



*Firenze 13-15 dicembre, 2023
Palazzo dei Congressi*

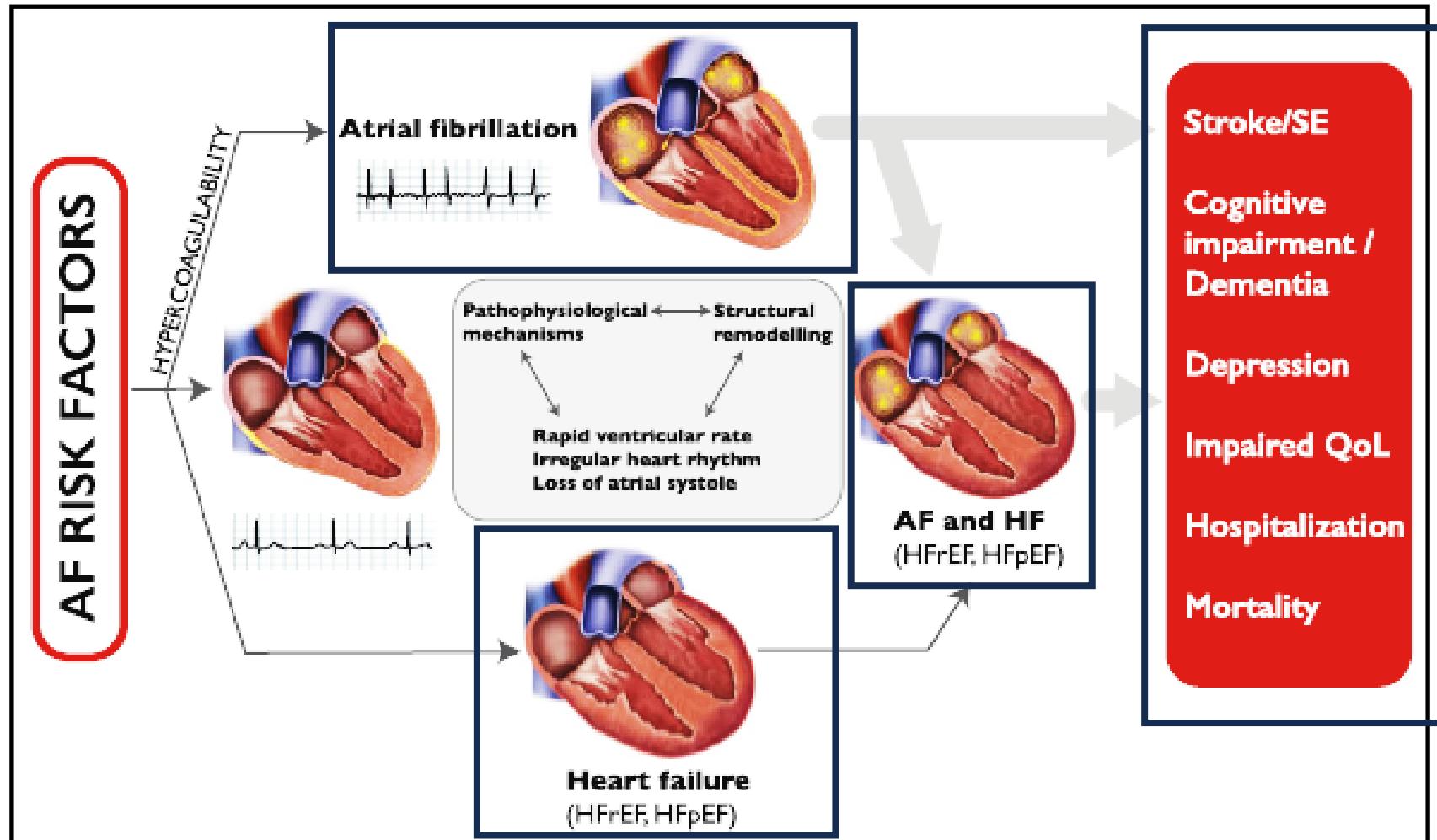
NUOVE PROSPETTIVE NEL MANAGEMENT
DELL'INSUFFICIENZA CARDIACA NELL'ANZIANO

L'approccio al paziente anziano con insufficienza cardiaca e fibrillazione atriale



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Dipartimento di Scienze Mediche Traslazionali
Università di Napoli Federico II

Pathophysiology of atrial fibrillation and heart failure and viceversa.



AF = atrial fibrillation; HFrEF = heart failure with reduced ejection fraction; HFpEF = heart failure with preserved ejection fraction; SE = systemic embolism; QoL = quality of life.



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- **Epidemiological findings**
 - **Phenotype**
 - *HF with reduced ejection fraction*
 - *HF with preserved ejection fraction*
 - **Peculiar aspects in older adults**
 - **Therapeutical approach**
 - **Conclusions**
-



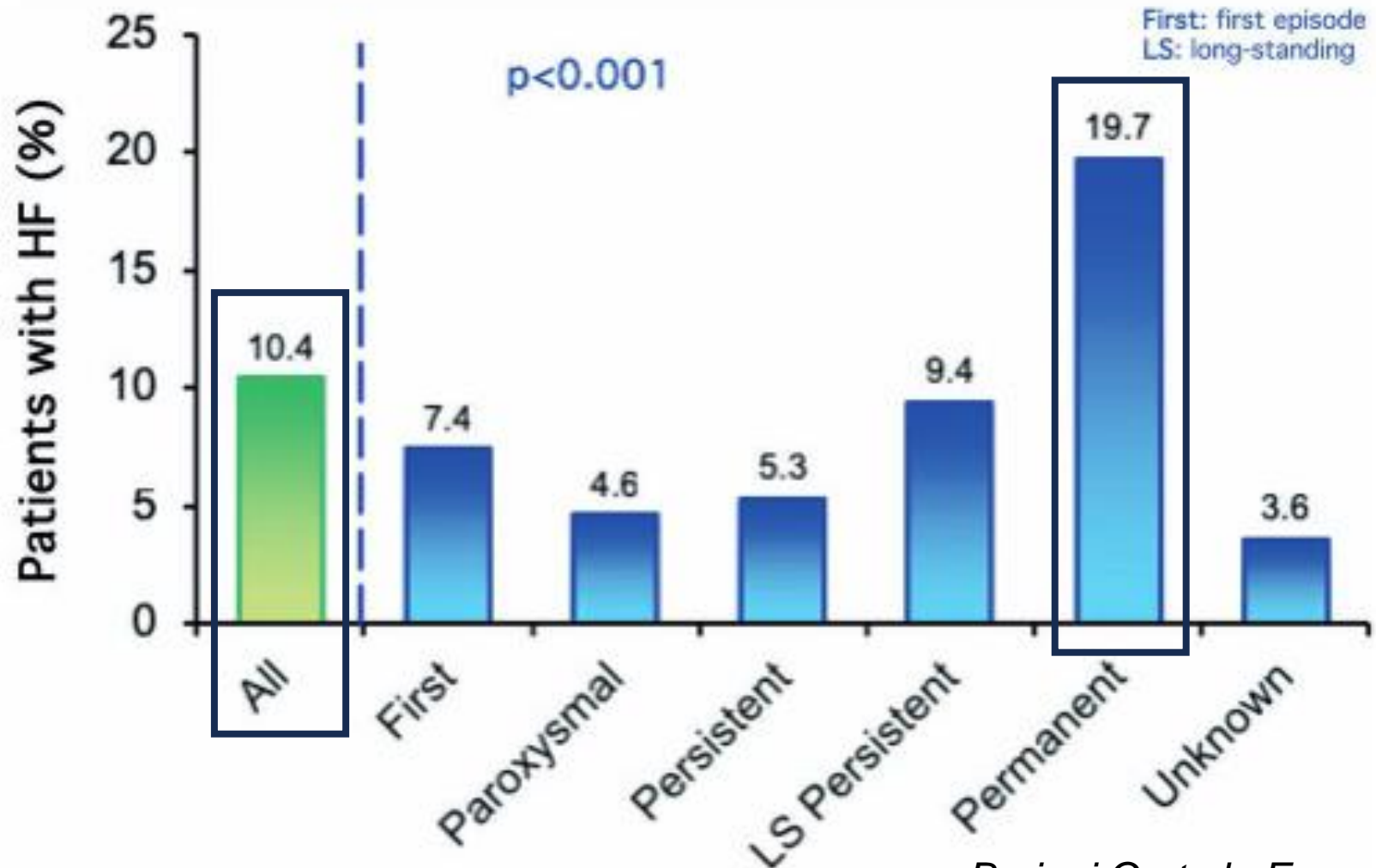
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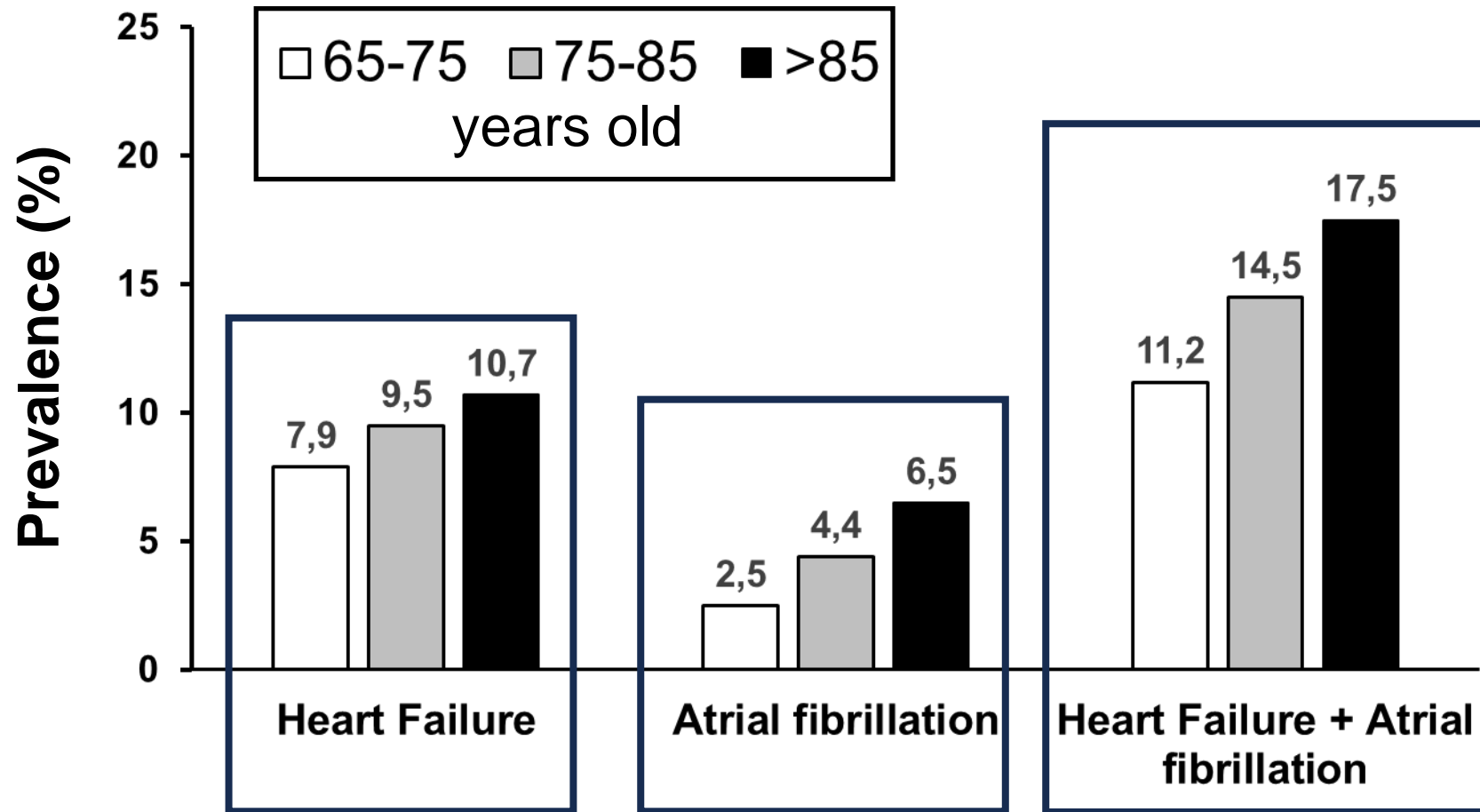
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Heart failure (HF) as the main reason for admission in-hospital

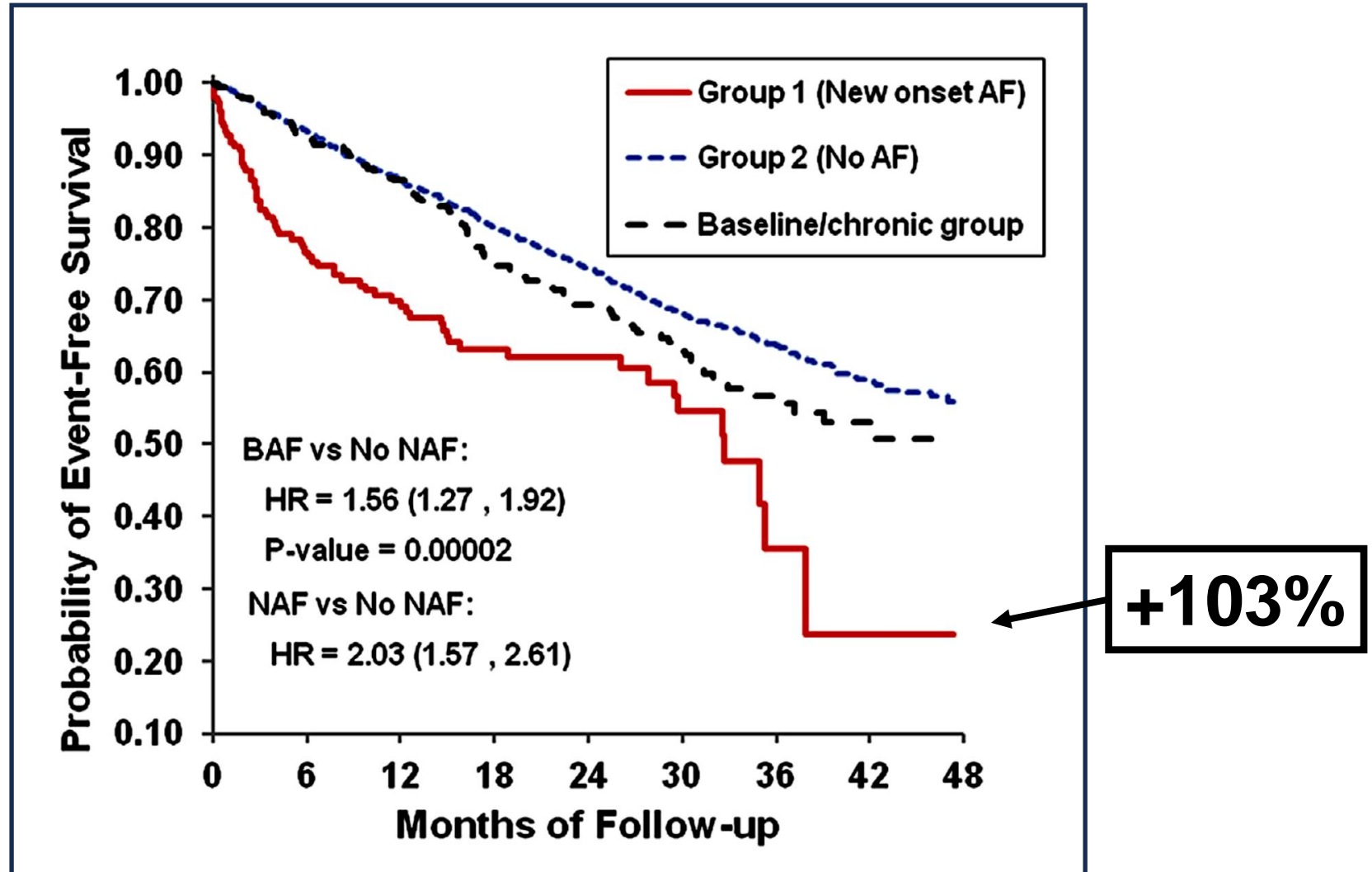
EURObservational Research Programme on Atrial Fibrillation (EORP-AF)



Permanent atrial fibrillation in community-dwelling elderly people with chronic heart failure



New-onset Atrial Fibrillation Predicts Heart Failure Progression

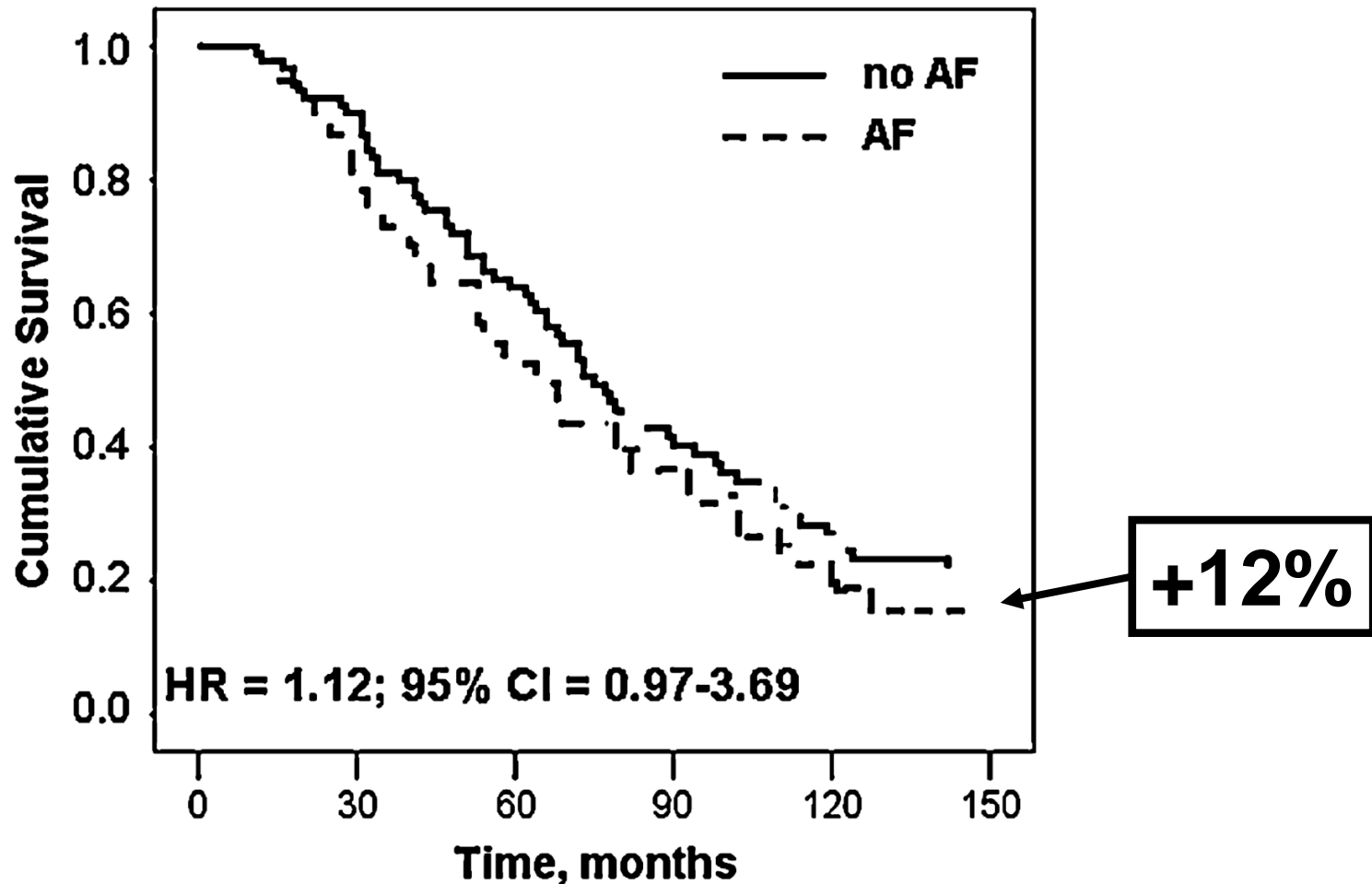


A meta-analysis of the prognostic significance of atrial fibrillation in chronic heart failure

Summary of randomized controlled studies

Setting	Number	LV systolic function inclusion	Mean follow-up	% AF	Number (%) of deaths		P-value
					SR	AF	
V-HEFT I & II	1427	LVEF < 45%	2.5 years	19	480/1221 (39)	75/206 (36)	NS
SOLVD	6517	LVEF < 35%	2.8 years	6	1395/8098 (23)	149/419 (34)	<0.0001
DIG	7788	All LVEF included	3.1 years	11	2231/6922 (32)	375/866 (43)	<0.0001
PRIME II	409	LVEF < 35%	3.4 years	21	153/325 (47)	50/84 (60)	<0.05
COMET	3029	LVEF < 35%	4.8 years	20	874/2429 (36)	258/600 (43)	<0.0005
CHARM	7601	All LVEF included	3.1 years	15	1466/6451 (23)	365/1148 (32)	<0.001
DIAMOND	3587	LVEF < 35%	N/A	24	1951/2661 (73)	634/818 (77)	<0.001
					+39%	+46%	

Cox regression analysis of long-term mortality in elderly subjects with heart failure stratified for the presence or absence of permanent atrial fibrillation (AF)



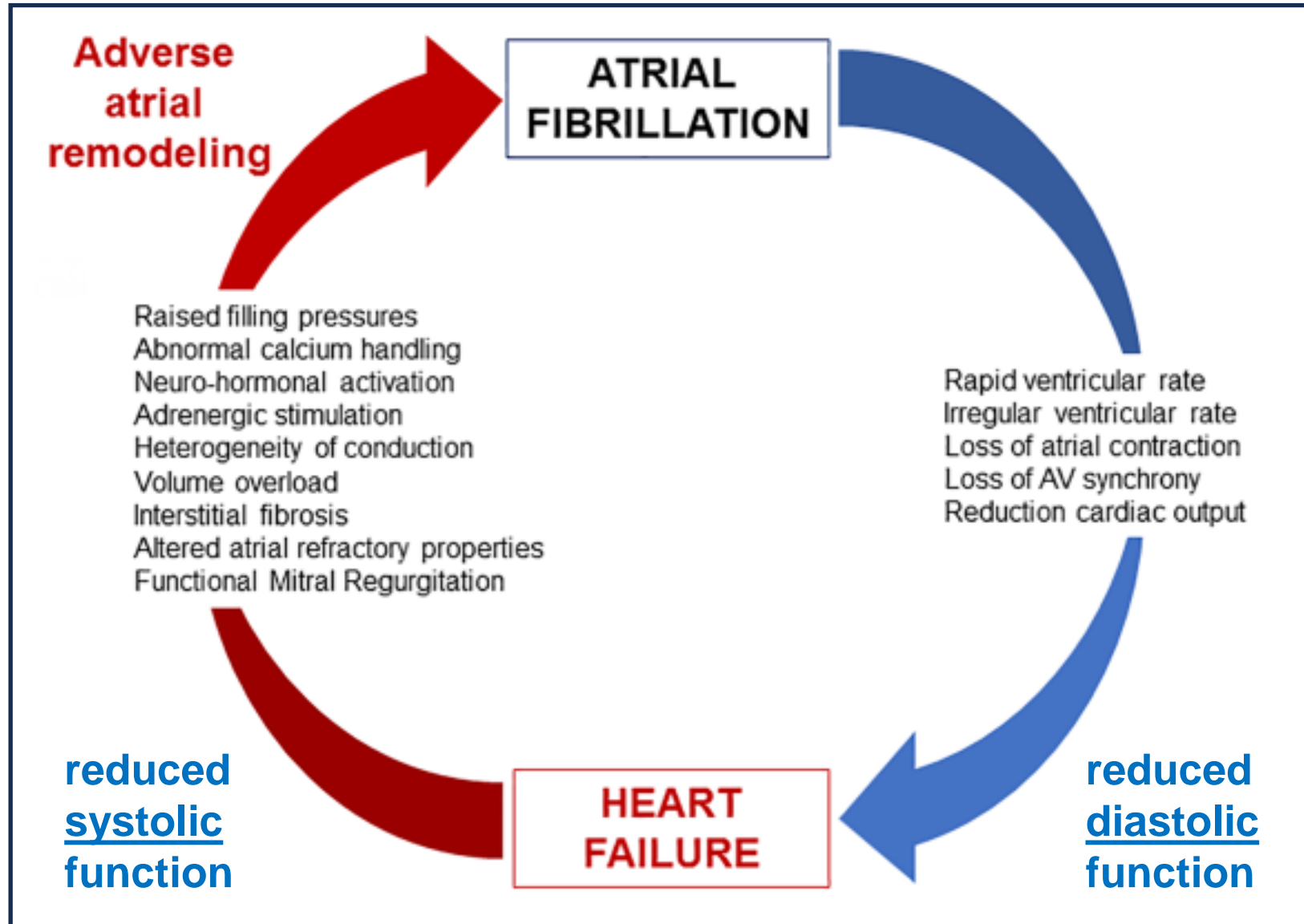


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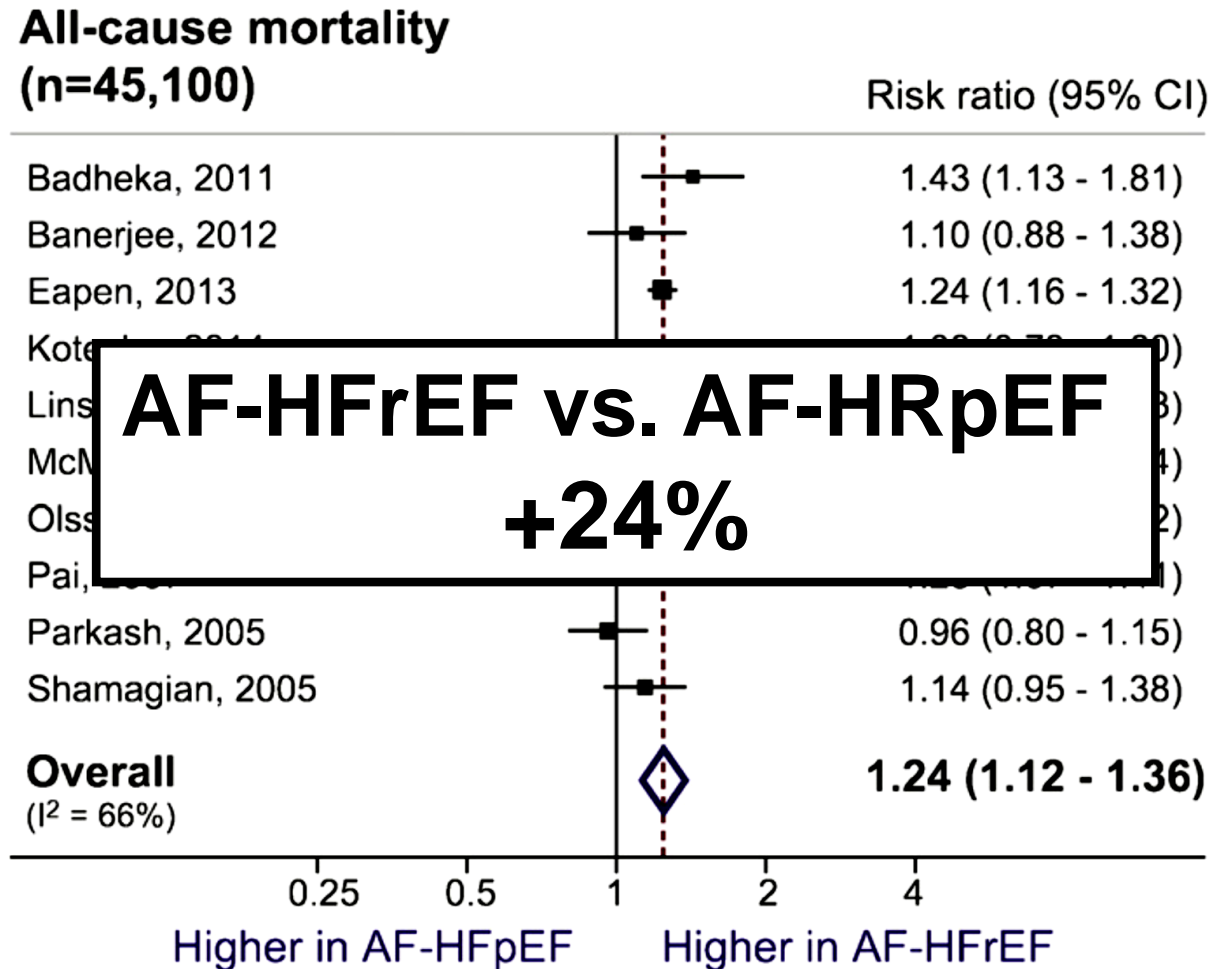
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Bi-directional pathway of atrial fibrillation and heart failure



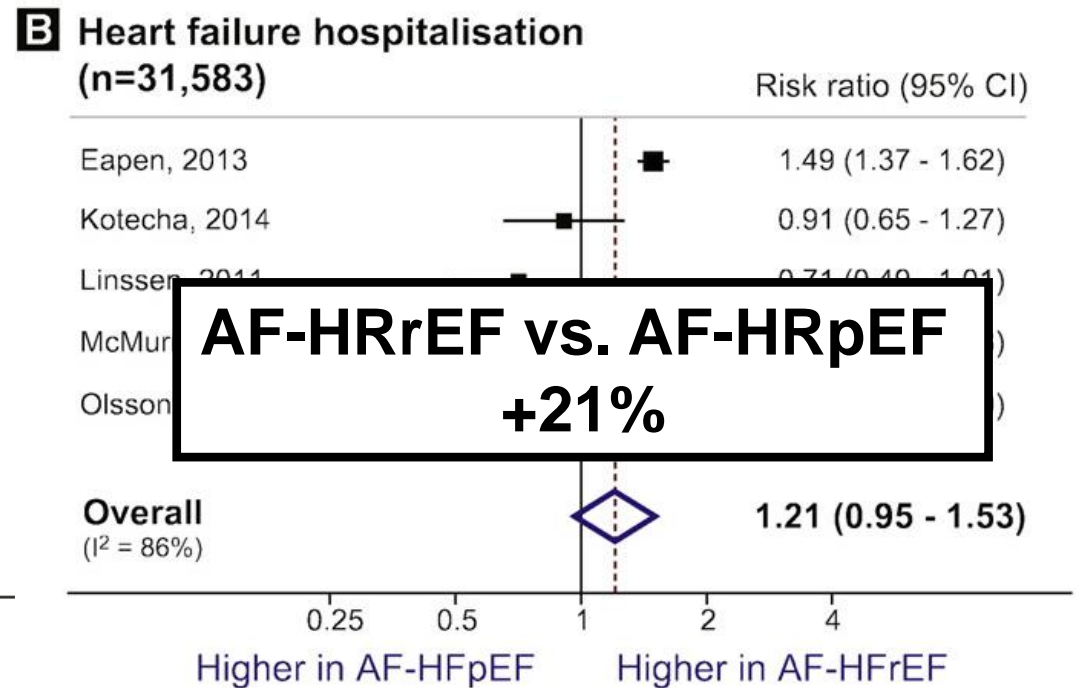
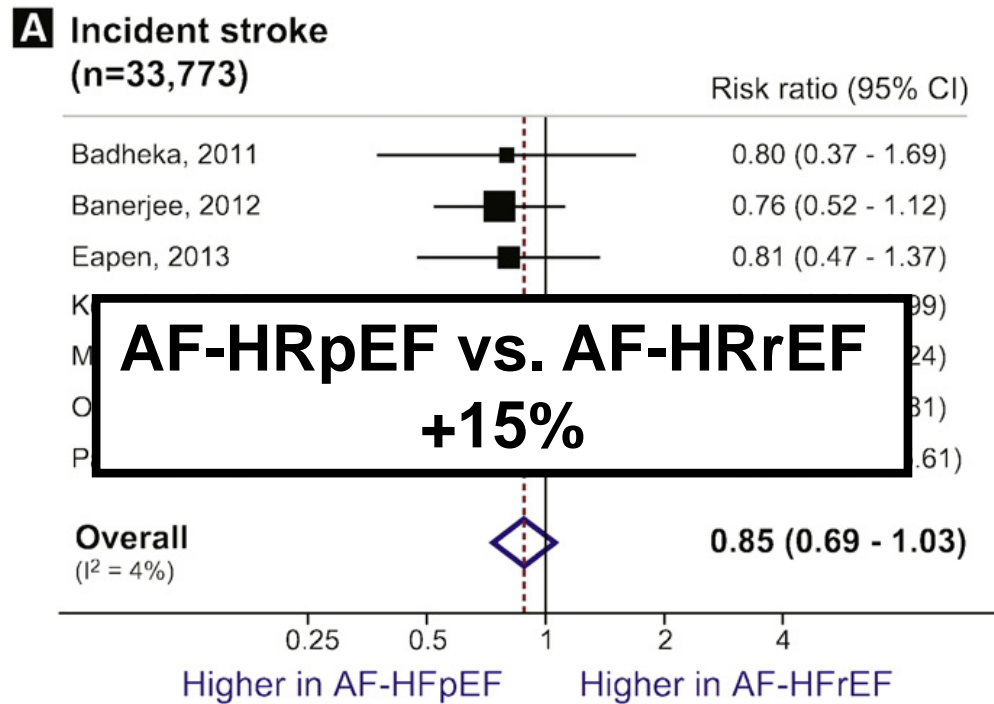
Atrial fibrillation and heart failure due to reduced (AF-HFrEF) versus preserved ejection fraction (AF-HFpEF)

A systematic review and meta-analysis of death and adverse outcomes

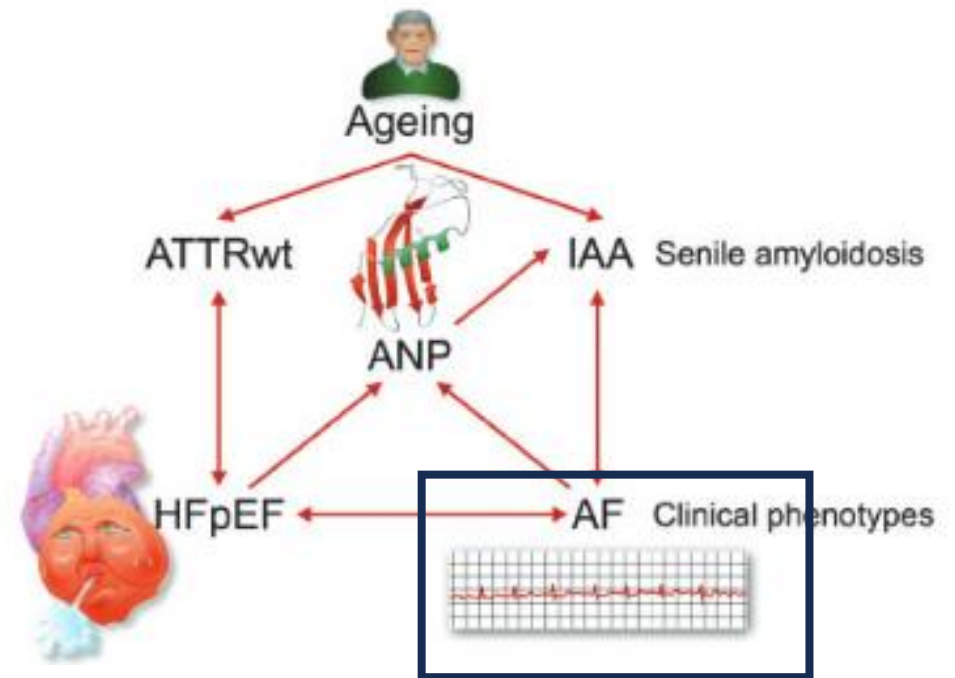
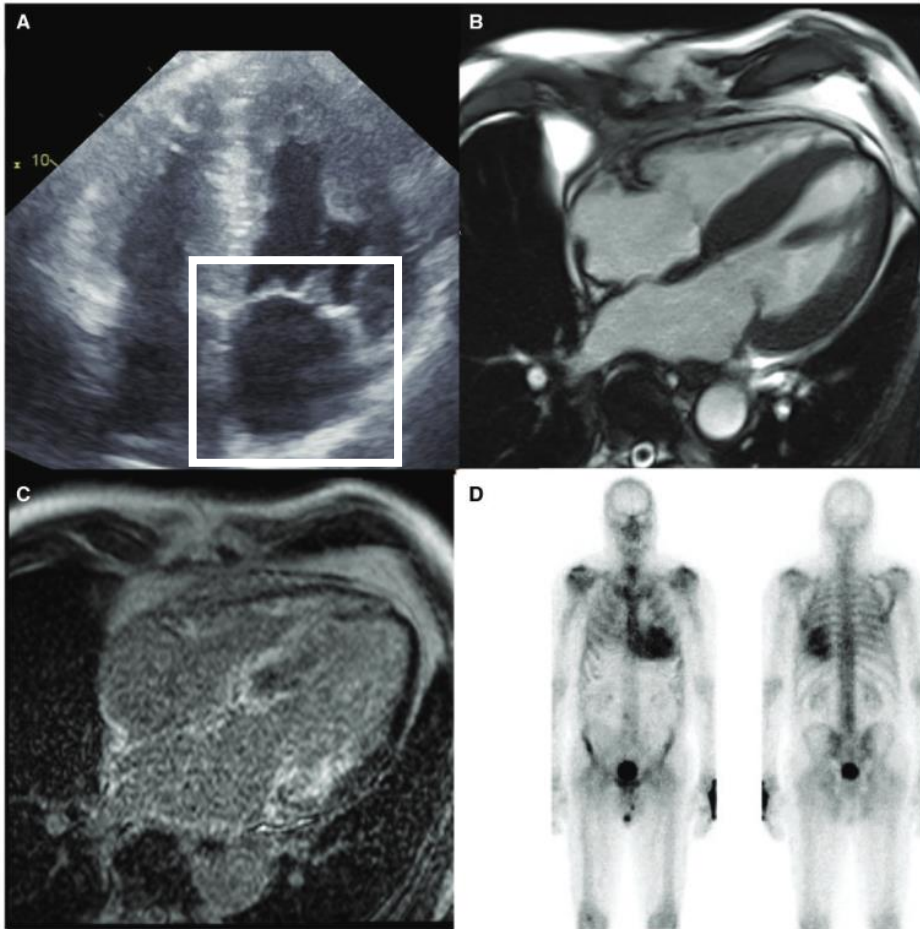


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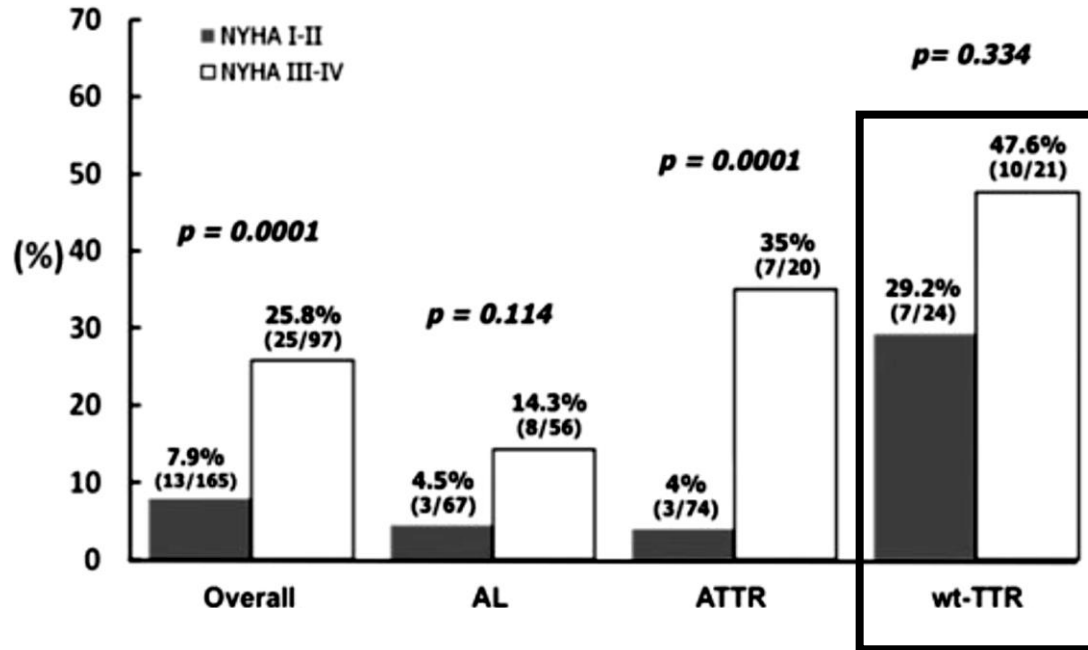


Heart failure with preserved ejection fraction, atrial fibrillation, and the role of senile amyloidosis

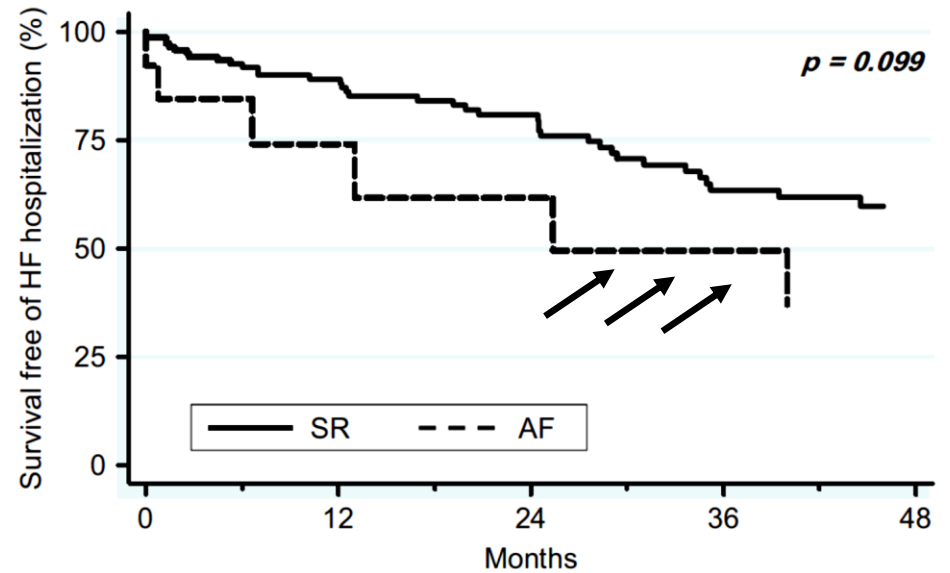


Atrial fibrillation in amyloidotic cardiomyopathy

Prevalence of AF at presentation in patients with/without severe HF



Survival free from hospitalization for HF in patients





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JOURNAL OF THE
AMERICAN
GERIATRICS
SOCIETY

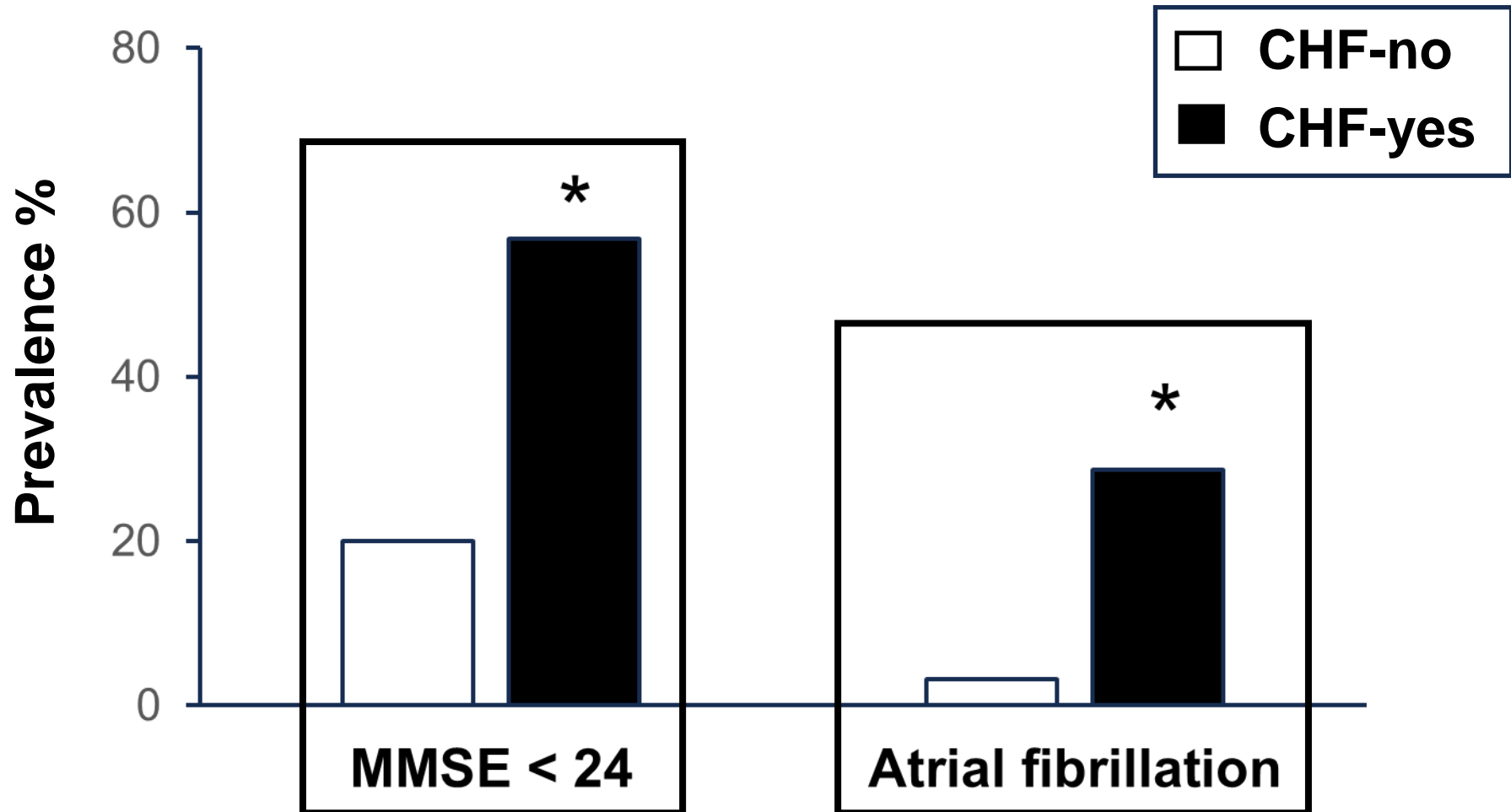
AGS Geriatrics
Healthcare
Professionals

CLINICAL INVESTIGATION

Congestive Heart Failure and Cognitive Impairment in an Older Population

Francesco Cacciatore, MD, Pasquale Abete, MD, PhD,* Nicola Ferrara, MD,*†
Claudio Calabrese, MD,* Claudio Napoli, MD,* Stefania Maggi, MD, MPH,‡
Michele Varricchio, MD,§ and Franco Rengo, MD,*†
for the Osservatorio Geriatrico Campano Study Group*

Prevalence of Mini Mental State Examination (MMSE) and atrial fibrillation in patients with and without Chronic Heart Failure (CHF)

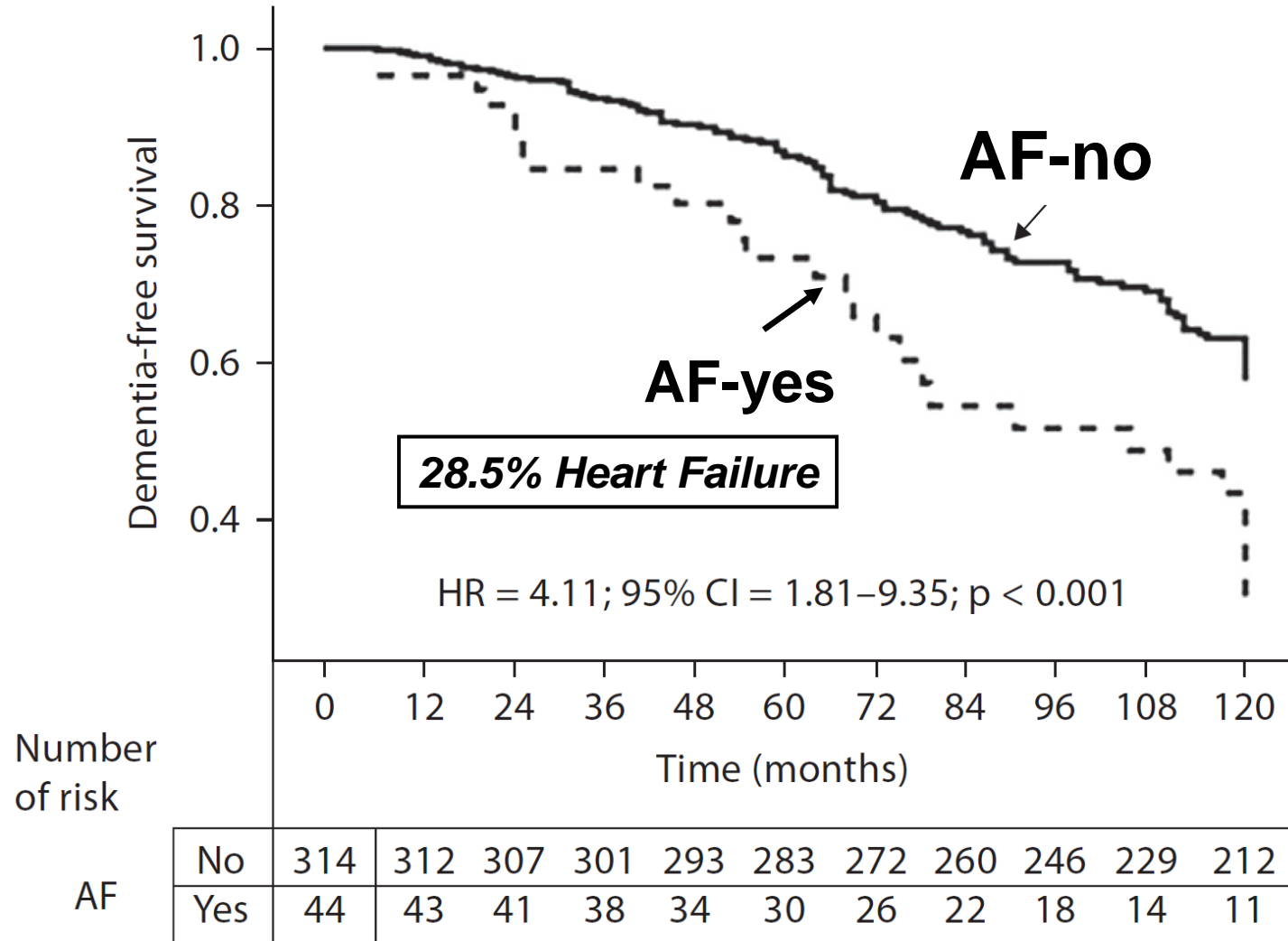


* $p < 0.05$ vs CHF-no

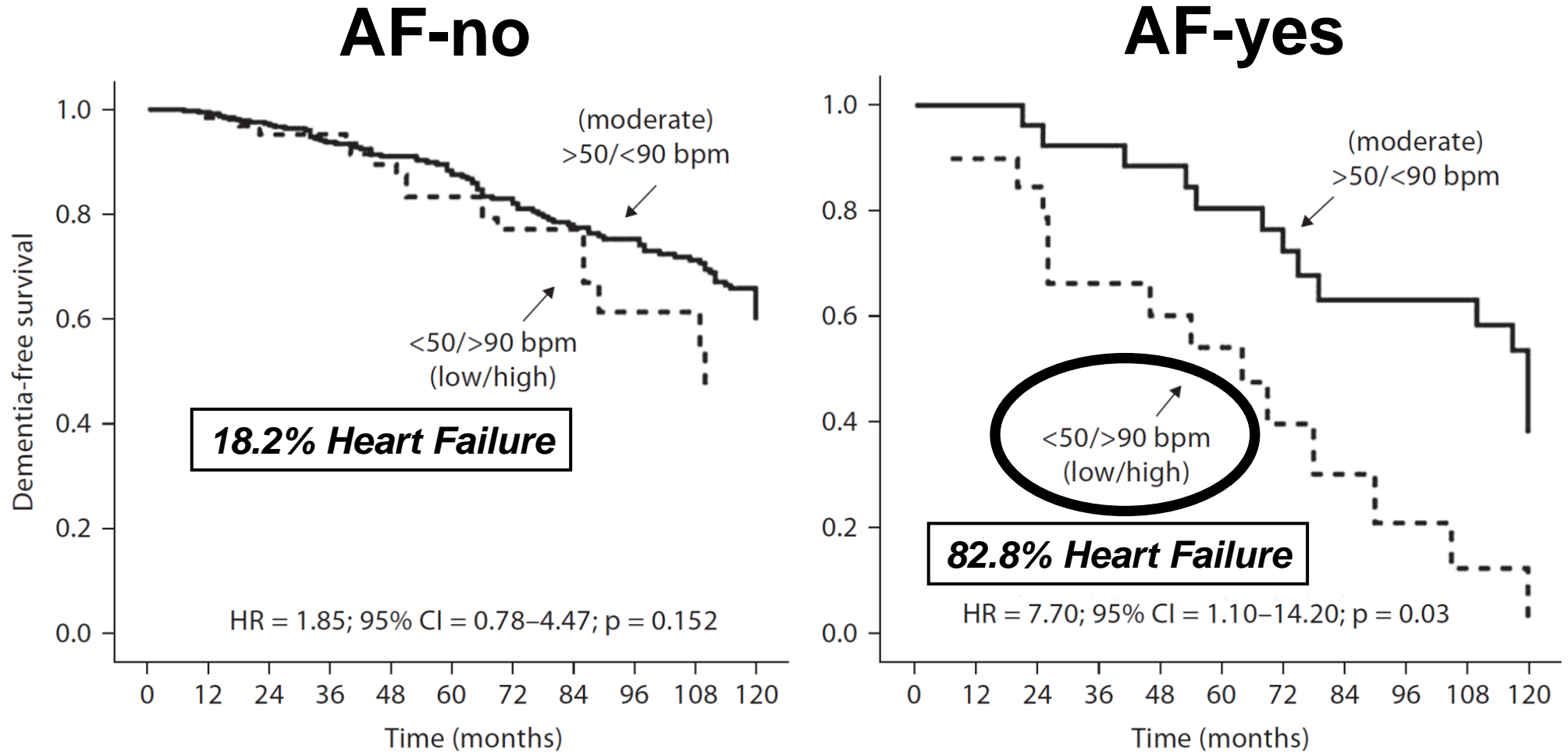
Role of Ventricular Rate Response on Dementia in Cognitively Impaired Elderly Subjects with Atrial Fibrillation: A 10-Year Study

Francesco Cacciato^{a,b} Gianluca Testa^c Assunta Langellotto^a
Gianluigi Galizia^d David Della-Morte^{d,e} Gaetano Gargiulo^a
Agnese Bevilacqua^a Maria Teresa Del Genio^a Vincenzo Canonico^a
Franco Rengo^{a,b} Pasquale Abete^a

Permanent atrial fibrillation (AF) predicts dementia in cognitively impaired elderly subjects

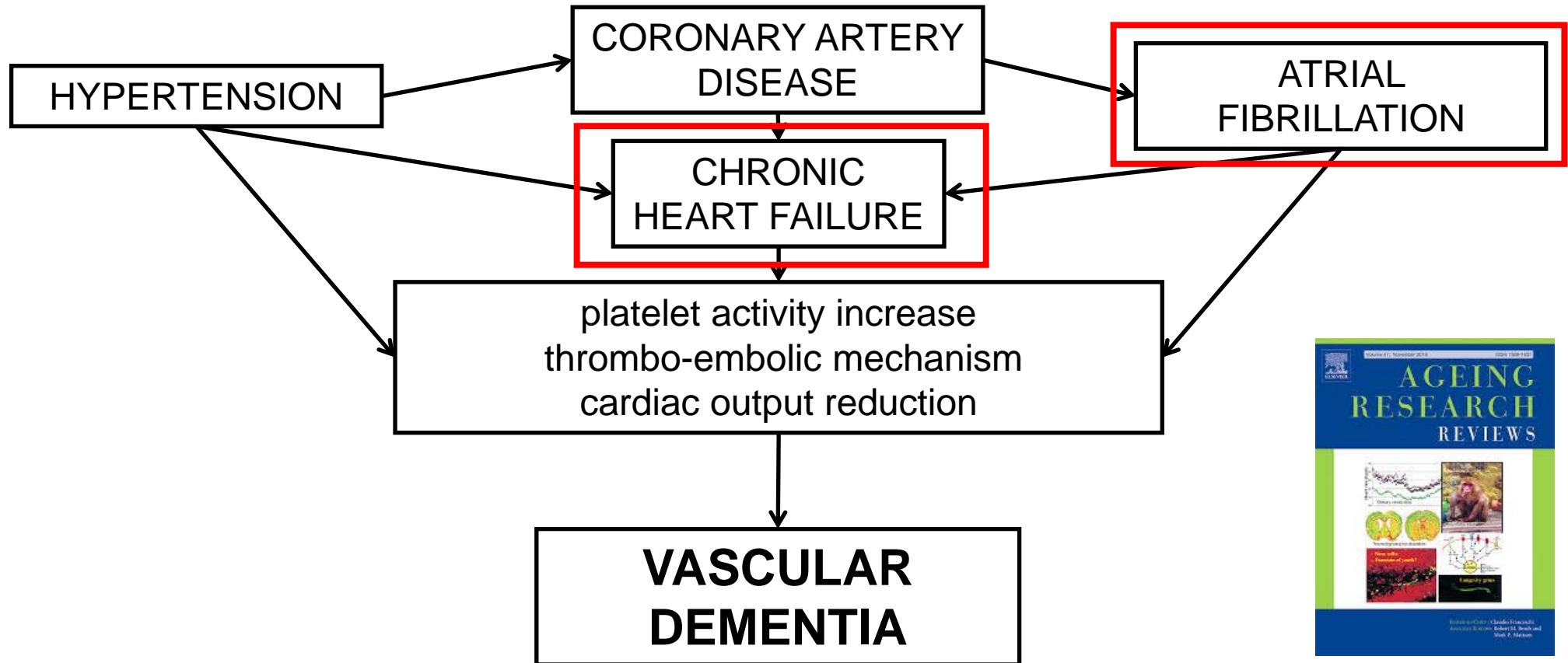


Low/high (<50/>90 bpm) predicts dementia in cognitively impaired elderly subjects with permanent atrial fibrillation (AF)



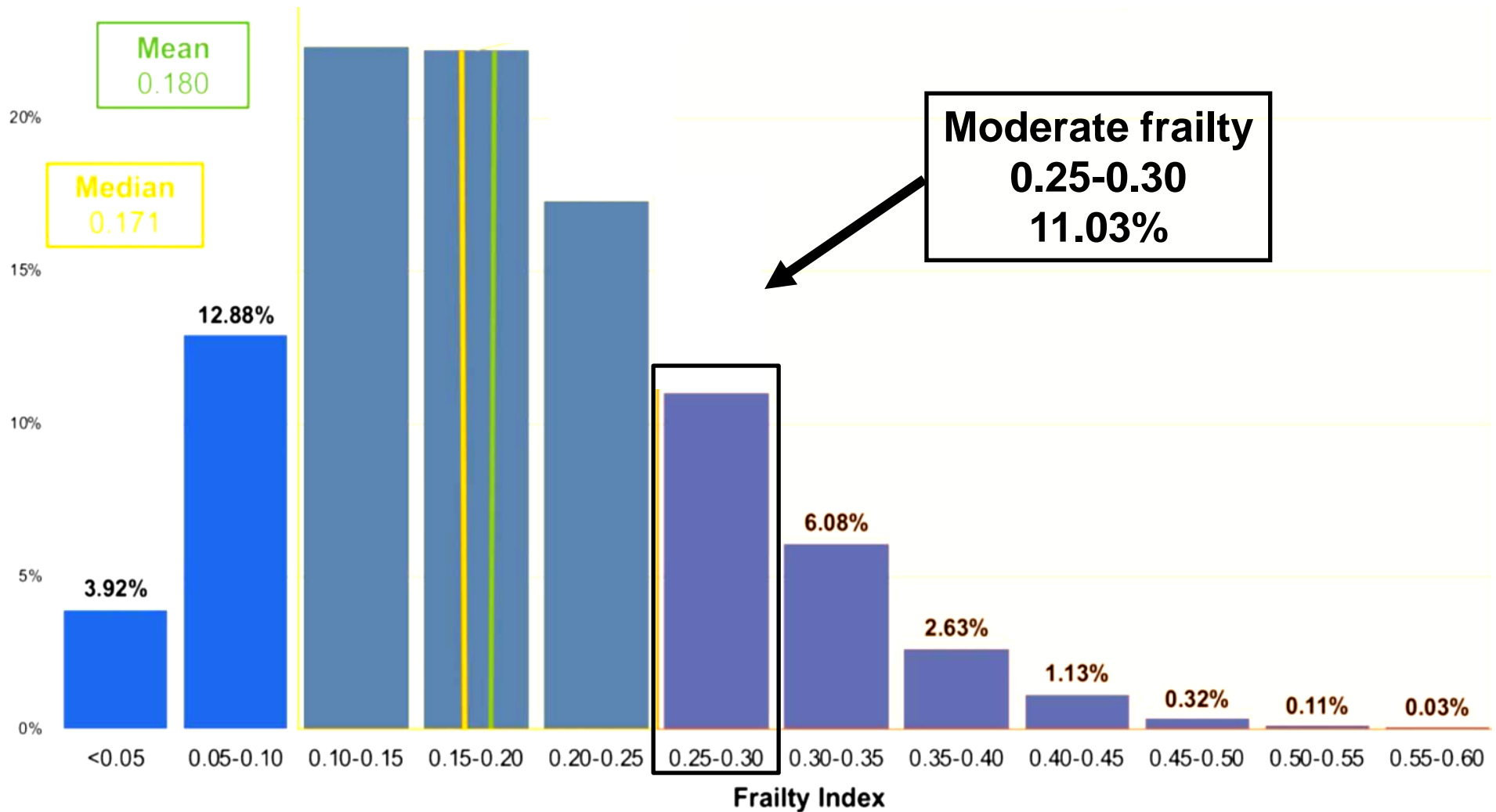
Cognitive impairment and cardiovascular diseases in the elderly.

A heart-brain continuum hypothesis



Epidemiology and impact of frailty in patients with Atrial fibrillation in Europe

ESC-EHRA EORP-AF General Long-Term Registry



RESEARCH ARTICLE

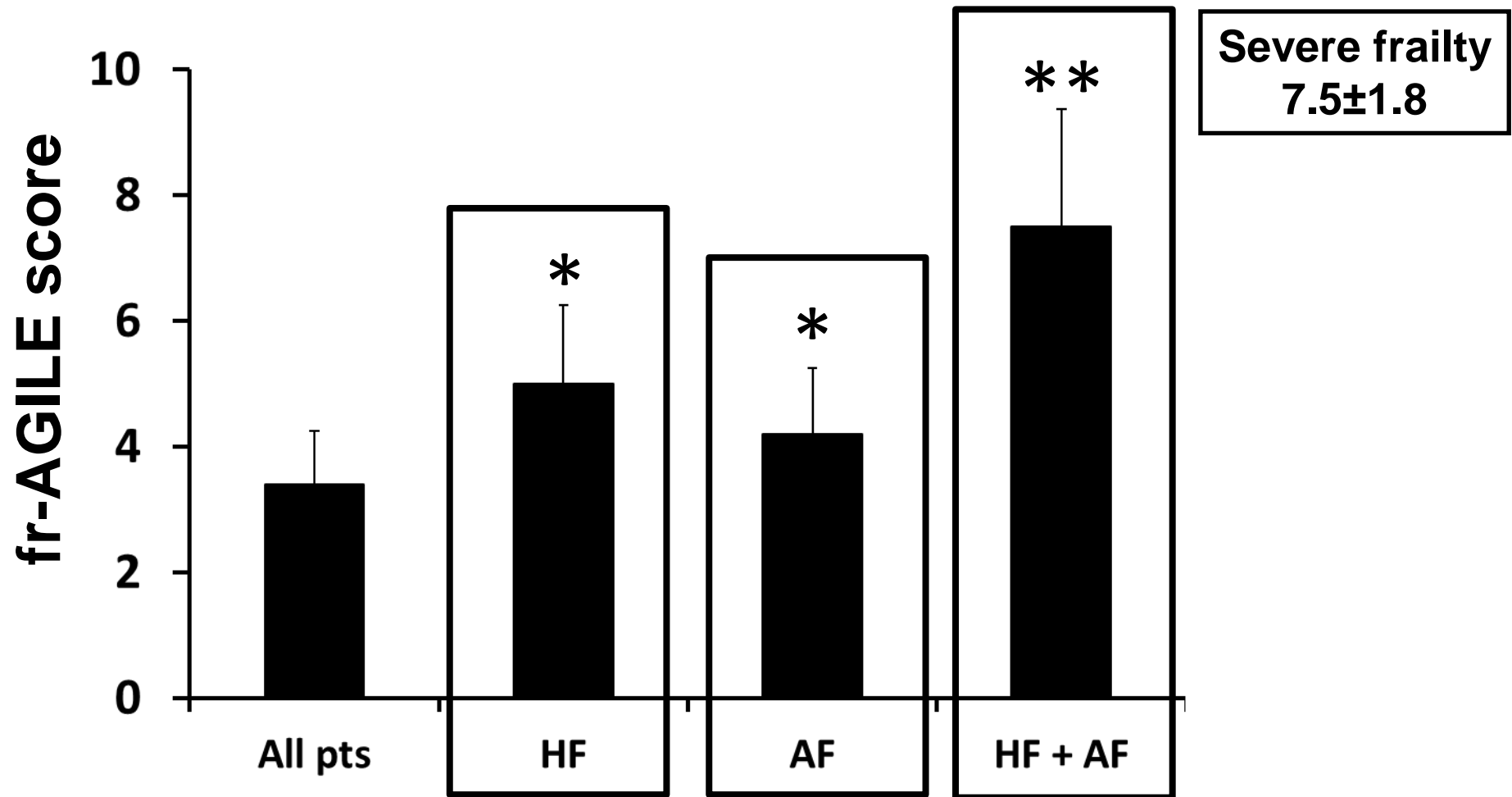
Open Access

Validation of “(fr)AGILE”: a quick tool to identify multidimensional frailty in the elderly



Ilaria Liguori¹, Gennaro Russo¹, Giulia Bulli¹, Francesco Curcio¹, Veronica Flocco¹, Gianlugi Galizia^{1,2}, David Della-Morte^{3,4}, Gaetano Gargiulo⁵, Gianluca Testa^{1,6}, Francesco Cacciatore¹, Domenico Bonaduce¹ and Pasquale Abete^{1*}

Heart Failure (HF) and Atrial Fibrillation (AF) and multidimensional FRAILTY



* p<0.05 vs all pts

** p<0.01 vs HF and AF

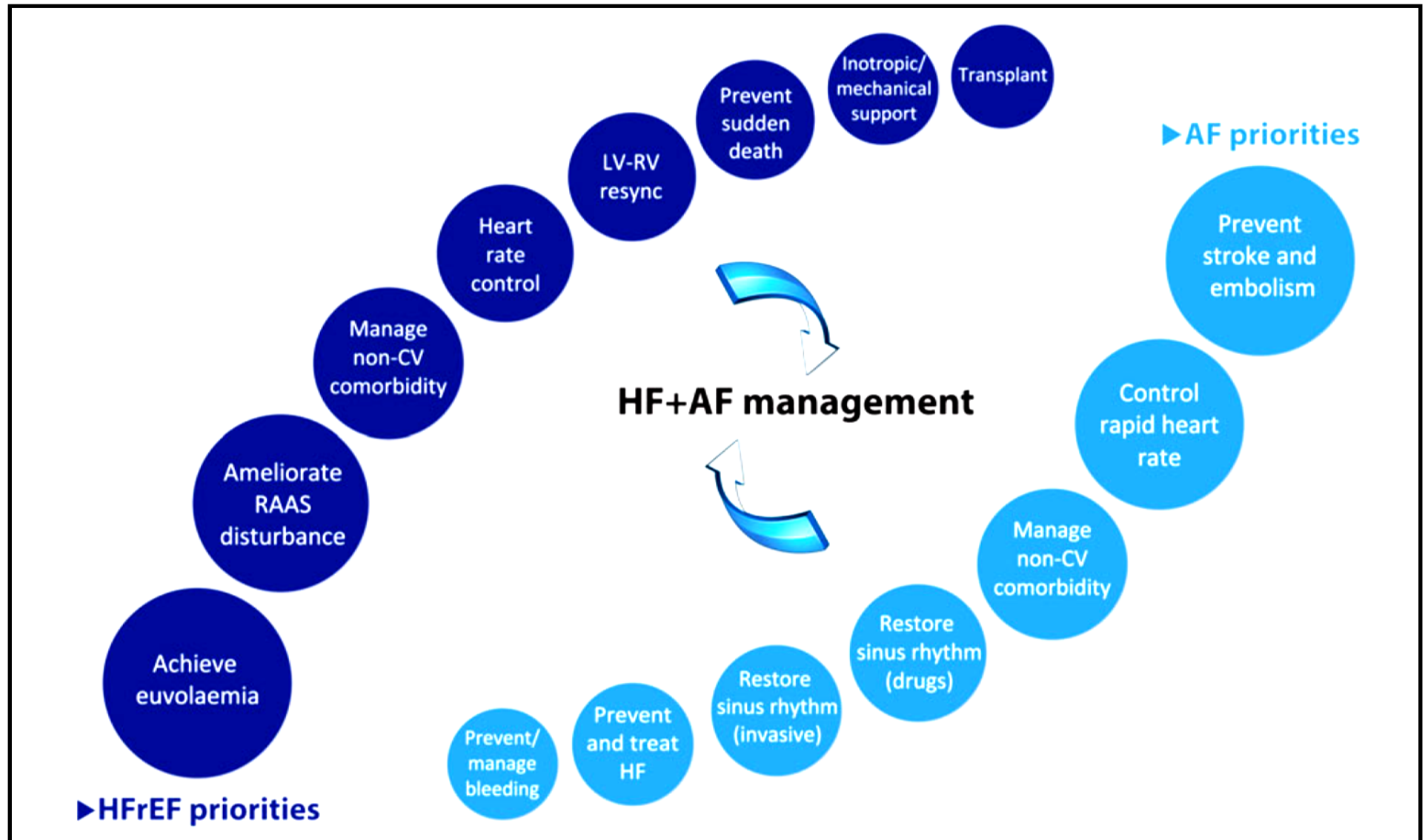


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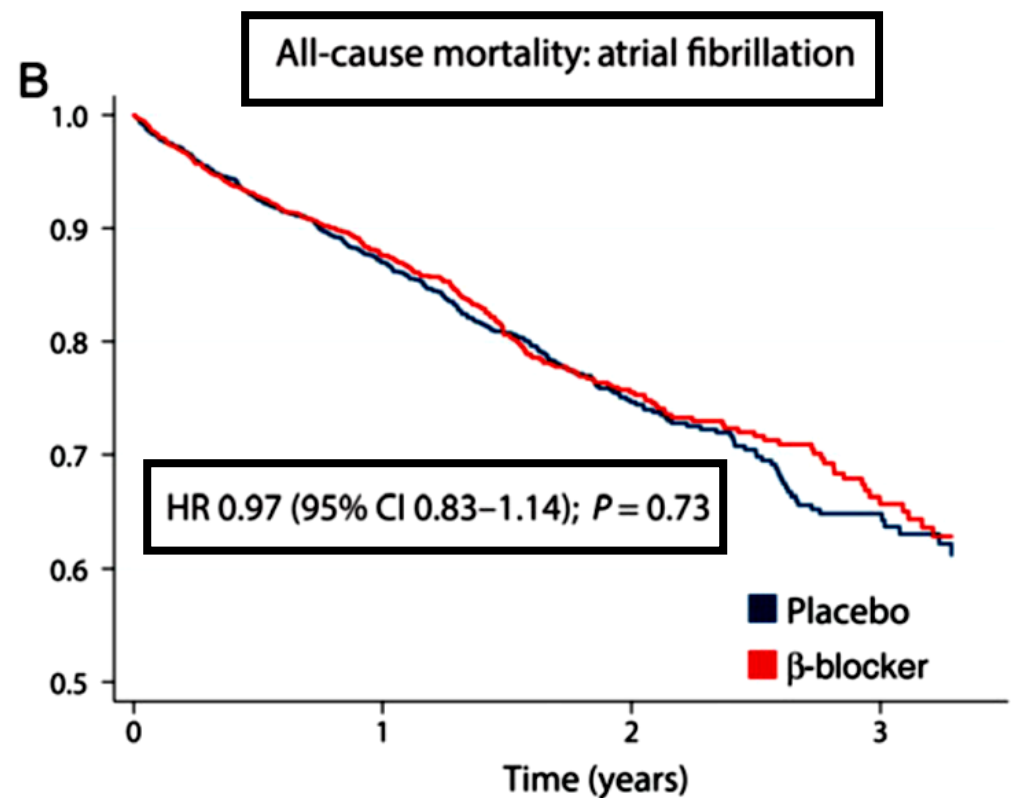
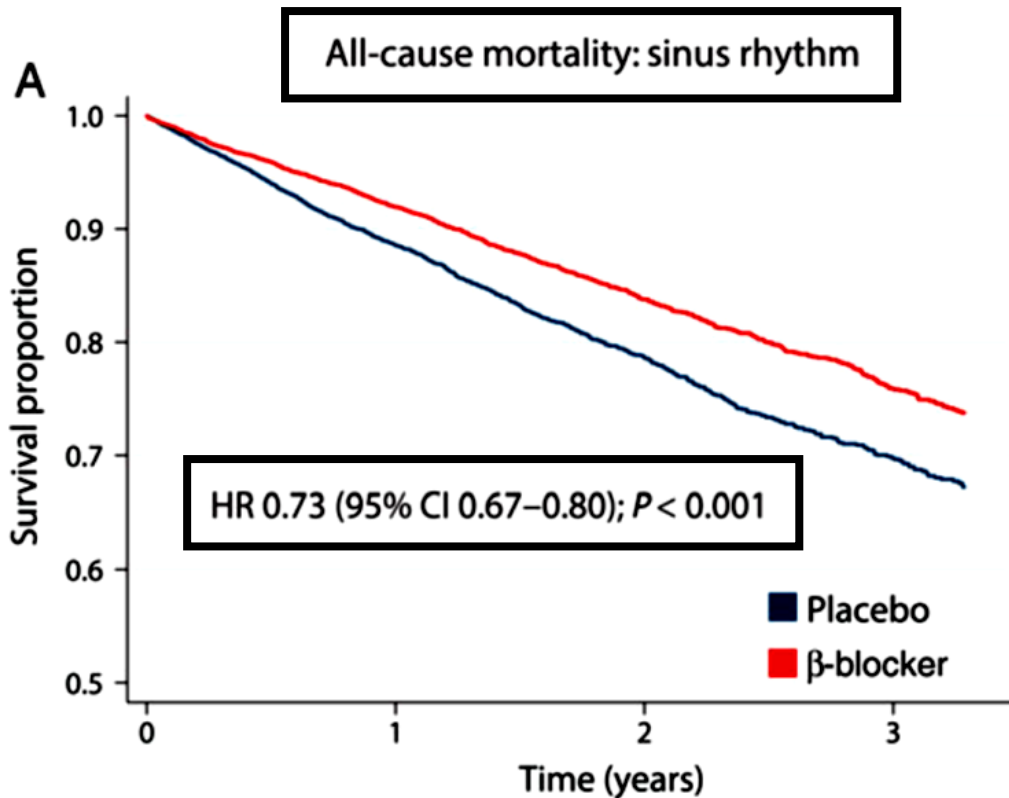
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Major priorities of management in patients with heart failure and reduced ejection fraction and atrial fibrillation



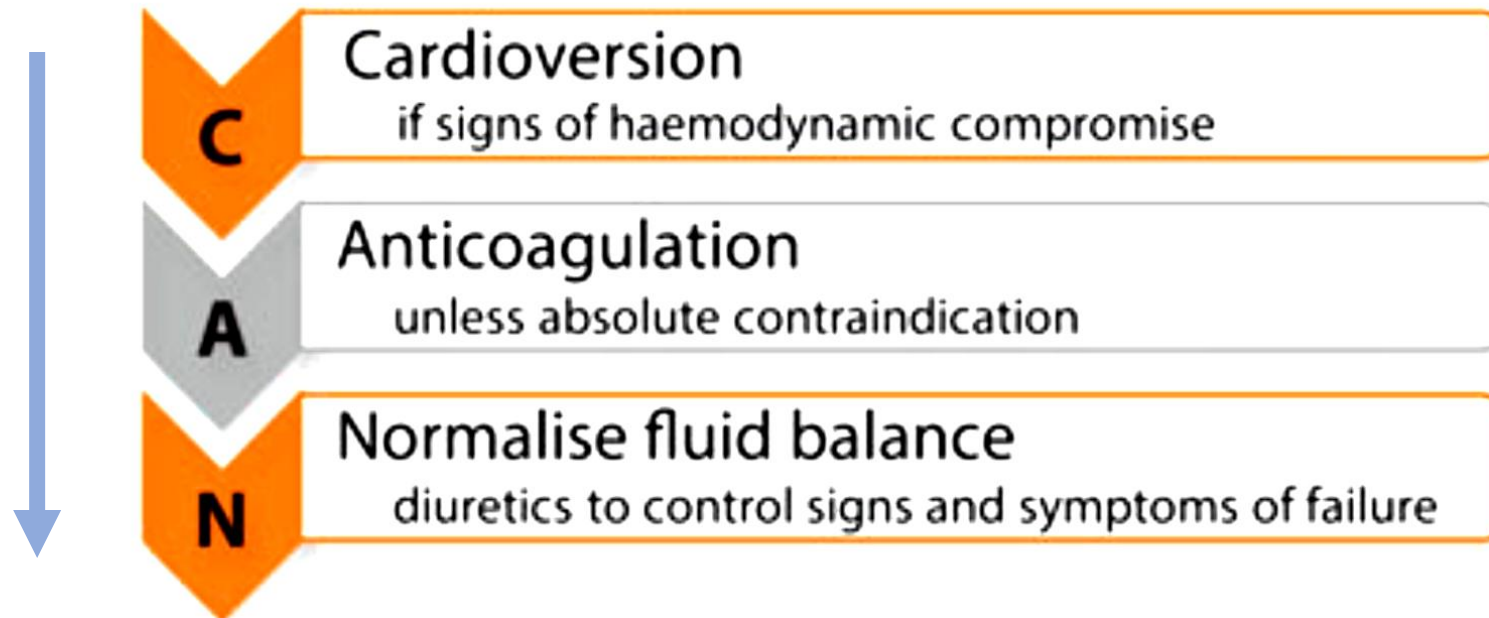
β -blockers in heart failure and reduced ejection fraction with sinus rhythm and atrial fibrillation.

Kaplan–Meier survival curves for β -blocker vs. placebo in heart failure patients with (A) sinus rhythm and (B) atrial fibrillation.



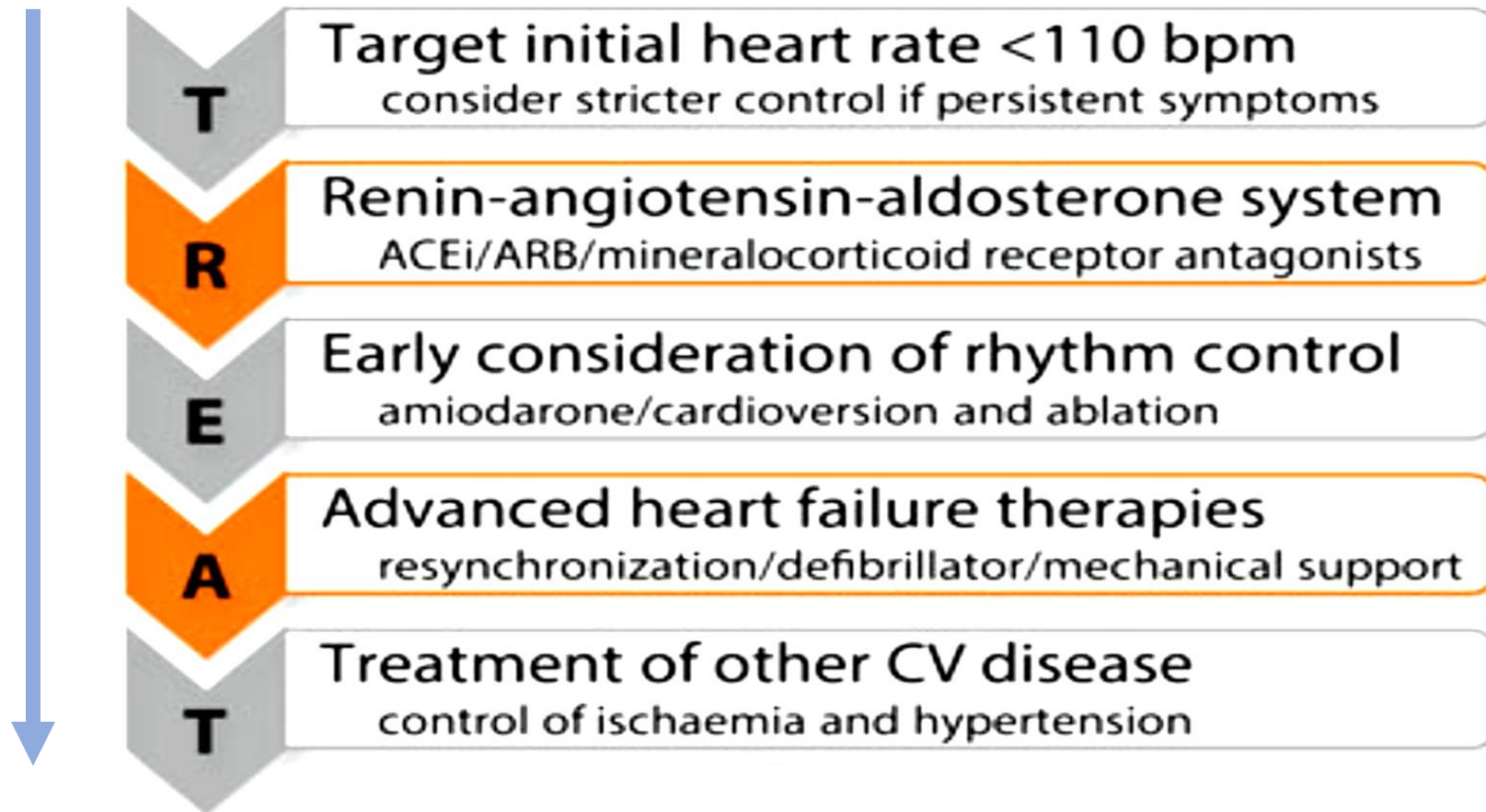
CAN-TREAT HFrEF+AF

Management of newly diagnosed concomitant heart failure with reduced ejection fraction and atrial fibrillation



CAN TREAT HF_rEF+AF

Management of newly diagnosed concomitant heart failure with reduced ejection fraction and atrial fibrillation



Atrial fibrillation: a geriatric perspective on the 2020 ESC guidelines

AF catheter ablation after drug therapy failure			
AF catheter ablation as first line therapy			
Is recommended to reverse LV dysfunction in AF patients when tachycardia-induced cardiomyopathy is highly probable, independent of their symptom status.	I	AF ablation should be considered in symptomatic patients with AF and HFrEF to improve symptoms and cardiac function when tachycardiomyopathy is suspected.	IIA
Should be considered in selected AF patients with HFrEF to improve survival and reduce HF hospitalization.	IIa		

Atrial fibrillation: a geriatric perspective on the 2020 ESC guidelines

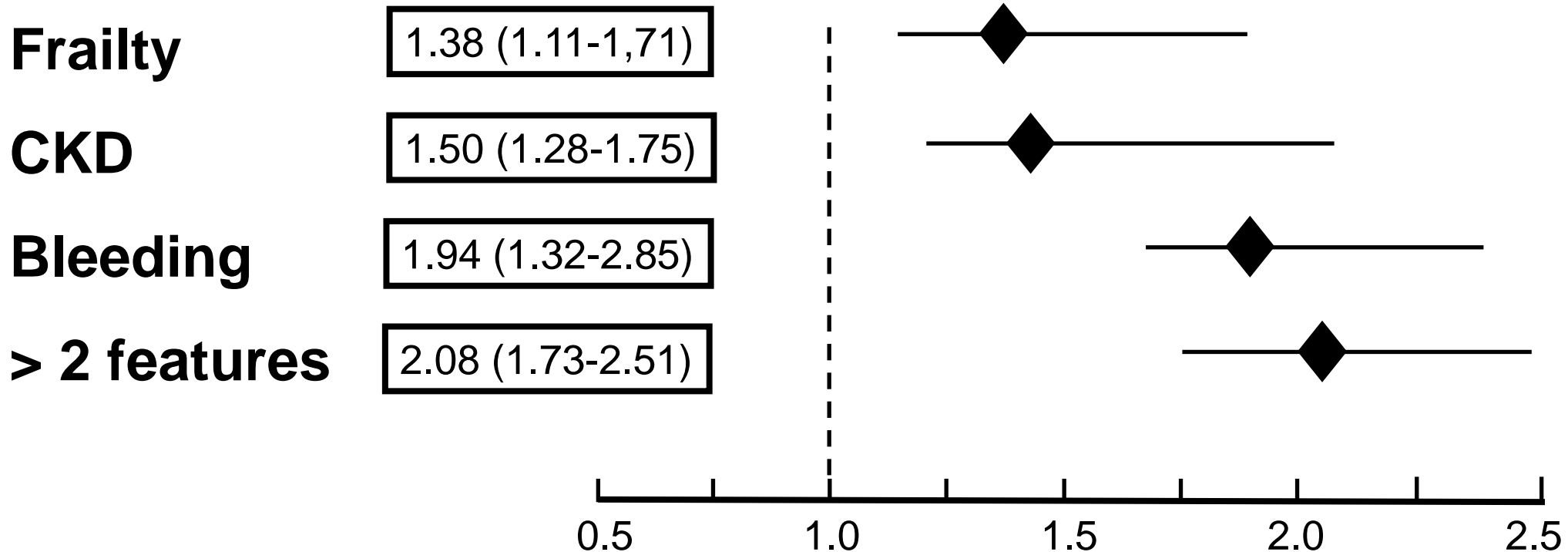
Management of AF in HF-preserved-EF (HFpEF)

- AF is a frequent comorbid condition and a frequent complication in patients with HFpEF.
- **Recent onset AF may be tolerated poorly in some subsets of patients with HFpEF, in whom preload may be particularly important.**
- Common principles of AF management apply for AF in HFpEF.
- Although general disease-modifying treatments for HF - ACEIs, ARBs, BBs and MRAs - reduce the incidence of AF in patients with HFrEF, there is no evidence that this is the case in HFpEF.

Features of Clinical Complexity in European Patients With Atrial Fibrillation:

A Report From a European Observational Prospective AF Registry

Clinical outcome composed of all-cause death, major adverse cardiovascular events (MACEs) (defined as any thromboembolic events, any acute coronary syndrome and cardiovascular death) and major bleeding (defined as intracranial hemorrhage and major extracranial hemorrhage).



CKD = Chronic Kidney Disease

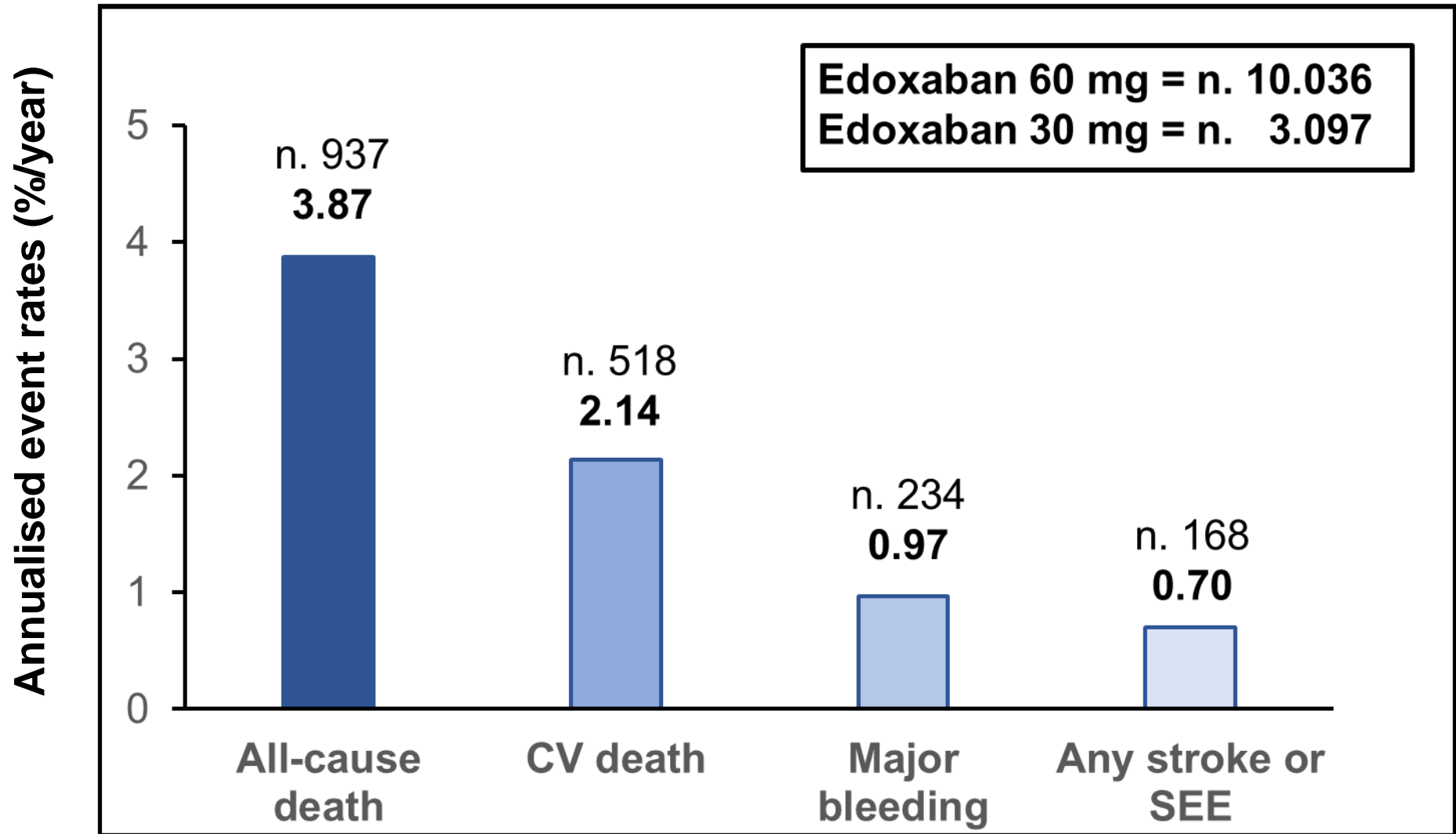
Edoxaban for stroke prevention in atrial fibrillation and age-adjusted predictors of clinical outcomes in routine clinical care

Prospective,
observational study
4-year follow-up
825 centres

	Total [N = 13 133] (100.0%)	60 mg [N = 10 036] (76.4%)	30 mg [N = 3097] (23.6%)
Male, n (%)	7451 (56.7)	6084 (60.6)	1367 (44.1)
Age (years), mean (SD)	73.6 (9.5)	71.8 (9.1)	79.5 (7.9)
Age [years], n (%)			
< 65	1995 (15.2)	1862 (18.6)	133 (4.3)
(65, 75)	4449 (33.9)	3891 (38.8)	558 (18.0)
(75, 85)	5313 (40.5)	3756 (37.4)	1557 (50.3)
≥ 85	1375 (10.5)	527 (5.3)	848 (27.4)

Annualised event rates

The Edoxaban Treatment in Routine Clinical Practice for Patients With Non-Valvular Atrial Fibrillation (ETNA-AF) Europe



Age-adjusted predictors of outcomes during the 2-year follow-up

*The Edoxaban Treatment in Routine Clinical Practice for Patients
With Non-Valvular Atrial Fibrillation (ETNA-AF) Europe*

ALL-CAUSE DEATH ► *History of Heart Failure*

OR 2.40 CI 2.08-2.76 - Wald χ^2 : 146.99; $p < 0.0001$

CARDIOVASCULAR DEATH ► *History of Heart Failure*

OR 2.60 CI 2.16-3.13 Wald χ^2 : 100.38; $p < 0.0001$

ISCHAEMIC STROKE ► *Transient ischaemic attack*

OR 5,01 CI 3.47-7.24 Wald χ^2 : 73.63; $p < 0.0001$)

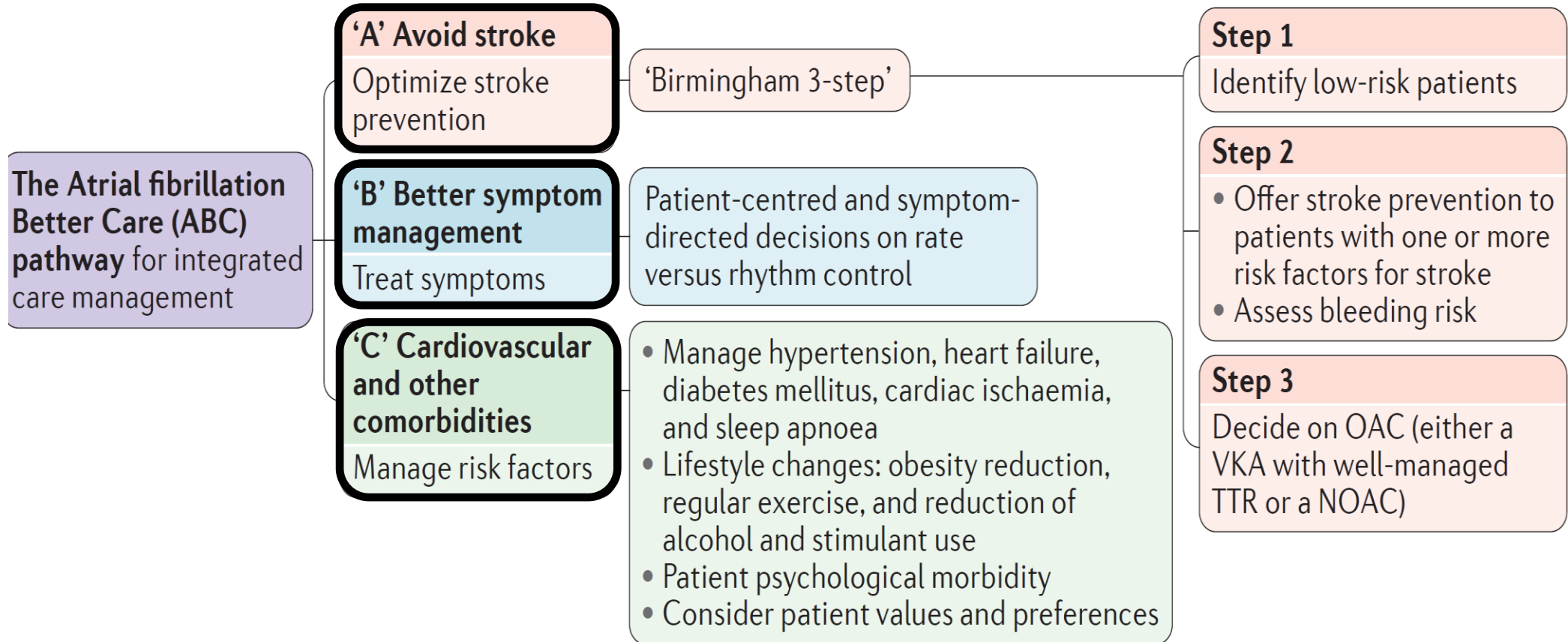
MAJOR BLEEDING ► *Low kidney function*

OR 6.15 CI 3.22-11.73 Wald χ^2 : 30.68; $p < 0.0001$

Dose adjustment of direct thrombin inhibitor and oral factor Xa inhibitors for stroke prevention in patients with nonvalvular atrial fibrillation

	Rivaroxaban [≠]	Apixaban [¶]	Edoxaban [^]
Full dose	20 mg OD	5 mg BID	60 mg OD
Age ≥ 80 years	20 mg OD	2.5 mg BID	60 mg OD
Age 75–79 years	20 mg OD	5 mg BID	60 mg OD
Body weight ≤ 60 kg	20 mg OD	2.5 mg BID	30 mg OD
SerCr ≥ 1.5 mg/l	–	2.5 mg BID	–
CrCl 30–49 ml/min	15 mg OD	5 mg BID	30 mg OD
CrCl 15–29 ml/min	15 mg OD	2.5 mg BID	30 mg OD

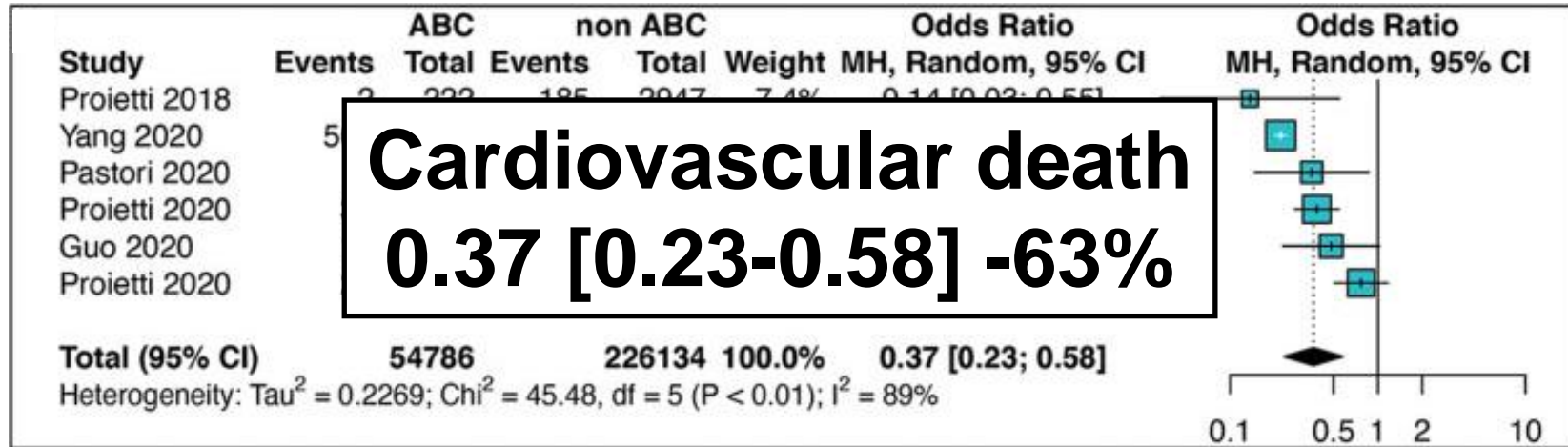
The Atrial fibrillation Better Care (ABC) pathway for integrated care management.



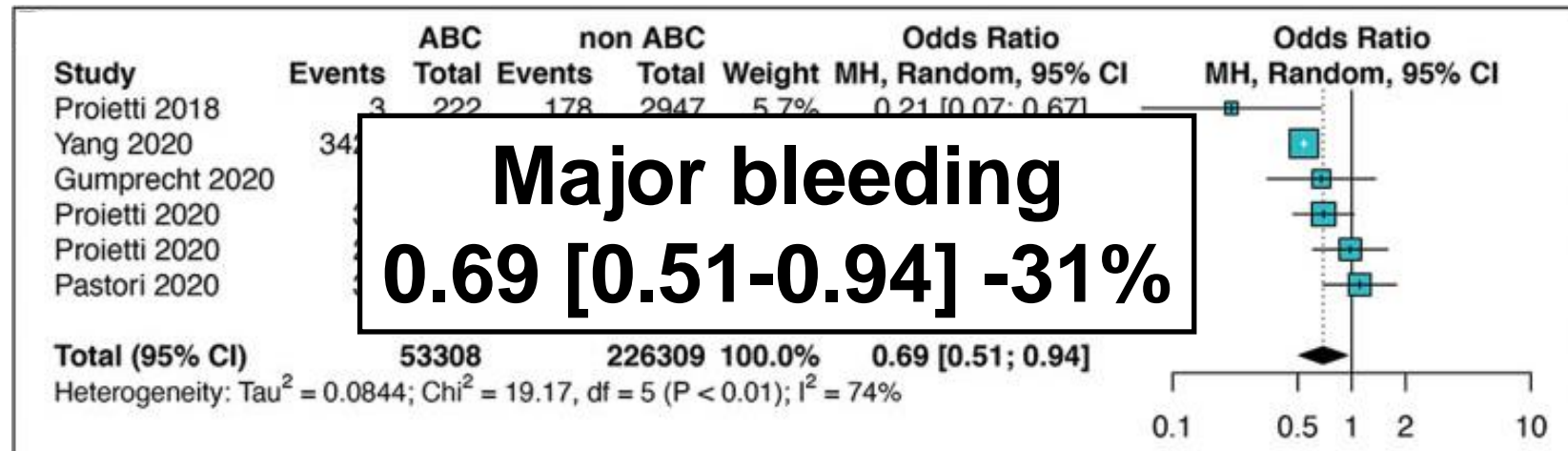
Impact of ABC adherent management on outcomes

A Systematic Review and Meta-Analysis of 285,000 Patients

Cardiovascular death



Major bleeding

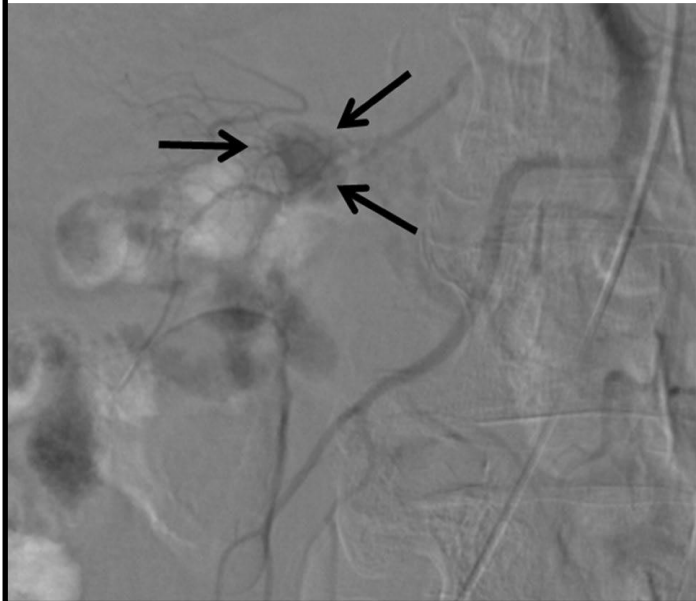


CASE REPORT

Thromboembolic and bleeding risk management in elderly patients: a case report

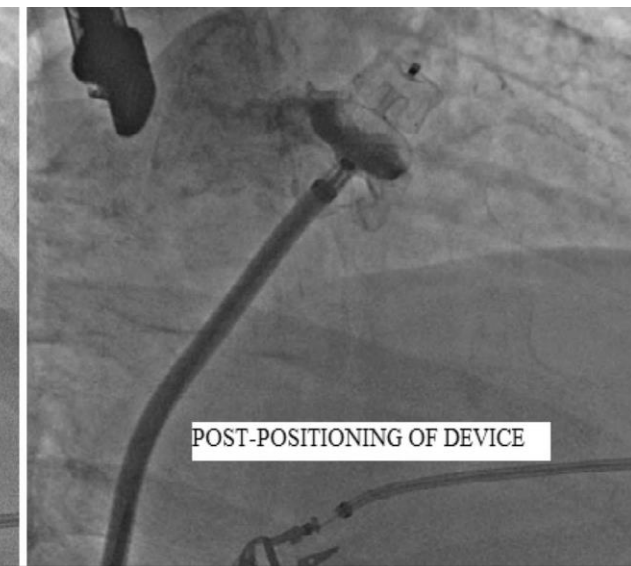
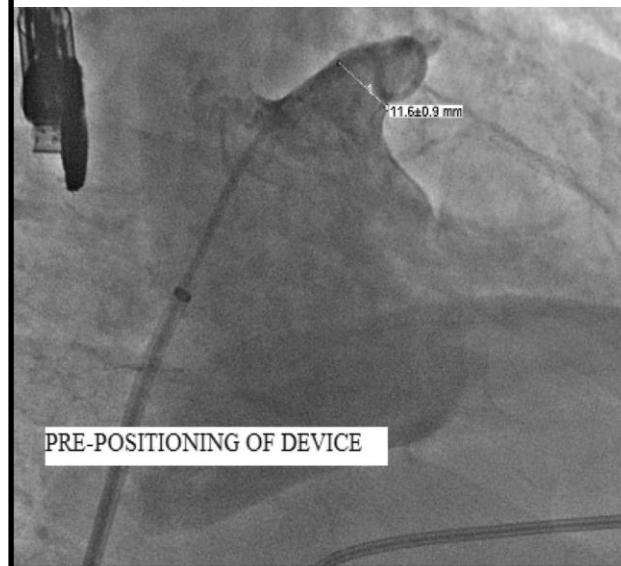
Michele Cellurale¹ · Ilaria Liguori¹ · Francesco Curcio¹ · Antonio Rapacciuolo² · Nicola Ferrara¹ ·
Domenico Bonaduce¹ · Pasquale Abete¹

Arterial phase of selective superior mesenteric angiogram. The arrows indicate the presence of angiodysplasia



- Atrial fibrillation
 - HFrHF post-CAD
 - Gastrointestinal angiodysplastic lesions (GIADs)
- HAS-BLED score = 5 and CHA₂DS₂- VASc score = 7**

pre- and post-positioning device in left atrial appendage





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CONCLUSIONS

- Atrial fibrillation (AF) is present in about 15-20% of elderly patient with heart failure (HF);
- The prognosis is worsened by the presence of AF in elderly patient with HF and viceversa;
- In particular, AF in HF with reduced ejection fraction in term of mortality and hospitalization and in those with preserved ejection fraction in term of incident stroke.
- Patients with AF and HF are frequently characterized by cognitive impairment and multidimensional frailty.
- The use of anticoagulant therapy is strongly influenced by the complexity of patients with AF and HF.
- ABC approach represent a good tool to manage patients with AF and HF.