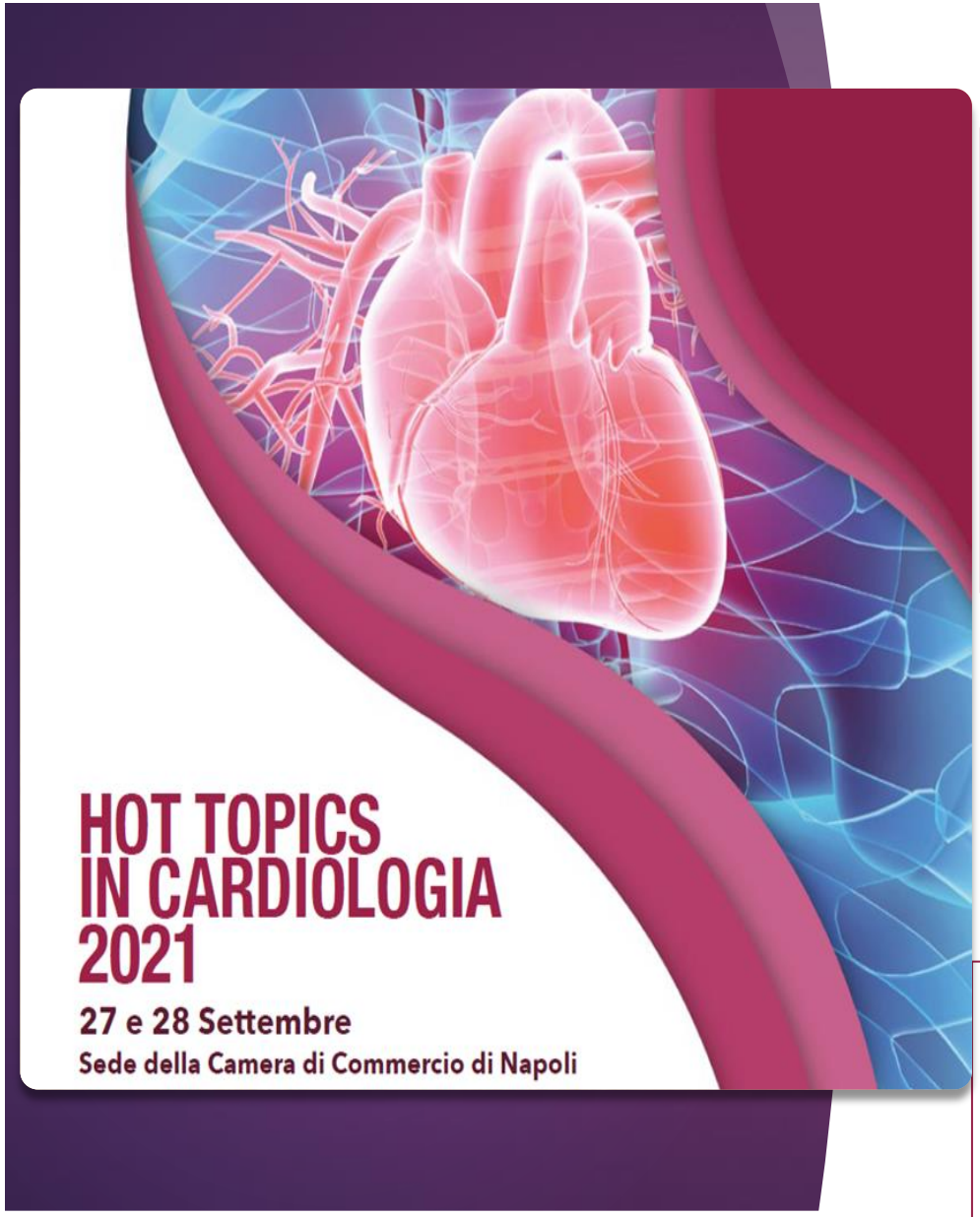
VIII Sessione



Management della fibrillazione atriale rilevata dai dispositivi

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ESC European Society of Cardiology

Europace (2021) **00**, 1–65
doi:10.1093/europace/euab065

POSITION PAPER
EHRA PRACTICAL GUIDE

2021 European Heart Rhythm Association Practical Guide on the Use of Non-Vitamin K Antagonist Oral Anticoagulants in Patients with Atrial Fibrillation

Jan Steffel[1]*, Ronan Collins[2], Matthias Antz[3], Pieter Cornu[4], Lien Desteghe[5,6], Karl Georg Haeusler[7], Jonas Oldgren[8], Holger Reinecke[9], Vanessa Roldan-Schilling[10], Nigel Rowell[11], Peter Sinnaeve[12], Thomas Vanassche[12], Tatjana Potpara[13], A. John Camm[14], and Hein Heidbüchel[5,6]

AHRE= atrial high rate episodes

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

Hindricks G, et al. *Eur Heart J* 2020

[redacted]

mag 24, 2018
12:37 pm
In clinica

Episodio: AMS

Altro episodio 18 di 19
Pagina 1 di 2

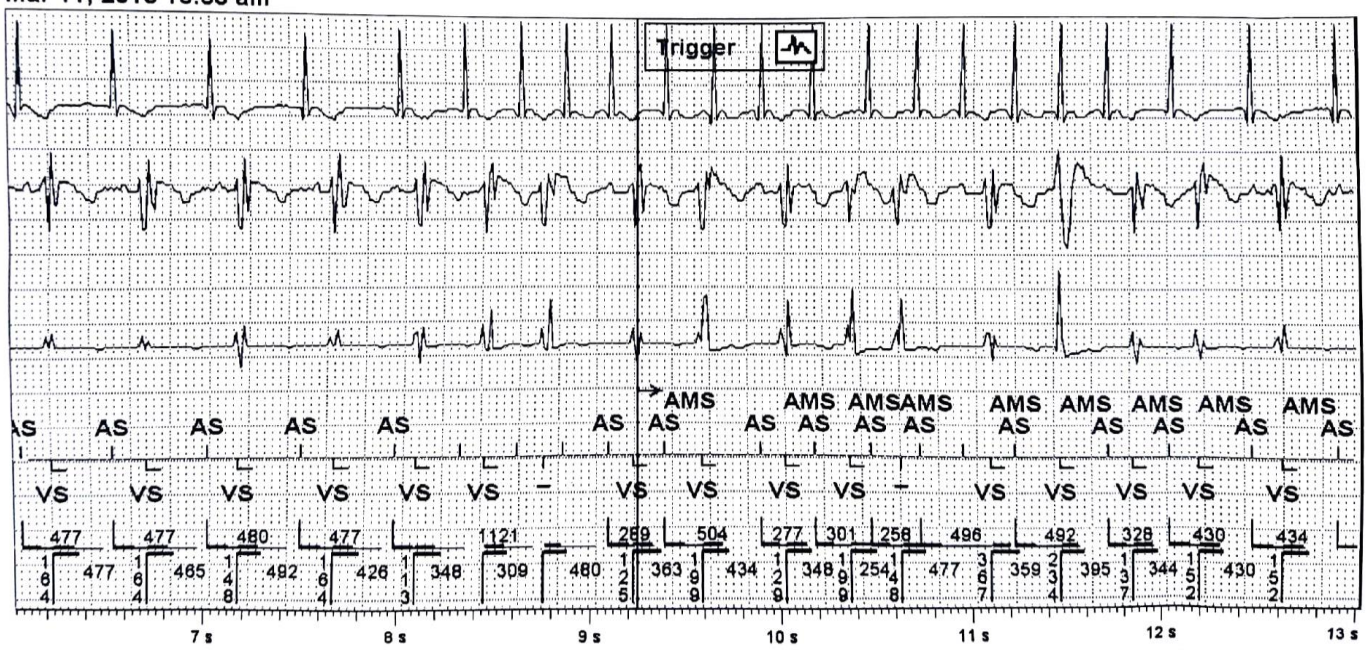
mar 11, 2018 10:38 am

Durata	35:12 (M:S)
Freq. A di picco	~~256 min-1~~
Freq. V di picco	144 min-1
Modalità	DDD
Autocommutazione Modalità	DDIR
Trigger	180 min-1

Episodio: AMS (Continua)

Altro episodio 18 di 19
Pagina 2 di 2

mar 11, 2018 10:38 am



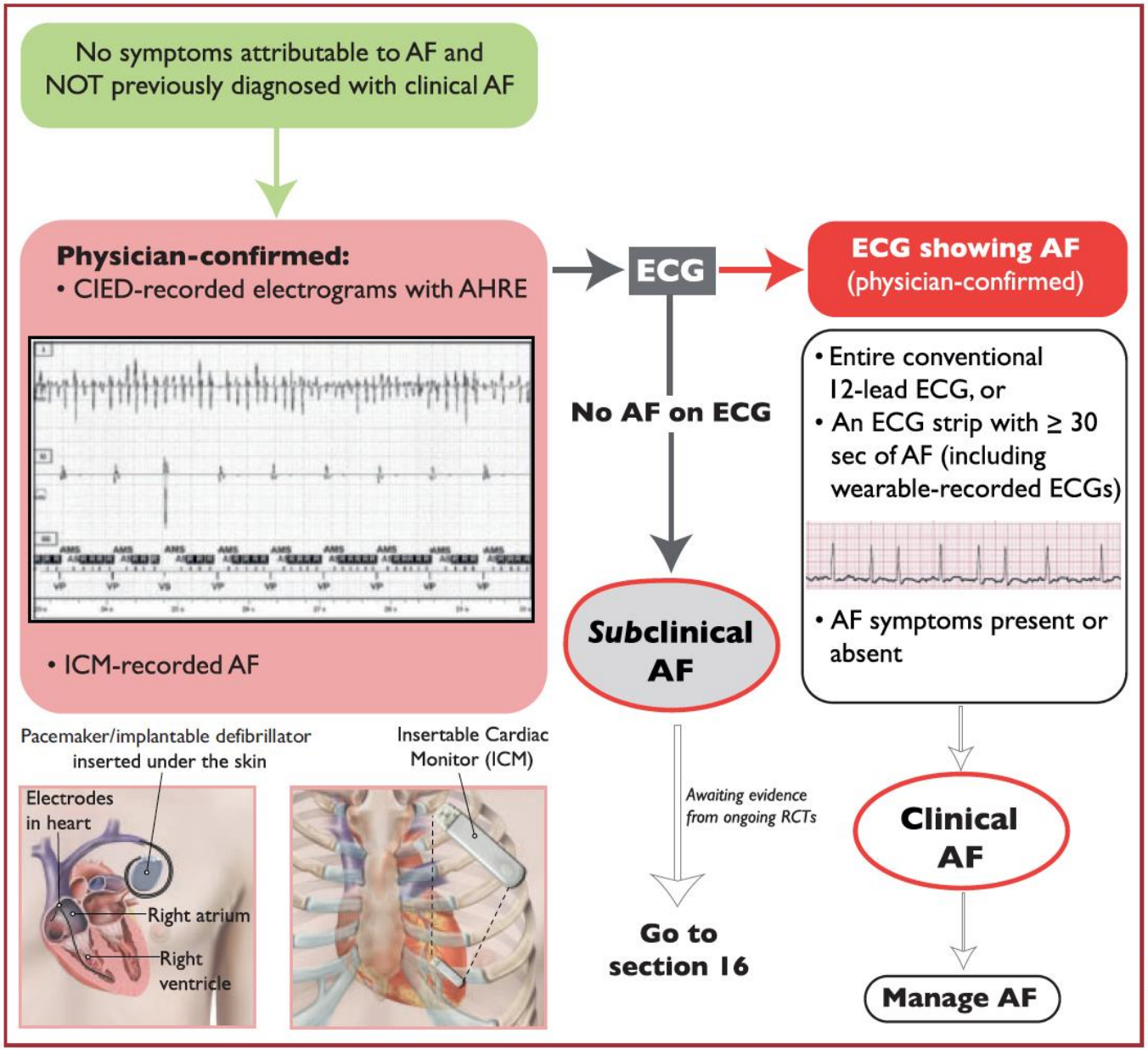
Paziente sintomatico/a

Paziente asintomatico/a

Cardiopalmo

Pacemaker, ICD

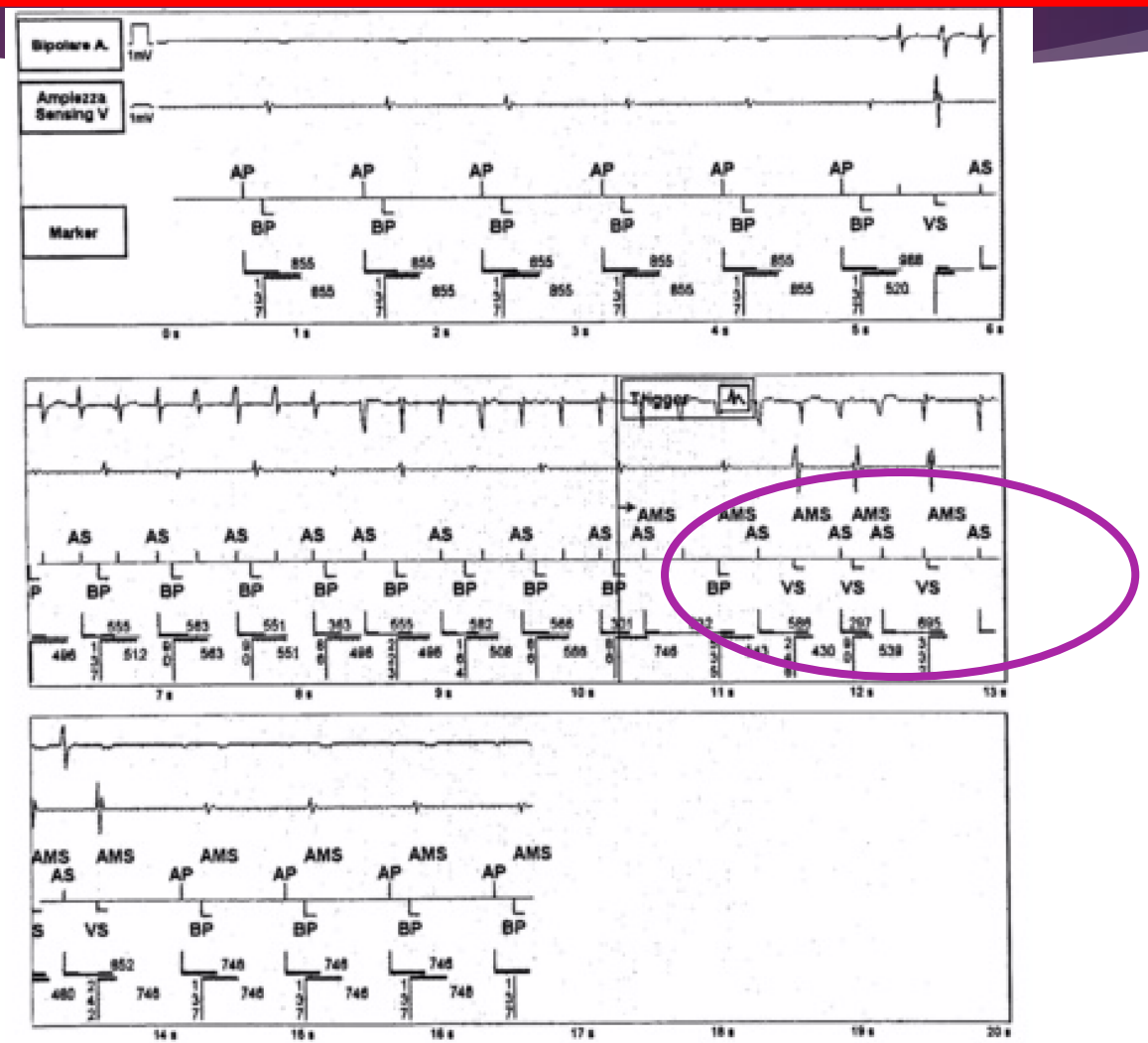
AAD, ECV, ablation



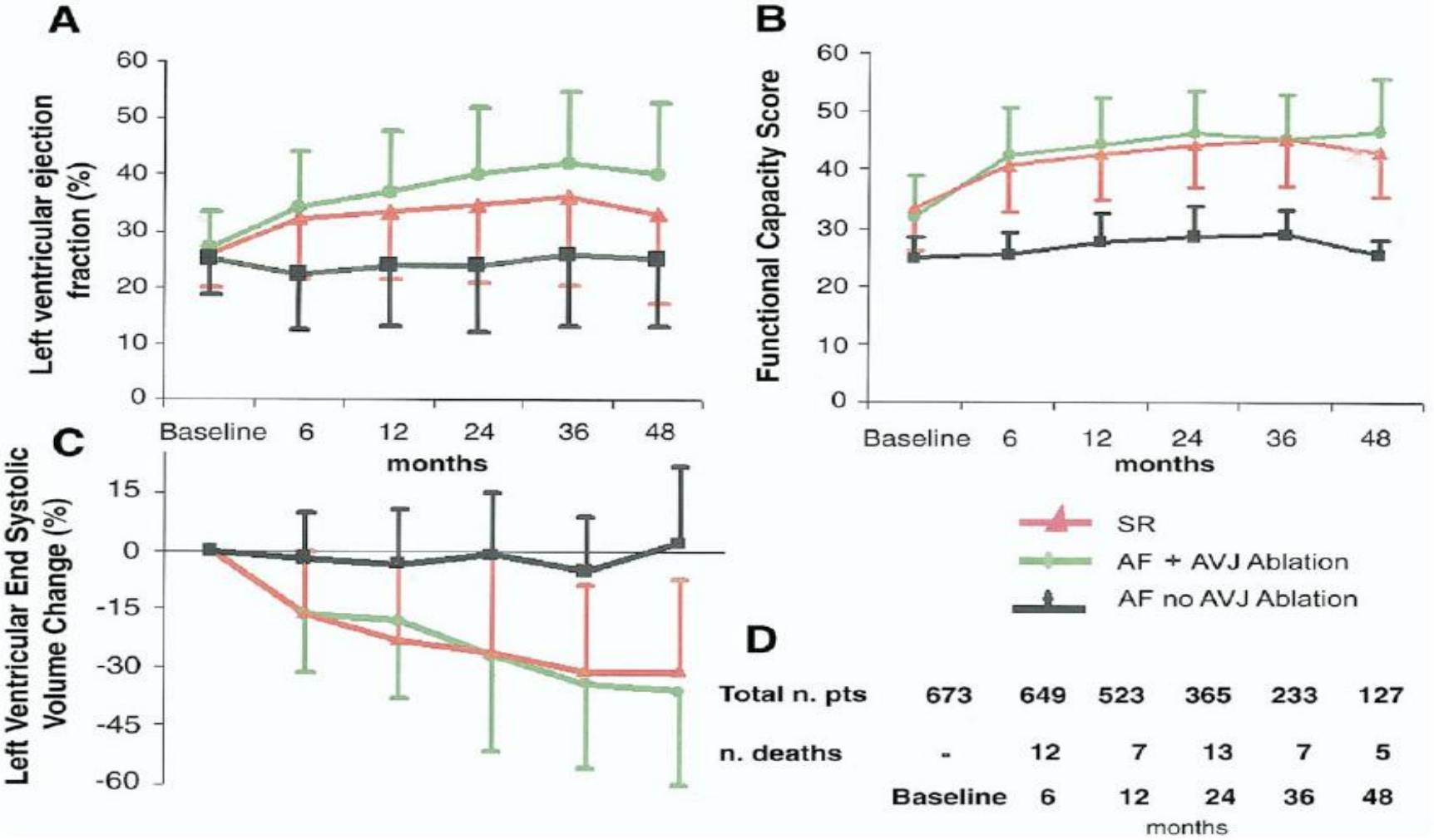
Hindricks G, et al. *Eur Heart J* 2020

The role of CIED in detecting AF

Scompenso, astenia

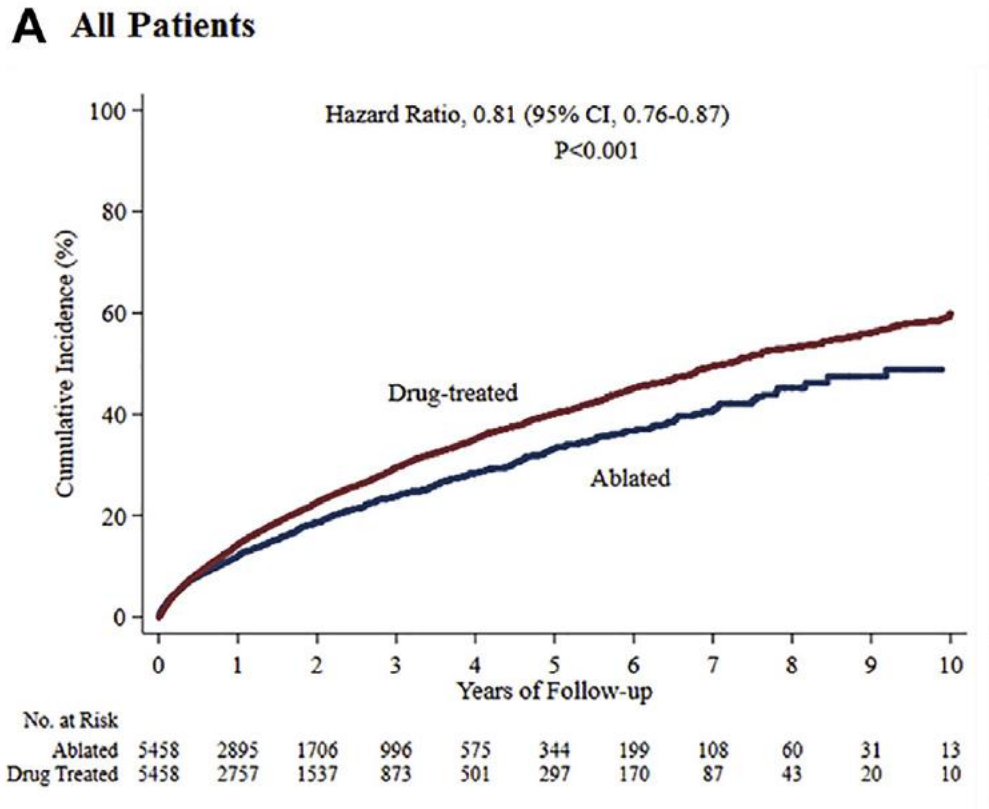


CRT & AFib Patients



Gasparini M. et al. *J Am Coll Cardiol* **2006**

Catheter Ablation for Atrial Fibrillation with Heart Failure (CASTLE-AF)



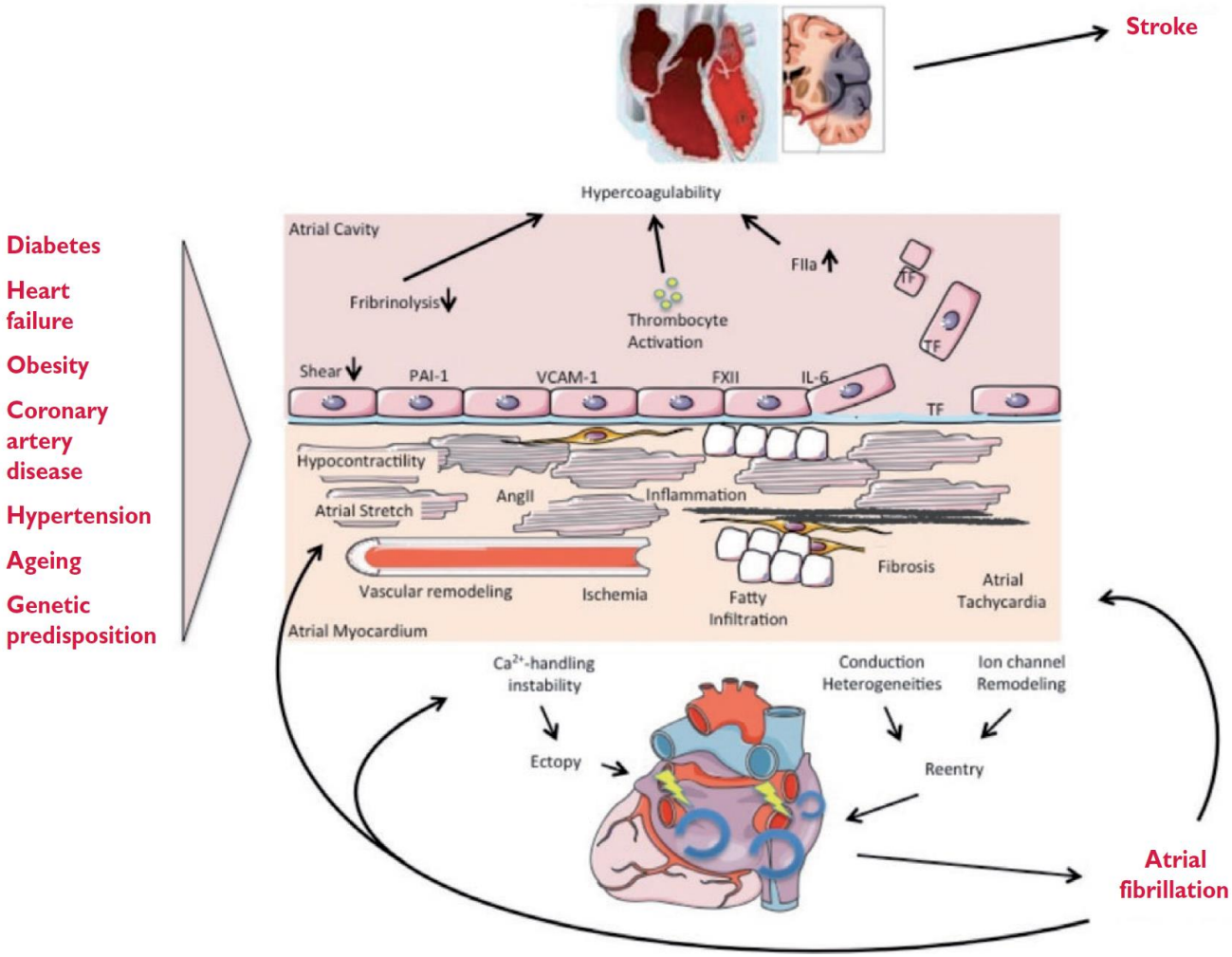
Ablation reduced all-cause mortality and HF hospitalization by 40%

Implanted device			
None	73.7	74.6	73.7
CRT – defibrillator	1.6	2.1	1.6
ICD	11.7	12.6	11.7
CRT – pacemaker	0.2	0.2	0.2
Dual-chamber pacemaker	8.1	7.4	8.1
Single-chamber pacemaker	4.7	3.1	4.7

Marrouche NF. et al, *N Engl J Med* 2018

	Clinicaltrials.gov identifier	Sample size	Study group	Comparator arm	Primary end point
AMICA	NCT02509754	202	ICD or CRT-D, any AF type, and LVEF ≤35%	Medical rate or rhythm control	LVEF by TTE
AFRC-LVF	NCT02509754	180	Persistent AF and LVEF ≤35%	Medical or interventional rate control	Composite of the improvement of LVEF above 35% and concomitant NYHA class lower than II
RAFT AF	NCT01420393	600	Any type of AF and HF with preserved or reduced EF	Medical or interventional rate control	Composite of all-cause mortality and hospitalization for heart failure
CATCH AF	NCT02686749	220	Symptomatic AF and LVEF 20-45%	Medical rate or rhythm control	First hospitalization for HF, recurrence of AF or DCCV
CABANA	NCT00911508	2204	Any AF type with one risk factor for stroke (including CHF)	Medical rate or rhythm control	Composite end point of total mortality, disabling stroke, serous bleeding or cardiac arrest

Patogenesi dell'ictus cardioembolico



Kirchhof P, et al. *Europace* 2016

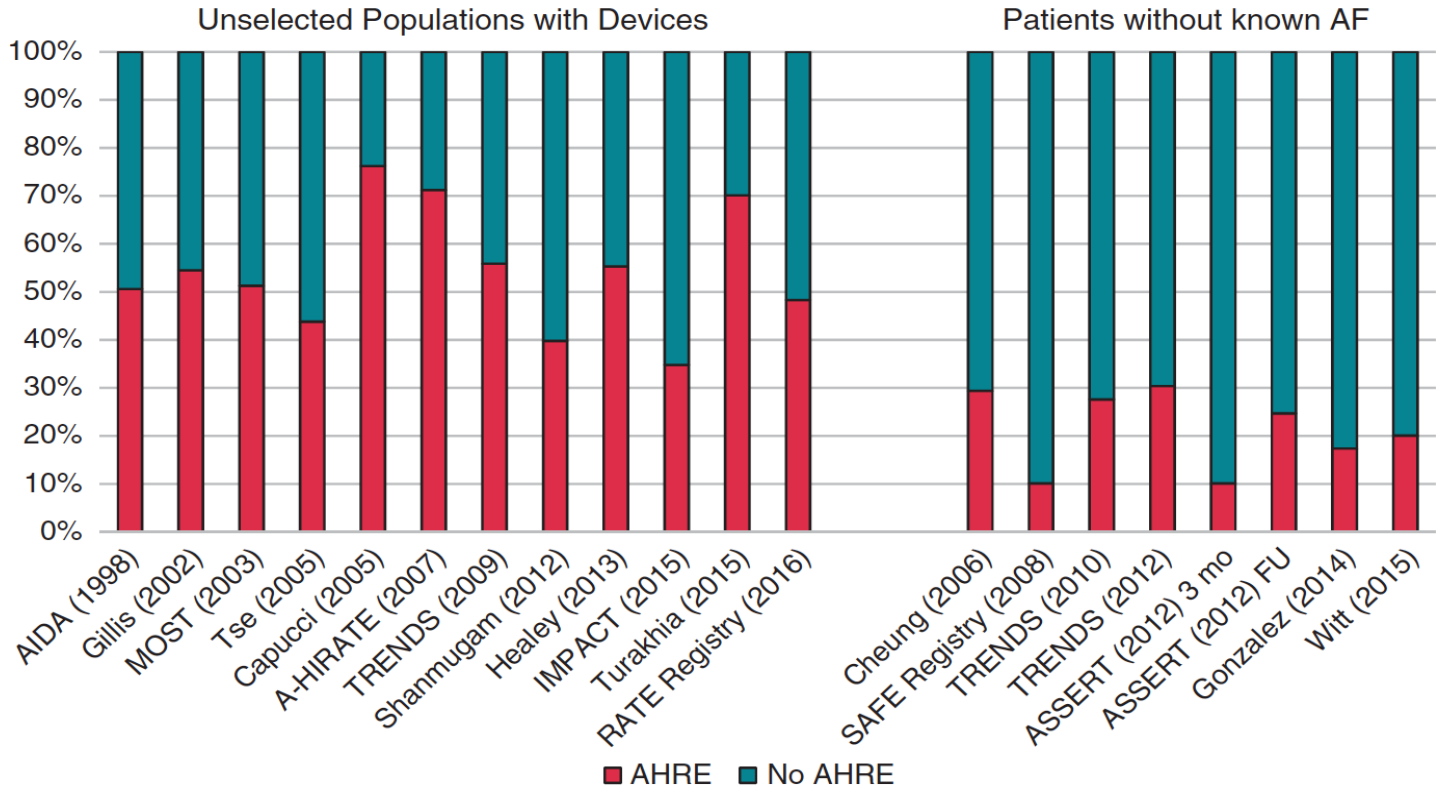


Figure 1 Percentage of AHRE in patients with (left panel) and without (right panel) known AF. AF, atrial fibrillation; AHRE, atrial high-rate episode.

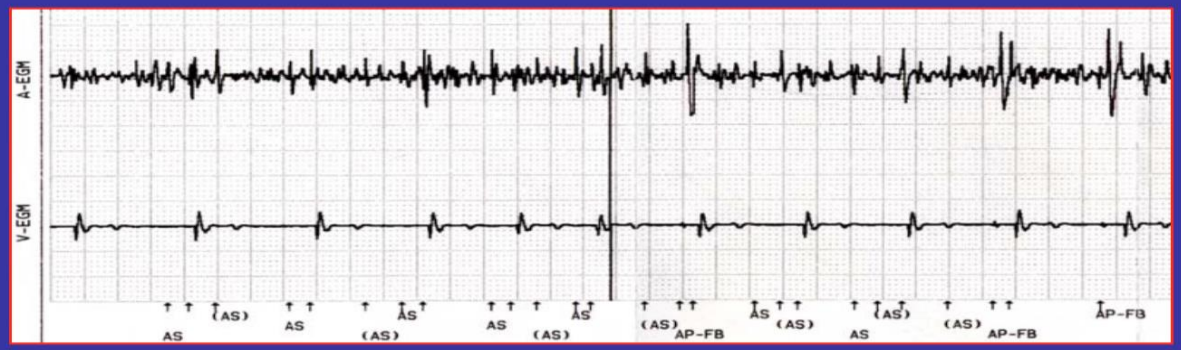
Bertaglia E, et al. *Europace* 2019

EDITORIAL

Atrial Fibrillation

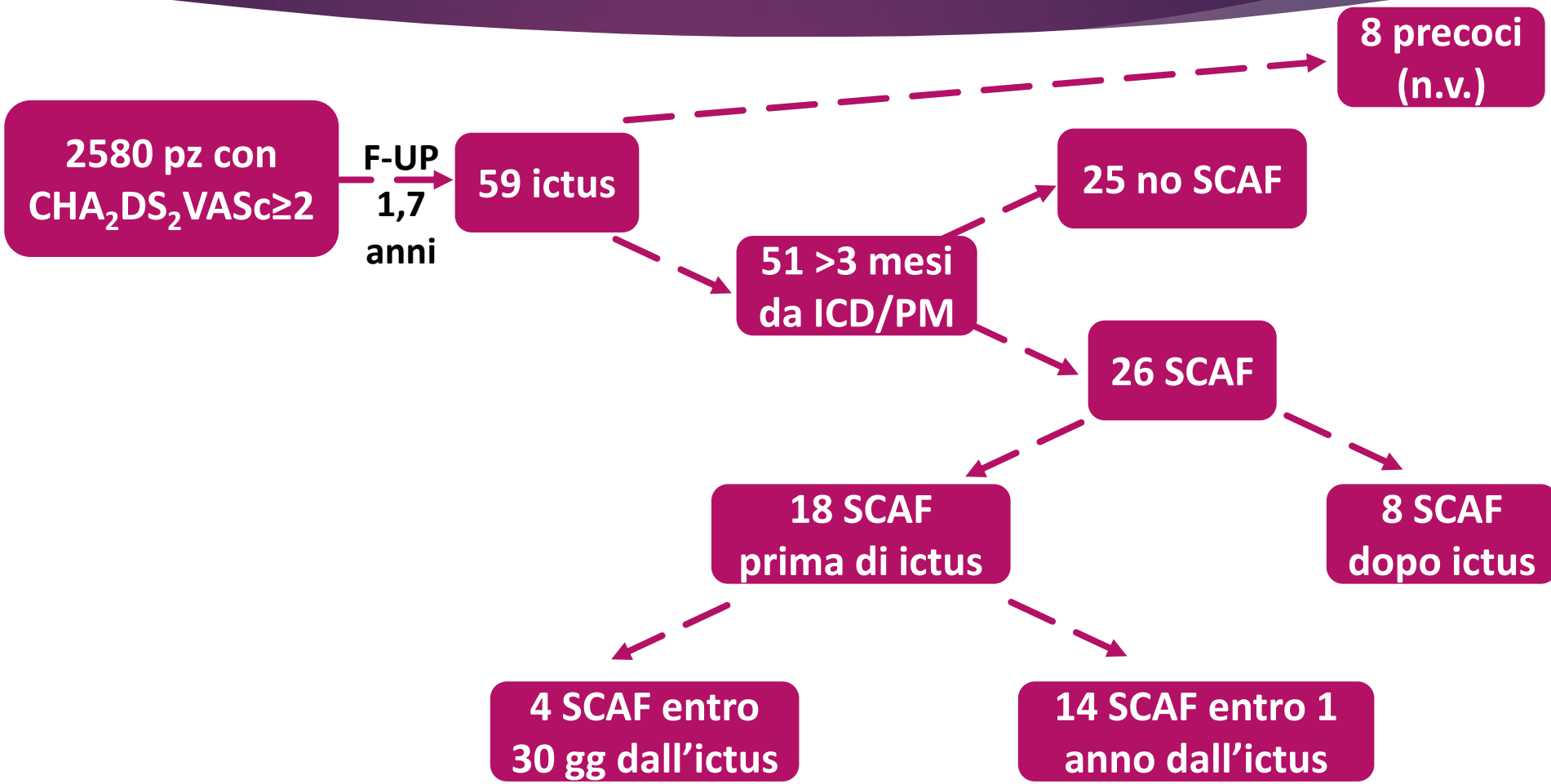
Atrial High-Rate Events (AHRES): Look and You Will Find–Then What?

Is the AF detected by CIEDs directly responsible for Strokes?



Hackensack Meridian *Health*
Hackensack University Medical Center

Nesso temporale tra FA subclinica (SCAF) e trombo-embolismo in pazienti con CIED



modified from **ASSERT** *Circulation* 2014

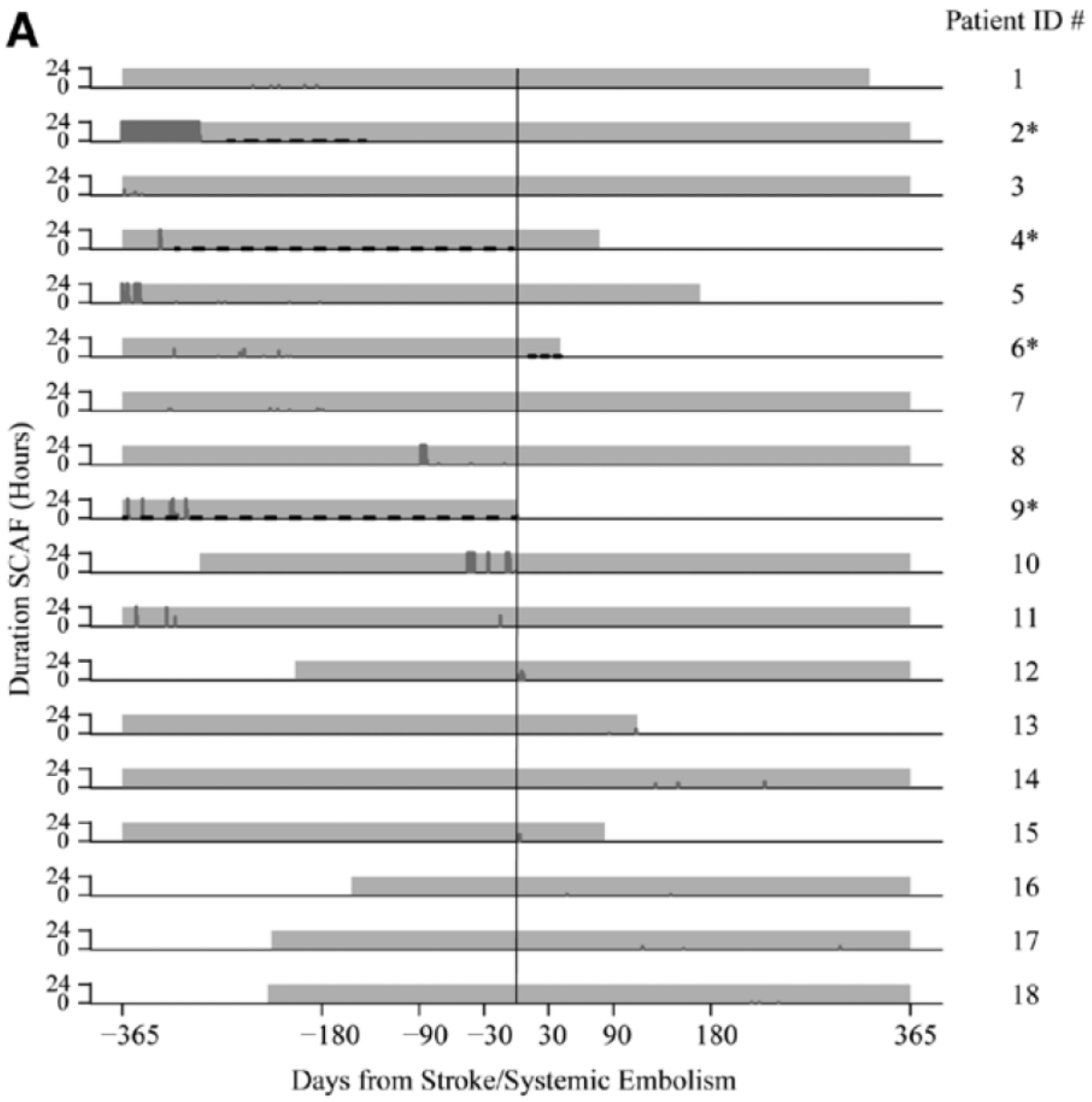
Six-month incidence of transition to higher AHRE burden[a]
(*n* = 6580, pooled from three prospective studies)[469]

	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%

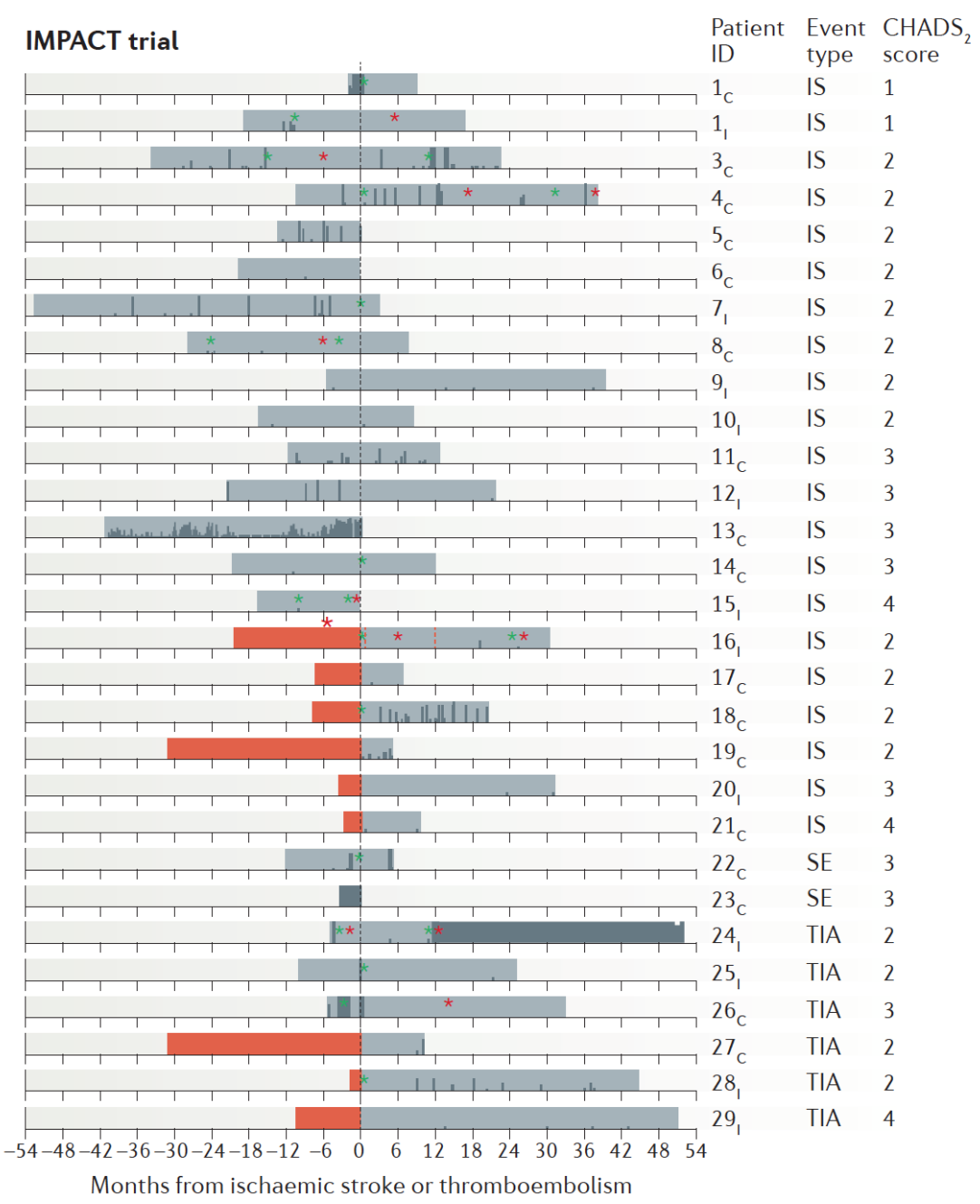
Stroke rates[b] per AHRE burden and CHA_2DS_2VASc category
(*n* = 21 768 device patients not taking OAC)[1466]

	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%

Hindricks G, et al. *Eur Heart J* 2020

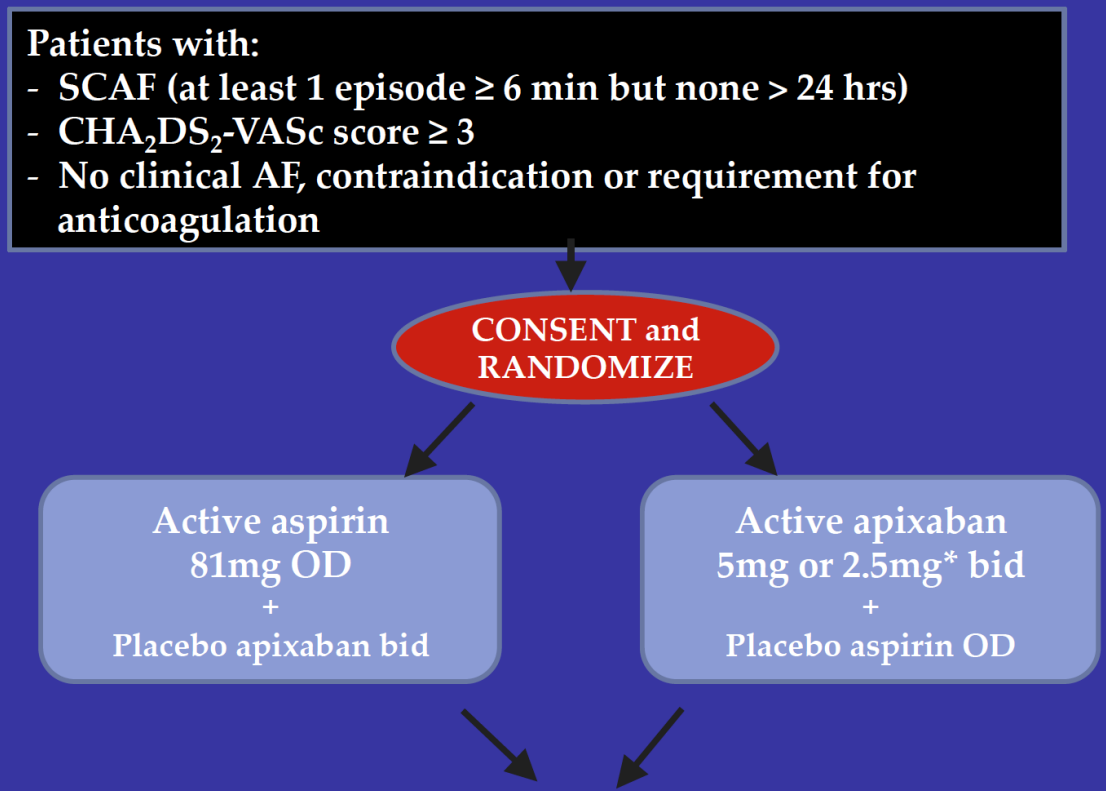


ASSERT *Circulation* 2014



IMPACT *Eur Heart J* 2015

ARTESiA



Clinicaltrials.gov
NCT01938248

Hackensack Meridian *Health*
Hackensack University Medical Center

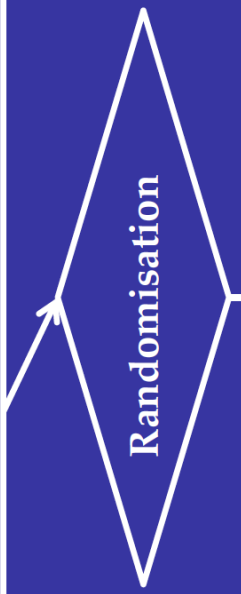
NOAH

Inclusion criteria
Age > 65 and one additional CHA_2DS_2VASc factor

and

documented atrial high rate episode > 6 mins

Exclusion criteria
conventionally diagnosed AF
indication for oral anticoagulation
contraindication for NOAC therapy



Oral anticoagulation therapy (NOAC) with Edoxaban

ASA or placebo

Primary outcome:
stroke, systemic embolism, or cardiovascular death

Clinicaltrials.gov NCT02618577

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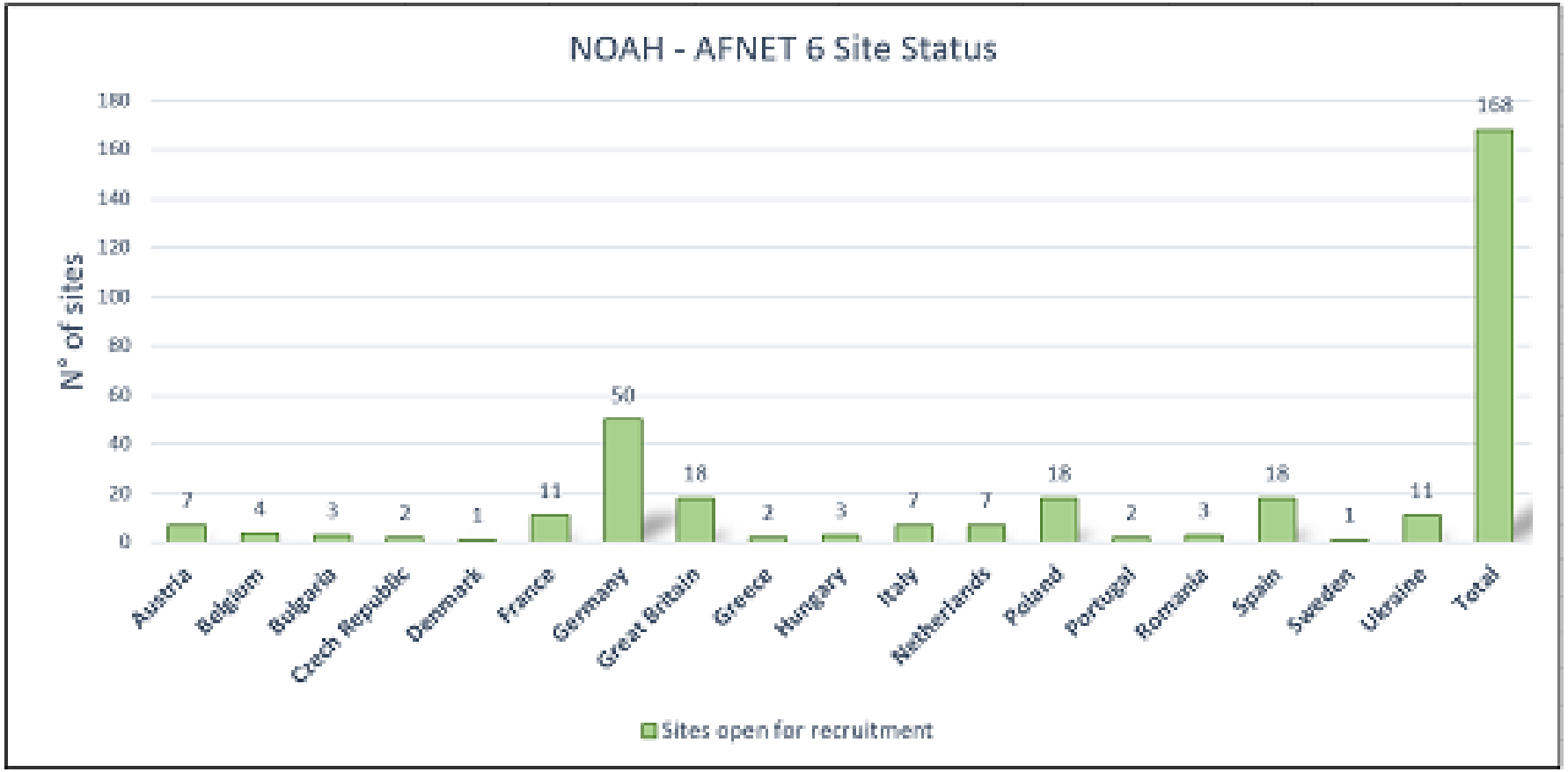
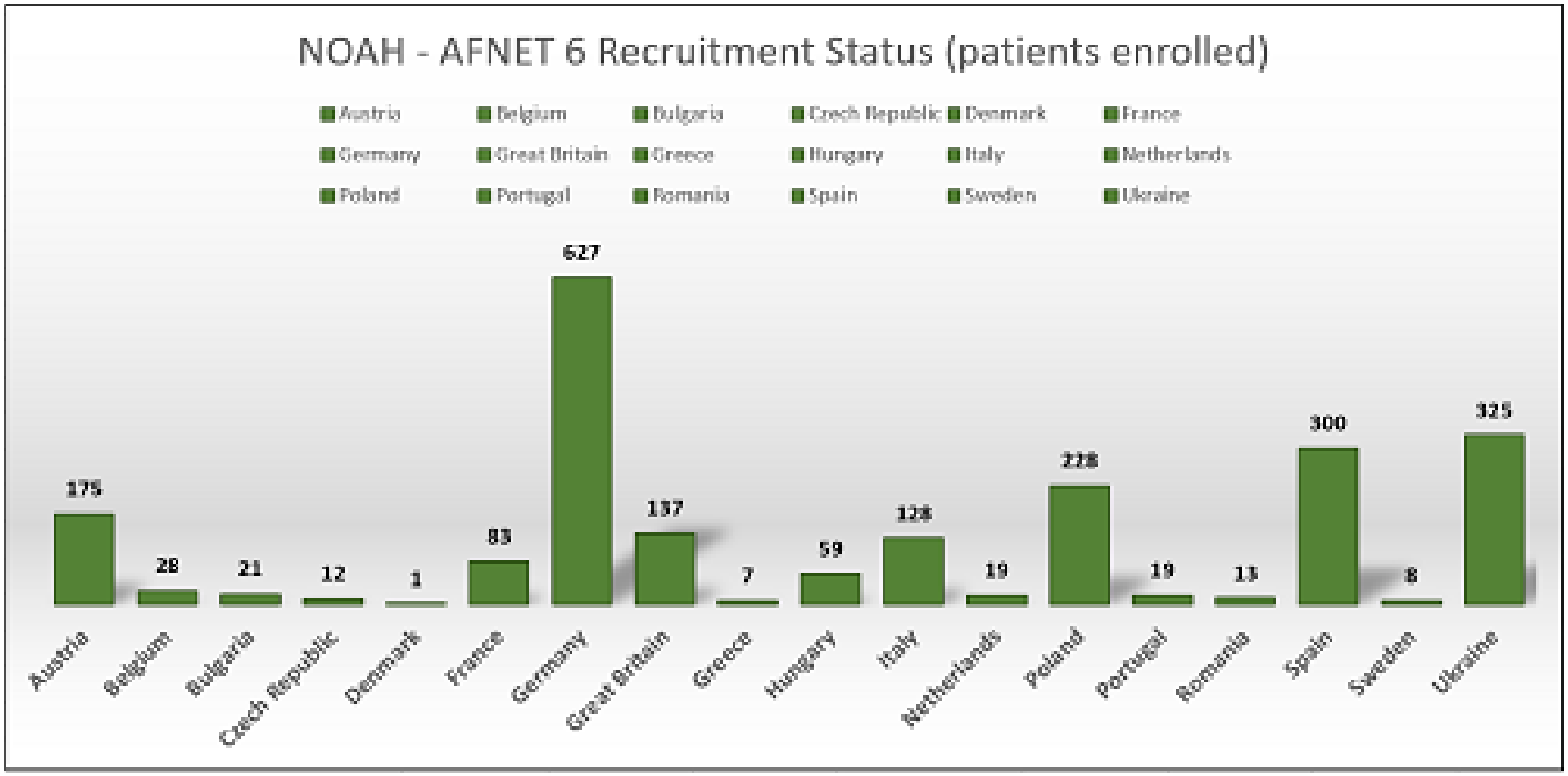
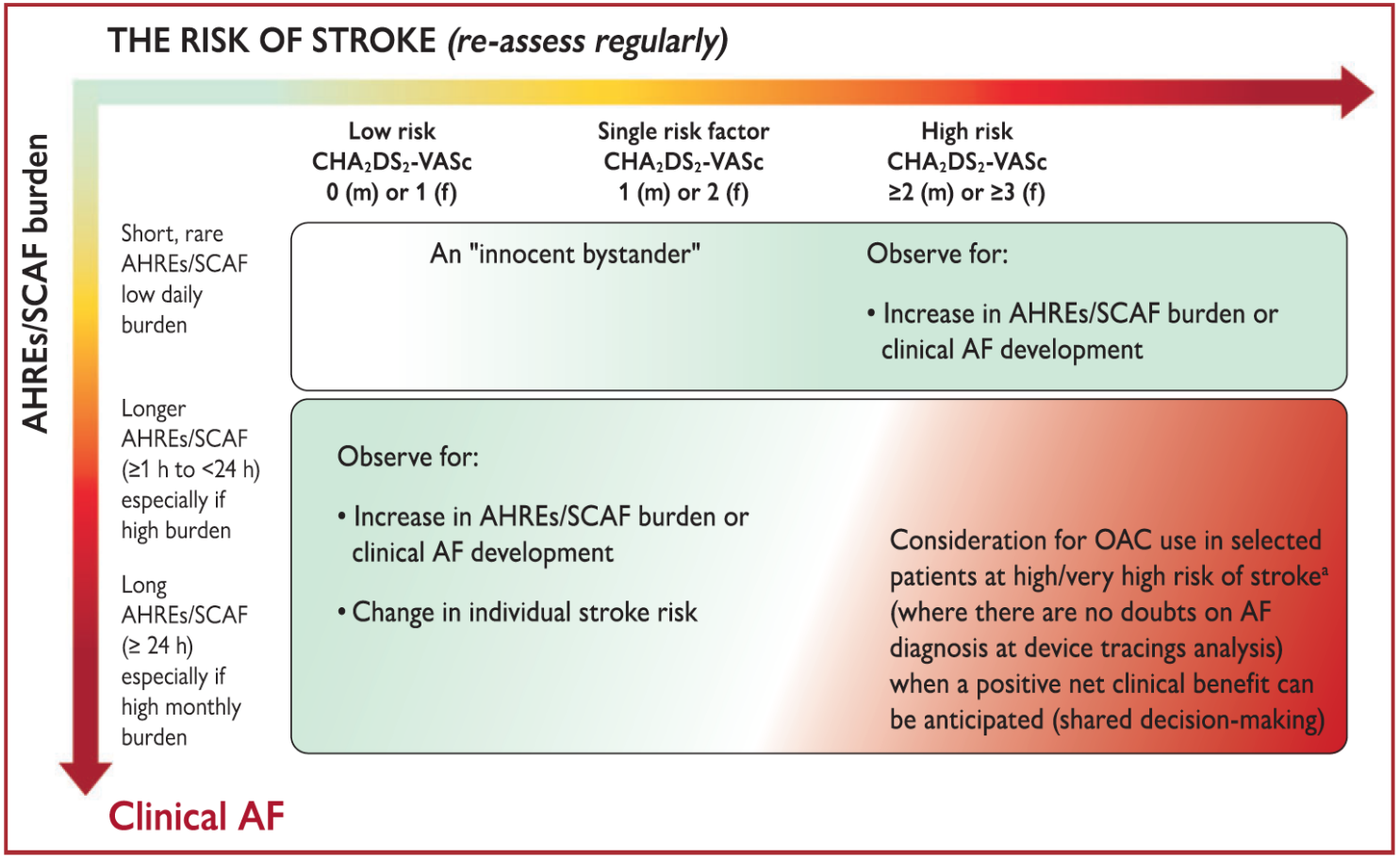

NOAH - AFNET 6 Site Status
N° of sites
180
160
140
120
100
80
60
40
20
0
7
4
3
2
1
11
50
18
2
3
7
7
18
2
3
18
1
11
168
Austria
Belgium
Bulgaria
Czech Republic
Denmark
France
Germany
Great Britain
Greece
Hungary
Italy
Netherlands
Poland
Portugal
Romania
Spain
Sweden
Ukraine
Total
Sites open for recruitment


NOAH - AFNET 6 Recruitment Status (patients enrolled)
Austria
Belgium
Bulgaria
Czech Republic
Denmark
France
Germany
Great Britain
Greece
Hungary
Italy
Netherlands
Poland
Portugal
Romania
Spain
Sweden
Ukraine
175
28
21
12
1
83
627
137
7
59
128
19
228
19
13
300
8
325

Top Recruiters per Country
(Status as of 31.08.2021)

Country	Site	PI	No. of Patients
UA	Amosov National Institute of Cardiovascular Surgery	Prof. Borys Kravchuk	91
PL	Górnośląskie Centrum Medyczne, Śląskiego Uniwersytetu Medycznego w Katowicach	Dr. Rafal Sznajder	88
AT	LKH Universitätsklinikum Graz	Prof. Daniel Scherr	68
DE	Hausärztlich-Kardiologisches MVZ "Am Felsenkeller" GmbH	Dr. Christoph Axthelm	67
ES	Complejo Hospitalario de Navarra	Dr. Nuria Basterra Sola	58
IT	Policlinico Universitario Mater Domini Catanzaro	Prof. Ciro Indolfi	41
HU	Semmelweis University Heart and Vascular Center	Prof. Bela Merkely	41
FR	Hôpital Européen Georges Pompidou - Hôpitaux Universitaires Paris Ouest	Prof. Eloi Marijon	27
GB	Oxford University Hospital - John Radcliffe Hospital	Dr. Kim Rajappan	23
PT	Hospital de Santarém	Dr. Vitor Paulo Martins	17
RO	Institutul Inimii "Niculae Stancioiu"	Dr. Stefan-Horia Rosianu	10
NL	Spaarne Gasthuis	Dr. Raymond Tukkie	9
BG	MHAT St. Anna AD	Prof. Vasil Velchev	8



Hindricks G, et al. *Eur Heart J* 2020

Proposed clinical approach to AHREs

THE RISK OF STROKE *(re-assess regularly)*

THE RISK OF CLINICAL AF *(re-assess regularly)*

	Low risk *CHA_2DS_2-VASc=0 males; CHA_2DS_2-VASc=1 females*	**"Intermediate" risk** *CHA_2DS_2-VASc=1 males; CHA_2DS_2-VASc=2 females*	**High risk** *CHA_2DS_2-VASc≥2 males; CHA_2DS_2-VASc≥3 females*
Short, rare AHREs	An "innocent bystander"	An "innocent bystander"	Observe for high AHREs burden or AF development
Short, frequent AHREs (high daily burden)	Observe for AF development	Observe for AF development	▪Close follow-up for AF development ▪Enrol in clinical trials ▪Consider NOAC in *selected* patients¶
Long AHREs (>24h)	Observe for AF development	Observe for AF development	▪Close follow-up for AF development ▪Enrol in clinical trials ▪Consider NOAC in *selected* patients¶
Long frequent AHREs (>24h), high monthly burden	Observe for AF development	▪Observe for AF development ▪Enrol in clinical trials ▪Consider NOAC use in *selected* patients* at low bleeding risk	▪Close follow-up for AF development ▪Enrol in clinical trials ▪Consider NOAC in patients with prior stroke and/or age≥75y, or ≥3 CHA_2DS_2-VASc risk factors, with acceptable bleeding risk

CONCLUSIONI

- **I devices impiantati vanno controllati regolarmente per la ricerca di fibrillazione atriale**
- **Una volta trovati degli episodi, bisogna ulteriormente statificare il paziente indagando il ritmo cardiaco con altre metodiche ed accorciando i follow-up**
- **Fino a quando i due trials in corso non saranno completi bisogna considerare l'anticoagulazione sulla base di RARE decisioni individuali nei pazienti con AHRE senza diagnosi elettrocardiografica di ECG per evitare il rischio sostanziale di sanguinamenti**


82 congresso nazionale SIC
9-12 Dicembre 2021
savethedate
#shapingthefuture