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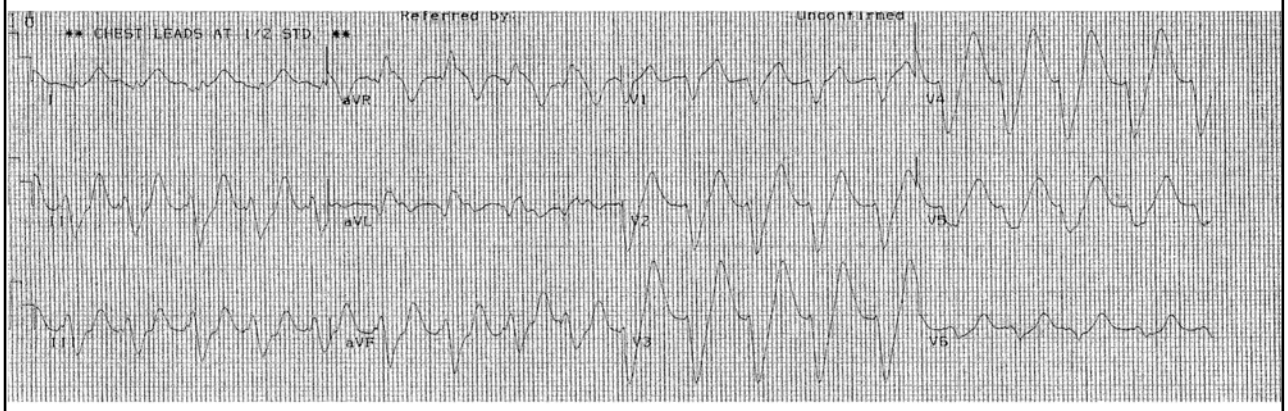

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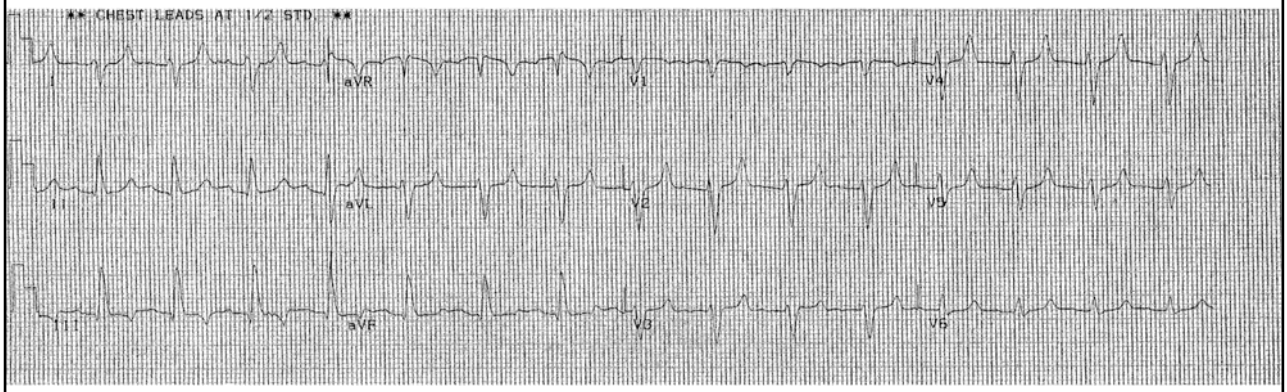

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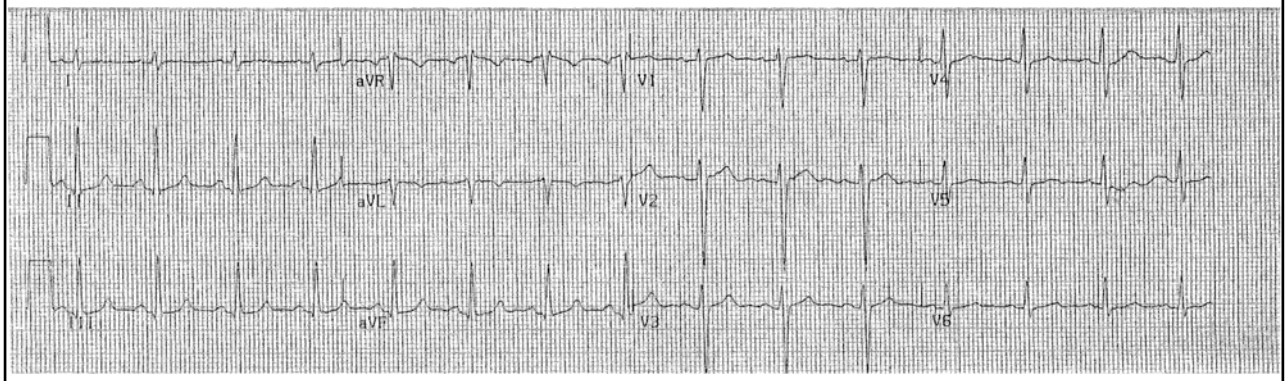

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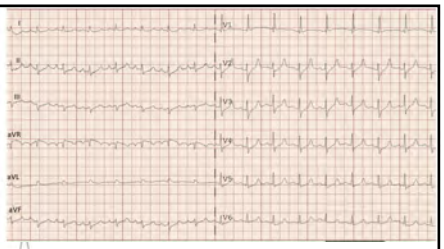
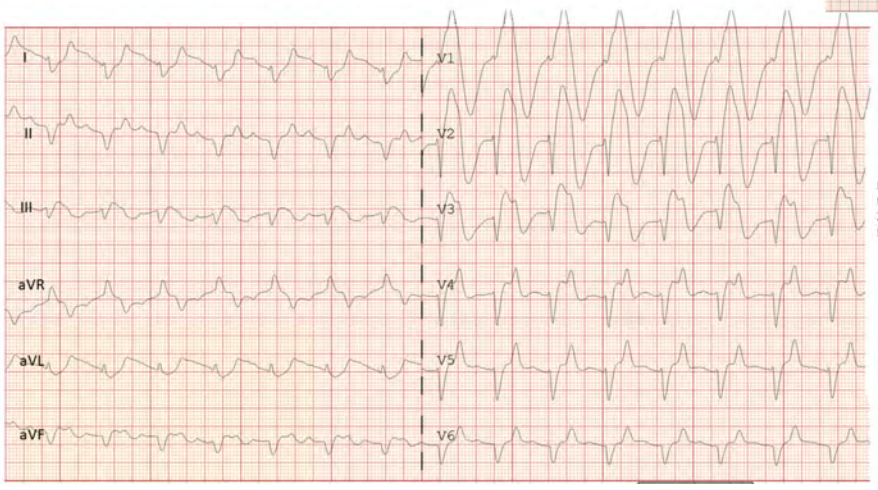
Challenging ST elevation during night shift

Stefano Cornara*, Matteo Astuti, Luca Bacino, Alberto Somaschini, Francesco Pentimalli
Arrhythmia unit, Division of cardiology, Ospedale San Paolo, Azienda Sanitaria Locale 2, Savona, Italy





respiratory alkalosis (pH 6.98, K 8.4 mEq/L, HCO3- 2.6 mg/dl, lactates 7 mg/dl, blood glucose 403 mg/dl, pO2 81 mmHg, pCO2 21 mmHg). Further blood exams revealed a picture of acute renal failure (creatinine 3.9 mg/dl). The patient was hemodynamically

K 8.4 mEq/L
pH 6.98
Creatinina 3.9 mg%

Indian Pacing and Electrophysiology Journal 21 (2021) 257–259

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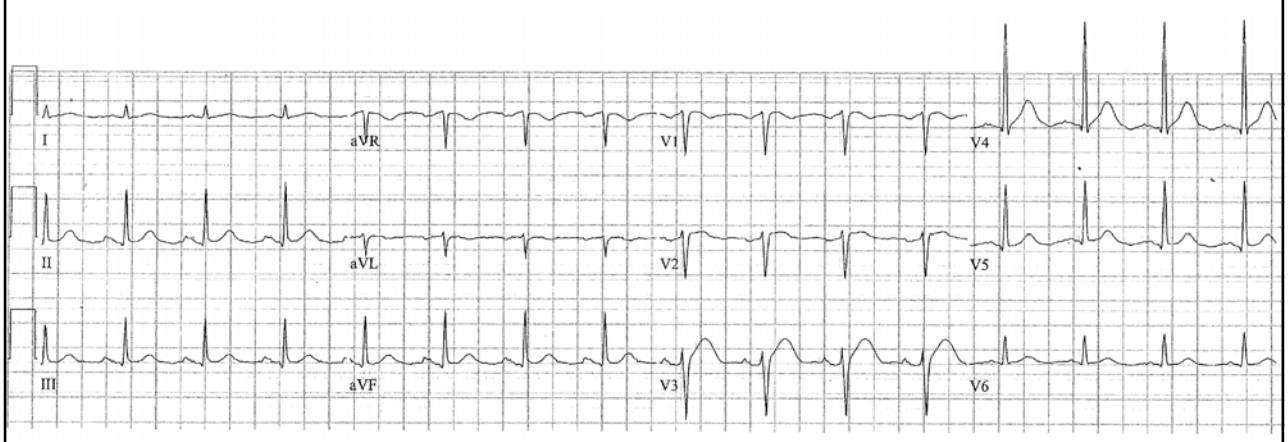
DISIONIE: IPERCALCEMIA



Ca++ 14.7 mg/dl
v.n. 8.5-10.5 mg/dl

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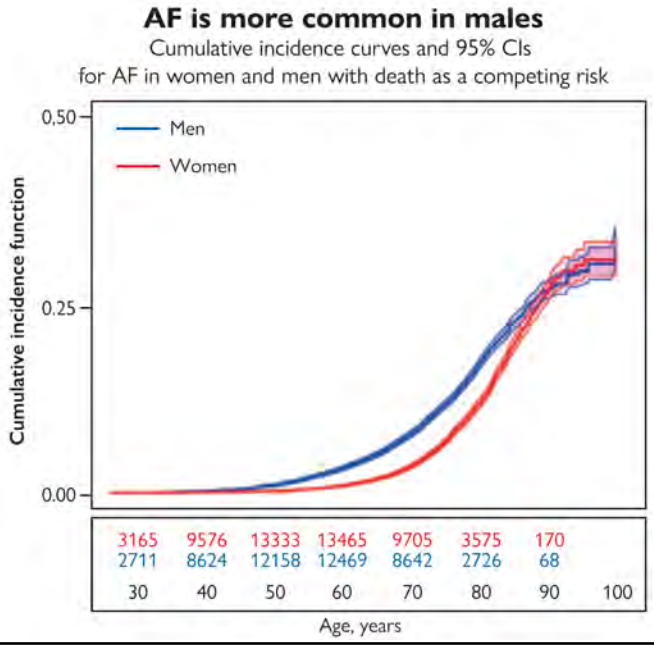
FA



2020 ESC Guidelines for the diagnosis and management of atrial fibrillation developed in collaboration with the European Association for

Hindricks G, Potpara T et al. Eur Heart J 2020

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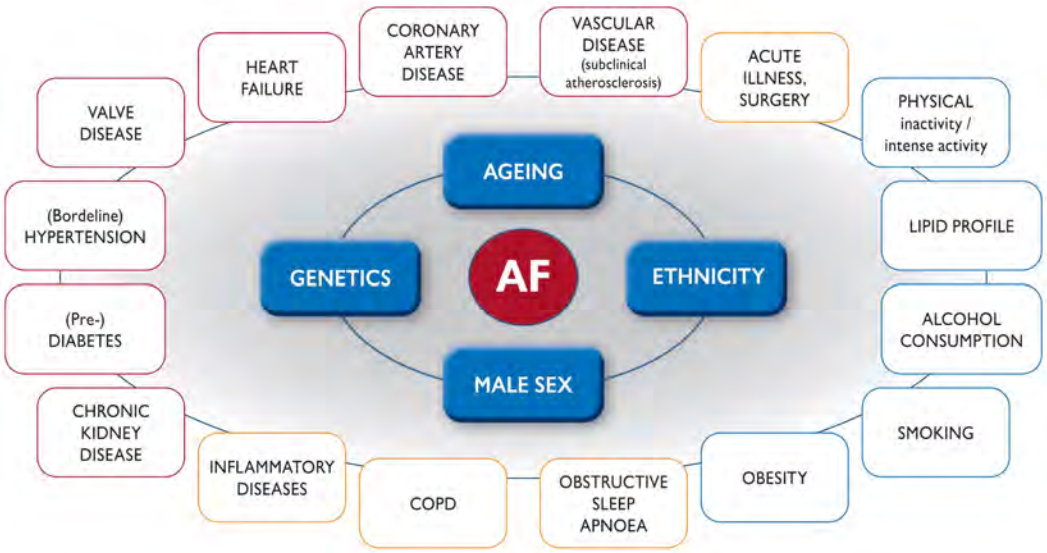

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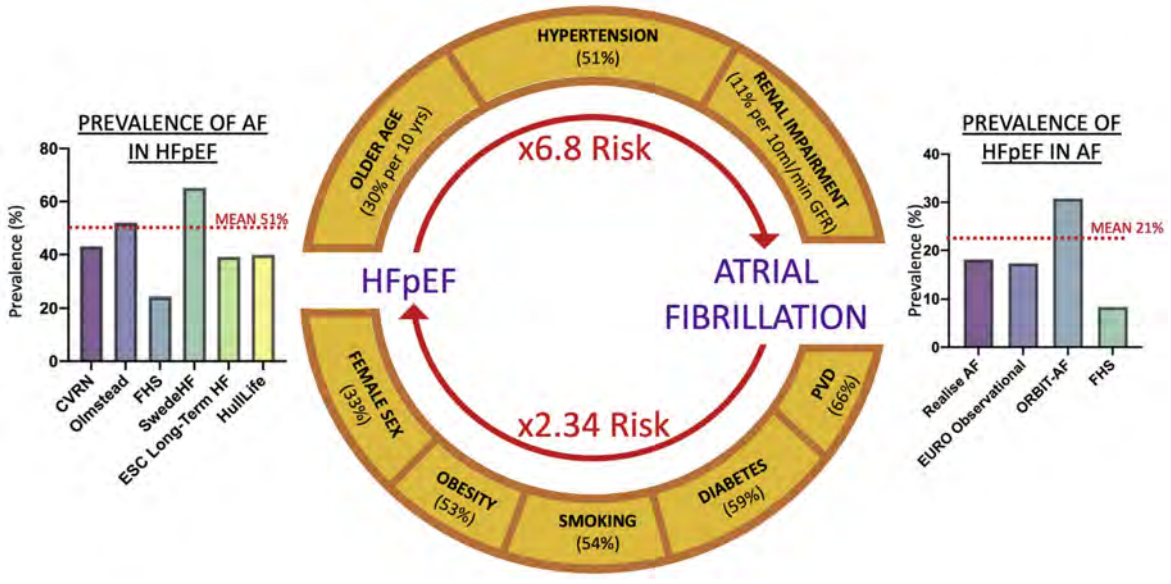

Sanders P et al. Heart Rhytthm 2021; 2: 771-783

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www.aging-us.com AGING 2021, Vol. 13, No. 13

Research Paper

Prevalence and predictors of subclinical atrial fibrillation in hospitalized older adults

Francesco Spannella[1,2], Federico Giulietti[1,2], Lorenzo Pimpini[3], Francesca Elena Lombardi[1,2] Serena Re[1,2], Paola Schiavi[1,2], Gina Dragano[1], Roberto Antonicelli[3], Riccardo Sarzani[1,2]

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ABSTRACT

Subclinical atrial fibrillation (SCAF) is associated with an increased risk of clinical AF, major cardiovascular events and death. Short-term evidence on SCAF in older populations is scarce, especially in the hospital setting. We performed a cross-sectional study on 60 multimorbid older consecutive patients (aged 80+) admitted to an Internal Medicine and Geriatrics Unit for acute medical diseases with no history of AF, in order to investigate prevalence and predictors of SCAF. Portable ECG monitoring was placed on admission and ECG recording lasted for 5 days. Mean age: 85.7±4.9 years. Female prevalence: 58.3%. High burden of comorbidities: 87.9%. All enrolled patients had CHA_2DS_2-VASc score ≥3. SCAF was detected in 16 patients (26.7%) and 11 patients (18.4%) had at least a SCAF episode lasting 6 minutes or longer. No clinical, laboratory and echocardiographic parameters predicted SCAF. Patients with ≥2004 supraventricular ectopic beats/24h (SVEBs/24h) had a 6-fold higher prevalence of SCAF than patients with <411 SVEBs/24h (p=0.038). Time to first SCAF episode was within 3 days of ECG recording in all enrolled patients. SCAF is highly prevalent in older adults hospitalized for acute diseases. This finding may affect clinical management and prognosis. Our study could foster larger multicenter studies in similar settings.

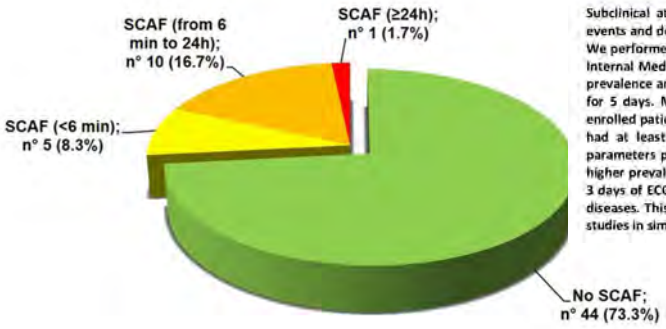

Figure 1. Prevalence of SCAF. SCAF: subclinical atrial fibrillation.

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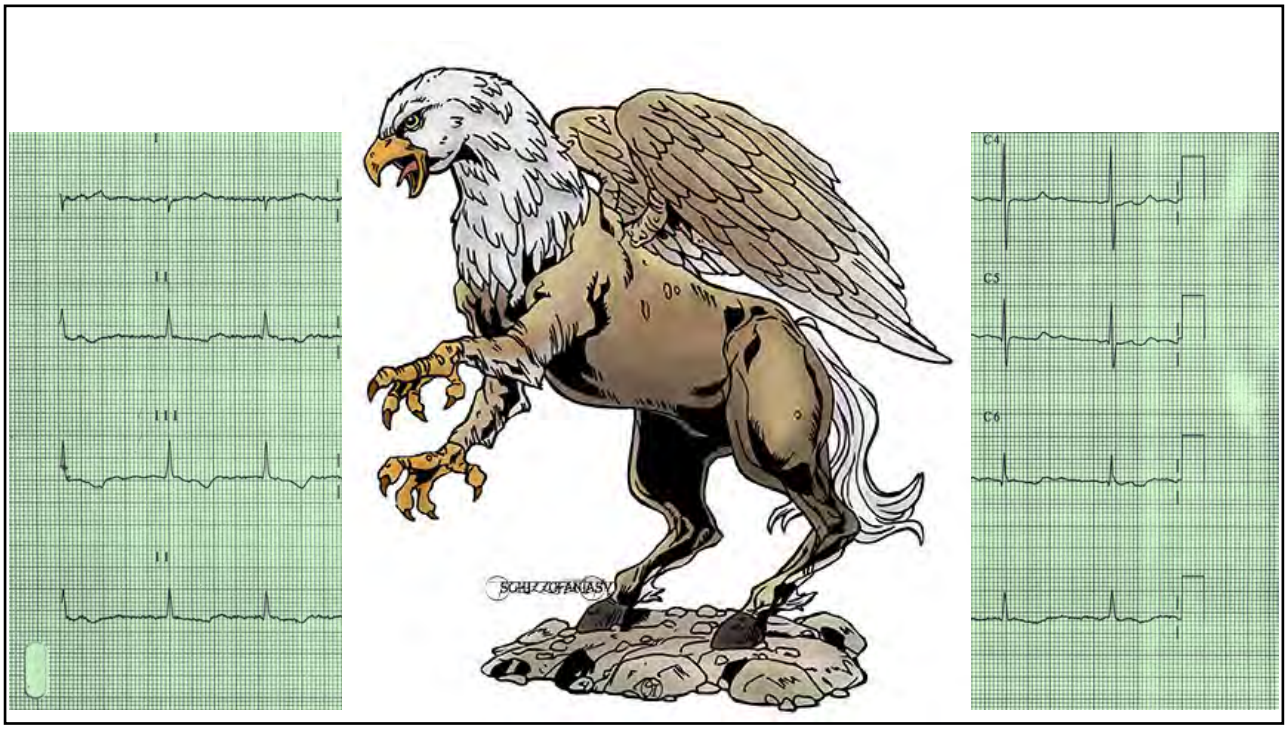

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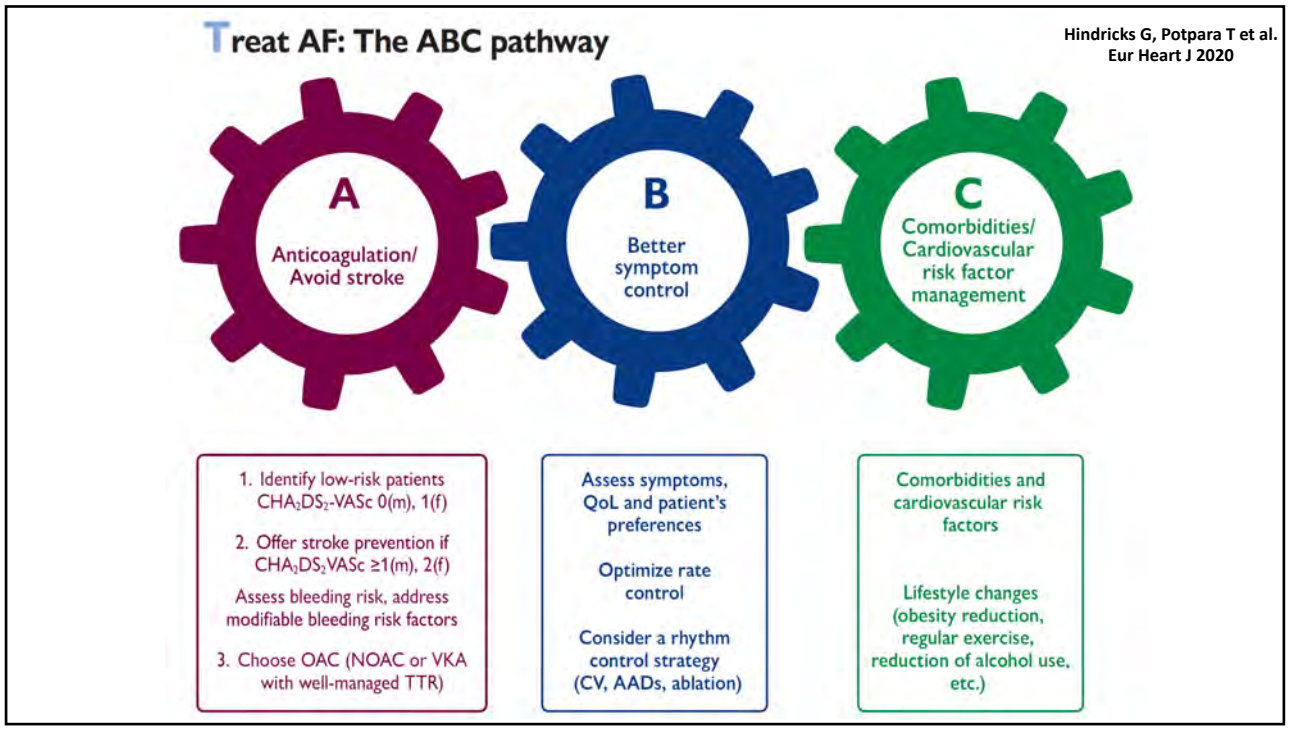

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11.13 The elderly and frail with atrial fibrillation

The prevalence of AF increases progressively with age[67,1200–1206], and age is an independent risk factor for adverse outcomes in AF.[372,1200,1207,1208] Older people are less likely to receive OAC[1209–1216] despite sufficient evidence supporting the use of OAC in this population. Frailty, comorbidities, and increased risk of falls[1217–1219] do not outweigh the benefits of OAC given the small absolute risk of bleeding in anticoagulated elderly patients.[339,390,391,1220–1223] Evidence from RCTs,[441,1224] meta-analyses[423,1225] and large registries[339,433,1209,1226] support the use of OAC in this age group. Antiplatelets are neither more effective nor safer than warfarin and may even be harmful,[433] whereas NOACs appear to have a better overall risk–benefit profile compared with warfarin.[423,433,441,1035,1225,1227–1236] Prescribing a reduced dose of OAC is less effective in preventing AF adverse outcomes.[1107,1211,1237,1238]

Rate control is traditionally the preferred strategy, but evidence informing the choice between rate and rhythm control in the elderly is insufficient.[1239–1242] Limited evidence on other AF treatments supports the use of all rate and rhythm control options, including cardioversion, pacemaker implantation, and AF catheter ablation without any age discrimination. AF catheter ablation may be an effective and safe option in selected older individuals with success rates comparable to younger patients[1243–1255] and acceptable complication rates.[1243,1245–1247,1249–1260] Nevertheless, age was a predictor of complications in AF catheter ablation in some studies[1261–1263] and

longer follow-up studies suggested an age-related increase in multivariable-adjusted risk for AF/AFL recurrence, death, and major adverse cardiac events.[1257]

ESC European Society of Cardiology
European Heart Journal (2020) 00, 1–125
doi:10.1093/eurheartj/ehaa612
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

Authors/Task Force Members: Gerhard Hindricks* (Chairperson) (Germany), Tatjana Potpara* (Chairperson) (Serbia), Nikolaos Dagres (Germany), Elena Arbelo (Spain), Jeroen J. Bax (Netherlands), Carina Blomström-Lundqvist (Sweden), Giuseppe Boriani (Italy), Manuel Castella[1] (Spain), Gheorghe-Andrei Dan (Romania), Polychronis E. Dilaveris (Greece), Laurent Fauchier (France), Gerasimos Filippatos (Greece), Jonathan M. Kalman (Australia), Mark La Meir[1]

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FARMACI ANTIARITMICI

ESC European Society of Cardiology
Europace (2018) 20, 731–732
doi:10.1093/europace/eux373

EHRA POSITION PAPER

Antiarrhythmic drugs–clinical use and clinical decision making: a consensus document from the European Heart Rhythm Association (EHRA) and European Society of Cardiology (ESC) Working Group on Cardiovascular Pharmacology, endorsed by the Heart Rhythm Society (HRS), Asia-Pacific Heart Rhythm Society (APHRS) and International Society of Cardiovascular Pharmacotherapy (ISCP)

Gheorghe-Andrei Dan (Chair)[1]*, Antoni Martinez-Rubio (Co-Chair)[2], Stefan Agewall[3,4], Giuseppe Boriani[5], Martin Borggrefe[6], Fiorenzo Gaita[7], Isabelle van Gelder[8], Bulent Gorenek[9], Juan Carlos Kaski[10], Keld Kjeldsen[11,12], Gregory Y. H. Lip[13,14], Bela Merkely[15], Ken Okumura[16], Jonathan P. Piccini[17], Tatjana Potpara[18], Birgitte Klindt Poulsen[19], Magdi Saba[10], Irina Savelieva[10], Juan L. Tamargo[20], and Christian Wolpert[21]

Table 5 Pharmacokinetics alterations in elderly

PK component	Physiological change	Effect
Absorption	Reduced gastric acid	Reduced tablet dissolution
	Reduced gastric emptying rate	Reduced solubility for basic drugs
	Reduced GI motility	Decreased absorption of acid drugs
	Reduced GI blood flow	Less drug absorption
	Reduced absorptive surface	
Distribution	Decreased body mass	Increased Vd of lipid soluble drugs
	Increased body fat	Decrease Vd of water-soluble drugs
	Decreased proportion of body water	Changed proportion of free drug
	Decreased plasma albumin	Accumulation of metabolized drugs
Metabolism	Reduced liver mass	Accumulation of renal cleared drugs
	Reduced liver blood flow	
	Reduced liver metabolism rate/capacity	
Excretion	Reduced glomerular filtration	
	Reduced renal tubular function	
	Reduced renal blood flow	

GI, gastrointestinal; PK, pharmacokinetics; Vd, distribution volume.

EUROPACE 2018; 20: 731-732an

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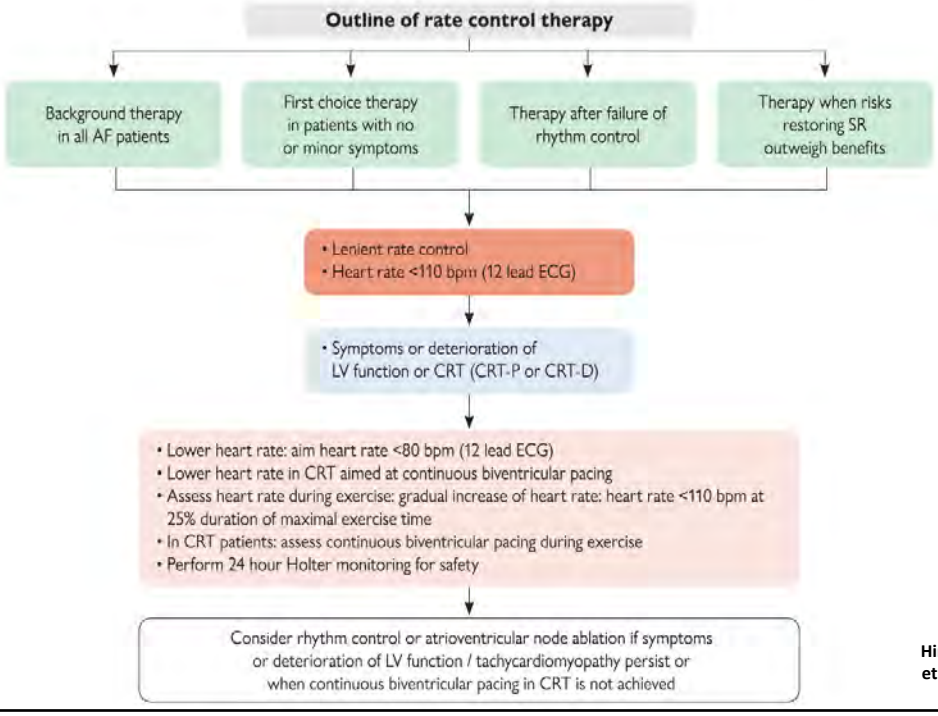

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	Intravenous administration	Usual oral maintenance dose	Contraindicated
Beta-blockers[b]			
Metoprolol tartrate	2.5 - 5 mg i.v. bolus; up to 4 doses	25 - 100 mg *b.i.d.*	In case of asthma use beta-1-blockers Contraindicated in acute HF and history of severe bronchospasm
Metoprolol XL (succinate)	N/A	50 - 400 mg *o.d.*	
Bisoprolol	N/A	1.25 - 20 mg *o.d.*	
Atenolol[c]	N/A	25 - 100 mg *o.d.*	
Esmolol	500 µg/kg i.v. bolus over 1 min; followed by 50 - 300 µg/kg/min	N/A	
Landiolol	100 µg/kg i.v. bolus over 1 min, followed by 10 - 40 µg/kg/min; in patients with cardiac dysfunction: 1 - 10 µg/kg/min	N/A	
Nebivolol	N/A	2.5 - 10 mg *o.d.*	
Carvedilol	N/A	3.125 - 50 mg *b.i.d.*	
Non-dihydropyridine calcium channel antagonists			
Verapamil	2.5 - 10 mg i.v. bolus over 5 min	40 mg b.i.d. to 480 mg (extended release) o.d.	Contraindicated in HFrEF Adapt doses in hepatic and renal impairment
Diltiazem	0.25 mg/kg i.v. bolus over 5 min, then 5 - 15 mg/h	60 mg t.i.d. to 360 mg (extended release) o.d.	
Digitalis glycosides			
Digoxin	0.5 mg i.v. bolus (0.75 - 1.5 mg over 24 hours in divided doses)	0.0625 - 0.25 mg o.d.	High plasma levels associated with increased mortality Check renal function before starting and adapt dose in CKD patients
Digitoxin	0.4 - 0.6 mg	0.05 - 0.1 mg o.d.	High plasma levels associated with increased mortality
Other			
Amiodarone	300 mg i.v. diluted in 250 mL 5% dextrose over 30 - 60 min (preferably via central venous cannula), followed by 900 - 1200 mg i.v. over 24 hours diluted in 500 - 1000 mL via a central venous cannula	200 mg o.d. after loading 3 × 200 mg daily over 4 weeks, then 200 mg daily[536] [d](reduce other rate controlling drugs according to heart rate)	In case of thyroid disease, only if no other options

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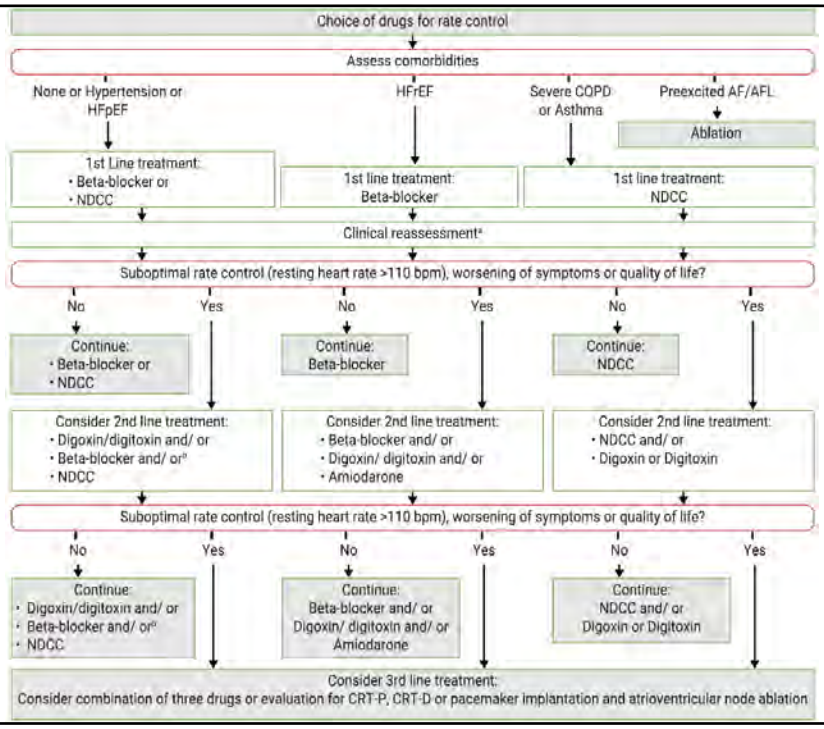

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Recommendations for ventricular rate control in patients with AF[a]

Recommendations	Class[b]	Level[c]
Beta-blockers, diltiazem, or verapamil are recommended as first-choice drugs to control heart rate in AF patients with LVEF≥40%.[492,507,511,529]	I	B
Beta-blockers and/or digoxin are recommended to control heart rate in AF patients with LVEF<40%.[486,491,502,512,530–532]	I	B
Combination therapy comprising different rate controlling drugs[d] should be considered if a single drug does not achieve the target heart rate.[533,534]	IIa	B
A resting heart rate of <110 bpm (i.e. lenient rate control) should be considered as the initial heart rate target for rate control therapy.[488]	IIa	B
Atrioventricular node ablation should be considered to control heart rate in patients unresponsive or intolerant to intensive rate and rhythm control therapy, and not eligible for rhythm control by LA ablation, accepting that these patients will become pacemaker dependent.[516,523,535,536]	IIa	B
In patients with haemodynamic instability or severely depressed LVEF, intravenous amiodarone may be considered for acute control of heart rate.[504,514,515]	IIb	B

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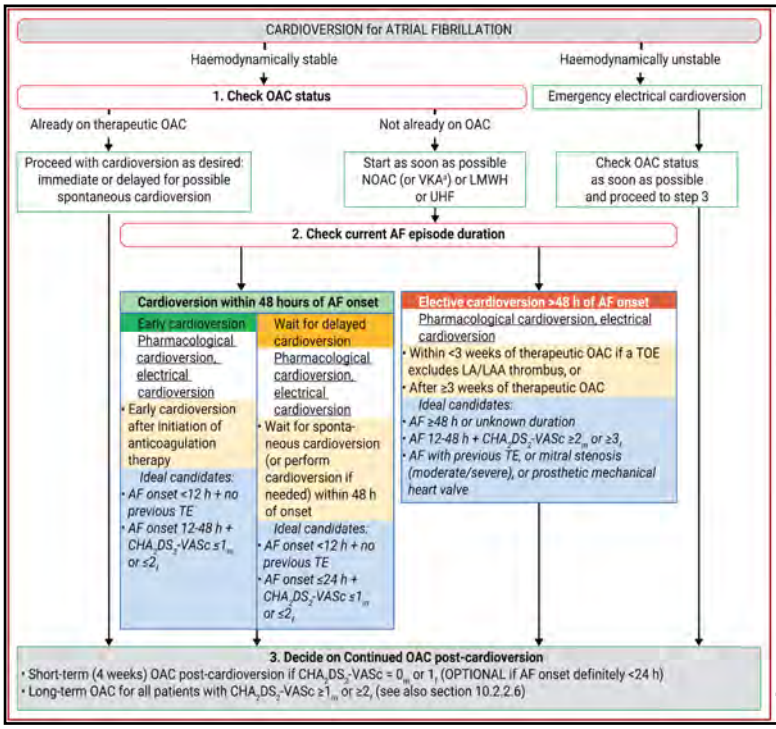

Recommendations for management of AF with haemodynamic instability

Recommendations	Class[a]	Level[b]
Emergency electrical cardioversion is recommended in AF patients with acute or worsening haemodynamic instability.[1053,1054]	I	B
In AF patients with haemodynamic instability, amiodarone may be considered for acute control of heart rate.[503,511,512]	IIb	B

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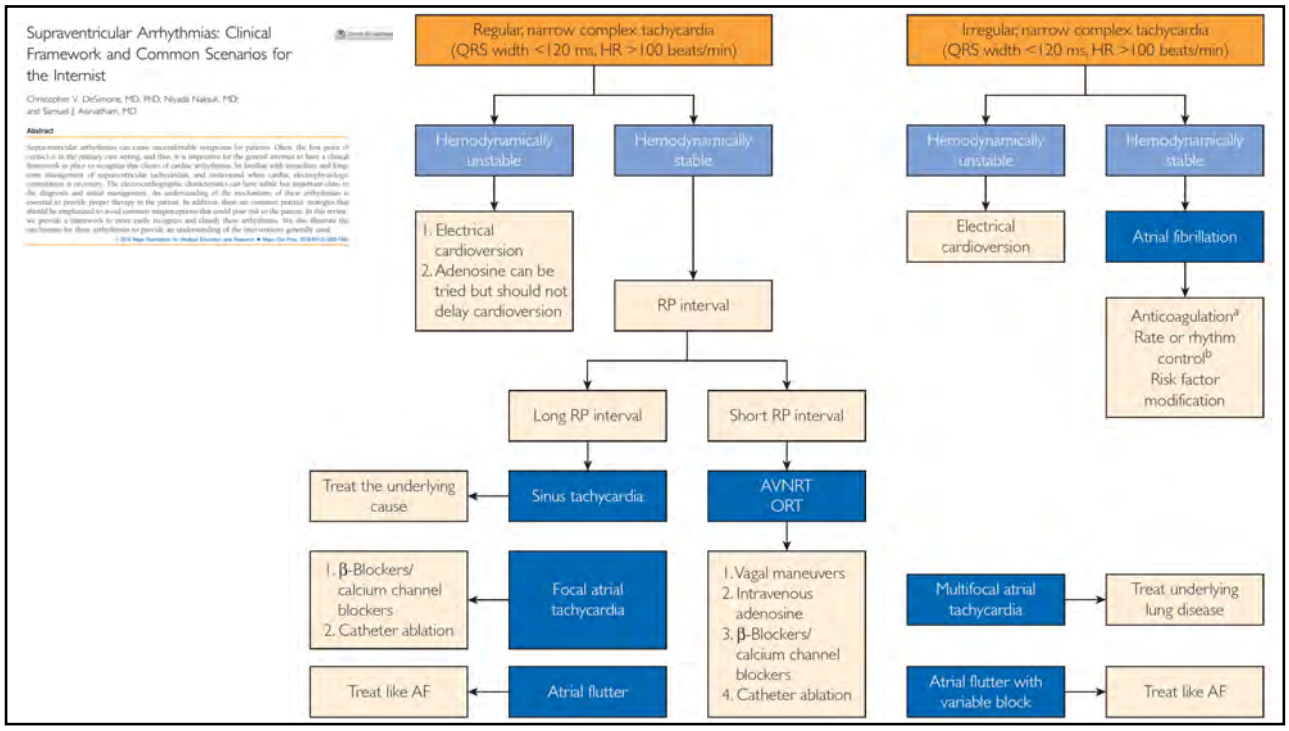

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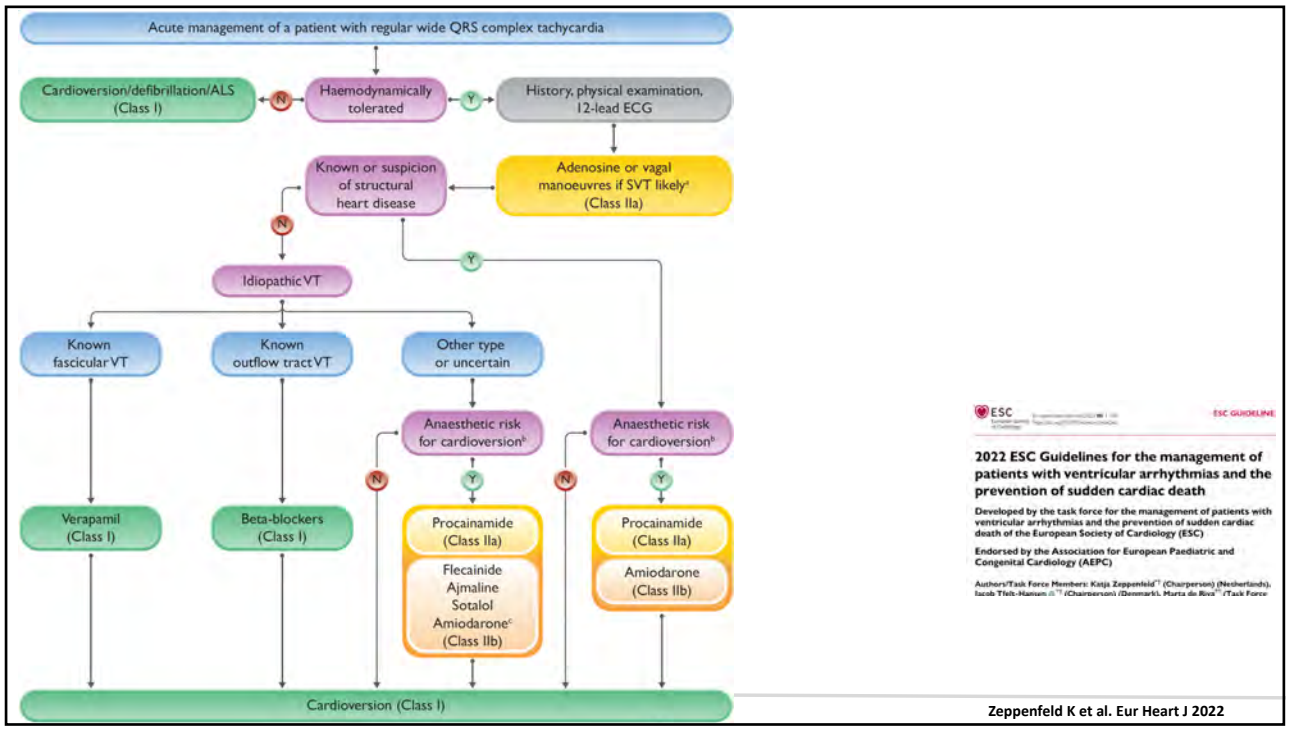

Zeppenfeld K et al. Eur Heart J 2022

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CONCLUSIONI

- **ARITMIE NEL PAZIENTE INTERNISTICO ACUTO: MARE MAGNUM**
- **DISIONIE: SPESSO CONCAUSA DI ARITMIE**
- **BRADIARITMIE: VALUTARE STABILITA' EMODINAMICA; PACING TC SOLO SE NECESSARIO**
- **TACHIARTIMIE: VALUTARE STABILITA' EMODINAMICA, SE NECESSARIO CV**
- **ADENOSINA: UTILE, SICURA E GESTIBILE ANCHE DAI NON CARDIOLOGI**

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