Bologna 26-29 Novembre 2014

Simposio
NUOVE TECNOLOGIE IN TEMA DI CARDIOPATIE DELL'ANZIANO PER IL TRATTAMENTO DELLE ARITMIE E DELLE VALVULOPATIE

Il trattamento delle aritmie in età geriatrica

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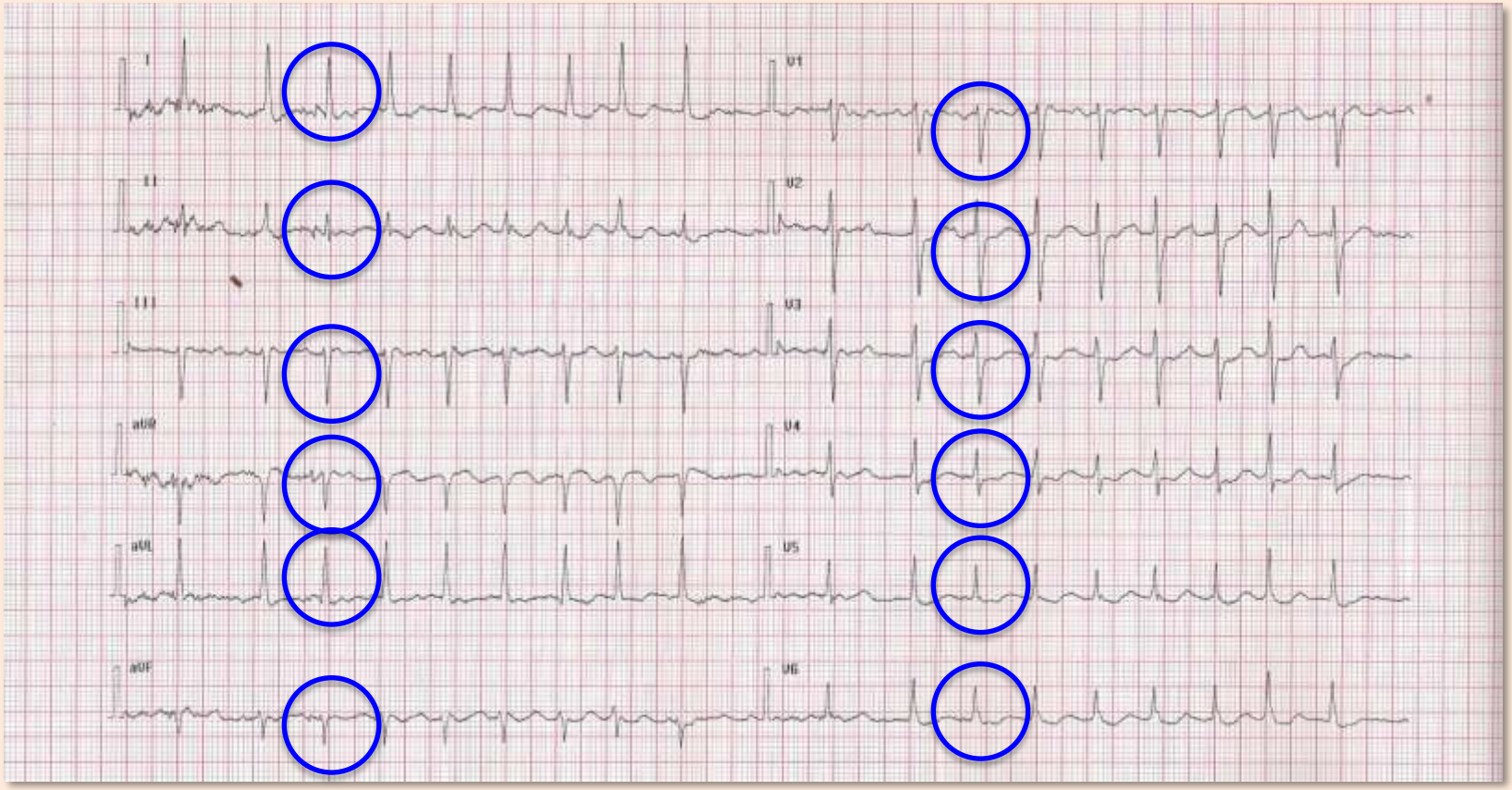
Premesse

ECG in assenza di terapia in una paziente di 83 anni

Presenza di fibrillazione atriale ad elevata risposta ventricolare media (FC: 95-120 b/min); PA 160/100 mmHg

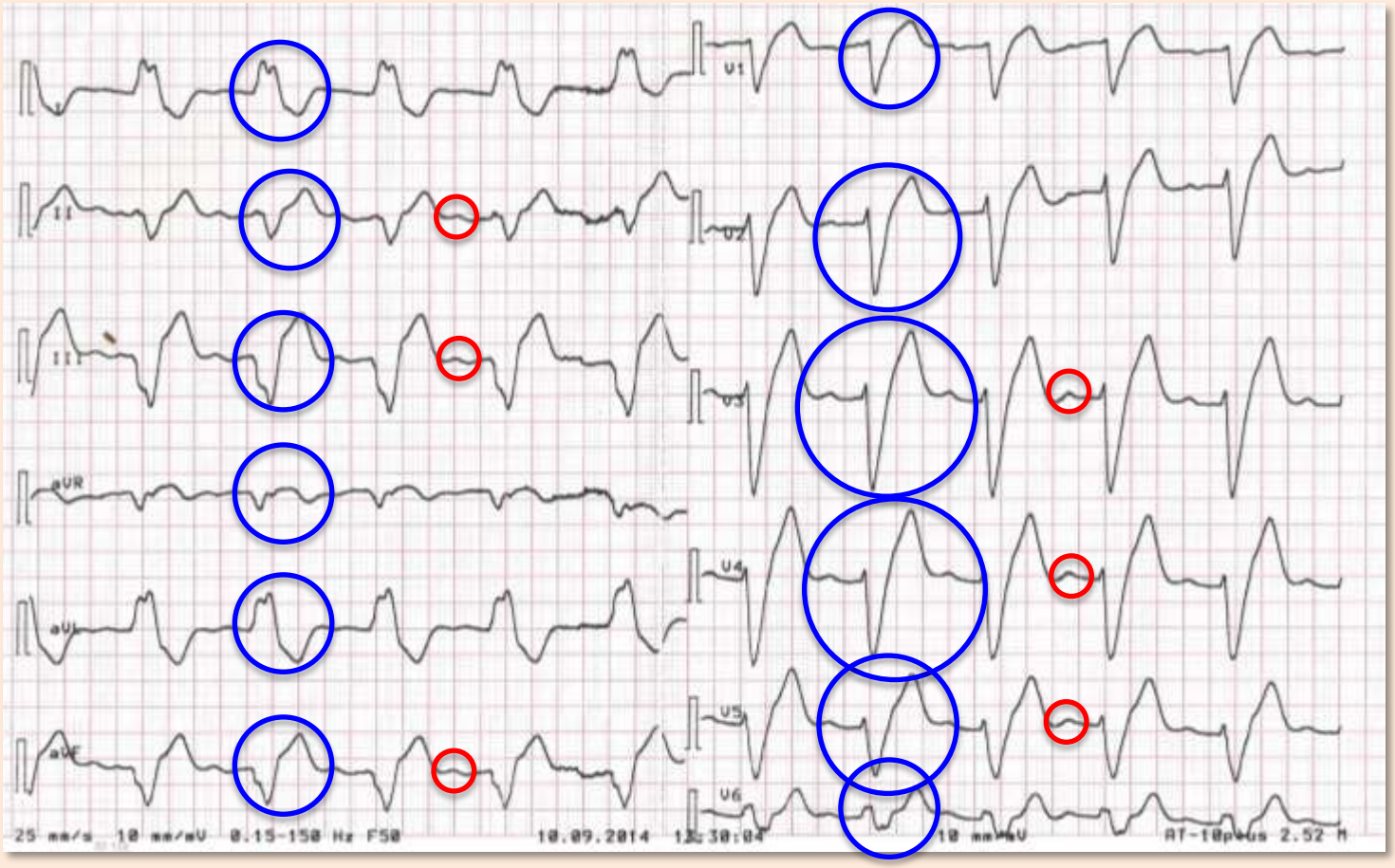
QRS di normale morfologia



ECG dopo assunzione di propafenone 600 mg "*pill-in-the-pocket*"

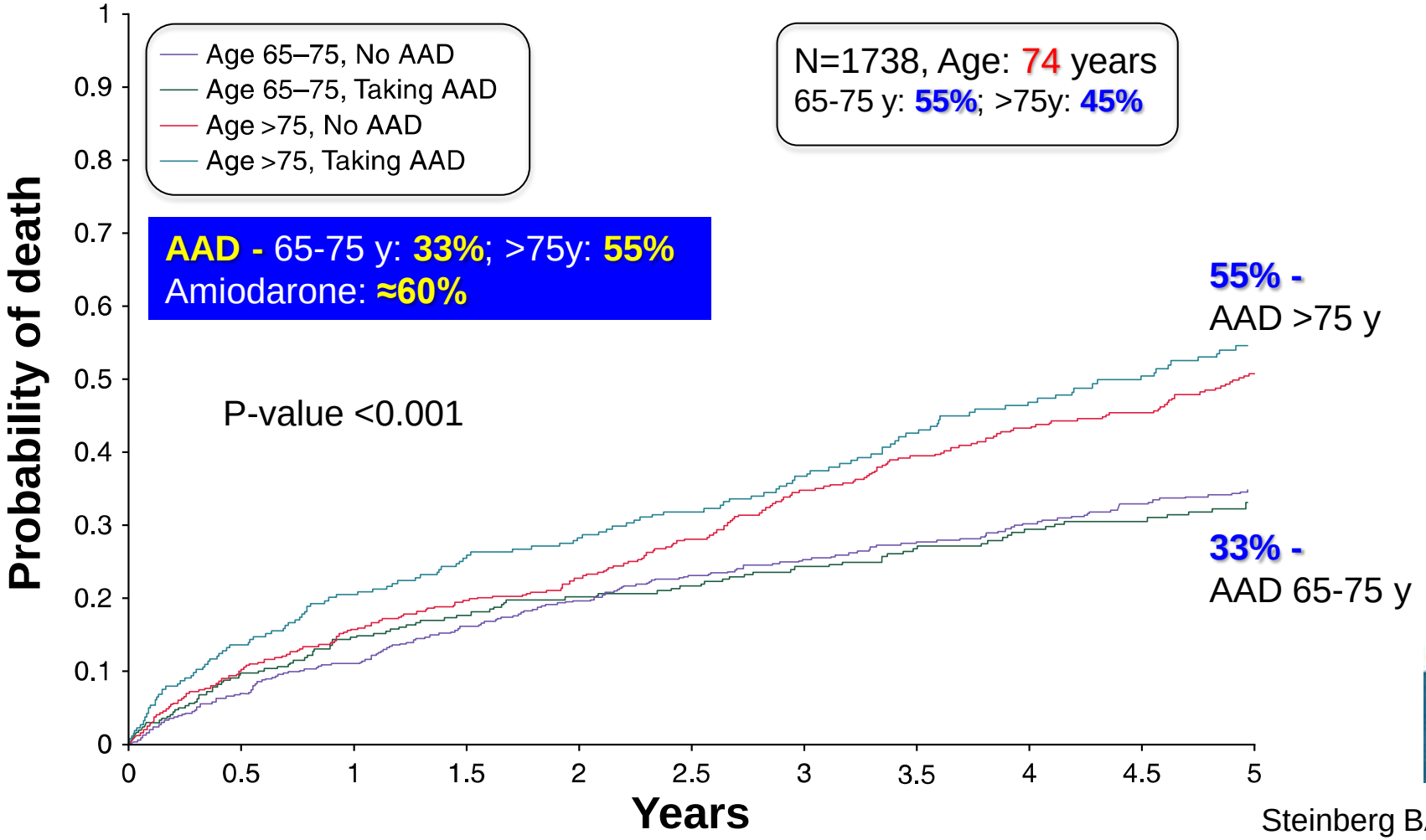
La paziente ha preso due volte la terapia, emozionata per l'arrivo dei familiari. Comparsa di astenia, senso di vertigine e quindi presincope, giunge in DEA …

PA 150/70 mmHg; FC 72 b/min. ECG – ritmo sinusale, BAV I grado (PR: 250 ms); comparsa di BBS (QRS: 240 ms)



Use of antiarrhythmic drug therapy and clinical outcomes in older patients with concomitant atrial fibrillation and coronary artery disease

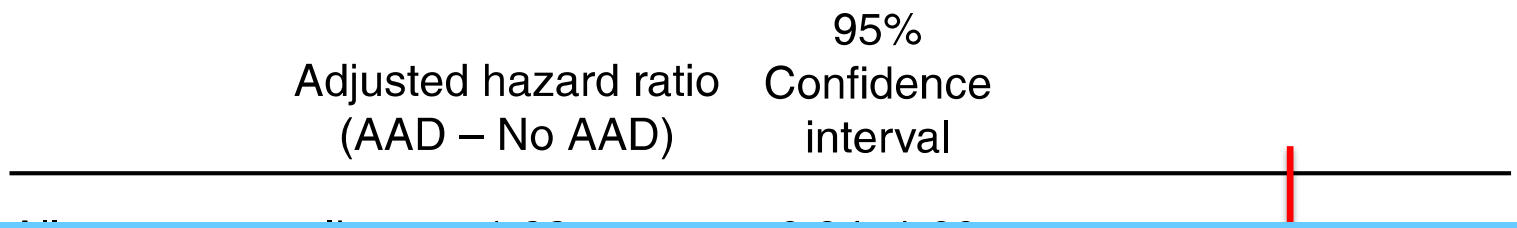
Unadjusted KM event rates for all-cause mortality in the Duke Databank for Cardiovascular Disease (DDCD) cohort (2000-10)



Steinberg BA, 2014

Use of antiarrhythmic drug therapy and clinical outcomes in older patients with concomitant atrial fibrillation and coronary artery disease

Forest plot of adjusted KM event rates at 1 year in the Duke Databank for Cardiovascular Disease (DDCD) cohort (2000-10)



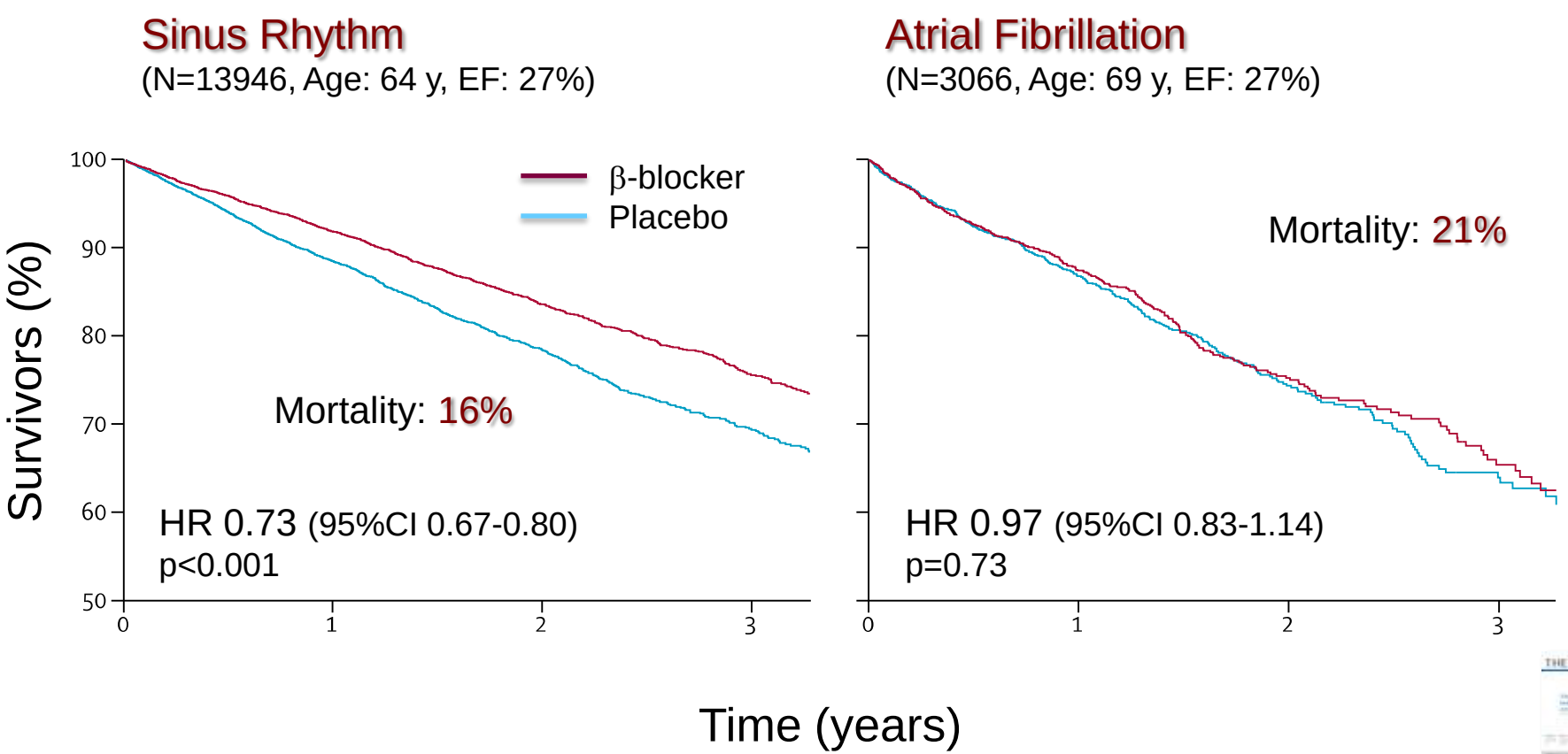
Conclusions

- ✓ **Older patients** with AF and CAD are at high risk of long-term death and rehospitalization
- ✓ Treatment with AAD was associated with increased **rehospitalization** at 1 year
- ✓ These data highlight the need for **improved therapies** in this population

Steinberg BA, 2014

Efficacy of β blockers in patients with heart failure plus atrial fibrillation: an individual-patient data meta-analysis

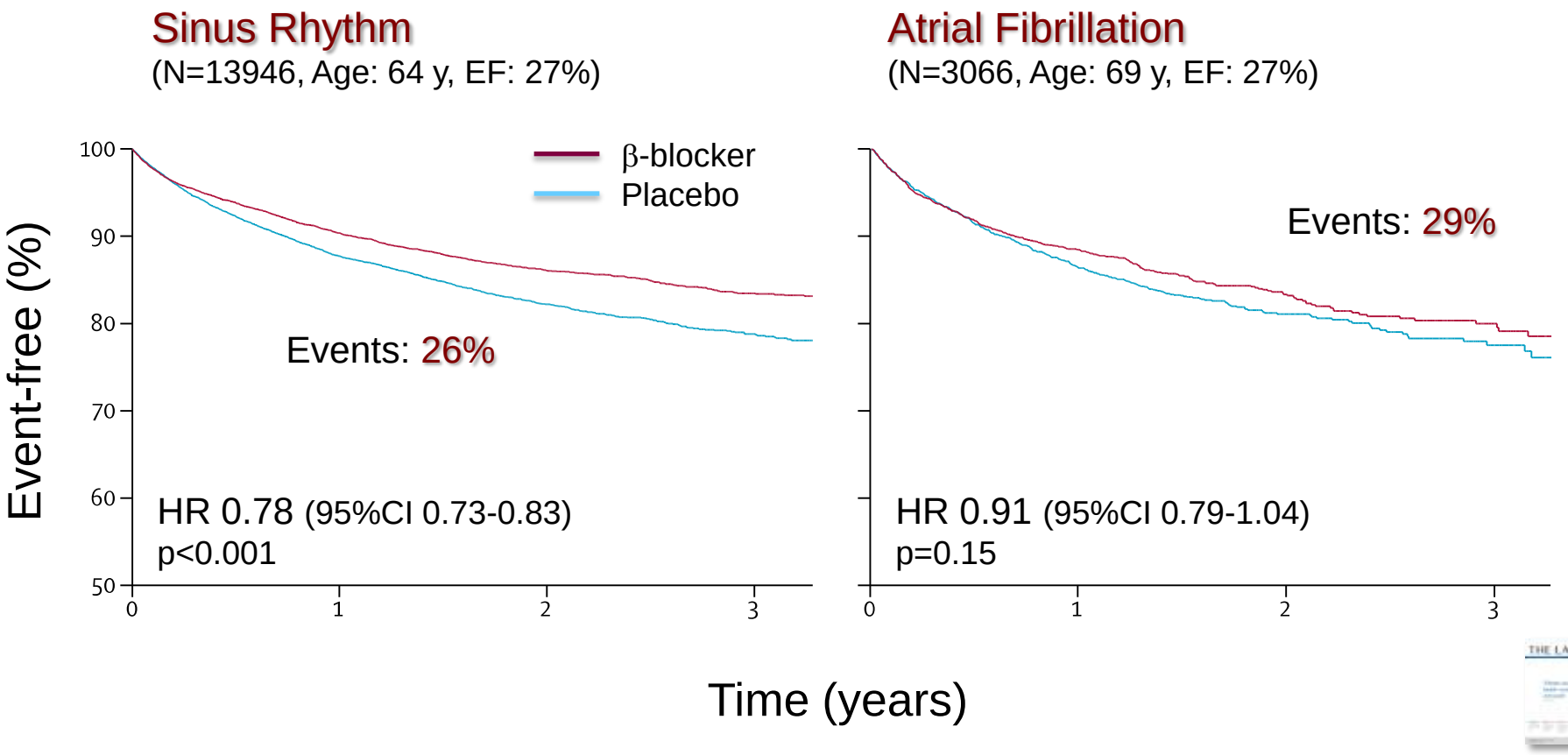
Kaplan-Meier survival curve for patients with sinus rhythm and atrial fibrillation in the β-blocker and placebo groups (FU: 3.3 years)



Kotecha D, 2014

Efficacy of β blockers in patients with heart failure plus atrial fibrillation: an individual-patient data meta-analysis

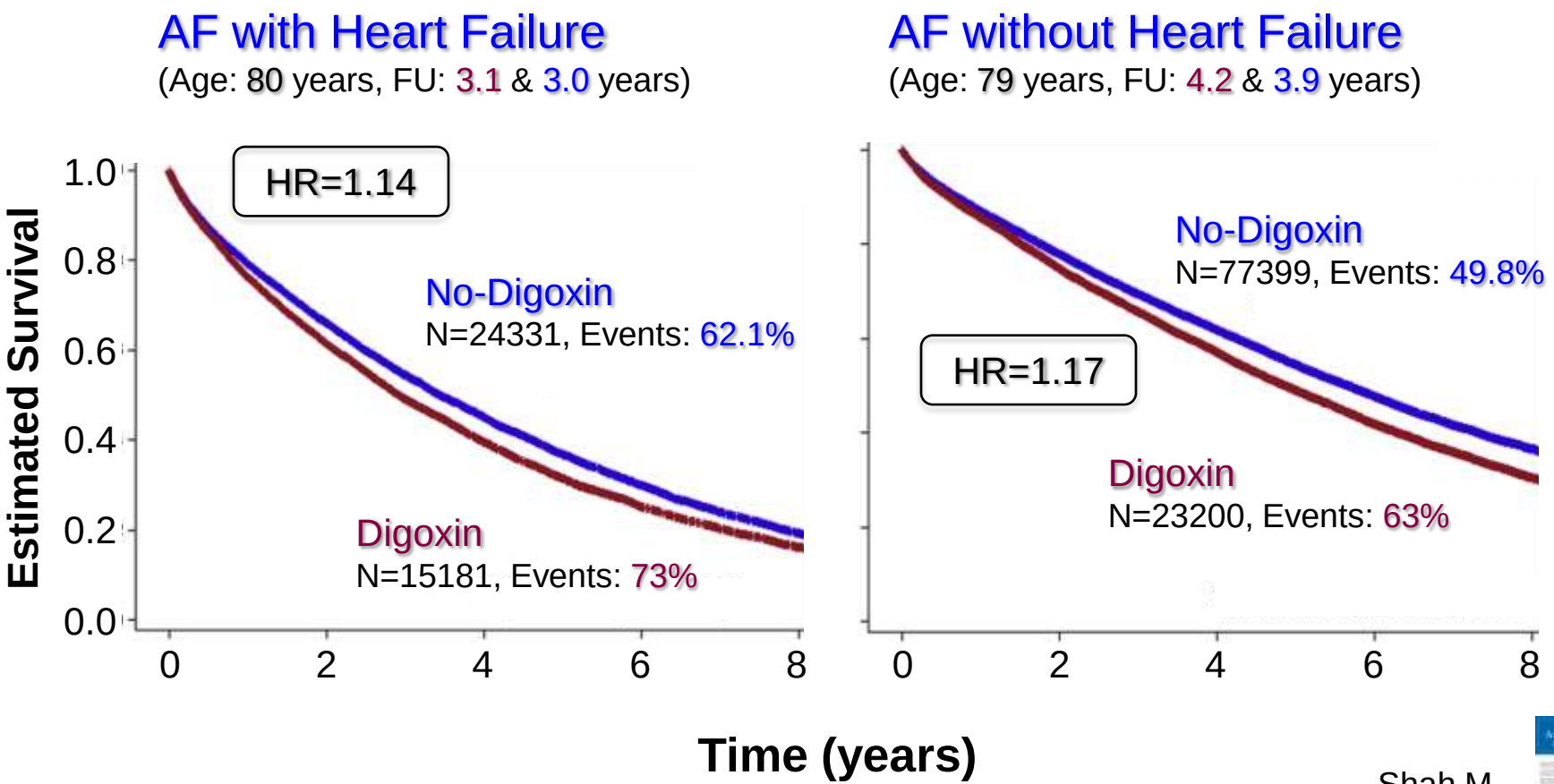
Cardiovascular hospital admission in patients with sinus rhythm and atrial fibrillation in the β-blocker and placebo groups (FU: 3.3 years)



Kotecha D, 2014

Relation of *Digoxin* Use in Atrial Fibrillation and the Risk of All-Cause Mortality in Patients ≥65 Years of Age With Versus Without Heart Failure

Kaplan-Meier curves for digoxin use and all-cause mortality in AF patients with and without heart failure (Quebec, Canada; 1998-2012)



Shah M, 2014

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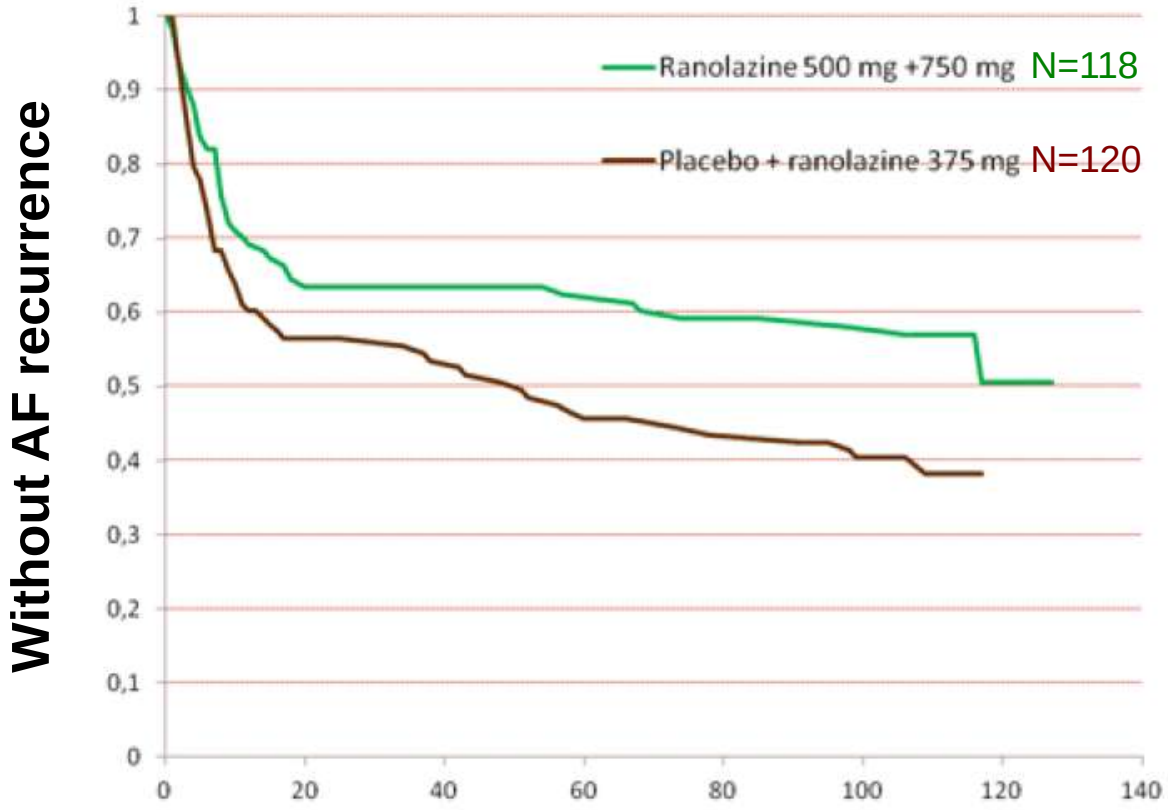
Il trattamento delle aritmie in età geriatrica

Verso un nuovo approccio …

Ranolazine Reduces the Late Recurrences of Atrial Fibrillation. An Exploratory Analysis of the Raffaello Study

Session Treatment of Arrhythmias: Pharmacological---Atrial Fibrillation

Late sodium current blockers, by reducing the triggers, may represent a novel approach against AF



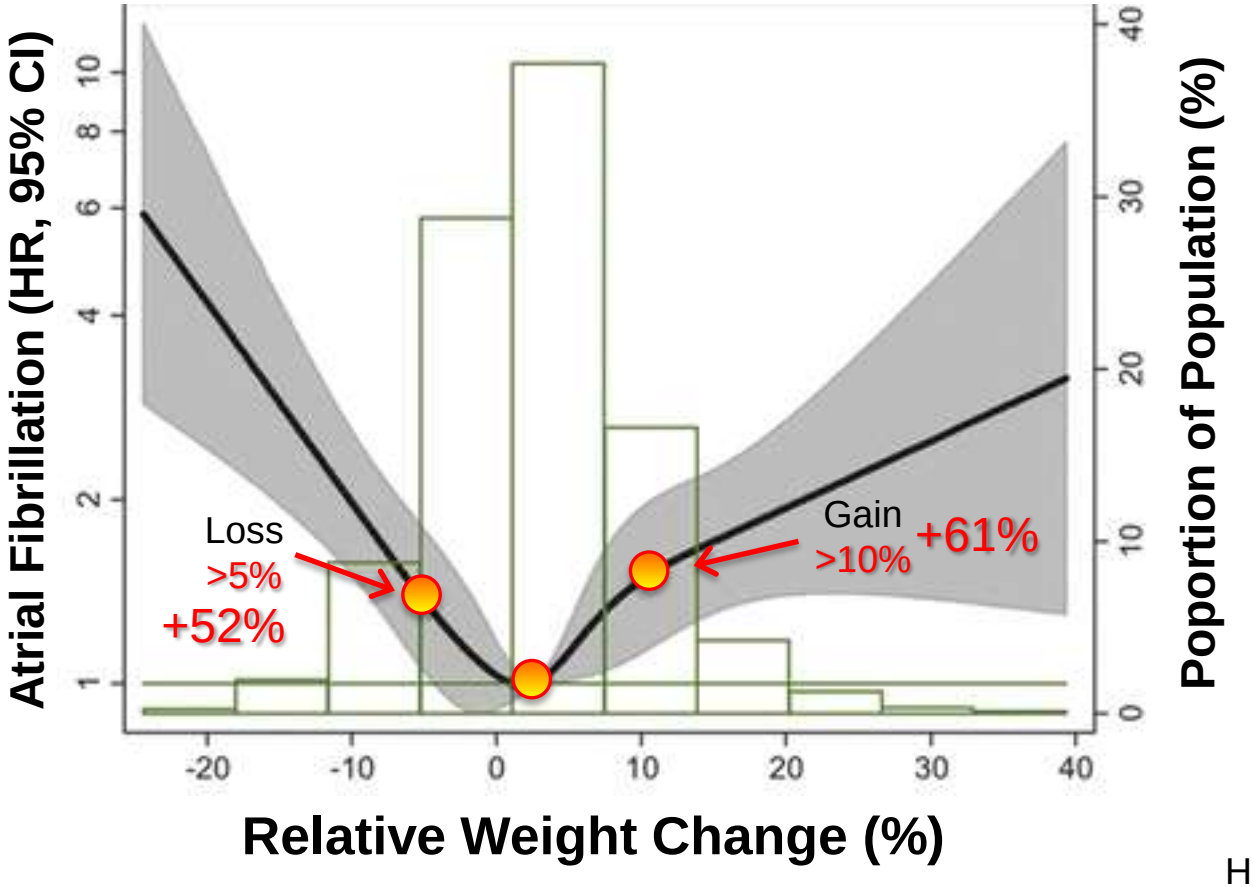
Late (>14 days) recurrences
RR=0.51, 95%CI (0.25-1.00), p=0.03

De Ferrari G, Camm JA, Marchionni N, Fumagalli S, 2014

Physical Activity, Obesity, Weight Change, and Risk of Atrial Fibrillation

The Atherosclerosis Risk in Communities Study

Association of relative weight change with incidence of AF in men after adjustment for age and race

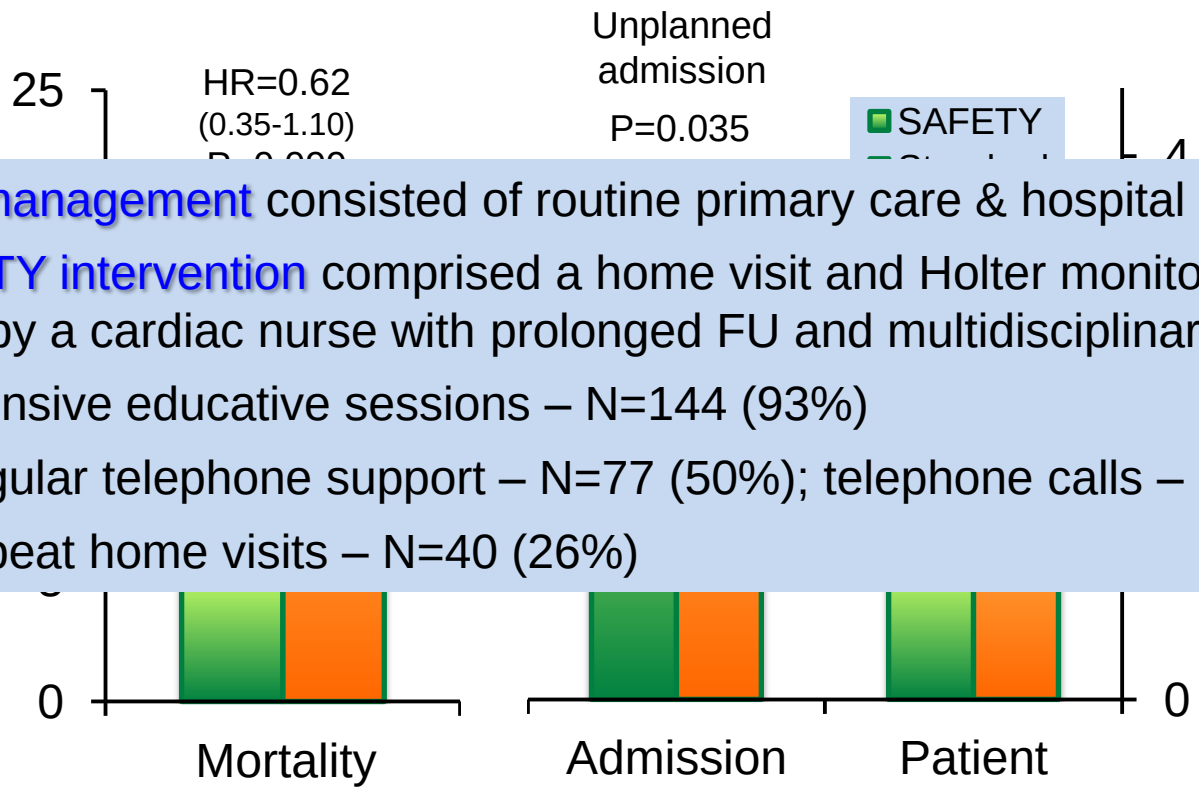


Huxley RR, 2014

Standard versus atrial fibrillation-specific management strategy (SAFETY) to reduce recurrent admission and prolong survival: pragmatic, multicentre, randomised controlled trial

THE LANCET

Mortality and length of stay in hospital for recurrent admissions by type of management



FU time: 24 months

Length of Stay in Hospital per

Standard management consisted of routine primary care & hospital follow-up.

The SAFETY intervention comprised a home visit and Holter monitoring after discharge by a cardiac nurse with prolonged FU and multidisciplinary support

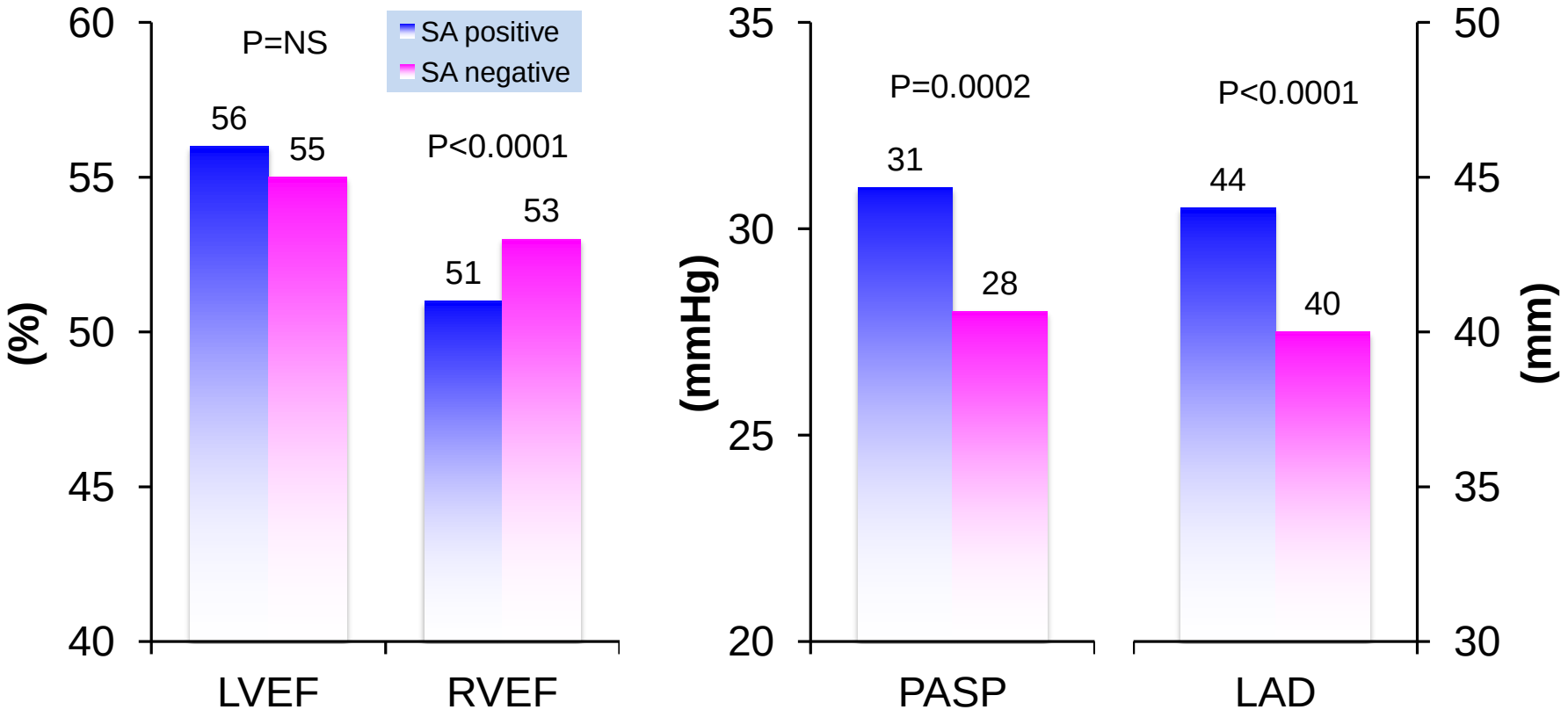
- ✓ Intensive educative sessions – N=144 (93%)
- ✓ Regular telephone support – N=77 (50%); telephone calls – N: 12.6 (3' 26")
- ✓ Repeat home visits – N=40 (26%)

SAFETY (N=168) – Age: 72 y
Standard (N=167) – Age: 71 y

Stewart S, 2014

Effect of Sleep Apnea and Continuous Positive Airway Pressure on Cardiac Structure and Recurrence of Atrial Fibrillation

Imaging Characteristics Stratified by Sleep Apnea
(N=720; Age: 56±11 years; sleep apnea – N=142, 20%)



LVEF: LV ejection fraction
RVEF: RV ejection fraction

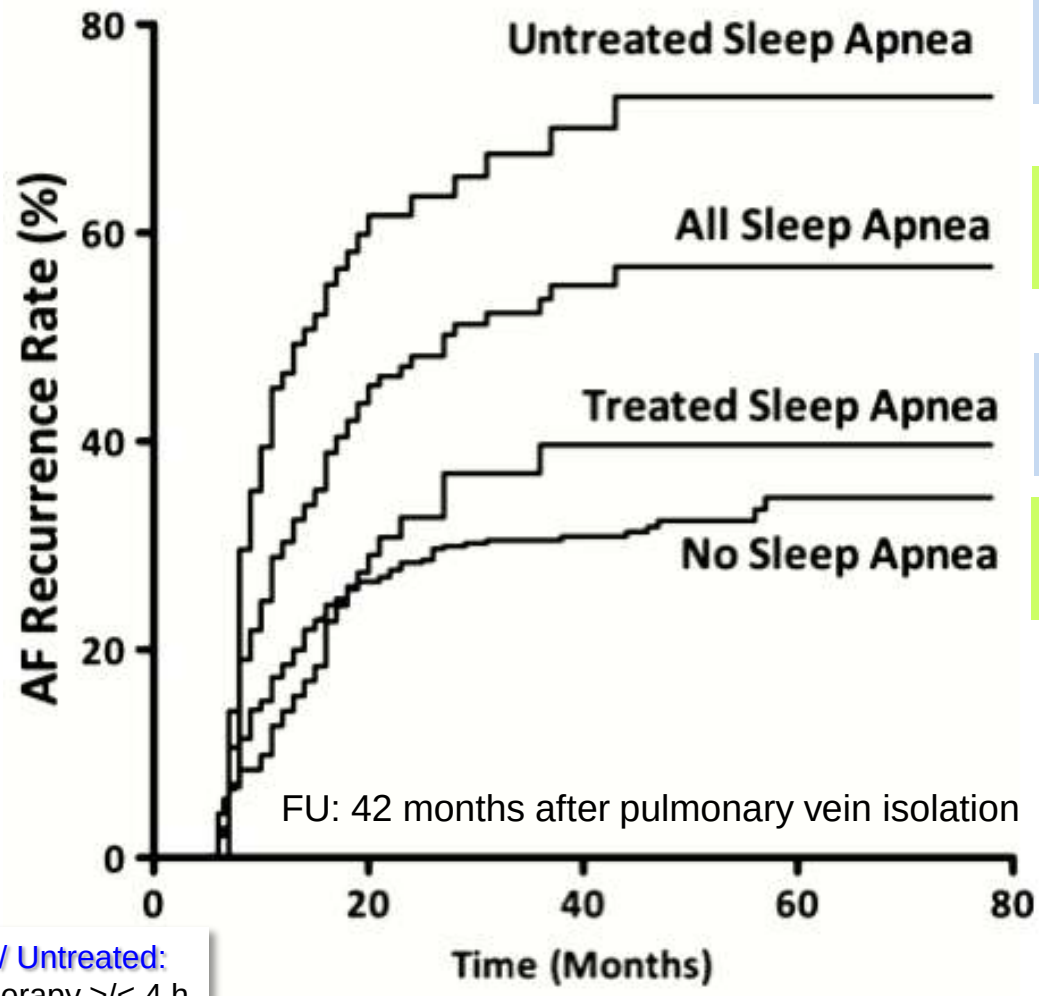
PASP: pulmonary artery systolic pressure
LAD: left atrium dimensions

Neilan TG, 2013

Journal of the American Heart Association
OPEN ACCESS

Effect of Sleep Apnea and Continuous Positive Airway Pressure on Cardiac Structure and Recurrence of Atrial Fibrillation

AF recurrence according to presence and treatment of sleep apnea



N=71, RR: 68%

N=142, RR: 51%

N=71, RR: 35%

N=578, RR: 30%

P<0.0001

P<0.0001

P=NS

RR: recurrence rate

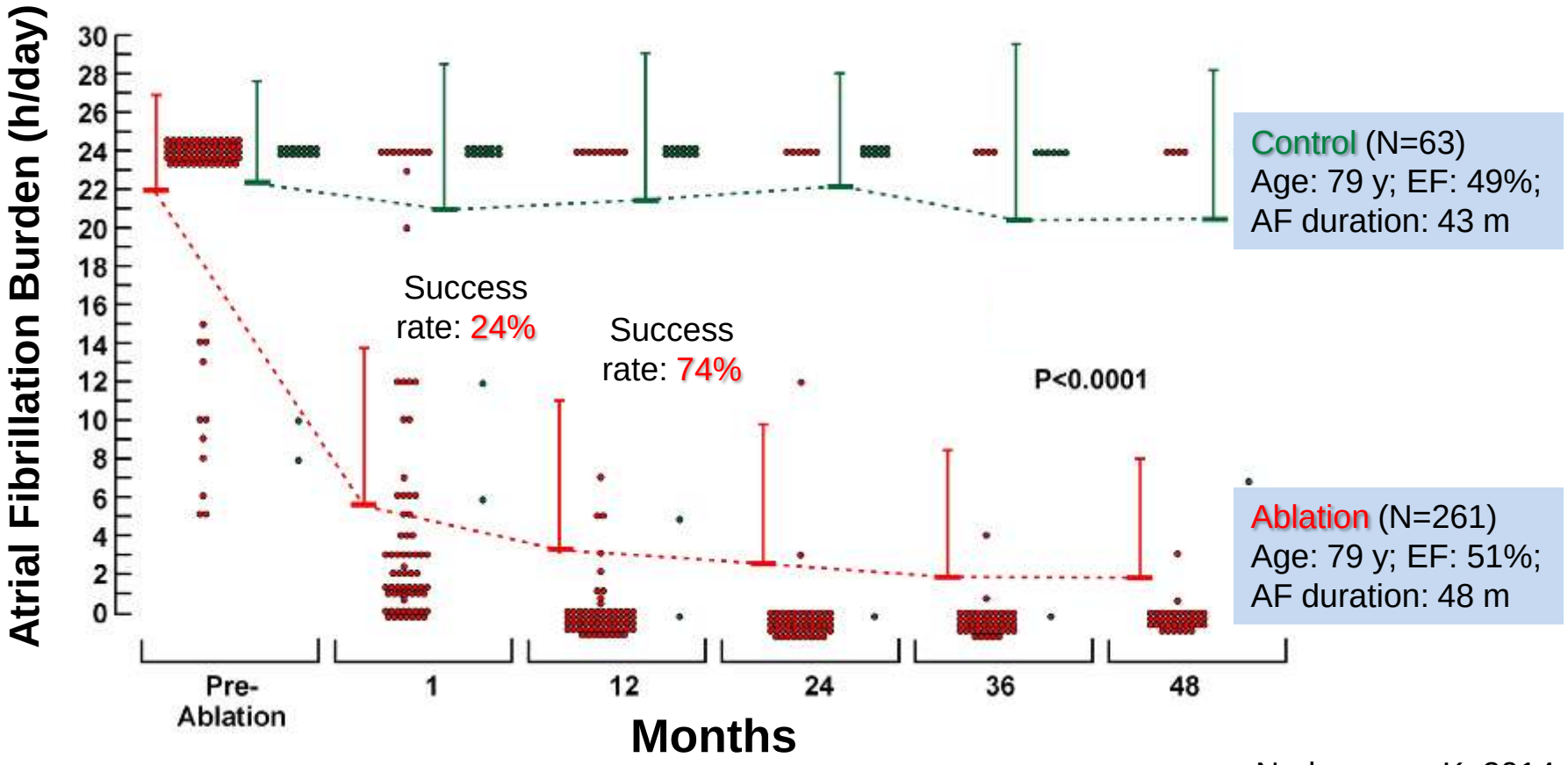
Treated / Untreated: CPAP therapy >/< 4 h

Neilan TG, 2013

Journal of the American Heart Association OPEN ACCESS

Benefits and risks of catheter ablation in elderly patients with atrial fibrillation

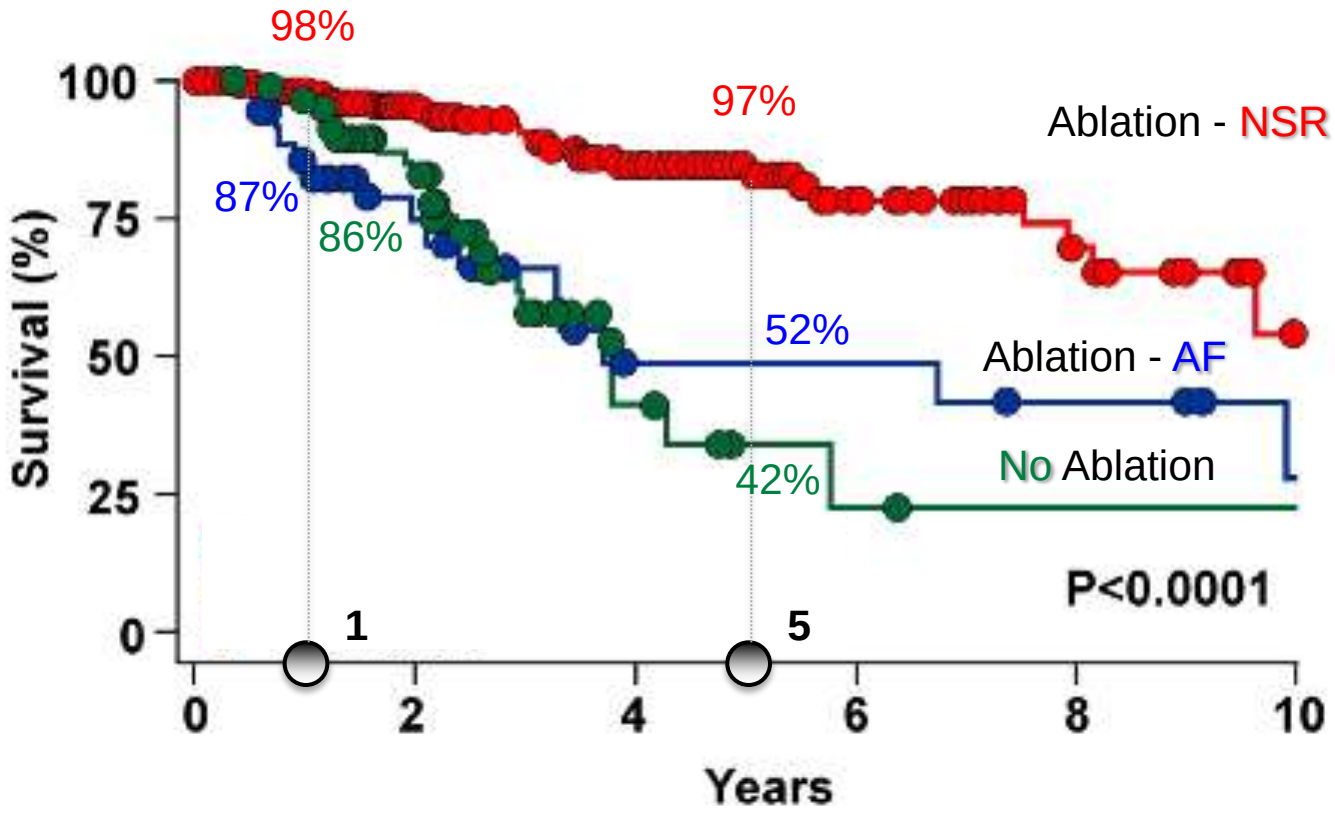
Comparison of 4-year atrial tachycardia/atrial fibrillation burden between group 1 and group 2 patients with an implantable device



Nademanee K, 2014

Benefits and risks of catheter ablation in elderly patients with atrial fibrillation

Kaplan–Meier curves demonstrating improved survival from all-cause mortality in patients who remained in SR after AF ablation



Nademanee K, 2014

Benefits and risks of catheter ablation in elderly patients with atrial fibrillation

Procedure time: 136±40'; 1/2/3/4 sessions = 56/34/7/3% of patients

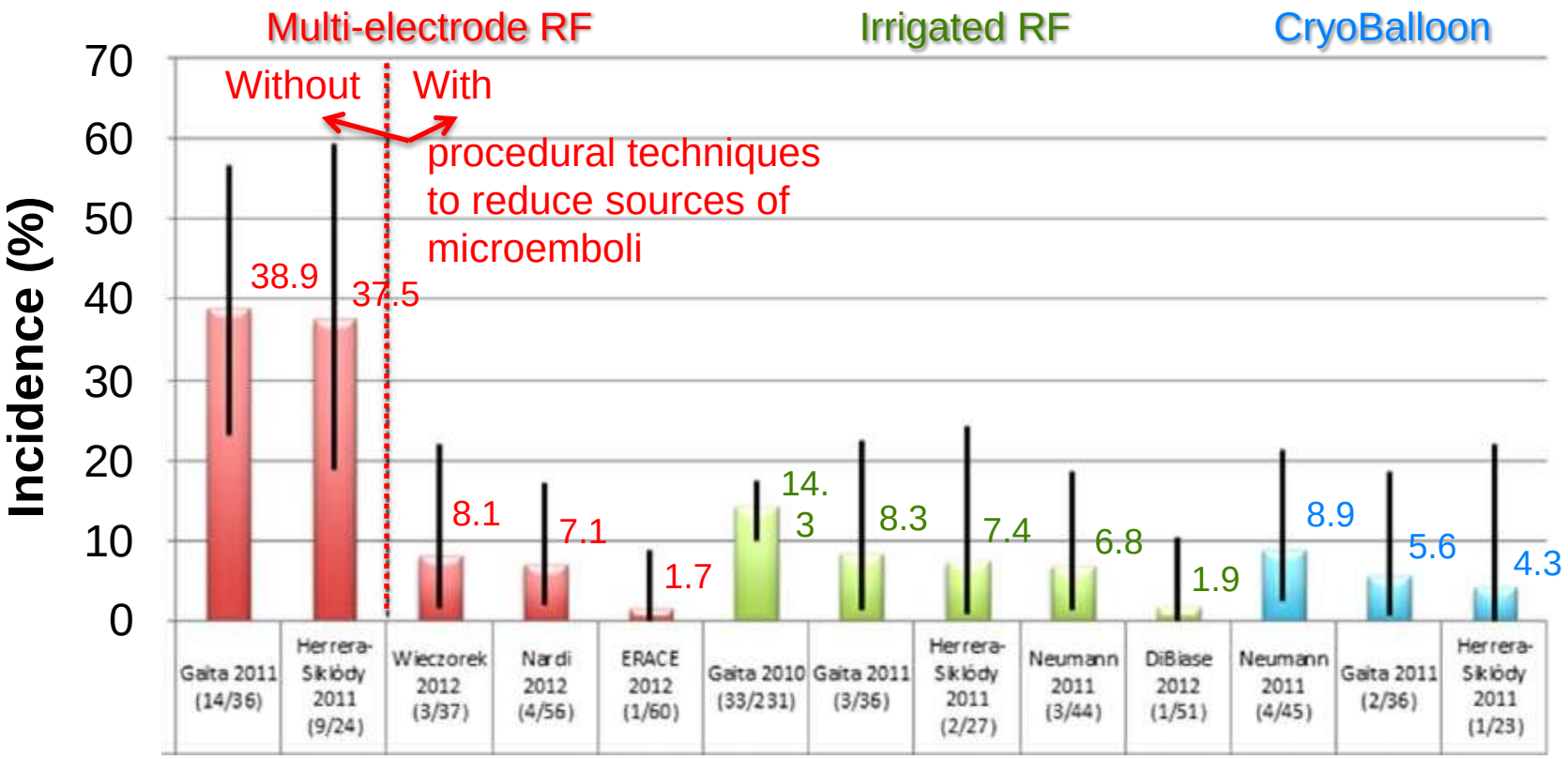
Acute complications (24-h)	
Ischemic stroke	2 (0.8%)
Hemopericardium	4 (1.5%)
Major bleeding (groin sites)	10 (4%)
Pulmonary edema	3 (1%)
30-day major events	
Death for intracerebral hemorrhage	1 (0.4%)
Pseudoaneurysms	4 (1.5%)
Severe bleeding (groin sites)	3 (1%)
Atrial tachycardia	7 (2.5%)
Urinary tract infections	3 (1%)
High fever	2 (0.8%)

Nademanee K, 2014

Evaluation and Reduction of Asymptomatic Cerebral Embolism in Ablation of Atrial Fibrillation, But High Prevalence of Chronic Silent Infarction

Circulation

Summary of studies reporting on rates on asymptomatic cerebral emboli in the immediate AF post-ablation period (<24–48 h)

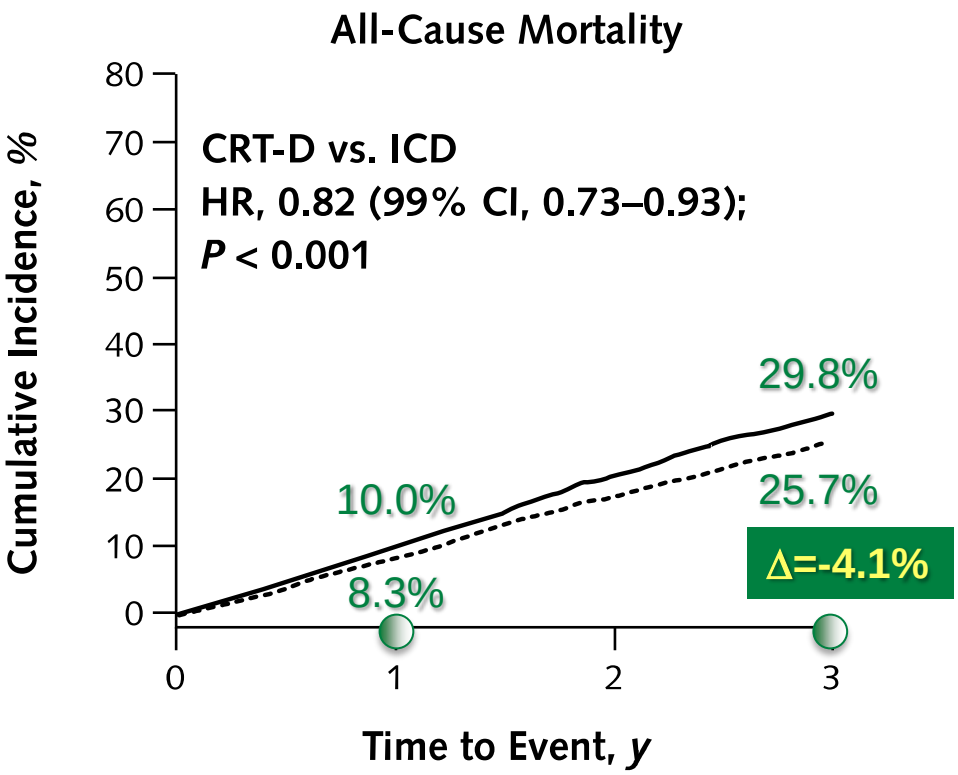


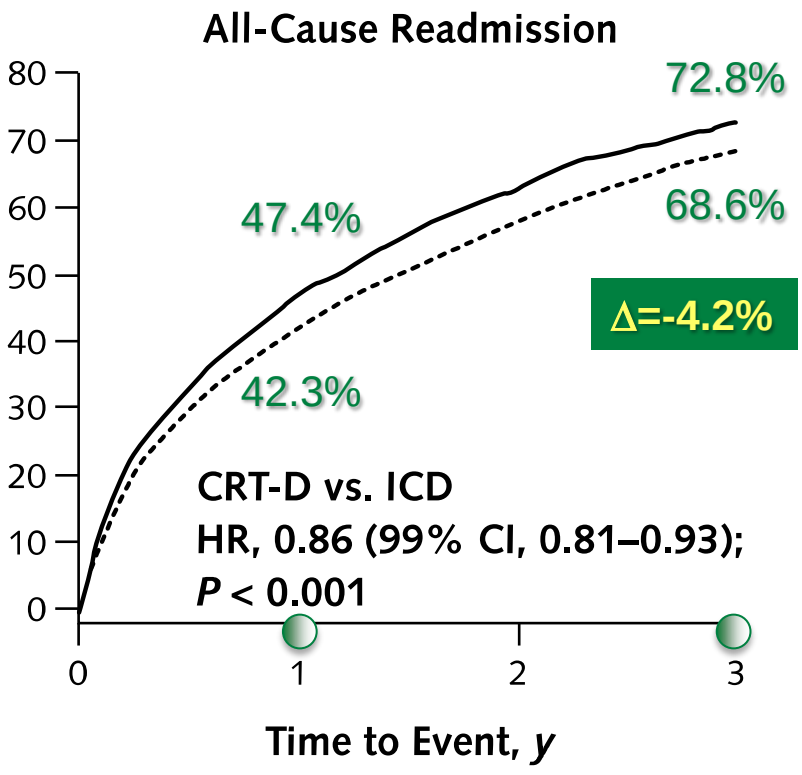
Verma A, 2013

Annals of Internal Medicine

Comparative Effectiveness of Cardiac Resynchronization Therapy With an Implantable Cardioverter-Defibrillator Versus Defibrillator Therapy Alone

Events in the National Cardiovascular Data Registry's ICD Registry
(propensity-matched cohort; eligible - N=29777; 2006-9)



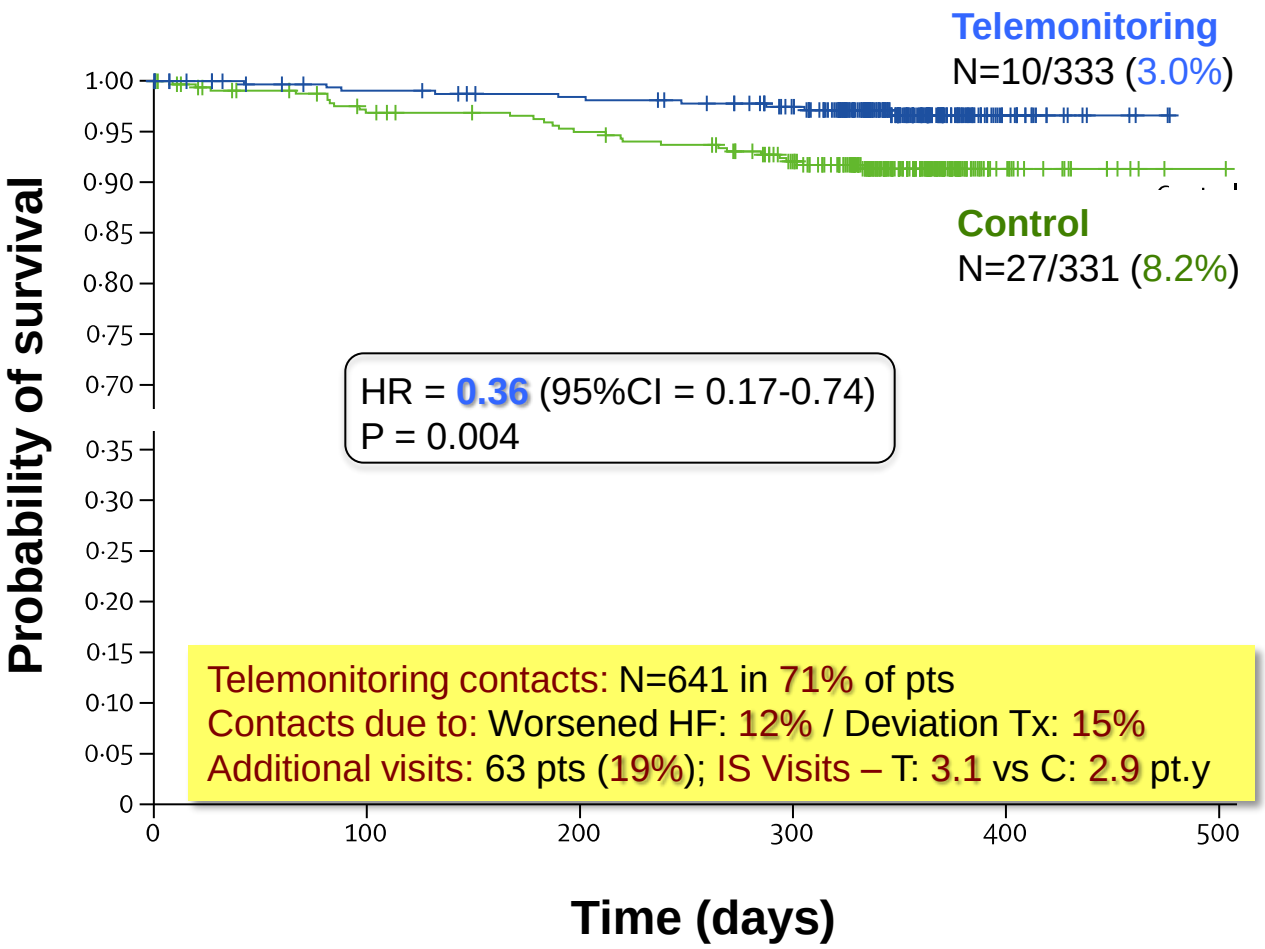


— **ICD (N=3545) –** Age: **74.9 y**, ≥80 y: 23.9%, EF: 25%
····· **CRT-D (N=3545) -** Age: **74.6 y**, ≥80 y: 22.9%, EF: 25%

Masoudi FA, 2014

Implant-based multiparameter telemonitoring of patients with heart failure (IN-TIME): a randomised controlled trial

Kaplan-Meier curves of patient survival in the IN-TIME trial
(2007-2010; age: 65.5 years, LVEF: 26%, CRT-D: ≈58%, FU: ≈330 days)c



Telemonitoring contacts: N=641 in 71% of pts
Contacts due to: Worsened HF: 12% / Deviation Tx: 15%
Additional visits: 63 pts (19%); IS Visits – T: 3.1 vs C: 2.9 pt.y

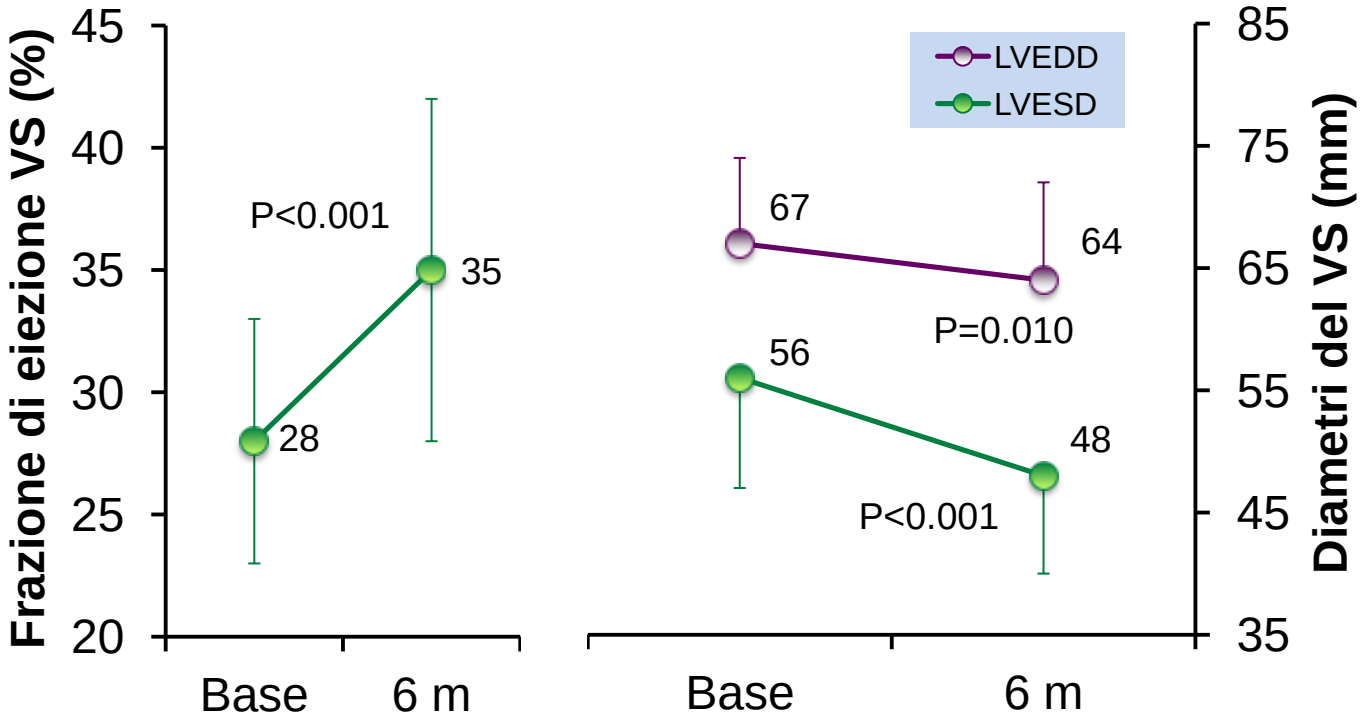
Hindricks G, 2014

Effetti della terapia di resincronizzazione cardiaca (CRT). Risultati preliminari di uno studio policentrico italiano

N=52		intervallo
Età (anni)	68±10	41-82
Età ≥75 anni (%)	26.6%	
FC (b/min)	73±12	50-100
PAS (mmHg)	117±15	85-145
PAD (mmHg)	70±10	45-90
FE VS (%)	28±5	18-38
Cardiopatia ischemica (%)	44	
Charlson Comorbidity Index	4.4±2.0	1-9
Farmaci (N)	7±2	1-13
ACE-I / ARB (%)	65 / 24	
β-bloccanti (%)	83	
Digitale (%)	9	
Diuretici (%)	86	

Effetti della terapia di resincronizzazione cardiaca (CRT) sulla performance e sul “reverse remodeling” del VS

N=52; età media: 68±10 anni; Classe NYHA III: 65%; FA: 21% - Risultati preliminari (Centri partecipanti: Firenze, Bergamo, Caserta)

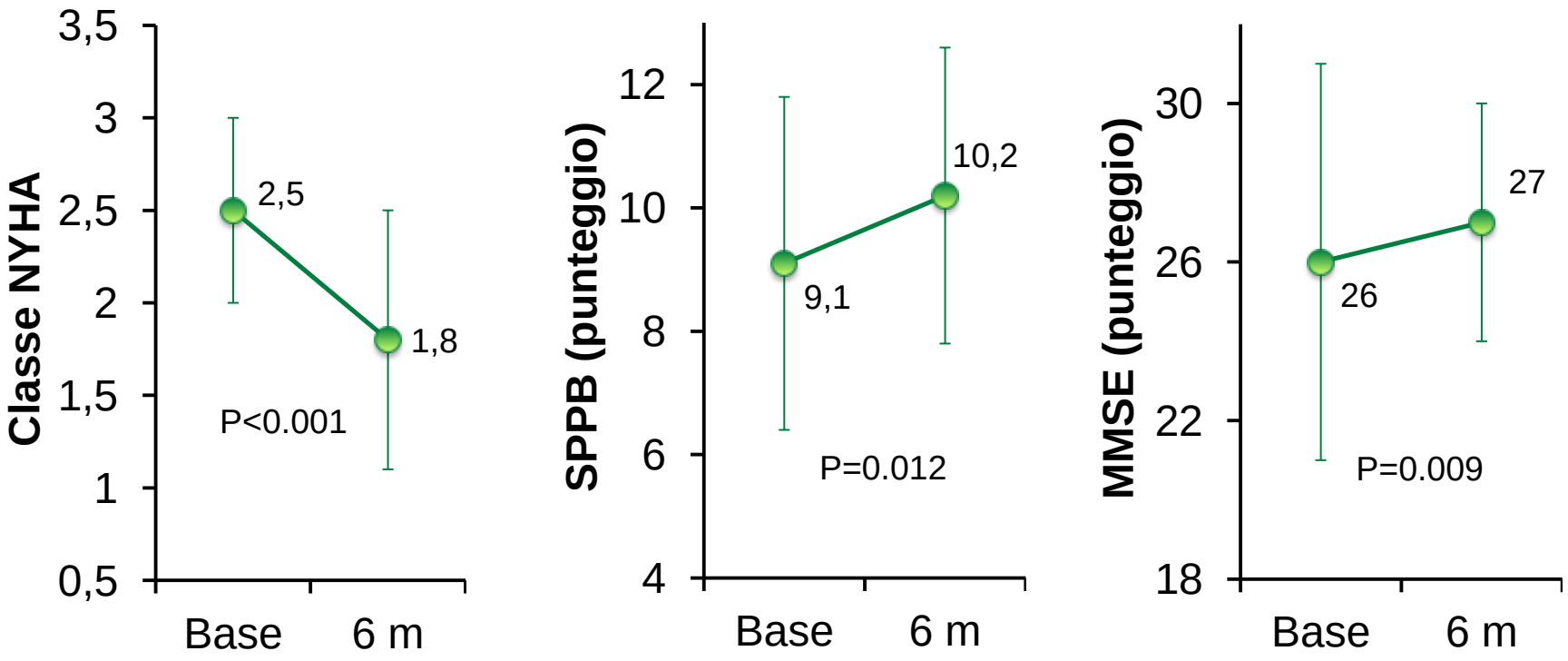


6 m: 6 mesi

LVEDD: diametro telediastolico
LVESD: diametro telesistolico

Effetti della CRT su stato funzionale e neuro-cognitivo di pazienti con grave scompenso cardiaco

N=52; età media: 68±10 anni; Classe NYHA III: 65%; FA: 21% - Risultati preliminari (Centri partecipanti: Firenze, Bergamo, Caserta)



6 m: 6 mesi

SPPB: Short Physical Performance Battery
Balance Test (p=0.253); Gait Speed (p=0.005);
Chair Standing (p=0.015)

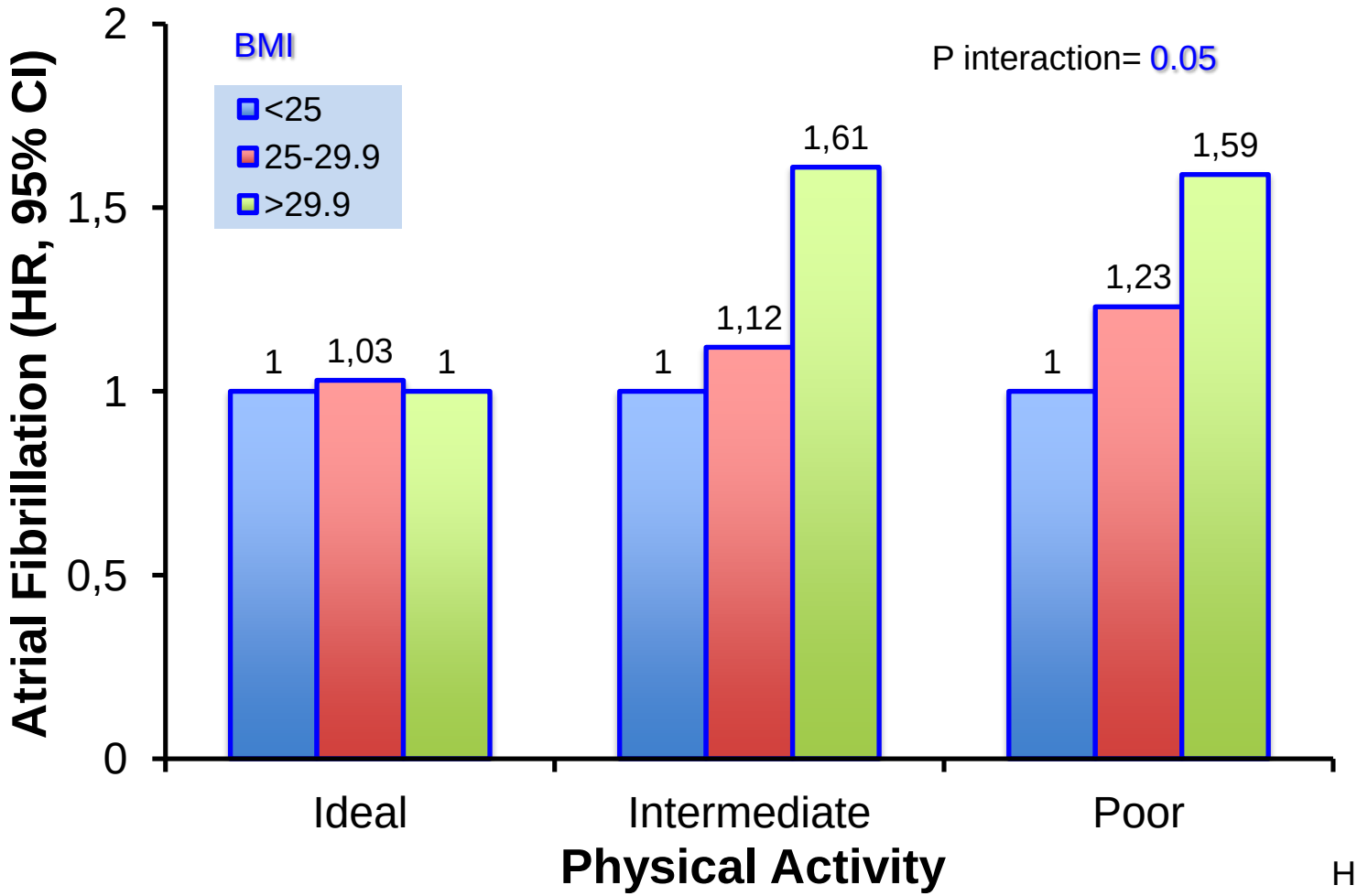
Conclusioni

- ✓ La terapia antiaritmica in pazienti di età avanzata è estremamente complessa e, molto spesso, inefficace o pericolosa, se attuata con trattamenti tradizionali
- ✓ L'utilizzo di trattamenti innovativi, non necessariamente ad elevata tecnologia, indirizzati ad un maggior contatto con il paziente è risultato efficace nel ridurre le ospedalizzazioni e, talvolta, la mortalità
- ✓ Sono necessari studi clinici specifici per valutare quali pazienti anziani possano effettivamente trarre vantaggio da interventi ad elevata invasività
- ✓ La terapia di resincronizzazione cardiaca, grazie ad una azione significativa sul ventricolo sinistro, migliora non soltanto la prognosi del paziente, ma anche il profilo funzionale e neuro-cognitivo

Physical Activity, Obesity, Weight Change, and Risk of Atrial Fibrillation

The Atherosclerosis Risk in Communities Study

Risk of Incident AF by the Impact of Level of Physical Activity and Overweight & Obesity, in Men, in the ARIC (1987-2009, N=1775/14219, 6.9 per 1000 person-years)



Huxley RR, 2014

ARE GERIATRIC SYNDROMES ASSOCIATED WITH RELUCTANCE TO INITIATE ORAL ANTICOAGULATION THERAPY IN ELDERLY ADULTS WITH NONVALVULAR ATRIAL FIBRILLATION?

Multivariate Predictors of the Absence of Oral Anticoagulation Therapy (N=137; Age: **82 years**; Permanent AF: **70%**; **Not** anticoagulated: **51%**; High risk – CHA_2DS_2VASc: **99%**; HAS-BLED: **39%**)

	OR	95%CI	p
Age	/	/	NS
Female	/	/	NS
Lives alone	/	/	NS
Education Years	/	/	NS
Depressive Symptoms	5.14	1.84-14.34	<0.05
Cognitive impairment	6.27	2.54-15.36	0.001
CHA_2DS_2VASc score	/	/	NS
HAS-BLED score	2.52	1.03-6.16	<0.05

Depressive Symptoms: Geriatric Depression Scale >5; **Cognitive impairment:** Mini-Mental State Examination ≤ 23

Sánchez-Barba B, 2013