

Förmaksflimmer

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Frågor ställs via sms, scanna kod:





Redovisning av eventuella jäv

- Har inga jävsförhållanden att deklarerera

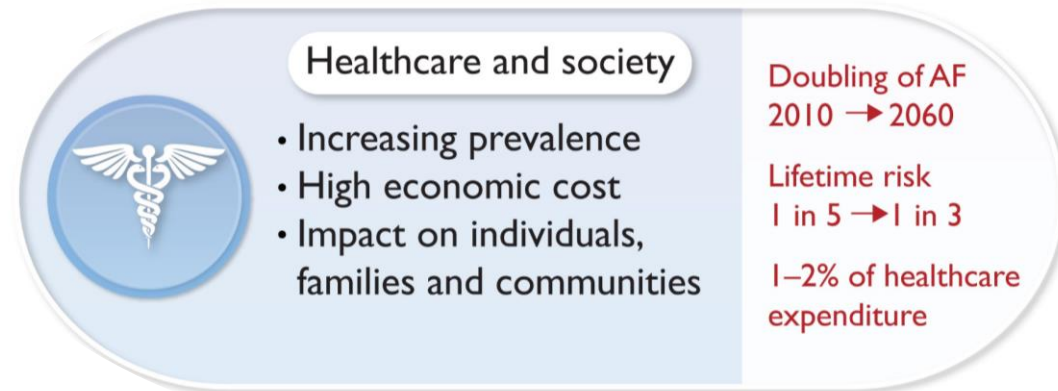


Prevalens

Förmaksflimmer är den vanligaste takyarytmin och förekomsten ökar med åldern.

Prevalensen är ca 1 % vid 50 år och > 10 % vid 80 år.

Prevalensen förväntas fördubblas under de kommande decennierna som en följd av en åldrande befolkning, ökad samsjuklighet samt utveckling av ny teknologi för att lättare kunna diagnostisera ff.





Definition

Förmaksflimmer är en supraventrikulär arytm med okoordinerad förmaksaktivering, vilket leder till en förlust av effektiv förmakskontraktion.

Temporal classification	Definition
First-diagnosed AF	AF that has not been diagnosed before, regardless of symptom status, temporal pattern, or duration.
Paroxysmal AF	AF which terminates spontaneously within 7 days or with the assistance of an intervention. Evidence suggests that most self-terminating paroxysms last <48 h. ²
Persistent AF	AF episodes which are not self-terminating. Many intervention trials have used 7 days as a cut-off for defining persistent AF. ^{3,4} Long-standing persistent AF is arbitrarily defined as continuous AF of at least 12 months' duration but where rhythm control is still a treatment option in selected patients, distinguishing it from permanent AF.
Permanent AF	AF for which no further attempts at restoration of sinus rhythm are planned, after a shared decision between the patient and physician.




Symtom

Symtom till följd av förmaksflimmer är varierande och innefattar inte enbart hjärklappningar.

Ca 90 % av patienter med förmaksflimmer är symtomatiska med varierande svårighetsgrad.

Patient symptoms



- Palpitations
- Shortness of breath
- Fatigue
- Chest pain
- Dizziness
- Poor exercise capacity
- Fainting (syncope)
- Anxiety
- Depressed mood
- Disordered sleep



Klassa symtom

The modified European Heart Rhythm Association score (mEHRA)

Bedömning av mEHRA bör registreras initialt, efter en förändring i behandlingen eller efter en intervention.

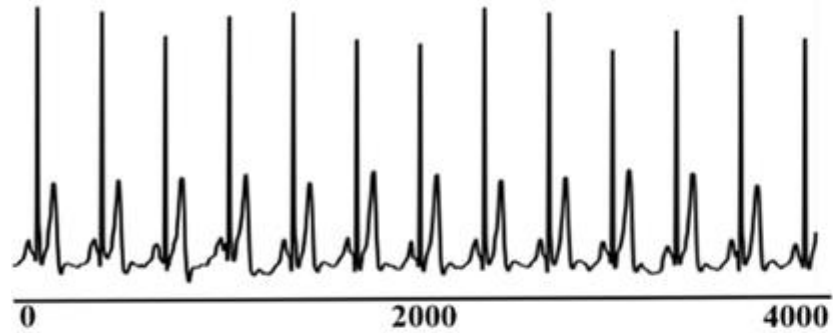
Score	Symptoms	Description
1	None	AF does not cause any symptoms
2a	Mild	Normal daily activity not affected by symptoms related to AF
2b	Moderate	Normal daily activity not affected by symptoms related to AF, but patient troubled by symptoms
3	Severe	Normal daily activity affected by symptoms related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

AF, atrial fibrillation.

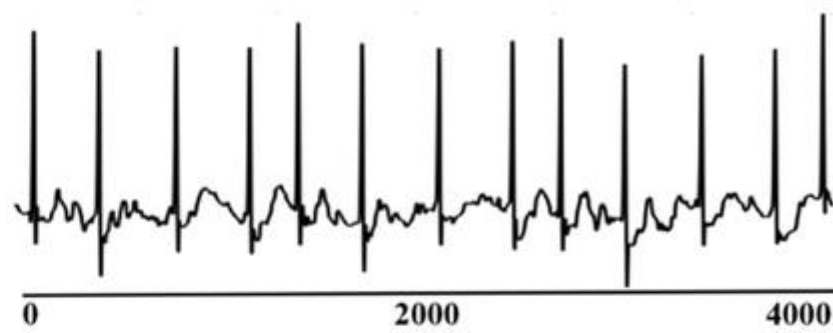
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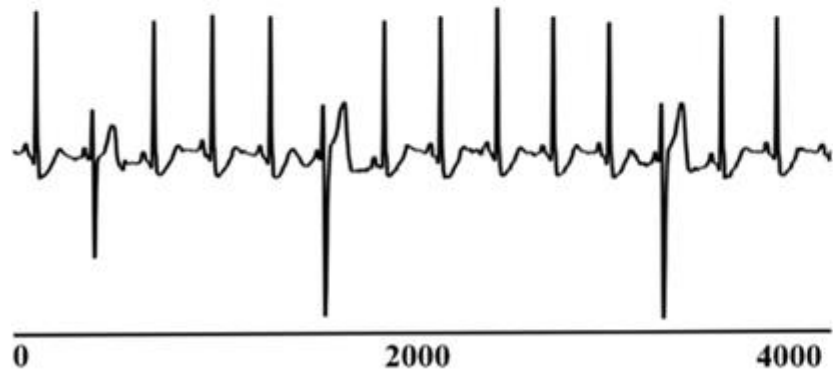
Diagnos



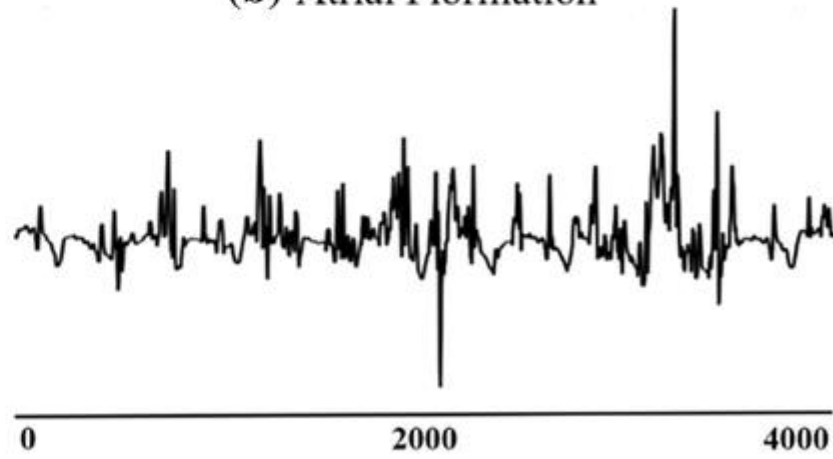
(a) Normal Rhythm



(b) Atrial Fibrillation



(c) Other Arrhythmias



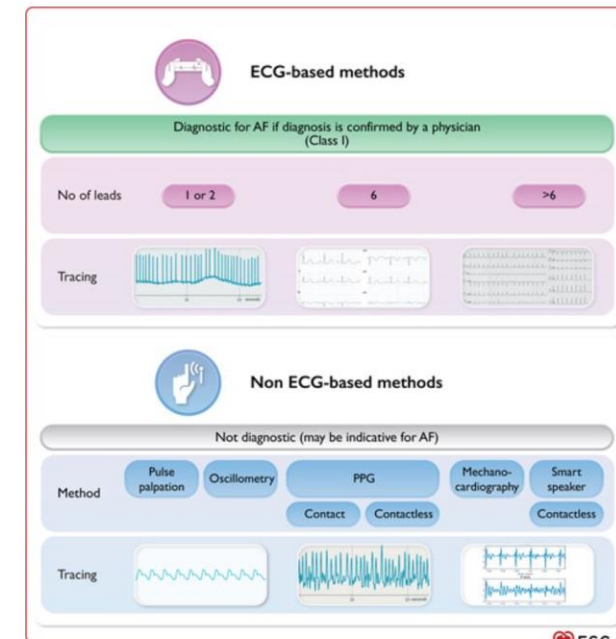
(d) Noise



Diagnos

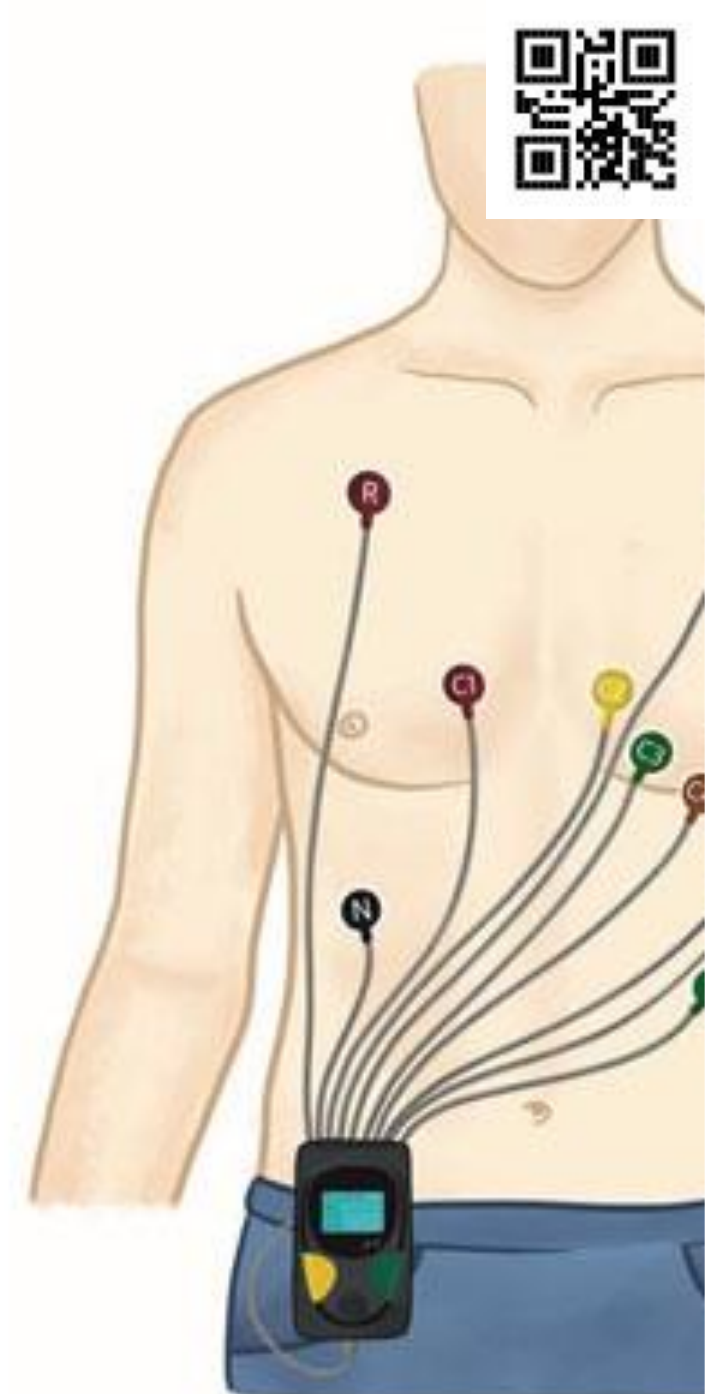
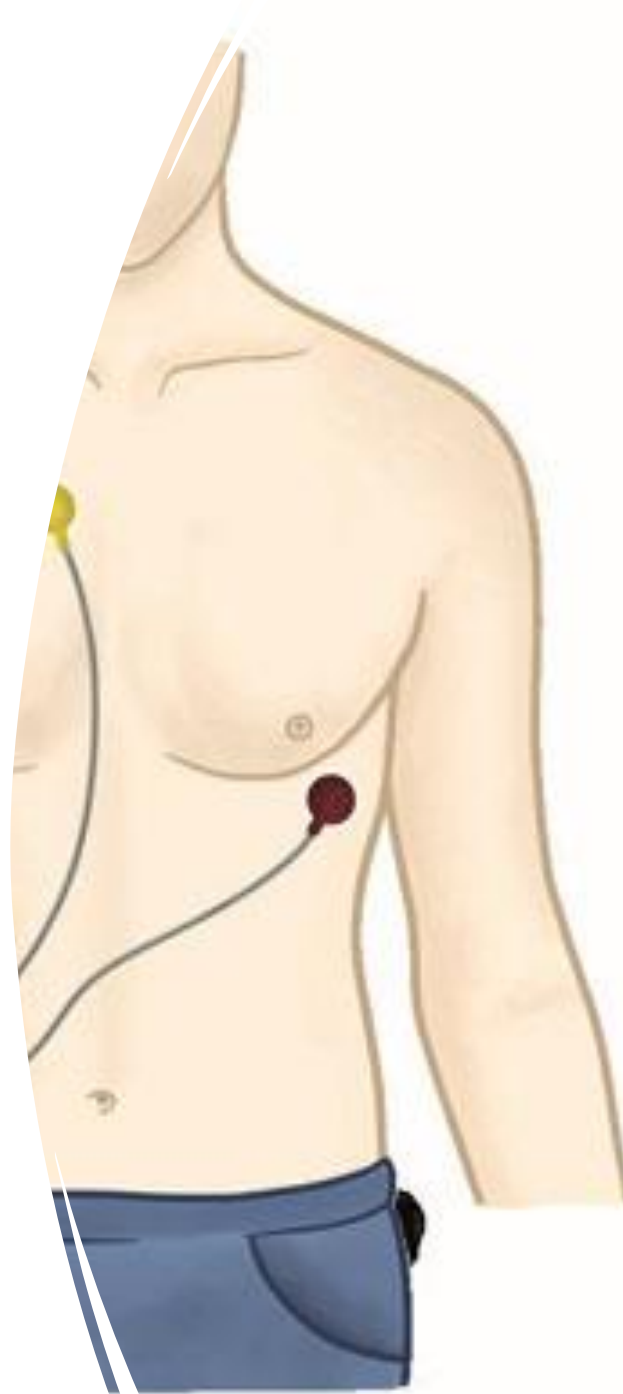
I praktiken kan Kliniskt förmaksflimmer diagnostiseras med olika alternativ. Förutom med ett standard-EKG med 12 avledningar så kan också enheter med en eller flera avledningar som tillhandahåller EKG användas för diagnos.

OBS! Detta inkluderar inte bärbara enheter och andra apparater som använder fotopletysmografi (PPG)



Diagnos

Den minsta varaktigheten för att fastställa diagnosen av kliniskt FF vid ambulatoriskt EKG är satt till symtomatiska perioder på 30 sekunder eller mer.





Utredning efter diagnos

Hos alla stabila patienter med nyupptäckt förmaksflimmer som ska behandlas bör man kolla:

- Medicinsk historik för att fastställa förmaksflimmermönster och symtom
- 12-avlednings-EKG för att bekräfta rytm och leta efter tecken på strukturell hjärtsjukdom eller ischemisk hjärtsjukdom
- Familjehistorik och samsjukligheter för att bedöma riskfaktorer för tromboembolism och blödning
- Blodprover (fullständig blodstatus, njurfunktion, serumelektrolyter, leverfunktion, glukos/HbA1c och sköldkörtelfunktion)
- TTE (EKO) för vägledning i behandlingsbeslut



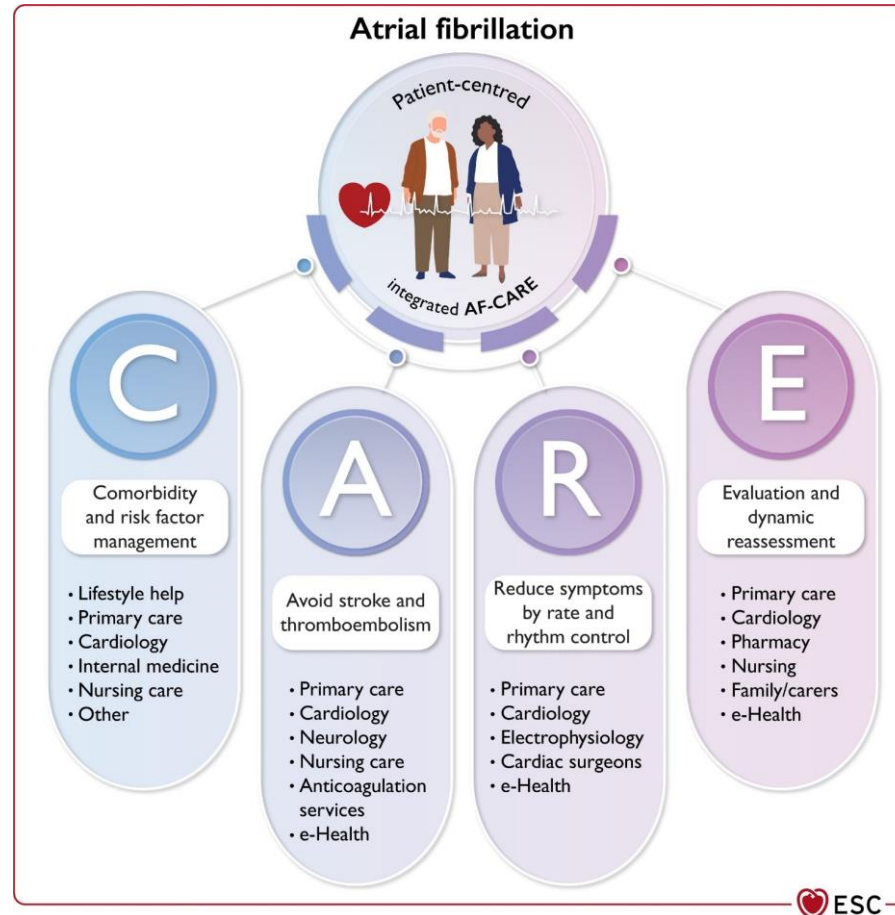


Utredning efter diagnos

Hos vissa patienter kan det också finnas värde att kolla:

- Holter EKG/Arbetsprov för bedömning av hjärtrytmen över tid/vid ansträngning
- Riktad utredning enligt regionala rutiner vid misstanke om angina.
- Ytterligare blodprover för utredning av hjärt-kärlsjukdom och bedömning av stroke-/blödningsrisk

Behandling och patientcentrerad vård (AF-CARE)





Welcome.

This guide can help you understand how to reduce the risk of stroke due to Atrial Fibrillation (AFib) and live a better life.



Let's begin



Supported by the Joe and Linda Chlapaty Stanford
DECIDE Center and the American Heart Association
Strategically Focused Research Network.

<https://afibguide.com/>



AF-CARE



Equality in healthcare provision (gender, ethnicity, socioeconomic) (Class I)

Education for patients, families and healthcare professionals (Class I)

Patient-centred AF management with a multidisciplinary approach (Class IIa)



Comorbidity and risk factor management

Hypertension

Blood pressure lowering treatment (Class I)

Diabetes mellitus

Effective glycaemic control^a (Class I)

Heart failure

Diuretics for congestion (Class I)

Appropriate HFrEF medical therapy (Class I)

SGLT2 inhibitors (Class I)

Overweight or obese

Weight loss (target 10%)^a (Class I)

Bariatric surgery if rhythm control^a (Class IIb)

Obstructive sleep apnoea

Management of OSA^a (Class IIb)

Exercise capacity

Tailored exercise programme (Class I)

Alcohol

Reduce to ≤ 3 drinks per week (Class I)

Other risk factors/ comorbidities

Identify and manage aggressively^a (Class I)





Class och Level

Classes of recommendations

Definition

Wording to use

	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

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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.

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Setting individual targets for comorbidities and risk factors



Suggested approach and targets

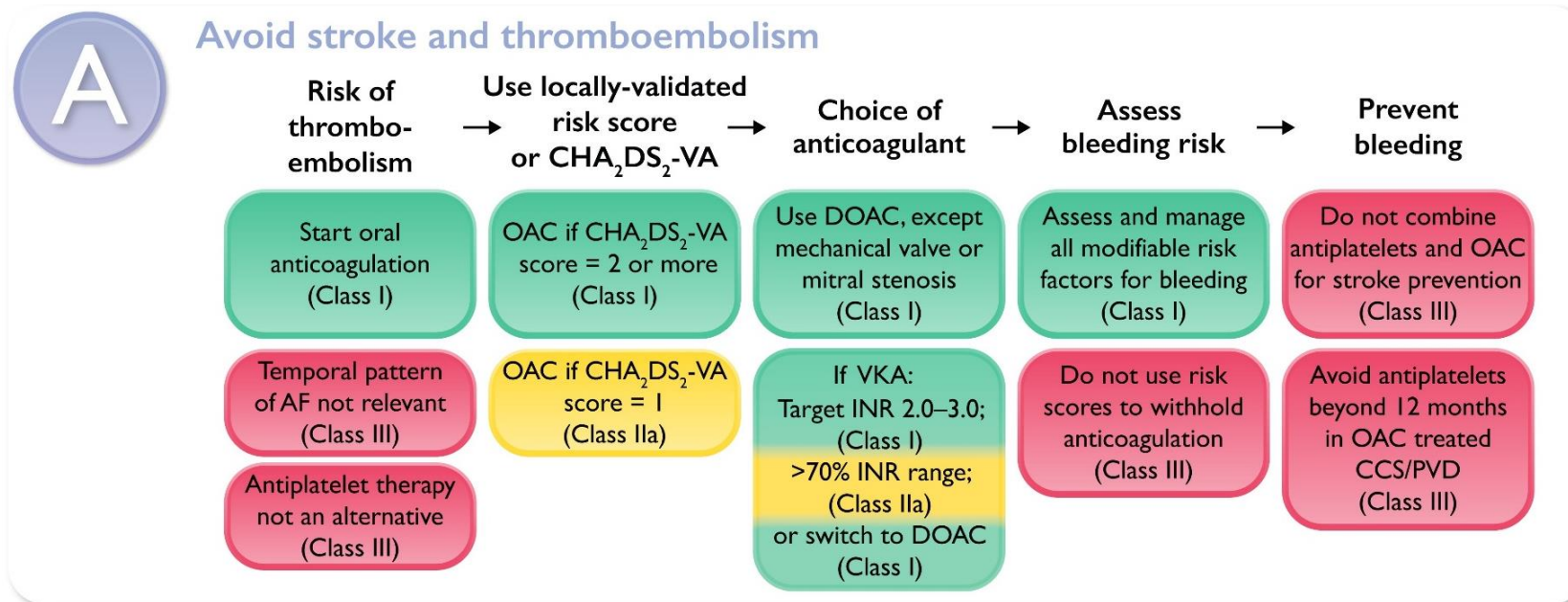


Key targets

Integrated management	Identify and actively manage all risk factors and comorbidities (Class I)
Hypertension	Blood pressure treatment with target 120–129 mmHg / 70–79 mmHg in most adults (or as low as reasonably achievable) (Class I)
Heart failure	Optimize with diuretics to alleviate congestion appropriate, medical therapy for reduced LVEF, and SGLT2 inhibitors for all LVEF (Class I)
Diabetes	Effective glycaemic control with diet/medication(s) (Class I)
Obesity	Weight loss programme if overweight /obese, with 10% or more weight loss (Class I)
Sleep apnoea	Management of obstructive sleep apnoea to minimize apnoeic episodes (Class IIb)
Physical activity	Tailored exercise programme aiming for regular moderate/vigorous activity (Class I)
Alcohol intake	Reduce alcohol consumption to 3 or less standard drinks per week (Class I)



AF-CARE



CHA₂DS₂-VA

- Orala antikoagulantia rekommenderas för personer med en CHA₂DS₂-VA-poäng på 2 eller mer.
- Orala antikoagulantia bör övervägas för personer med en CHA₂DS₂-VA-poäng på 1.

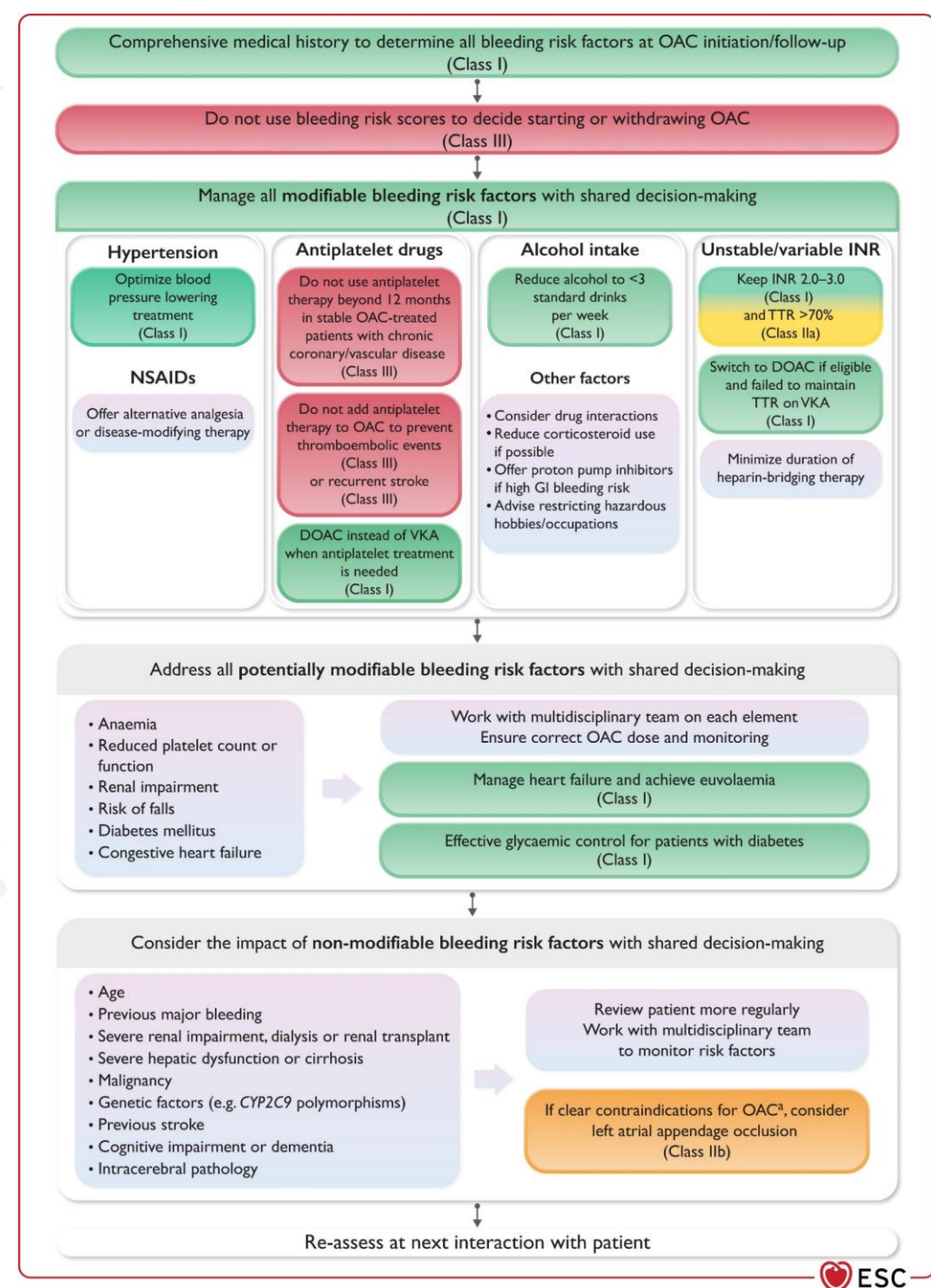
CHA ₂ DS ₂ -VA component	Definition and comments	Points awarded ^a
C Chronic heart failure	Symptoms and signs of heart failure (irrespective of LVEF, thus including HFpEF, HFmrEF, and HFrEF), or the presence of asymptomatic LVEF ≤40%. ²⁶¹⁻²⁶³	1
H Hypertension	Resting blood pressure >140/90 mmHg on at least two occasions, or current antihypertensive treatment. The optimal BP target associated with lowest risk of major cardiovascular events is 120–129/70–79 mmHg (or keep as low as reasonably achievable). ^{162,264}	1
A Age 75 years or above	Age is an independent determinant of ischaemic stroke risk. ²⁶⁵ Age-related risk is a continuum, but for reasons of practicality, two points are given for age ≥75 years.	2
D Diabetes mellitus	Diabetes mellitus (type 1 or type 2), as defined by currently accepted criteria, ²⁶⁶ or treatment with glucose lowering therapy.	1
S Prior stroke, TIA, or arterial thromboembolism	Previous thromboembolism is associated with highly elevated risk of recurrence and therefore weighted 2 points.	2
V Vascular disease	Coronary artery disease, including prior myocardial infarction, angina, history of coronary 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}	1
A Age 65–74 years	1 point is given for age between 65 and 74 years.	1



Blödningsrisk






Läkare bör beakta balansen mellan stroke- och blödningsrisk då båda är dynamiska och överlappande.

De bör omvärderas vid varje uppföljning.



Val av antikoagulantia

- Direkta orala antikoagulantia (DOAC) har alla visat minst likvärdig effekt jämfört med warfarin för att förebygga tromboembolism.
- DOAC har också visat en 50-procentig minskning av intrakraniella blödningar jämfört med Warfarin vid ny insättning.
- I Sörmanland rekommenderar vi Eliquis.

Vitamin K antagonist oral anticoagulants	Direct oral anticoagulants			
	Apixaban	Dabigatran	Edoxaban	Rivaroxaban
				
Avoid where possible NSAIDs Fluconazole Voriconazole Fluoxetine	Avoid where possible Carbamazepine Phenytoin Phenobarbital Rifampicin Ritonavir Itraconazole Ketoconazole	Avoid where possible Dronedarone Carbamazepine Phenytoin Rifampicin Ritonavir Itraconazole Ketoconazole Cyclosporin Glecaprevir/pibrentasvir Tacrolimus	Avoid where possible Carbamazepine Phenytoin Phenobarbital Rifampicin Ritonavir	Avoid where possible Dronedarone Carbamazepine Phenytoin Phenobarbital Itraconazole Ketoconazole Posaconazole Voriconazole Rifampicin Ritonavir
Reduce warfarin dose Amiodarone Metronidazole Sulphonamides Allopurinol Fluvastatin Gemfibrozil Fluorouracil	Avoid or reduce apixaban dose if another interacting drug therapy Posaconazole Voriconazole Protease inhibitors Apalutamide Enzalutamide Tyrosine kinase inhibitors	Delay timing of drugs and/or adjust dose Amiodarone Ticagrelor Verapamil Quinidine Clarithromycin Posaconazole	Avoid or reduce edoxaban dose Dronedarone	Avoid if another interacting drug therapy Protease inhibitors Tyrosine kinase inhibitors
Increase warfarin dose Carbamazepine			Avoid or reduce edoxaban dose if another interacting drug therapy Cyclosporin Itraconazole Ketoconazole Erythromycin	Caution if renal function impaired Verapamil Cyclosporin Clarithromycin Erythromycin Fluconazole
Monitor INR carefully Dronedarone Statins Penicillin antibiotics Macrolide antibiotics Quinolone antibiotics Rifampicin Methotrexate Ritonavir Phenytoin Sodium valproate Tamoxifen Chemotherapies				
Limit consumption Alcohol Grapefruit/cranberry juice St John's wort	Limit consumption Grapefruit juice St John's wort	Limit consumption Grapefruit juice St John's wort	Limit consumption Grapefruit juice St John's wort	Limit consumption Grapefruit juice St John's wort



Dosjustering av DOAC

I Europa är reducerade doser av rivaroxaban, apixaban och edoxaban godkända för patienter med svår kronisk njursjukdom (CKD) och kreatininclearance (CrCl) på 15–29 mL/min.

Switching from one DOAC to another, or from a DOAC to a VKA, without a clear indication is not recommended in patients with AF to prevent recurrent embolic stroke.^{252,356,359}

III

B

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DOAC	Standard full dose	Criteria for dose reduction	Reduced dose only if criteria met
Apixaban	5 mg twice daily	Two out of three needed for dose reduction: (i) age \geq 80 years (ii) body weight \leq 60 kg (iii) serum creatinine \geq 133 mmol/L.	2.5 mg twice daily
Dabigatran	150 mg twice daily	Dose reduction recommended if any apply: (i) age \geq 80 years (ii) receiving concomitant verapamil. Dose reduction considered on an individual basis if any apply: (i) age 75–80 (ii) moderate renal impairment (creatinine clearance 30–50 mL/min) (iii) patients with gastritis, oesophagitis, or gastro-oesophageal reflux (iv) others at increased risk of bleeding.	110 mg twice daily
Edoxaban	60 mg once daily	Dose reduction if any apply: (i) moderate or severe renal impairment (creatinine clearance 15–50 mL/min) (ii) body weight \leq 60 kg (iii) concomitant use of ciclosporin, dronedarone, erythromycin, or ketoconazole.	30 mg once daily
Rivaroxaban	20 mg once daily	Creatinine clearance 15–49 mL/min.	15 mg once daily



Byte mellan oral antikoagulantia

- Från warfarin till NOAK – avsluta warfarin och starta NOAK när PK(INR) är < 2
- Från NOAK till warfarin :
 - eGFR > 50 ml/min: starta warfarin 2-3 dagar innan NOAK avslutas.
 - eGFR 31-50 ml/min: starta warfarin 1 dag innan NOAK avslutas.
 - eGFR 15-30 ml/min: starta warfarin 1 dag efter NOAK avslutas.



Innan kirurg vid behandling med DOAC

Elektiv kirurgi, tid från sista tablett till kirurgi:

- | | |
|--|--------|
| • Låg/standardriskrepp* | 1 dygn |
| • Högriskrepp* eller eGFR 15-30 | 2 dygn |
| • Eliquis®, Lixiana®, Xarelto®: högrisk och eGFR 15-30 | 3 dygn |
| • Pradaxa®: högrisk och eGFR 15-30 | 4 dygn |

Låg/standardriskrepp:

- Endoskopi med biopsi
- Prostata eller urinblåsebiopsi
- Radiofrekvensablation av SVT
- Elektrofysiologi
- Angiografi
- Pacemakerimplantation
- Benmärgsbiopsi
- Ledpunktioner, intramuskulära injektioner

Högriskrepp:

- LP, spinalanestesi
- Thoraxkirurgi
- Bukkirurgi
- Större ortopedisk kirurgi
- Lever/njurbiopsi
- TUR-P





Återinsättning av antikoagulantia efter kirurgi

Återinsättning av antikoagulantia efter kirurgi:

- Lågriskingrepp: 6-8 timmar efter ingrepp eller nästa dag
- Standardriskingrepp: 24-48h efter kirurgi
- Högriskpatient/ingrepp: Profylax med LMH postop. Återinsätt NOAK vid god hemostas.



AF-CARE



Reduce symptoms by rate and rhythm control

See patient pathways for:

First-diagnosed AF

Paroxysmal AF

Persistent AF

Permanent AF

Consider:

Rate control drugs

Cardioversion

Antiarrhythmic drugs

Catheter ablation

Endoscopic/hybrid ablation

Surgical ablation

Ablate and pace



Behandling vid nyupptäckt förmaksflimmer

I första hand

+ bisoprolol	↔	Bisoprolol ..., Bisomyl, Bisostad, Emconcor CHF
+ metoprololsuccinat	↔	Metoprolol ..., Bloxazoc, Metomylan, SelokenZOC

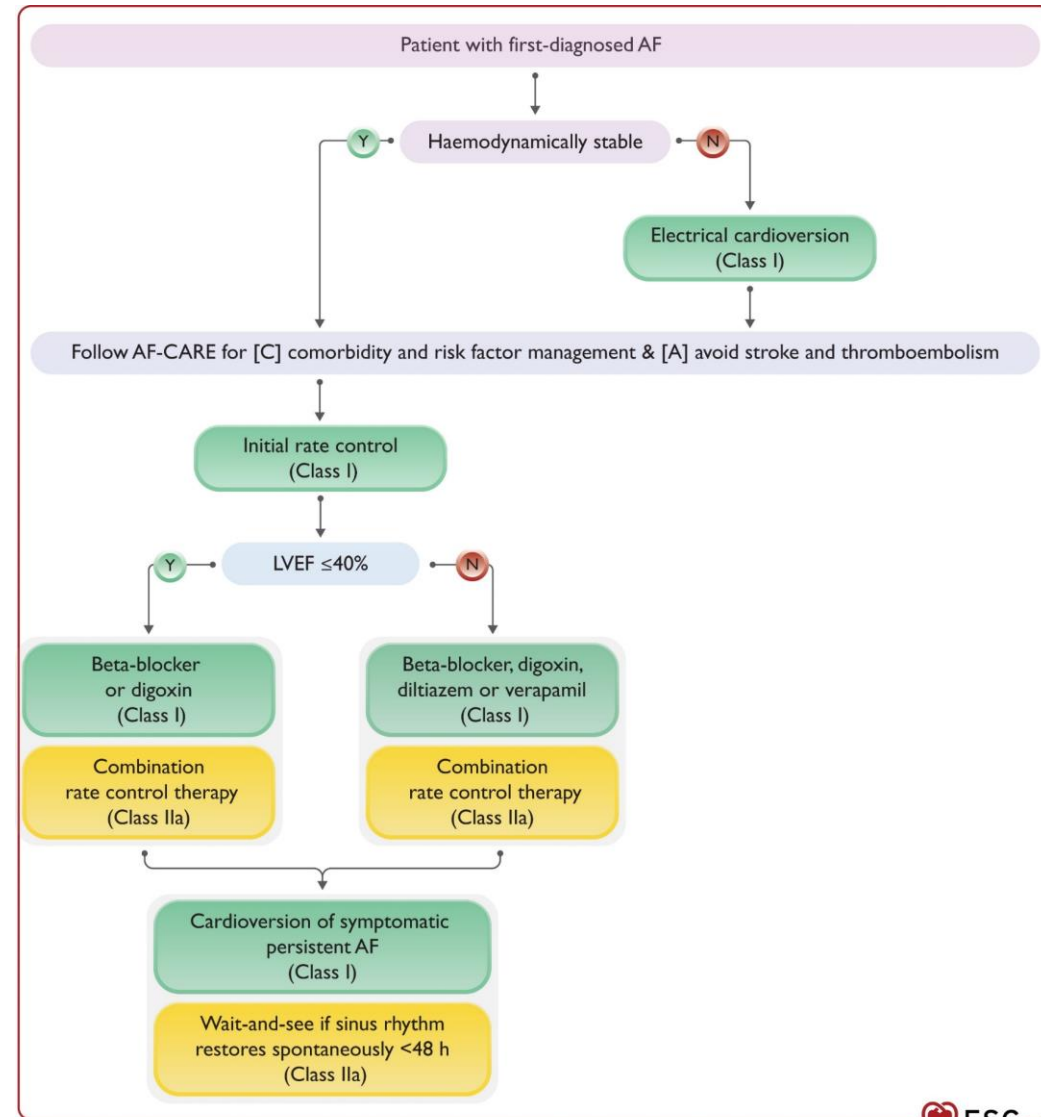
I andra hand

+ verapamil		Isoptin Retard (<i>i tvådos</i>)
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Till exempel vid intolerans mot betablockare. Kontraindicerat vid hjärtsvikt med EF ≤40%.

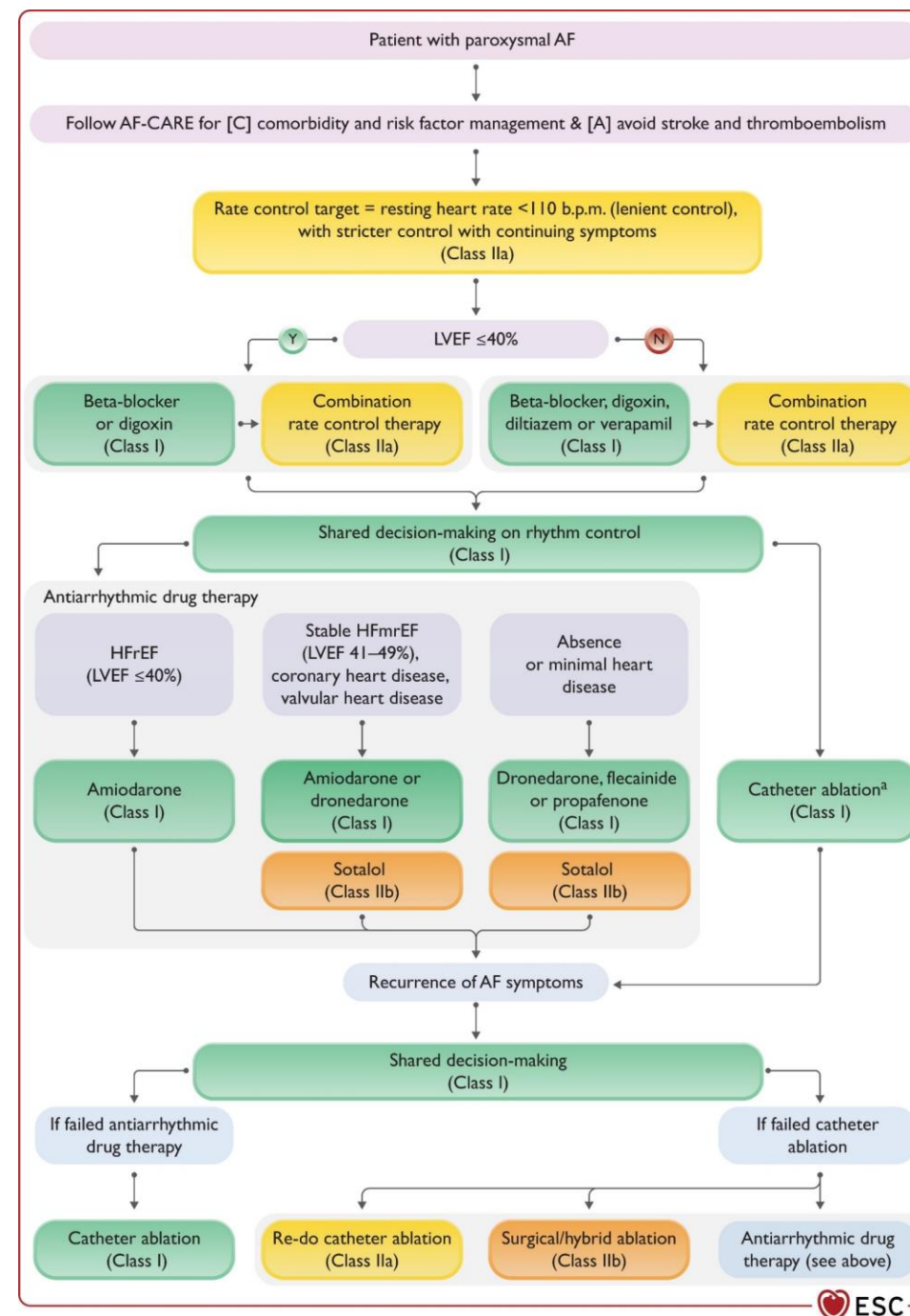
Vid otillräcklig effekt av betablockad, överväg tillägg av

+ digoxin		Digoxin Evolan
+ verapamil		Isoptin Retard (<i>i tvådos</i>)



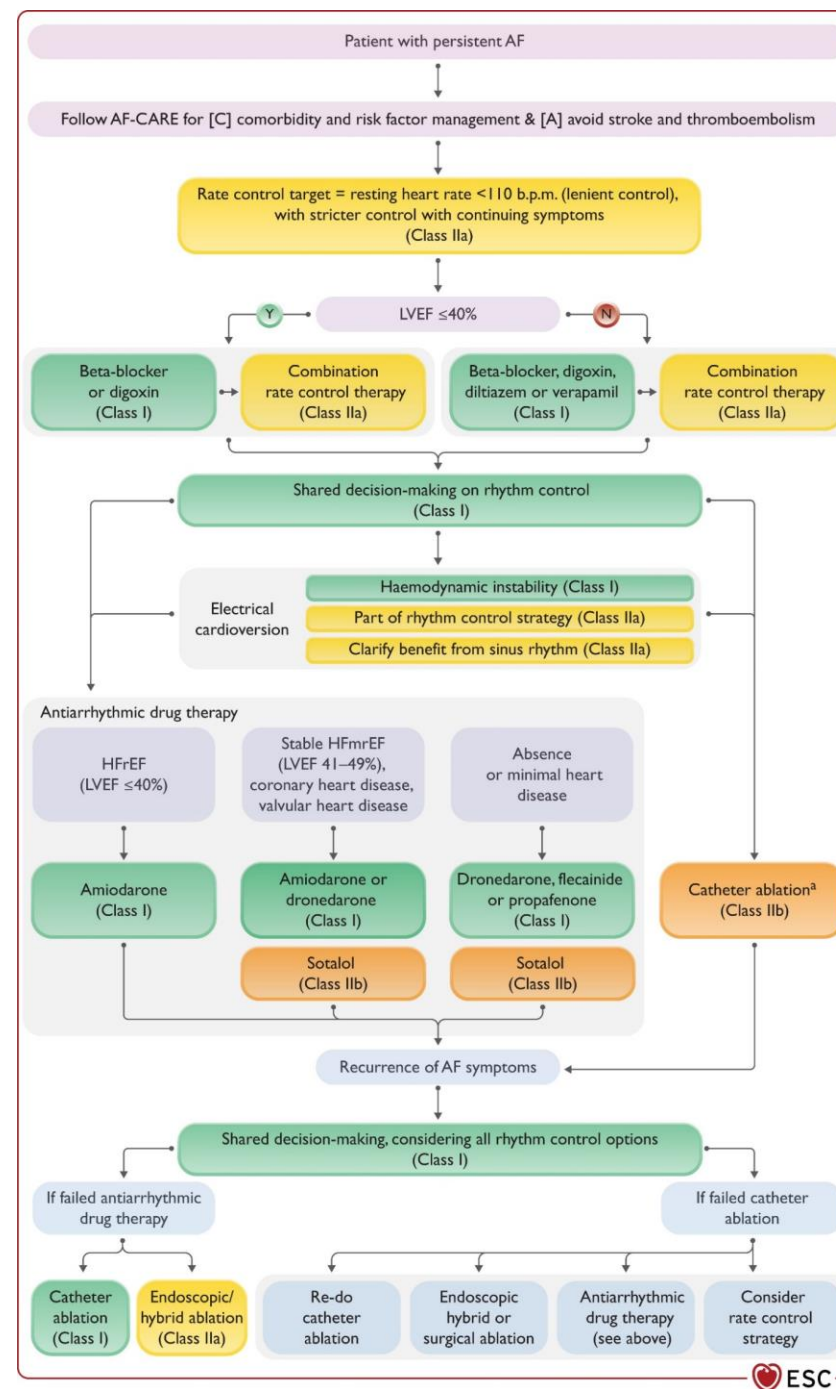
Behandling vid paroxysmalt förmaksflimmer

Temporal classification	Definition
First-diagnosed AF	AF that has not been diagnosed before, regardless of symptom status, temporal pattern, or duration.
Paroxysmal AF	AF which terminates spontaneously within 7 days or with the assistance of an intervention. Evidence suggests that most self-terminating paroxysms last <48 h. ²
Persistent AF	AF episodes which are not self-terminating. Many intervention trials have used 7 days as a cut-off for defining persistent AF. ^{3,4} Long-standing persistent AF is arbitrarily defined as continuous AF of at least 12 months' duration but where rhythm control is still a treatment option in selected patients, distinguishing it from permanent AF.
Permanent AF	AF for which no further attempts at restoration of sinus rhythm are planned, after a shared decision between the patient and physician.



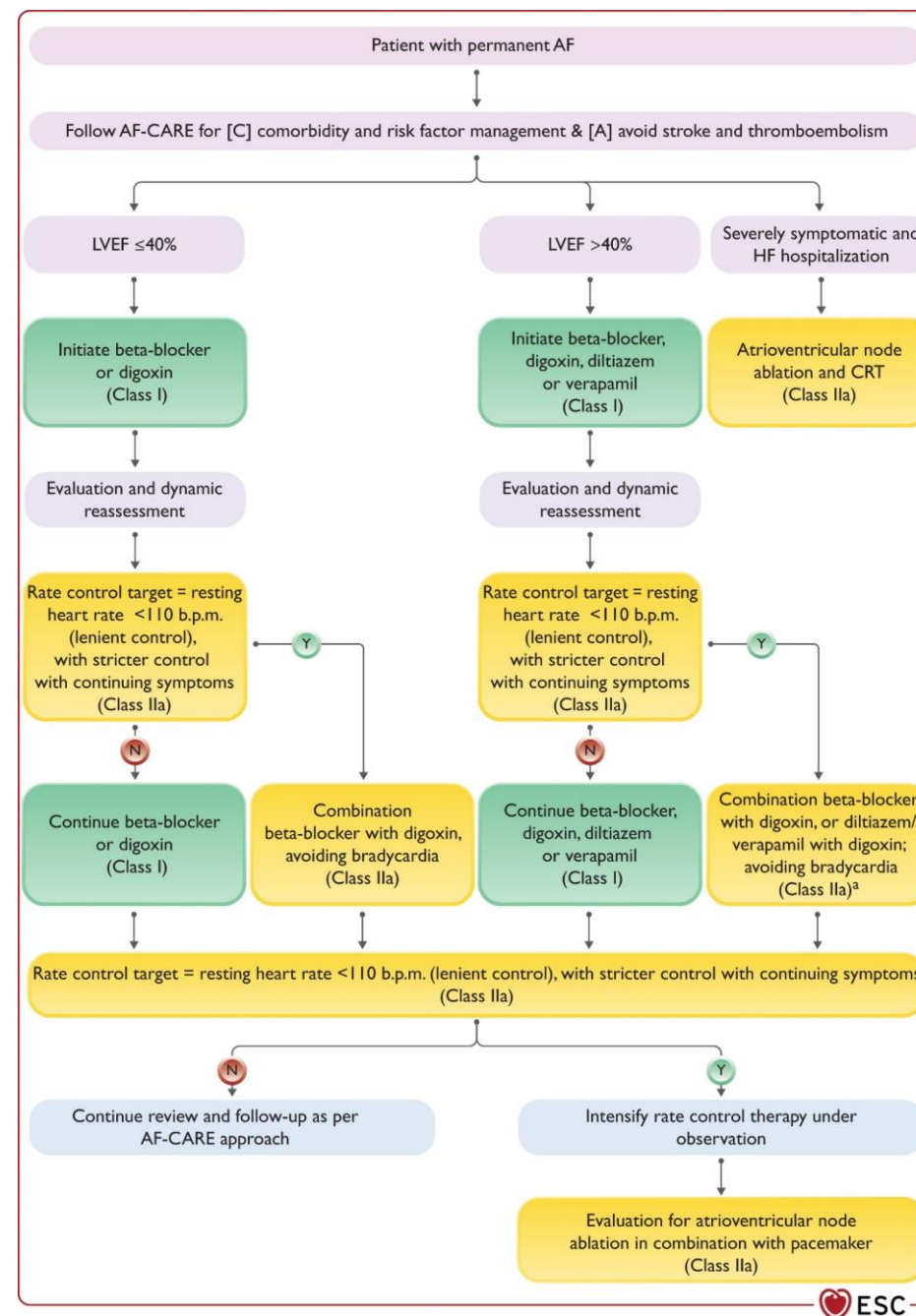
Behandling vid persisterande förmaksflimmer

Temporal classification	Definition
First-diagnosed AF	AF that has not been diagnosed before, regardless of symptom status, temporal pattern, or duration.
Paroxysmal AF	AF which terminates spontaneously within 7 days or with the assistance of an intervention. Evidence suggests that most self-terminating paroxysms last <48 h. ²
Persistent AF	AF episodes which are not self-terminating. Many intervention trials have used 7 days as a cut-off for defining persistent AF. ^{3,4} Long-standing persistent AF is arbitrarily defined as continuous AF of at least 12 months' duration but where rhythm control is still a treatment option in selected patients, distinguishing it from permanent AF.
Permanent AF	AF for which no further attempts at restoration of sinus rhythm are planned, after a shared decision between the patient and physician.



Behandling vid permanent förmaksflimmer

Temporal classification	Definition
First-diagnosed AF	AF that has not been diagnosed before, regardless of symptom status, temporal pattern, or duration.
Paroxysmal AF	AF which terminates spontaneously within 7 days or with the assistance of an intervention. Evidence suggests that most self-terminating paroxysms last <48 h. ²
Persistent AF	AF episodes which are not self-terminating. Many intervention trials have used 7 days as a cut-off for defining persistent AF. ^{3,4} Long-standing persistent AF is arbitrarily defined as continuous AF of at least 12 months' duration but where rhythm control is still a treatment option in selected patients, distinguishing it from permanent AF.
Permanent AF	AF for which no further attempts at restoration of sinus rhythm are planned, after a shared decision between the patient and physician.





AF-CARE



Evaluation and dynamic reassessment

Re-evaluate when AF episodes or non-AF admissions

Regular re-evaluation: 6 months after presentation, and then at least annually or based on clinical need

ECG, blood tests, cardiac imaging, ambulatory ECG, other imaging as needed

Assess new and existing risk factors and comorbidities (Class I)

Stratify risk for stroke and thromboembolism (Class I)

Check impact of AF symptoms before and after treatment (Class I)

Assess and manage modifiable bleeding risk factors (Class I)

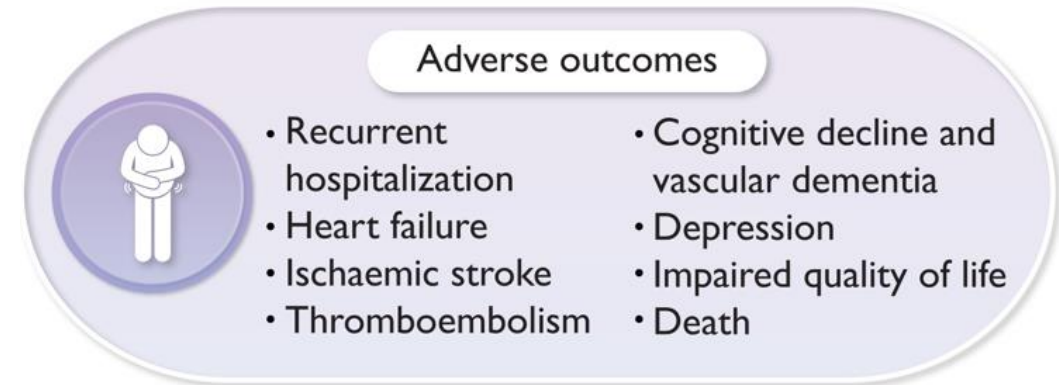
Continue OAC despite rhythm control if risk of thromboembolism (Class I)



Komplikationer till följd av Förmaksflimmer

Patienter med förmaksflimmer har ökad risk för:

- Hjärtsvikt
- Ischemisk stroke
- Ischemisk hjärtsjukdom
- Tromboemboliska sjukdomar.



Källor



<https://www.escardio.org/Guidelines/Clinical-Practice-Guidelines/Atrial-Fibrillation>

Tack!

<https://www.escardio.org/Guidelines/Clinical-Practice-Guidelines/Atrial-Fibrillation>