
0	0.33%	0.52%	0.86%
1	0.62%	0.32%	0.50%
2	0.70%	0.62%	1.52%
3–4	0.83%	1.28%	1.77%
≥5	1.79%	2.21%	1.68%

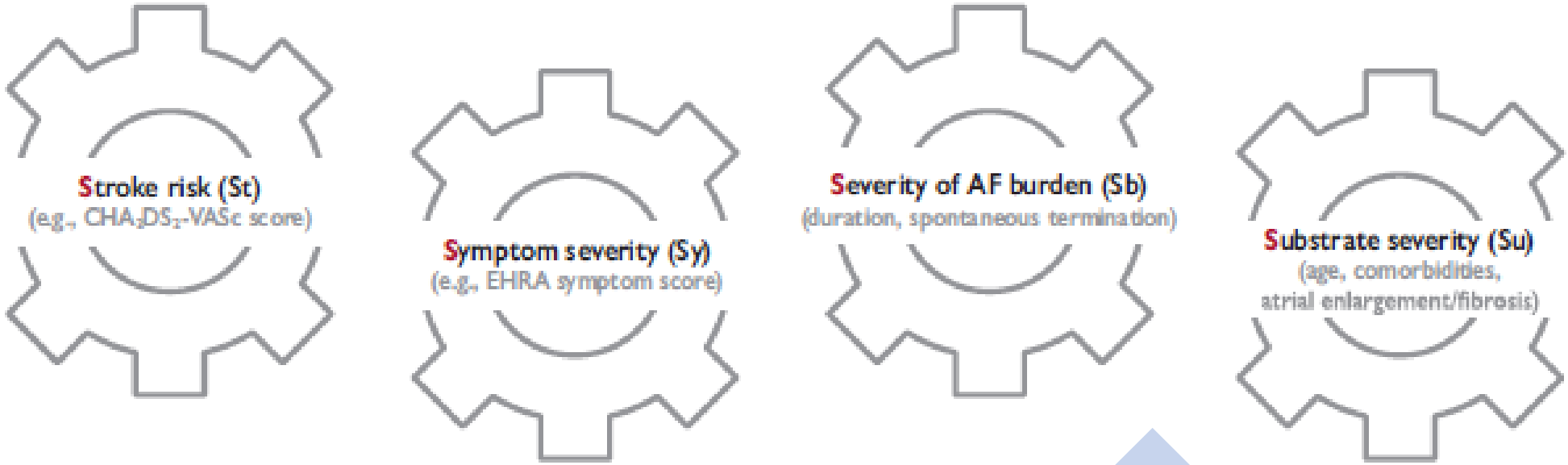
CC To ABC

Confirm AF

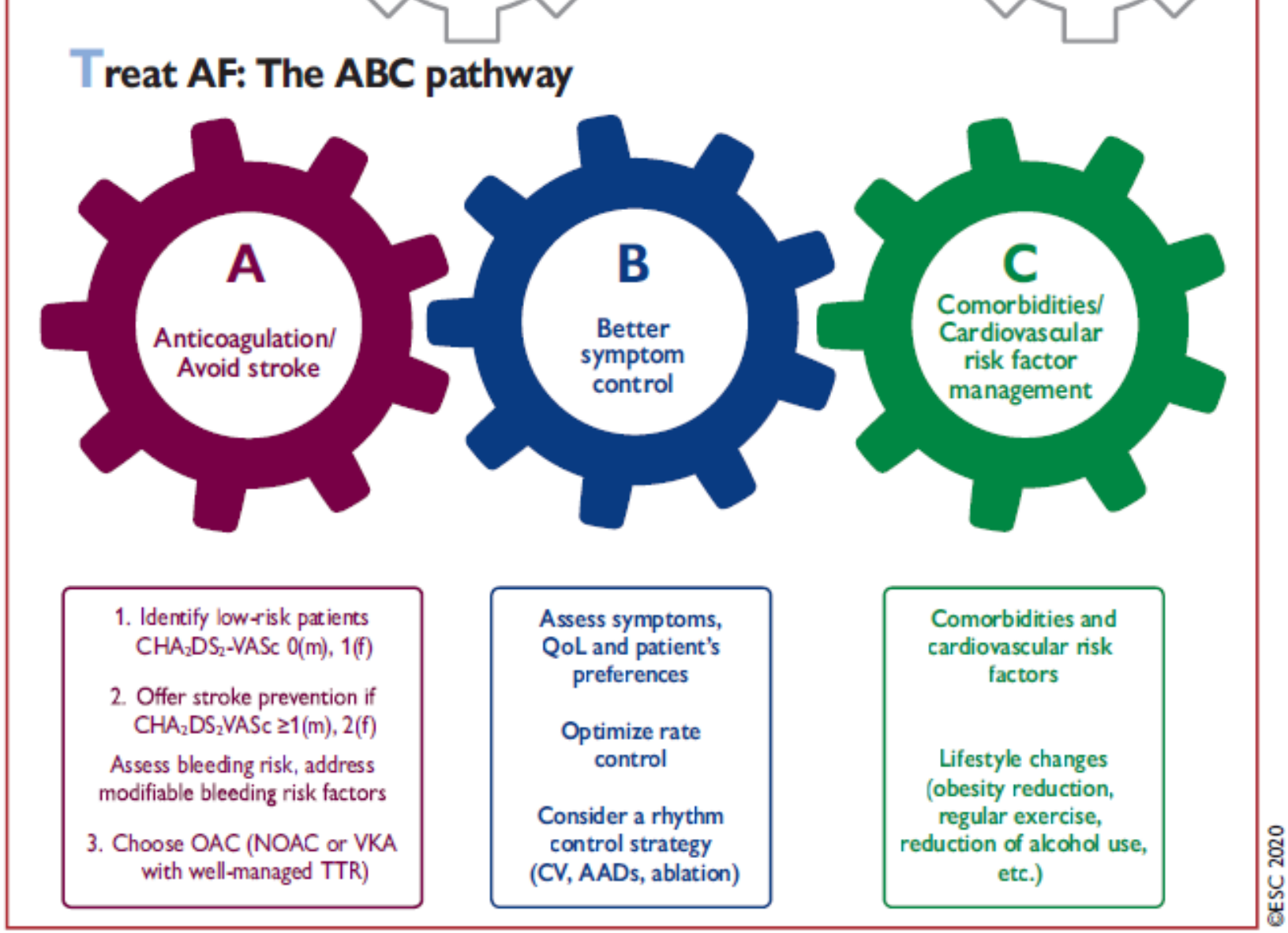


A 12-lead ECG or a rhythm strip showing AF pattern for ≥30 s

Characterise AF (the 4S-AF scheme)



Treat AF: The ABC pathway



entral Illustration Management of AF. AAD = antiarrhythmic drug; AF = atrial fibrillation; ECG = electrocardiogram; EHRA = European Heart ıythm Association; CHA_2DS_2-VASc = Congestive HF, Hypertension, Age ≥75 years, diabetes mellitus, Stroke, Vascular disease, Age 65 - 74 years, Sex tegory (female); CV = cardioversion; NOAC = non-vitamin K antagonist oral anticoagulant; OAC = oral anticoagulant; TTR = time in therapeutic range; ‹A = vitamin K antagonist.

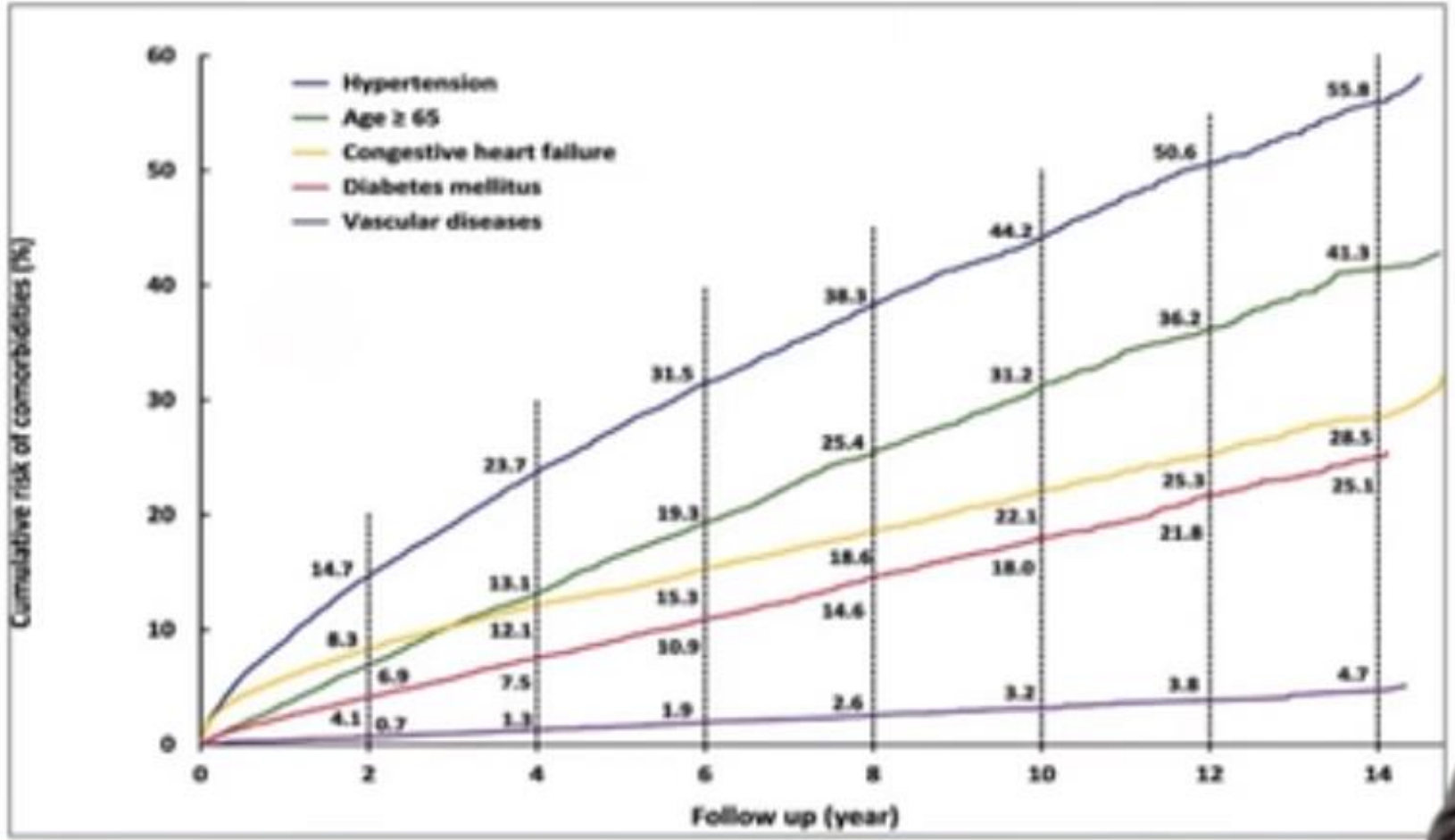
a) Risk factors for stroke and thromboembolism in non-valvular AF	
'Major' risk factors	'Clinically relevant non-major' risk factors
Previous stroke, TIA or systemic embolism Age ≥ 75 years	Heart failure or moderate to severe LV systolic dysfunction [e.g. LV EF ≤ 40%] Hypertension - Diabetes mellitus Female sex - Age 65-74 years Vascular disease*

Stroke risk factors	Score
Congestive heart failure/LV dysfunction	1
Hypertension	1
Aged ≥75 years	2
Diabetes mellitus	1
Stroke/TIA/TE	2
Vascular disease [prior MI, PAD, or aortic plaque]	1
Aged 65–74 years	1
Sex category [i.e. female gender]	1

Lip et al. Ches
2010;137:263

Incident Co-Morbidities in AF Patients Initially with a CHA_2DS_2-VASc Score of 0 (Males) or 1 (Females): Implications for Reassessment of Stroke Risk in Initially 'Low-Risk' Patients

Chao .. Lip et al
Thromb Haemost. 2019 Jul;119(7):1162-1170. .



- In 80% of patients who acquired a comorbidity (HF, hypertension, diabetes or vascular disease), the new condition occurred after 4.2 months of AF diagnosis.
- Time from incident comorbidity to ischaemic stroke was >4.4 months for 90% of patients suffering stroke.

3-4 months may be a reasonable time interval at which stroke risk should be re-assessed, so that OACs could be prescribed timely.

‘A’ Avoid stroke/anticoagulation

The default is stroke prevention* unless ‘low risk’

…given the limitations of (all) risk scores

*Stroke prevention means oral anticoagulation, whether as well managed warfarin with good TTR (>70%) or (ideally) NOAC

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

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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	A
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	A
OAC is recommended for stroke prevention in AF patients with CHA_2DS_2-VASc score ≥2 in men or ≥3 in women.	I	A

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

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

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(European Heart Journal 2020-doi/10.1093/eurheartj/ehaa612)

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

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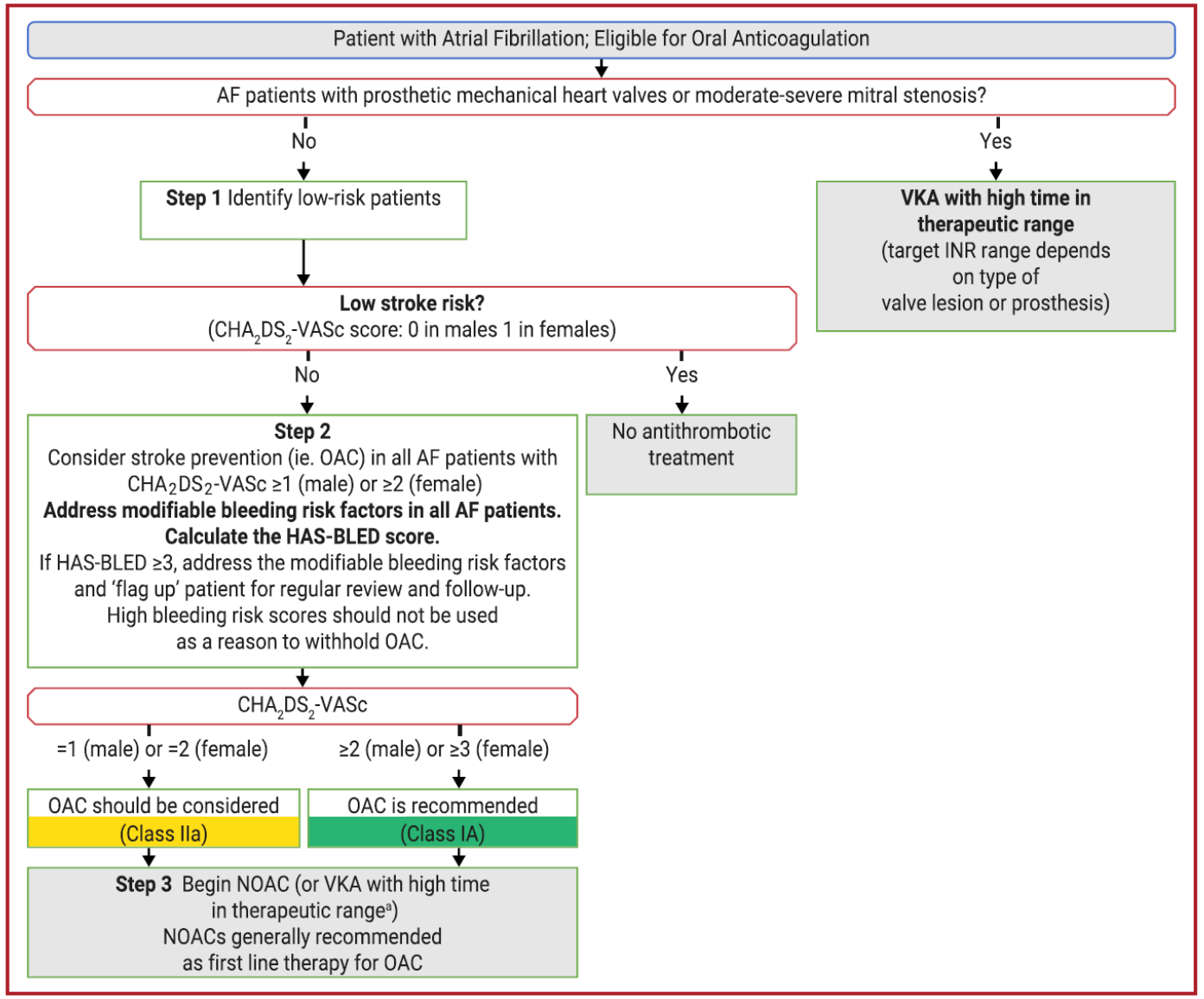
Recommendations for occlusion or exclusion of the LAA	Class	Level
LAA occlusion may be considered for stroke prevention in patients with AF and contraindications for long-term anticoagulant treatment (e.g. intracranial bleeding without a reversible cause).	IIb	B
Surgical occlusion or exclusion of the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

Table 12 **Antithrombotic therapy after left atrial appendage occlusion**

Device/patient	Aspirin	OAC	Clopidogrel	Comments
Watchman/low bleeding risk	75 - 325 mg/day indefinitely	Start warfarin after procedure (target INR 2 - 3) until 45 days or continue until adequate LAA sealing is confirmed[a] by TOE. NOAC is a possible alternative	Start 75 mg/day when OAC stopped, continue until 6 months after the procedure	Some centres do not withhold OAC at the time of procedure (no data to support/deny this approach)
Watchman/high bleeding risk	75 - 325 mg/day indefinitely	None	75 mg/day for 1 - 6 months while ensuring adequate LAA sealing[a]	Clopidogrel often given for shorter time in very high-risk situations
ACP/Amulet	75 - 325 mg/day indefinitely	None	75 mg/day for 1 - 6 months while ensuring adequate LAA sealing[a]	Clopidogrel may replace long-term aspirin if better tolerated

ACP = Amplatzer™ Cardiac Plug; INR = international normalized ratio; LAA = left atrial appendage; LMWH = low-molecular-weight heparin; NOAC = non-vitamin K antagonist oral anticoagulant; OAC = oral anticoagulant ; TOE = transoesophageal echocardiography.
Note: Load aspirin or clopidogrel before procedure if untreated. Heparin with activated clotting time >250 seconds before or immediately after trans-septal punctures for all patients, followed by LMWH when warfarin needed.
[a]Less than 5 mm leak.



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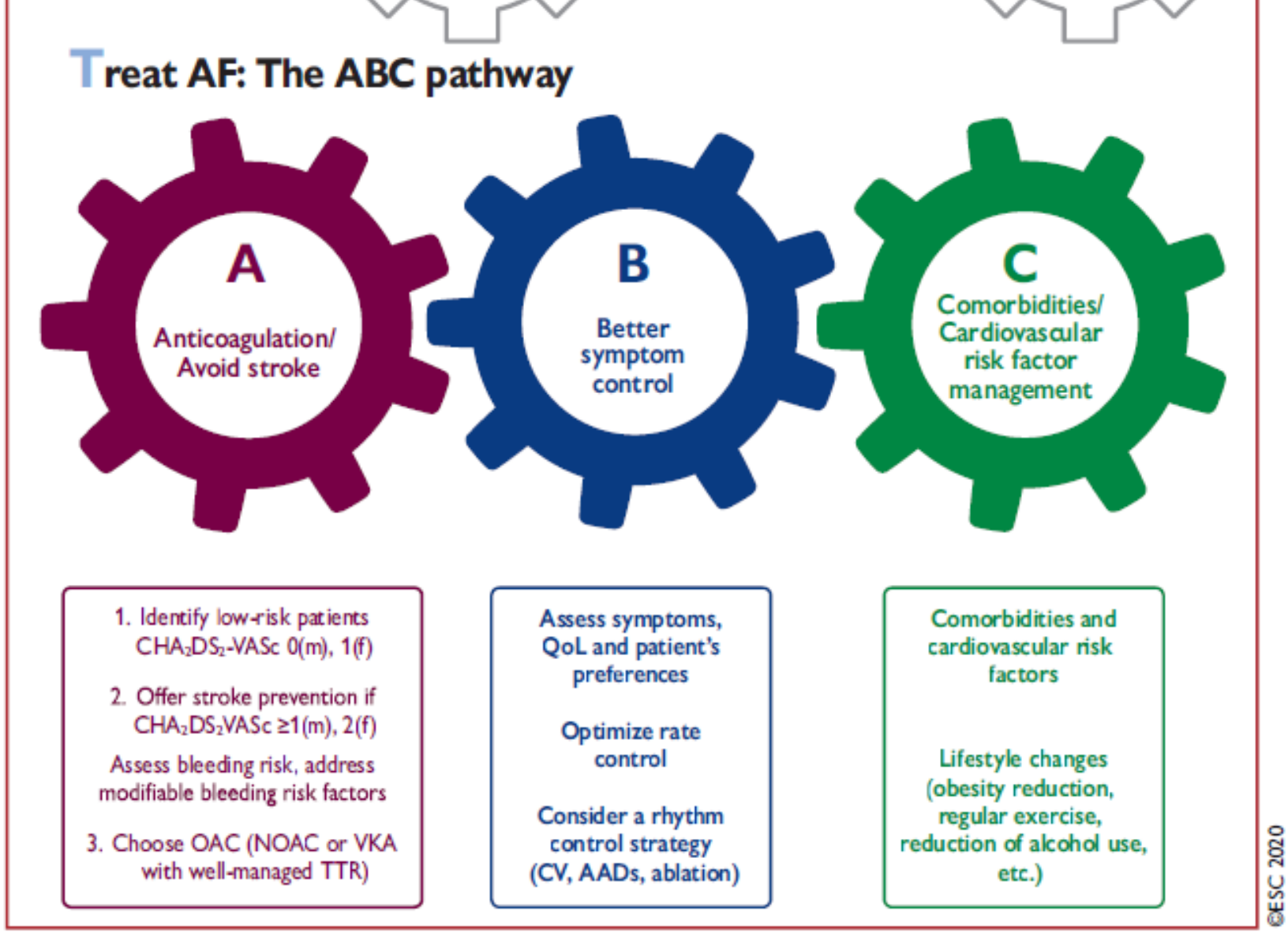
Surgical occlusion or exclusion of the LAA may be considered for stroke prevention in patients with AF undergoing cardiac surgery.[459,483]	IIb	C



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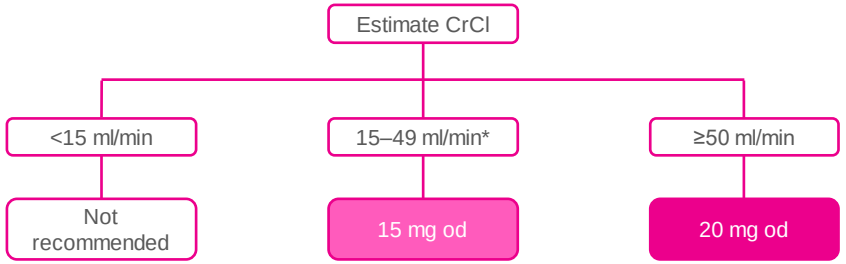
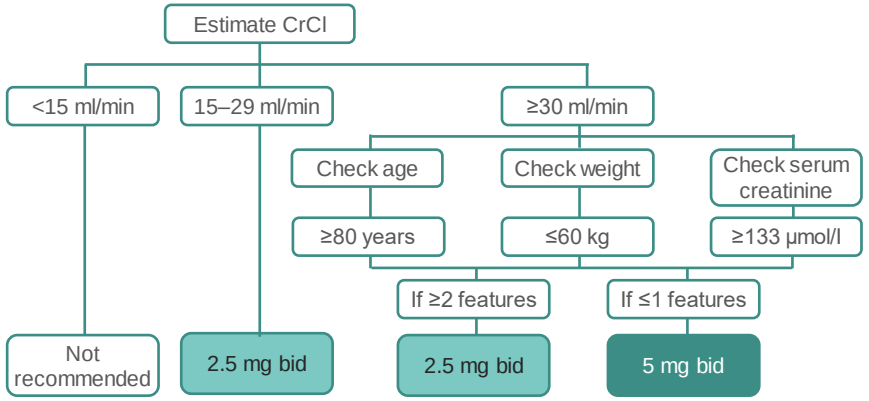
Dose Adjustments in Eligible AF Patients with ≥1 Risk Factors for Stroke/SE

Rivaroxaban is the Only NOAC with a Prospectively Tested Specific Renal Once-Daily Dose)

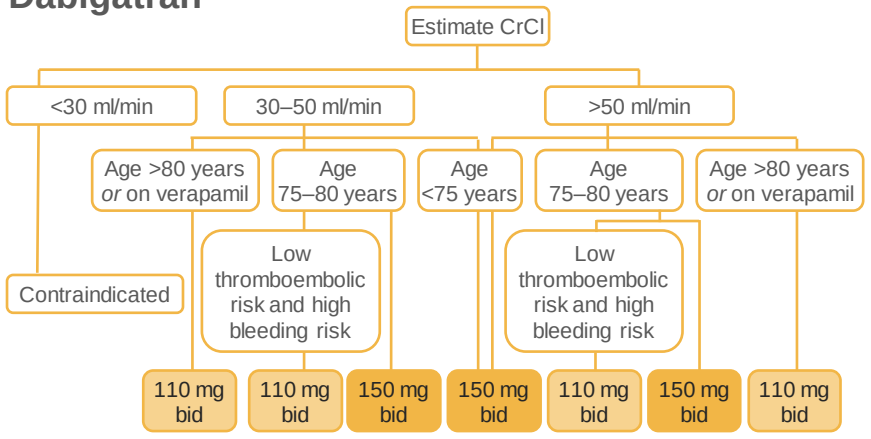
Rivaroxaban[1]



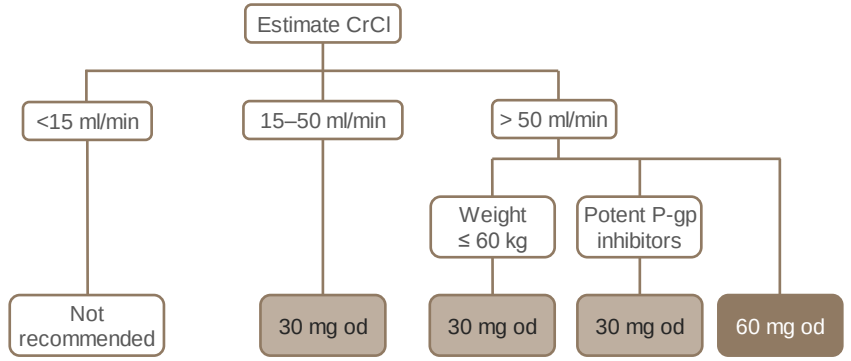
Apixaban[2]



Dabigatran[3]



Edoxaban[4]



MA-XAR-FR-0012-1

*Rivaroxaban is to be used with caution in patients with CrCl 15–29 mL/min

1. Rivaroxaban SmPC; 2. Apixaban SmPC; 3. Dabigatran SmPC; 4. Edoxaban SmPC

Recommendations for lifestyle interventions and management of risk factors and concomitant diseases in patients with AF (1)

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Recommendations	Class	Le
Identification and management of risk factors and concomitant diseases is recommended as an integral part of treatment in AF patients (NEW)	I	
Modification of unhealthy lifestyle and targeted therapy of intercurrent conditions is recommended to reduce AF burden and symptom severity (NEW)	I	
Attention to good BP control is recommended in AF patients with hypertension to reduce AF recurrences and risk of stroke and bleeding (NEW)	I	
In obese patients with AF, weight loss together with management of other risk factors should be considered to reduce AF incidence, AF progression, AF recurrences, and symptoms	IIa	

Recommendations for lifestyle interventions and management of risk factors and concomitant diseases in patients with AF (2)

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Recommendations	Class	Level
Advice and management to avoid alcohol excess should be considered for AF prevention and in AF patients considered for OAC therapy	IIa	B
Physical activity should be considered to prevent AF incidence or recurrence, with the exception of excessive endurance exercise, which may promote AF	IIa	C
Optimal management of OSA may be considered, to reduce AF incidence, AF progression, AF recurrences, and symptoms	IIb	C