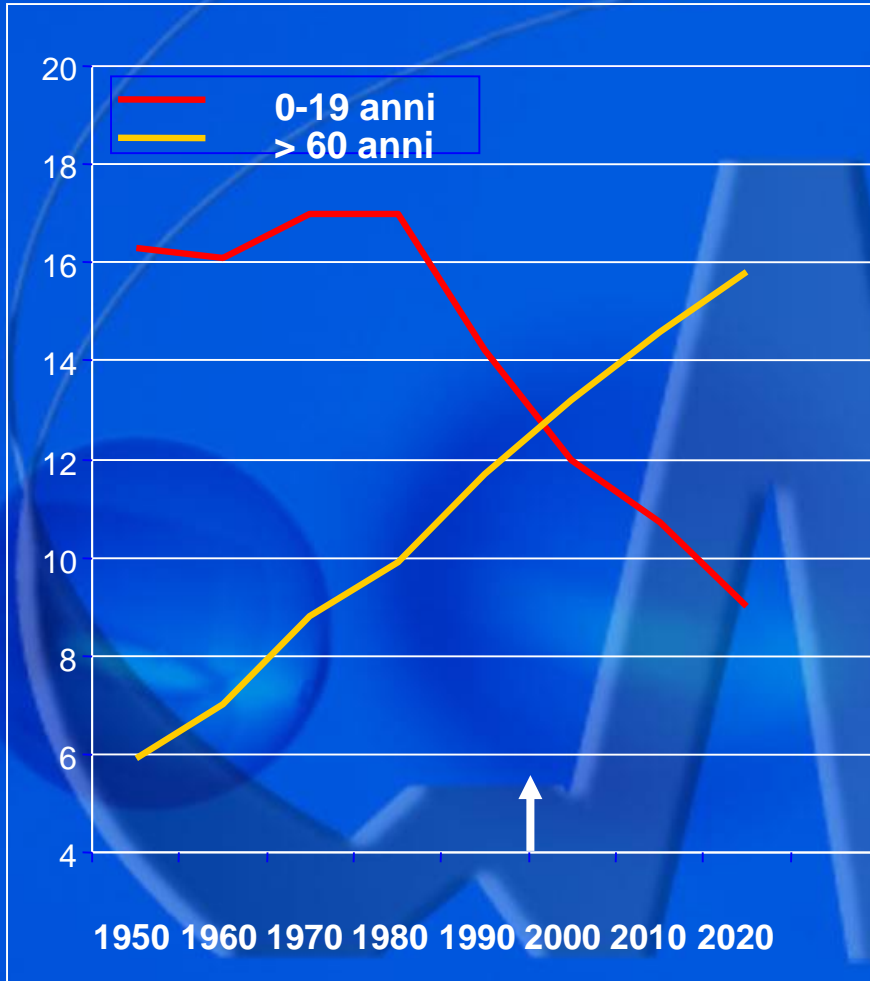


Salerno, 25 novembre 2017

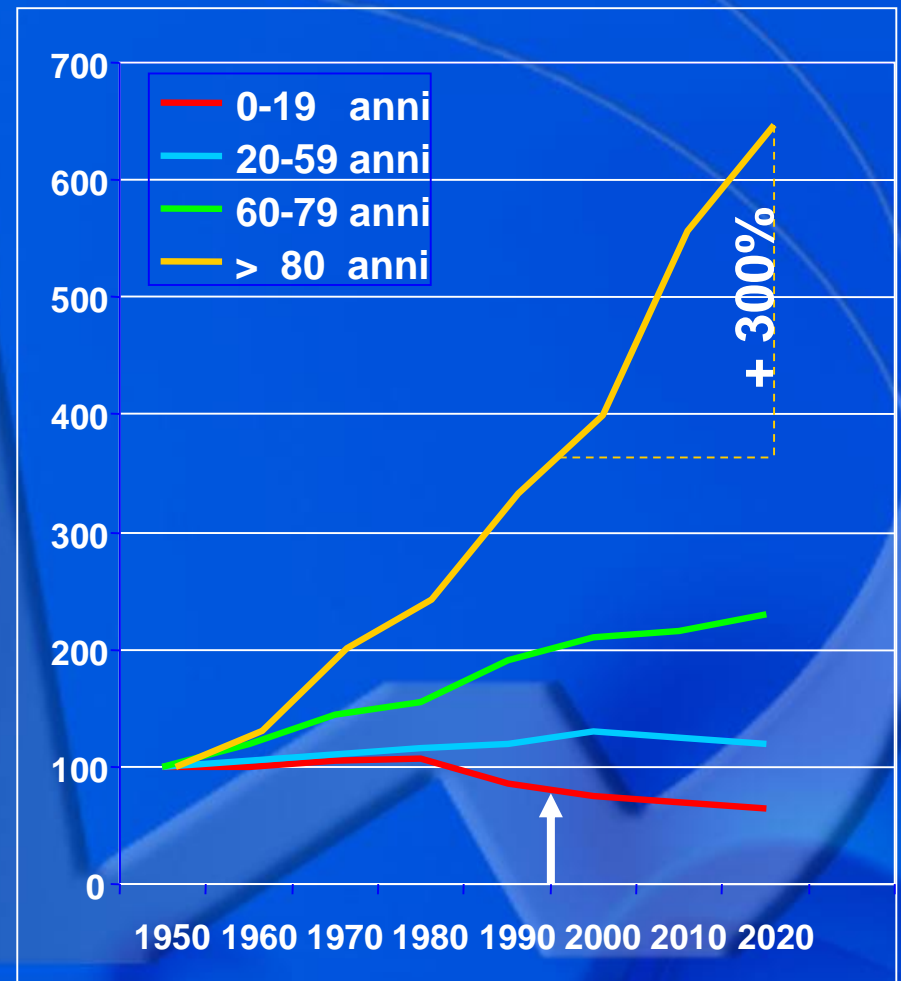
**L'ambulatorio di
cardiologia ambulatoriale:
nodo importante per la
gestione ottimale per lo
scompenso cardiaco**

Biagio Fimiani

Popolazione giovane ed anziana in Italia (milioni) 1950-2020



Evoluzione della popolazione italiana per classi di età 1950=100



Regione Campania

A S L Napoli 3 Sud

Servizio di Cardiologia - Distretto Sanitario 58 Pompei

Gentile Collega ho visitato la tua paziente

Sig.ra **XXX XXX** di anni 98

Residente in via XXXX, X

Cap 80045 POMPEI NA

Anamnesi Familiare

Fratello Cardiopatia non meglio precisata

Padre Ipertens. Arteriosa

Fattori di Rischio:

Ipercolesterolemia, Diabete mellito tipo 2, ipertensione arteriosa.

Pressione arteriosa:

Posizione Cilindro MAX 135 M

Obiettività cardiologica:

Non soffi patologici.

Polsi periferici presenti, simmetrici

Non angor, non dispnea, né edemi

Terapia in atto:

Metformina

Statina

Sartano

Ca-antagonista

N B: tosse da ACE-Inibitori

Dieta ipoglicidica.

Sono stati eseguiti i seguenti esami:

ELETTROCARDIOGRAMMA

Ritmo sinusale, frequenza 86 bpm¹; PR: 0,16"; QT: 0,36" (QTc: 0,43" – Bazett); deviazione a sinistra dell'asse elettrico (AQRS: -45°); modeste anomalie del tratto ST-T.

Prenotata per i seguenti esami:

ECOCARDIOGRAFIA COLORDOPPLER (26 marzo 2015, ore 9,30)

98 anni

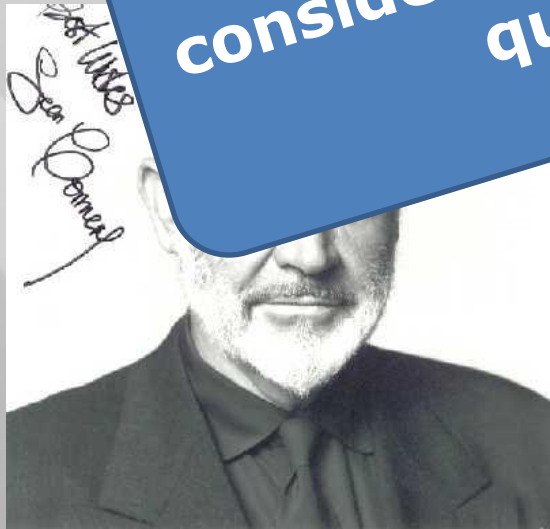
Come sono gli “anziani”?



così



E' fondamentale prendere in considerazione l'età biologica non quella anagrafica



o così



ALERT-HF: adherence to guidelines in the treatment of patients with chronic heart failure

Guarnaccia Franco^a, Fimiani Biagio^a, Zito Giovanni Battista^a,
De Simone Antonio^b, Stabile Giuseppe^b, Bossone Edoardo^{c,d}, Volpe Ercole^e,
Bosso Giorgio^f, Saccà Luigi^f, Oliviero Ugo^f, and the ALERT-HF Investigators*

Background The prognosis of chronic heart failure (CHF) may be substantially improved by strict adherence to current therapeutic guidelines.

Aim and methods To assess the adherence to current guidelines, 660 CHF patients consecutively referred to the ARCA (Associazioni Regionali Cardiologi Ambulatoriali Campania) cardiologists were evaluated. As indicators of adherence to the guidelines, we considered use of angiotensin-converting enzyme inhibitors and/or angiotensin receptor blockers, beta-blockers, loop diuretics, aldosterone antagonists, digoxin, anticoagulant therapy, and implantation of cardiac devices.

few as 31 patients received cardiac electrical stimulation devices: 10 patients were implanted with a cardioverter-defibrillator and 21 received a device for cardiac resynchronization therapy.

Conclusion The study reveals poor adherence to current therapeutic guidelines for CHF, particularly with regard to aldosterone antagonists and anticoagulant therapy in the presence of atrial fibrillation. Even poorer is the adherence to guidelines as regards the use of implantable cardiac devices. The underlying reasons are discussed in relation to the data of other registries.

ALERT-HF

668 pazienti

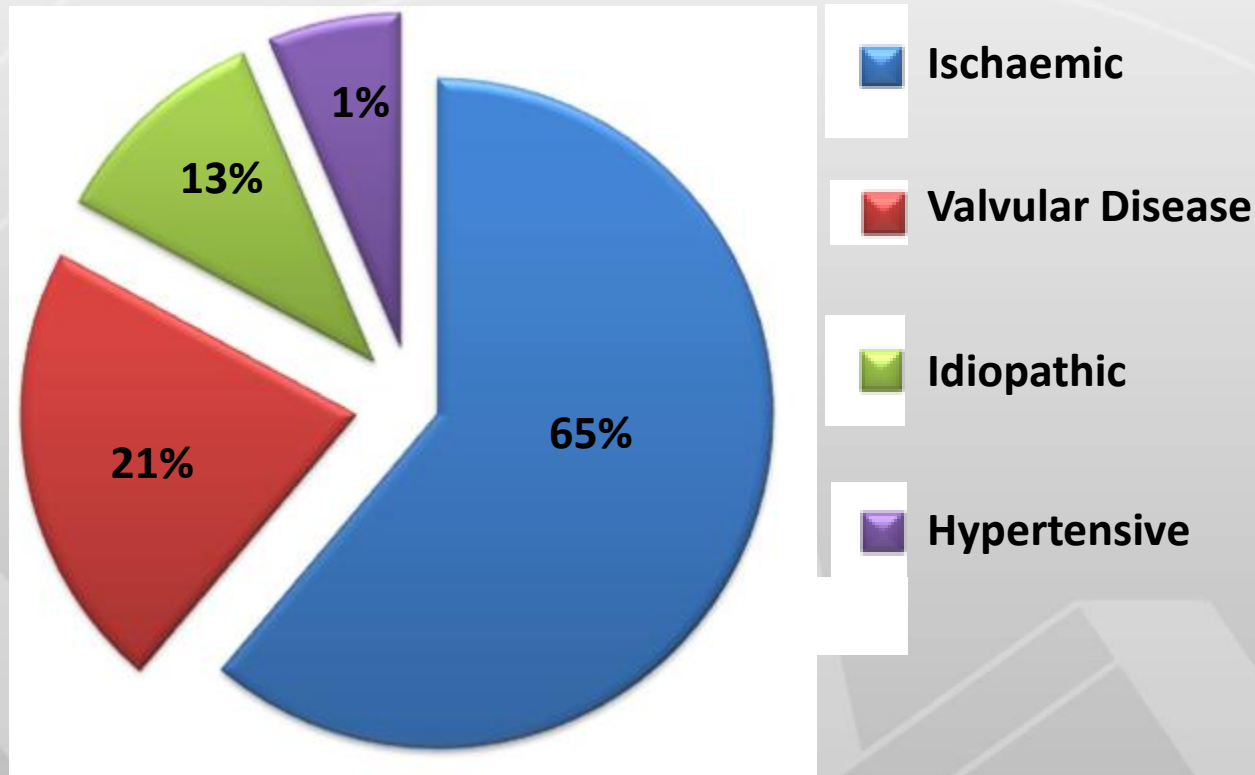
9747 pts screenati, 6,8% affetti da SC
522 (78%) pts avevano un loro ECO
138 (22%) pts eseguivano ECO alla



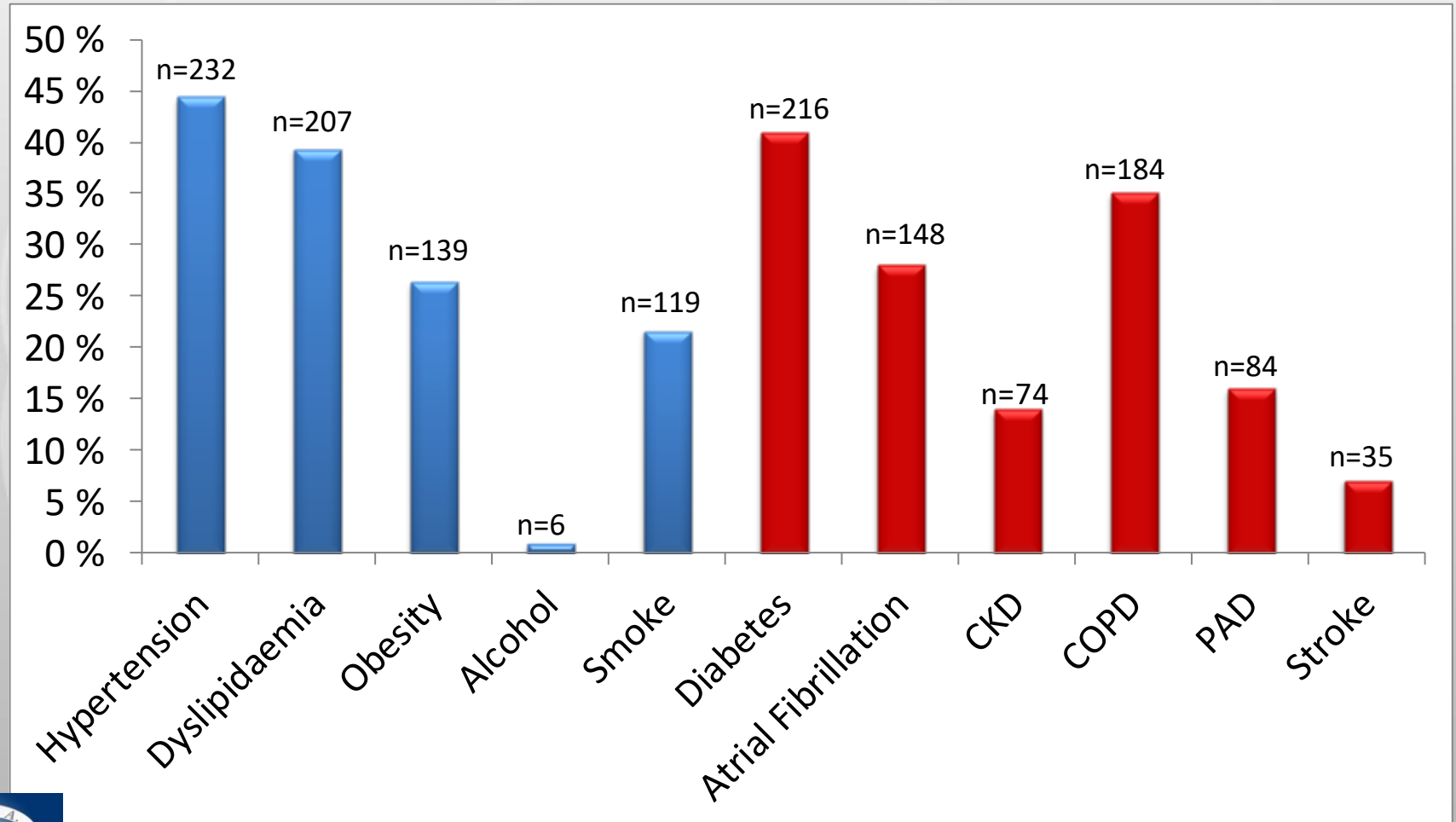
Caratteristiche cliniche dei pazienti con SC

	CHF patients with EF \leq 45% (n = 528)	CHF patients with HF >45% (n = 132)	P
Women (n, %)	200 (38%)	72 (54%)	<0.05
Age (years)	74.5 \pm 10	69 \pm 14	NS
65–74 years (n, %)	285 (54%)	83 (63%)	NS
75–84 years (n, %)	227 (43%)	47 (36%)	NS
>85 years (n, %)	16 (3%)	2 (1.5%)	NS
First visit (n, %)	174 (33%)	48 (36%)	NS
Follow-up visit (n, %)	354 (67%)	84 (64%)	NS
Clinical cardiac parameters			
SBP (mmHg)	131.5 \pm 13.3	147.8 \pm 11.8	<0.05
DBP (mmHg)	78.8 \pm 8.6	82.5 \pm 10.4	NS
Heart rate (b.p.m.)	64.1 \pm 9.7	73.5 \pm 13.7	NS
Electrocardiographic data			
Sinus rhythm (n, %)	407 (77%)	104 (79%)	NS
Atrial fibrillation (n, %)	121 (23%)	28 (21%)	NS
LBBB (n, %)	58 (11%)	13 (10%)	NS
RBBB (n, %)	47 (9%)	14 (11%)	NS
QRS duration (ms)	109 \pm 23	108 \pm 17	NS
CHF new diagnosis	164 (31%)	42 (32)	NS
Cause			
Ischaemic (n, %)	346 (65%)	70 (53%)	<0.05
Hypertensive (n, %)	6 (1%)	20 (15%)	NS
Valvular disease (n, %)	109 (21%)	36 (27%)	<0.05
Idiopathic (n, %)	67 (13%)	6 (5%)	
NYHA functional class			
I (n, %)	32 (6%)	18 (14%)	<0.05
II (n, %)	303 (57%)	89 (67%)	<0.05
III (n, %)	189 (36%)	29 (22%)	NS
IV (n, %)	5 (1%)	–	
Left-ventricular EF (%)	36.1 \pm 6.8	52.8 \pm 4.4	<0.05
B-type natriuretic peptide (pg/dl)	573 \pm 232	492 \pm 304	NS

Caratteristiche cliniche dei pazienti con SC e con EF < 45% : eziologia



Fattori di rischio cardiovascolare e comorbidità nei pazienti con SC e con EF < 45%

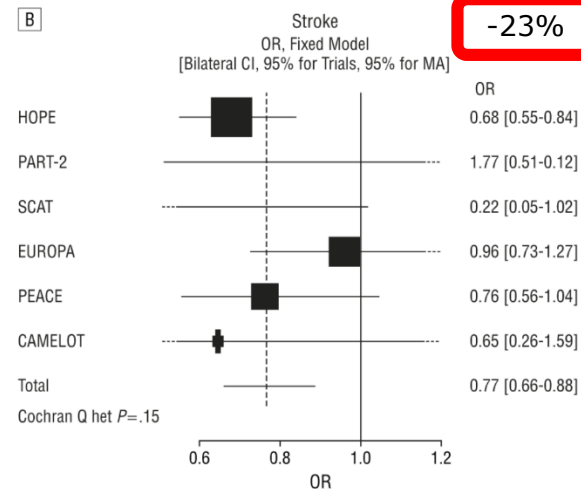
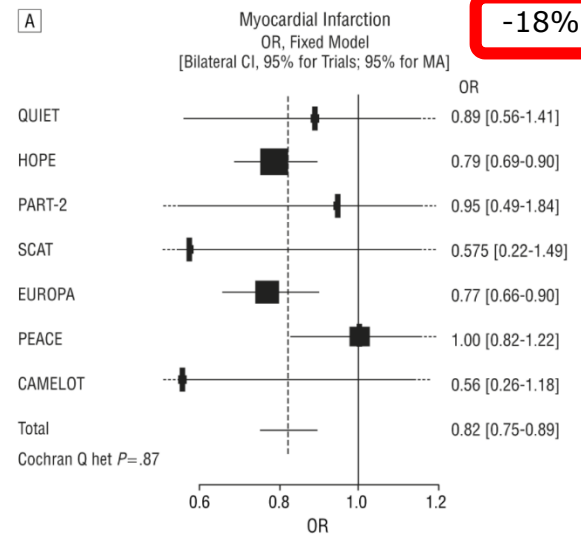
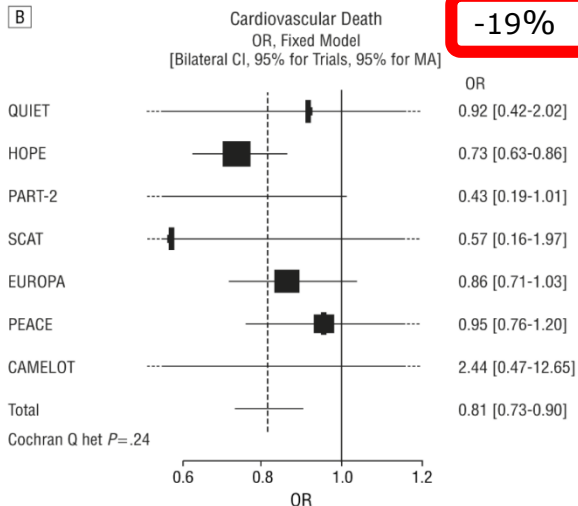
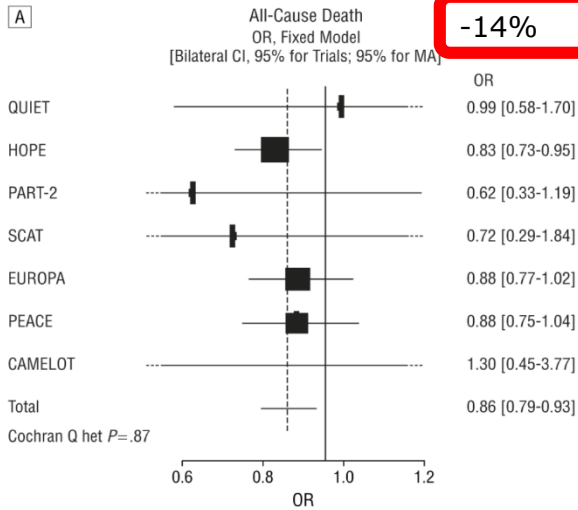


Aderenza alle LG attuali nei pazienti con SC e con EF < 45% (n=528)

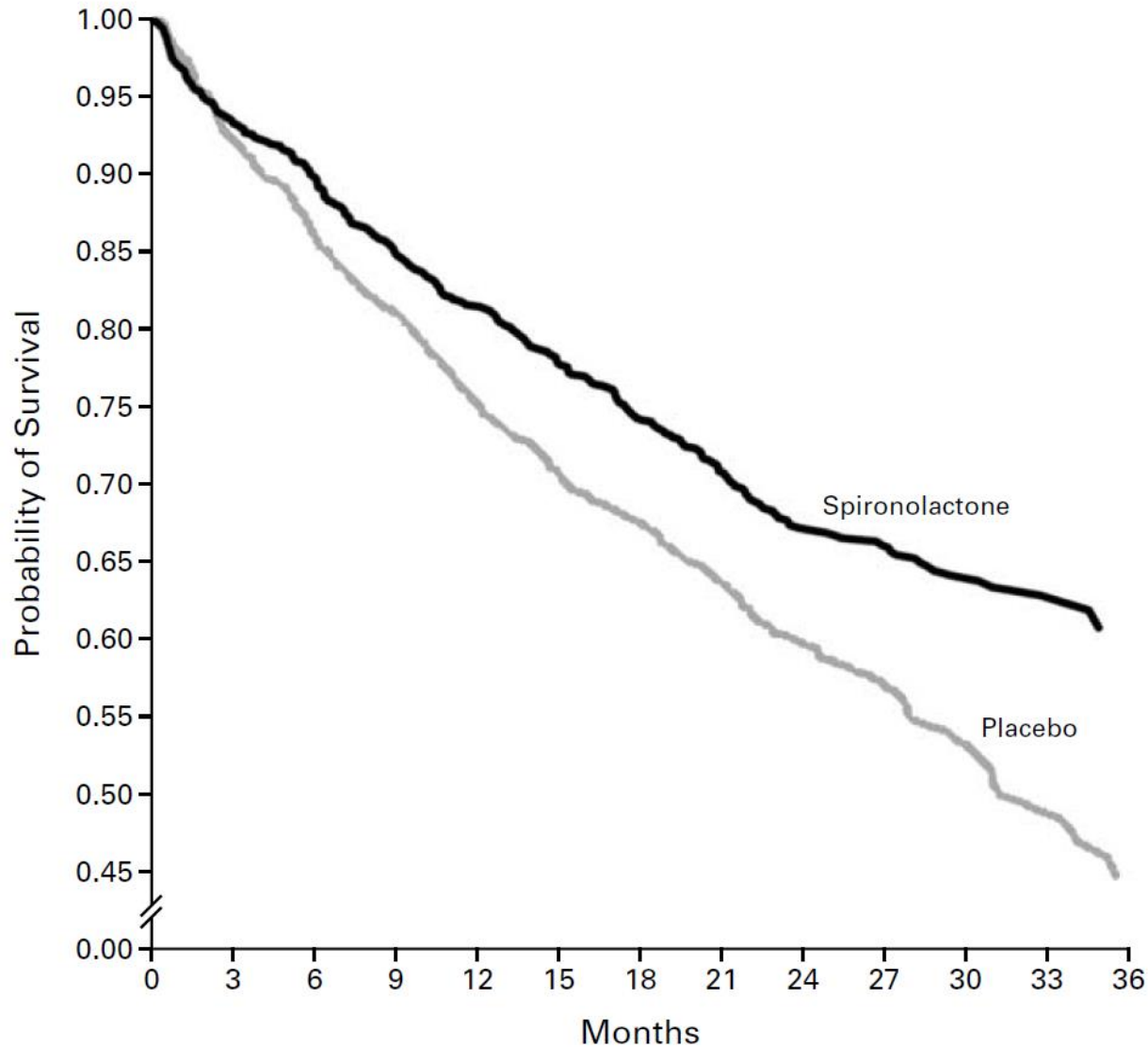
Drugs	Treated	Contraindicated	Untreated
Beta-blocker	399 (75.6%)	17 (3.2%)	112 (21.2%)
ACEI	<u>282 (53.4%)</u>	8 (1.5%)	<u>238 (45.1%)</u>
ARBs	199 (37.7%)	3 (0.6%)	326 (61.7%)
Loop diuretics	469 (88.9%)	2 (0.4%)	57 (10.7%)
Aldosterone antagonists	<u>163 (30.9%)</u>	4 (0.7%)	<u>361 (68.4%)</u>
Digoxin	115 (21.8%)	1 (0.2%)	412 (78%)
Anti-coagulants ^a	<u>95 (64.2%)</u>	1 (0.7%)	<u>52 (35.1%)</u>
Anti-thrombotic agents	320 (60.6%)	1 (0.2%)	207 (39.2%)
Insulin therapy ^b	76 (35.2%)	0	140 (64.8%)
Oral anti-diabetic agents ^b	140 (64.8%)	41 (19.0%)	35 (16.2%)
ICD ^c	10 (5.1%)	0	164 (84.1%)
CRT-D ^d	21 (36.2%)	0	37 (63.7%)

Danchin N, et al. Arch Intern Med 2006; 166: 787-796

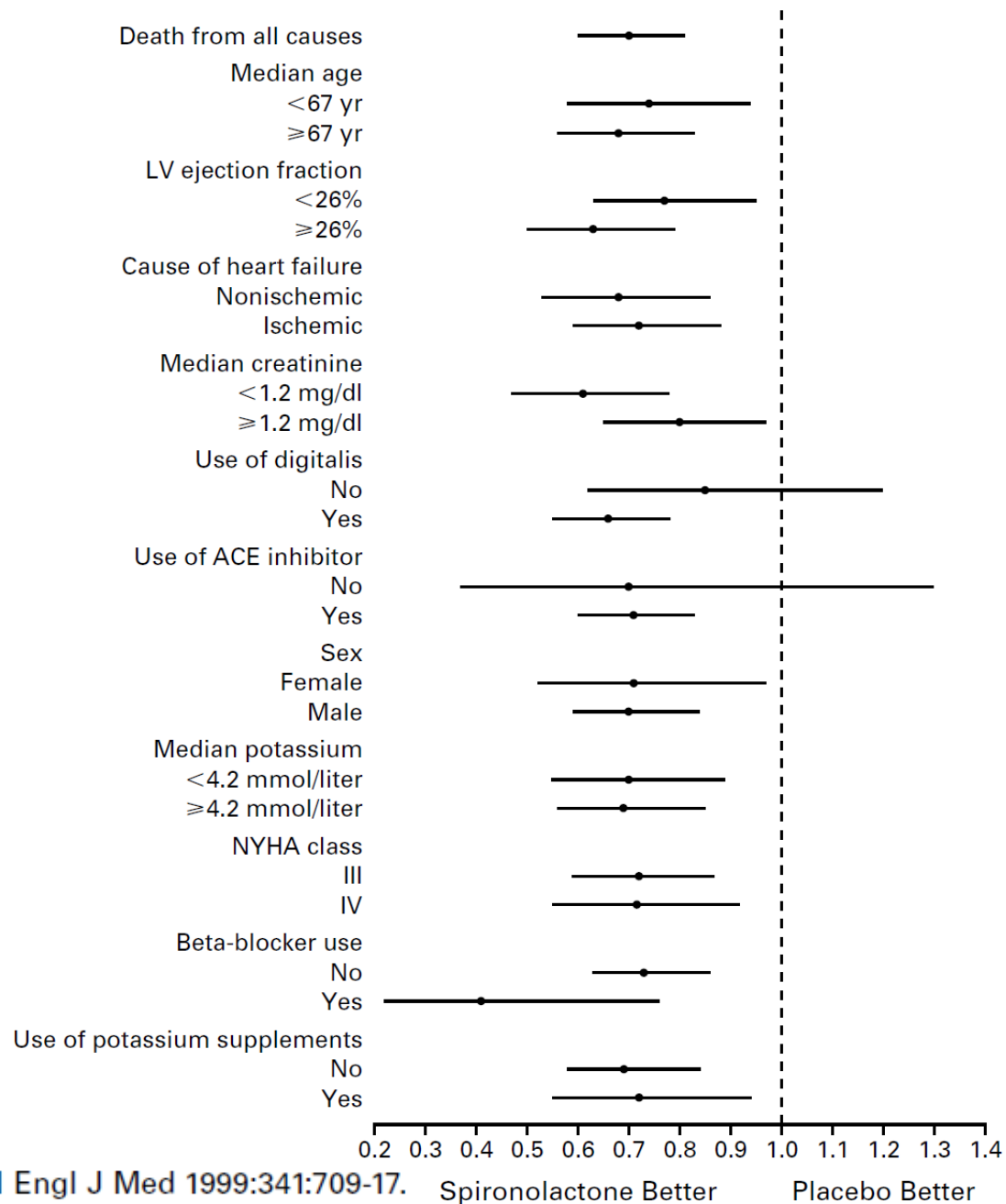
33960 pts



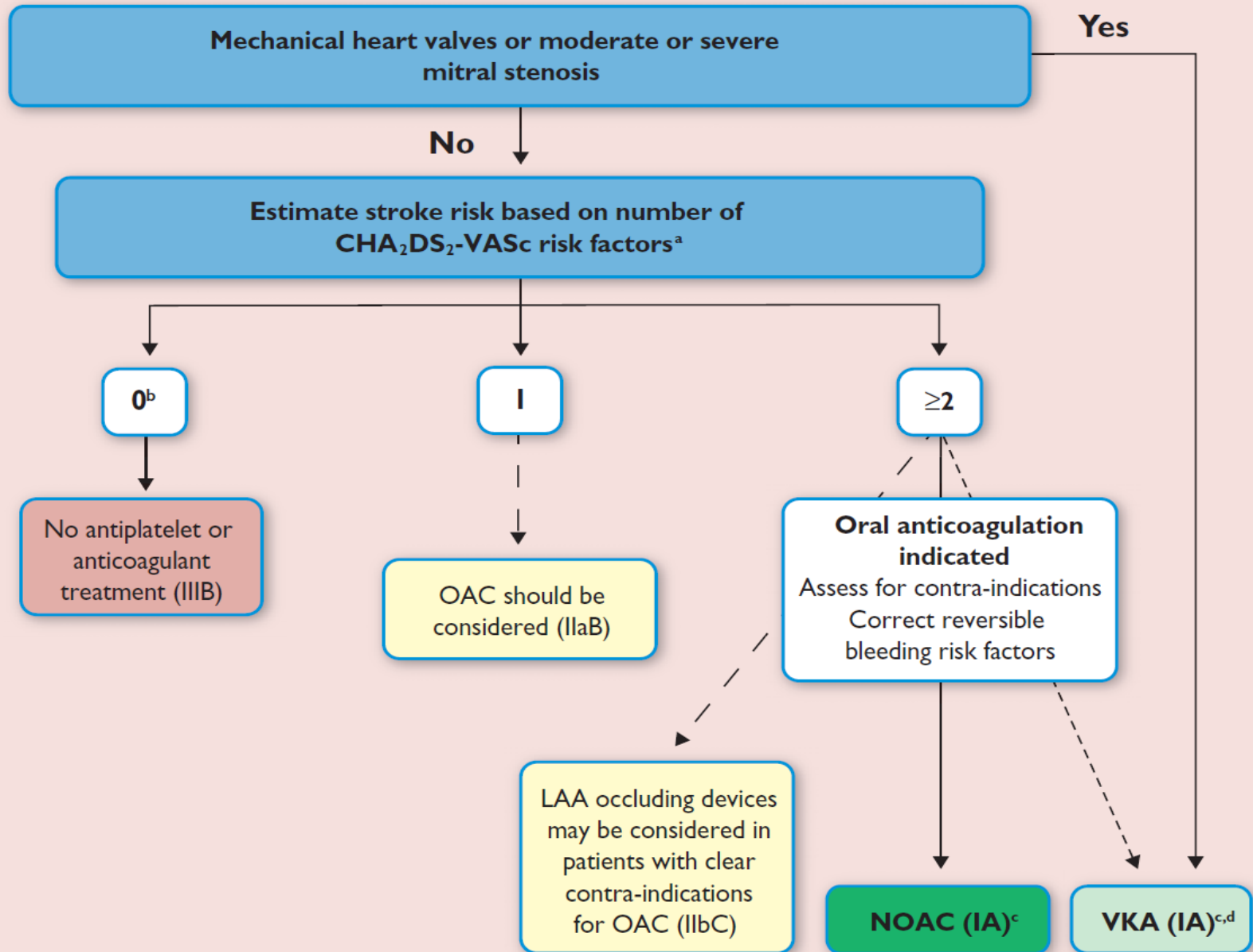
THE EFFECT OF SPIRONOLACTONE ON MORBIDITY AND MORTALITY IN PATIENTS WITH SEVERE HEART FAILURE



THE EFFECT OF SPIRONOLACTONE ON MORBIDITY AND MORTALITY IN PATIENTS WITH SEVERE HEART FAILURE



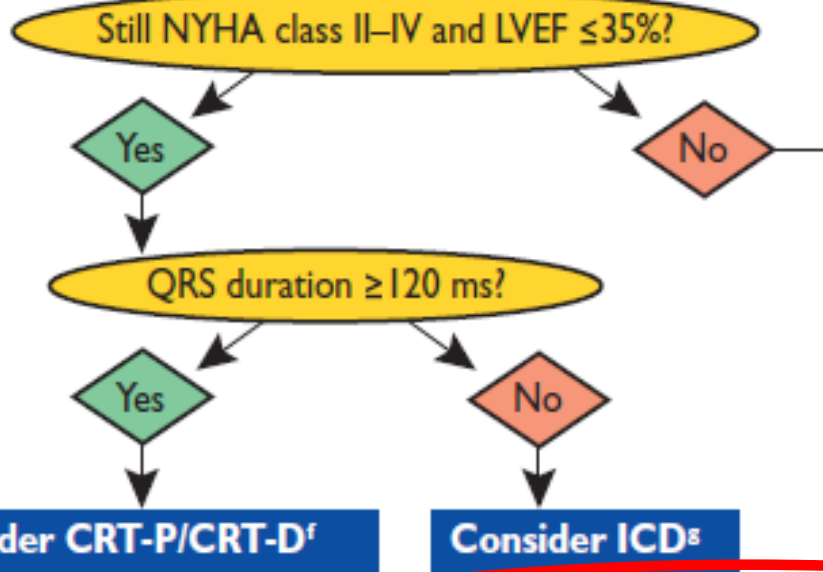
2016 ESC Guidelines for the management of atrial fibrillation developed in collaboration with EACTS



2016 ESC Guidelines for the management of atrial fibrillation developed in collaboration with EACTS

Recommendations	Class ^a	Level ^b	Ref ^c
Oral anticoagulation therapy to prevent thromboembolism is recommended for all male AF patients with a CHA ₂ DS ₂ -VASc score of 2 or more.	I	A	38, 318–321, 354, 404
Oral anticoagulation therapy to prevent thromboembolism is recommended in all female AF patients with a CHA ₂ DS ₂ -VASc score of 3 or more.	I	A	38, 318–321, 354, 404
Oral anticoagulation therapy to prevent thromboembolism should be considered in male AF patients with a CHA ₂ DS ₂ -VASc score of 1, considering individual characteristics and patient preferences.	IIa	B	371, 375–377
Oral anticoagulation therapy to prevent thromboembolism should be considered in female AF patients with a CHA ₂ DS ₂ -VASc score of 2, considering individual characteristics and patient preferences.	IIa	B	371, 376, 377
Vitamin K antagonist therapy (INR 2.0–3.0 or higher) is recommended for stroke prevention in AF patients with moderate-to-severe mitral stenosis or mechanical heart valves.	I	B	274, 435–440
When oral anticoagulation is initiated in a patient with AF who is eligible for a NOAC (apixaban, dabigatran, edoxaban, or rivaroxaban), a NOAC is recommended in preference to a vitamin K antagonist.	I	A	39, 318–321, 404
When patients are treated with a vitamin K antagonist, time in therapeutic range (TTR) should be kept as high as possible and closely monitored.	I	A	395, 432, 441–444
AF patients already on treatment with a vitamin K antagonist may be considered for NOAC treatment if TTR is not well controlled despite good adherence, or if patient preference without contra-indications to NOAC (e.g. prosthetic valve).	IIb	A	39, 318, 319, 404, 408
Combinations of oral anticoagulants and platelet inhibitors increase bleeding risk and should be avoided in AF patients without another indication for platelet inhibition.	III (harm)	B	429, 445
In male or female AF patients without additional stroke risk factors, anticoagulant or antiplatelet therapy is not recommended for stroke prevention.	III (harm)	B	368, 371, 376, 377
Antiplatelet monotherapy is not recommended for stroke prevention in AF patients, regardless of stroke risk.	III (harm)	A	38, 429, 430
NOACs (apixaban, dabigatran, edoxaban, and rivaroxaban) are not recommended in patients with mechanical heart valves (Level of evidence B) or moderate-to-severe mitral stenosis (Level of evidence C).	III (harm)	B C	318–321, 400, 404

Adherence to the current guidelines in CHF patients



Recommendations	Class ^a	Level ^b
ICD therapy is recommended to reduce SCD in patients with symptomatic HF (NYHA class II–III) and LVEF ≤35% after ≥3 months of optimal medical therapy who are expected to survive for at least 1 year with good functional status:		
– Ischaemic aetiology (at least 6 weeks after myocardial infarction).	I	A
– Non-ischaemic aetiology.	I	B

ESC Guidelines 2015

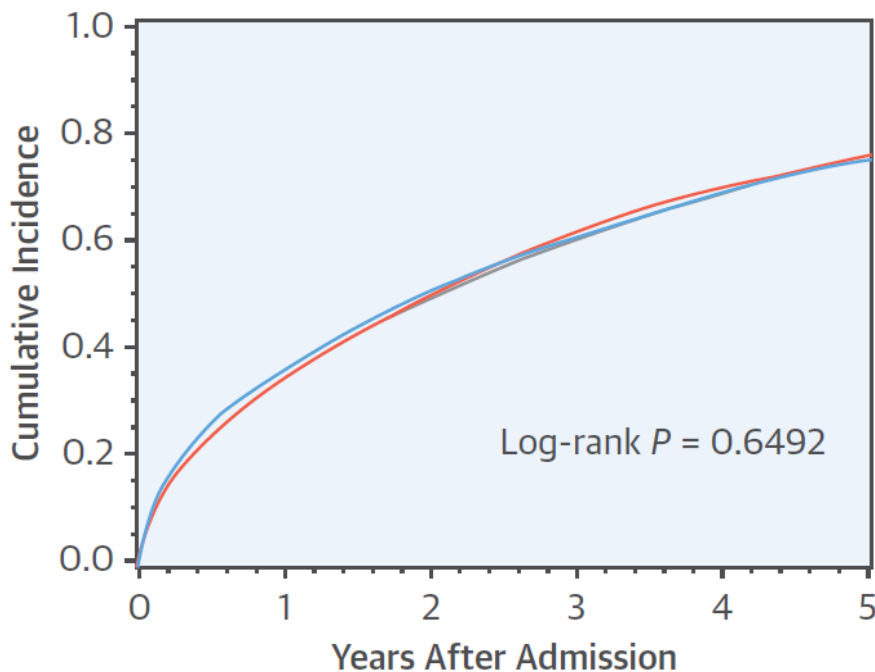
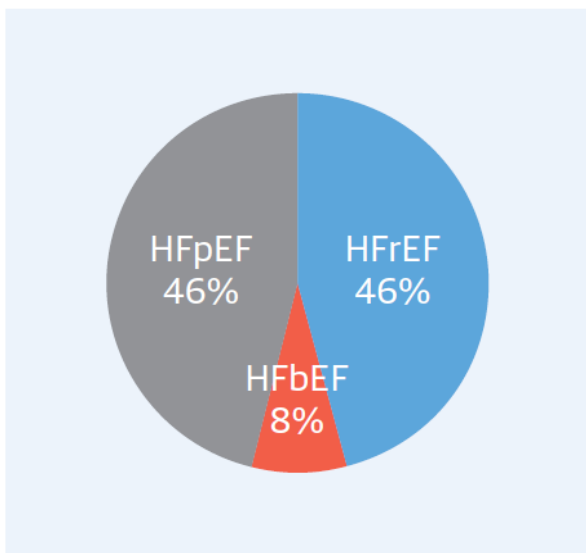
CHF patients with EF ≤ 35%	ICD	CRT	Tot
195	10	21	31 (15,9%)

Guarnaccia F, J Cardiovasc Med 2014

5ys Outcome in Patients Hospitalized with Heart Failure

Heart Failure

5-Year Mortality

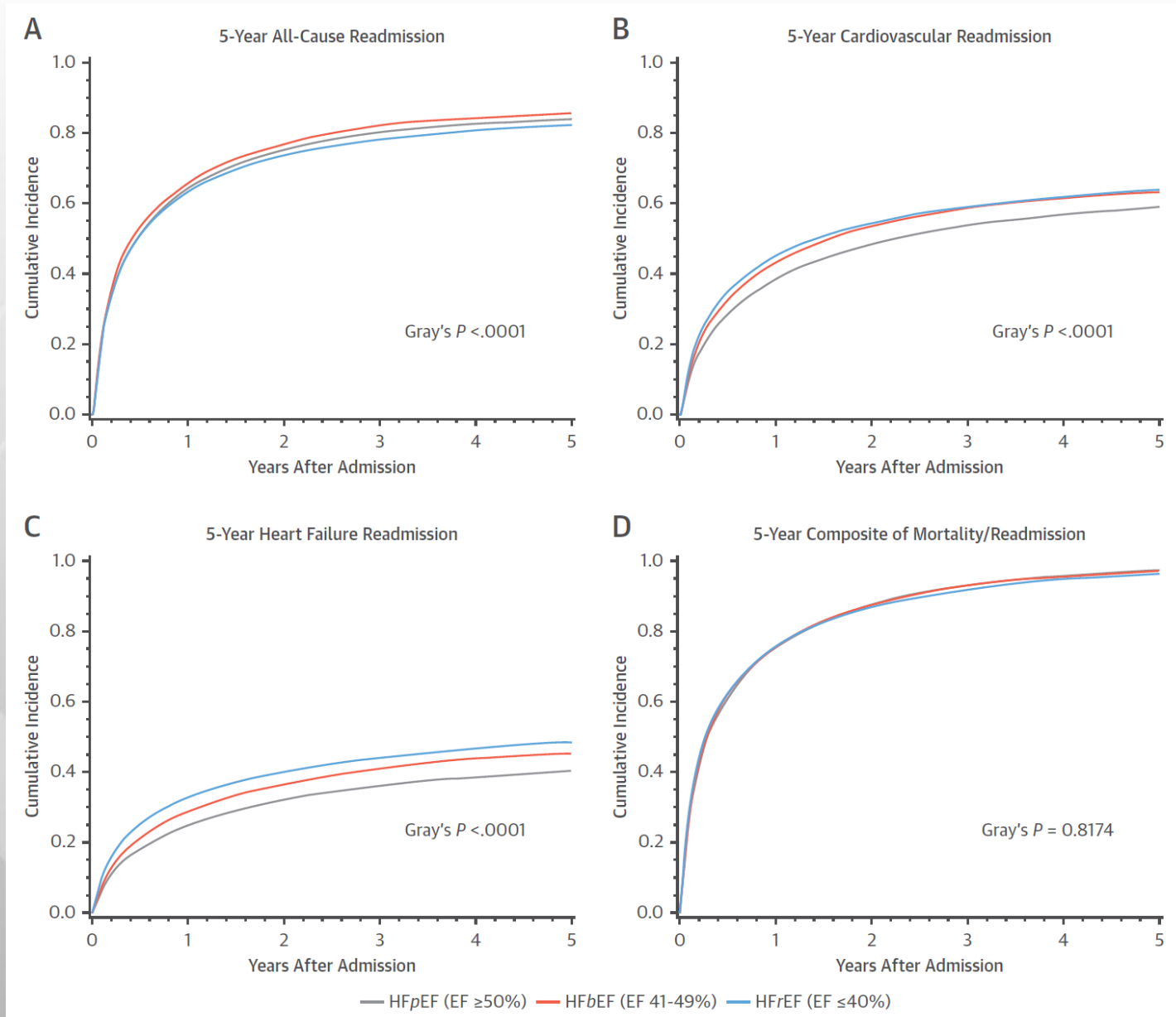


— HFpEF (EF ≥50%) — HFbEF (EF 41-49%) — HFrEF (EF ≤40%)

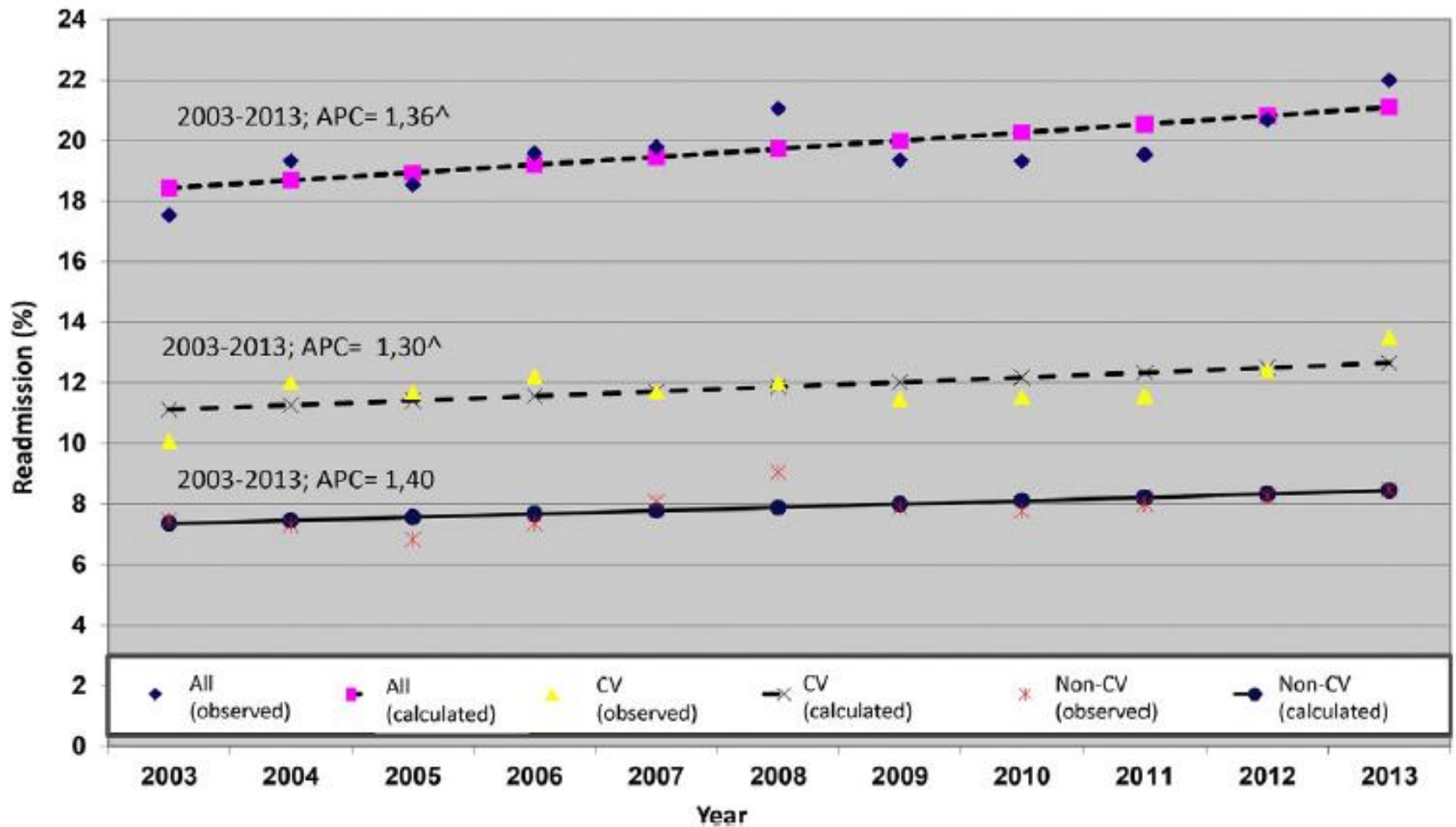
Outcomes - 5-Year Event Rates (%)

	Mortality	Readmission	CV Readmission	HF Readmission	Mortality/Readmission
HFrEF	75.3	82.2	63.9	48.5	96.4
HFbEF	75.7	85.7	63.3	45.2	97.2
HFpEF	75.7	84.0	58.9	40.5	97.3

5ys Outcome in Patients Hospitalized with Heart Failure



Trends, causes and timing of 30-day readmissions after hospitalization for heart failure: 11-year population-based analysis with linked data



TEMISTOCLE

(heart failure epidemiological Study FADOI-ANMCO in Italian people)



I pazienti con S C ricoverati in H hanno una ridotta qualità e quantità della vita

Conclusioni

“IL SSN **NON** OFFRE CONTINUITA' ASSISTENZIALE AI PAZIENTI CON SCOMPENSO CARDIACO DIMESSI DALL'OSPEDALE.

SOLO UNA PICCOLA PARTE DEI PAZIENTI E' INSERITO, IN QUALCHE MODO, IN UN PROGRAMMA DI CONTROLLO CLINICO A DISTANZA”

44.926 pazienti

10.506 (23%) sono stati seguiti da cardiologi

28.300 (63%) da internisti

4812 (11%) da medici di famiglia

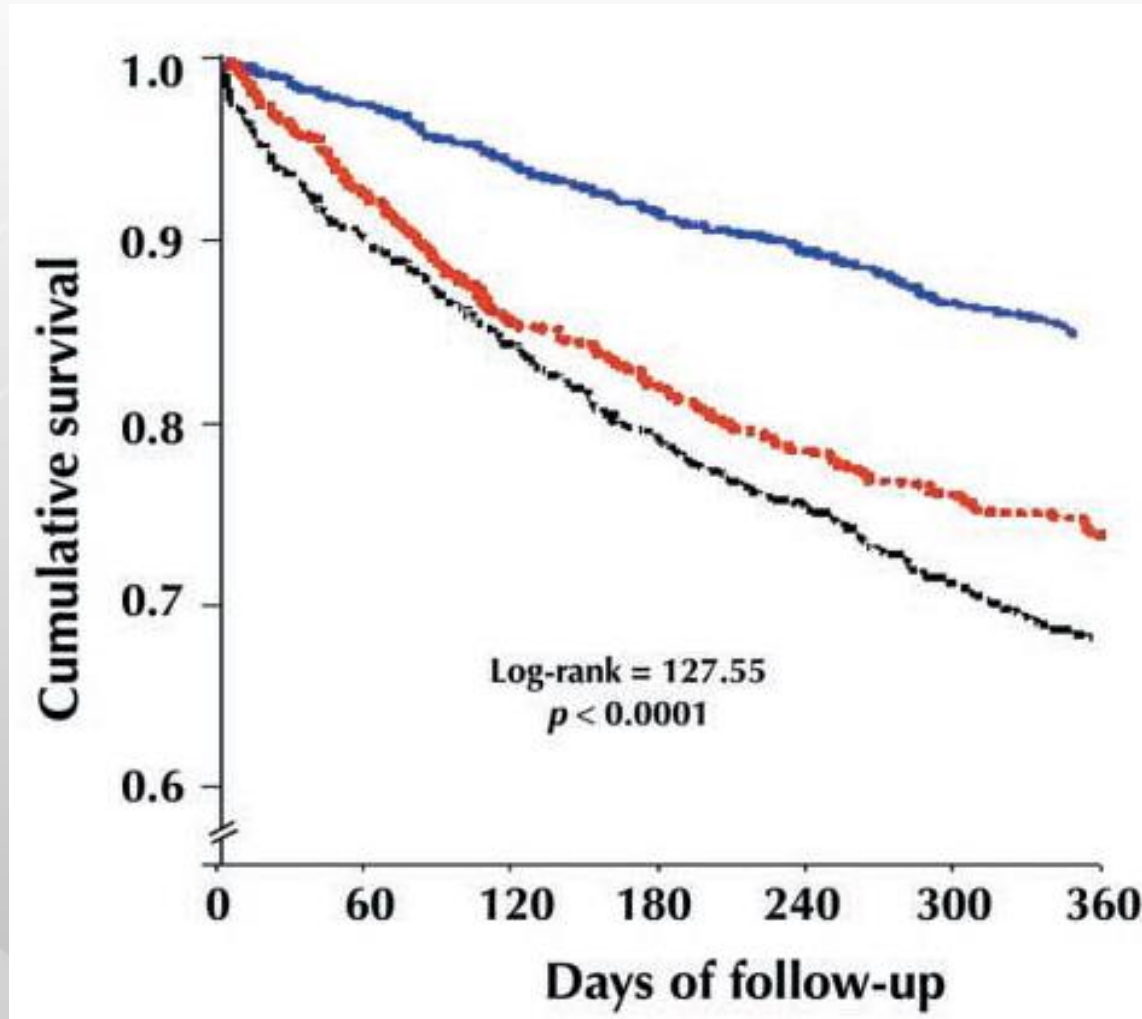
308 (3%) da geriatri

Sia in termini di minor costo (minori riospedalizzazioni) che di sopravvivenza e migliore qualità della vita, la gestione del Cardiologo è risultata più efficace

Philbin EF, Jenkins PL. Differences between patients with heart failure treated by cardiologist, internist, family physicians: analysis of large statewide database.

Am Heart J 2000; 139: 491-496

Impact of specialist follow-up in outpatients with congestive heart failure



Kaplan–Meier survival curves for care received, by ambulatory specialty. Blue line = combined care (both specialist and family physician), red line = care by family physician only, black line = no cardiovascular claims (i.e., no physician visits for a cardiovascular cause)

Molti pazienti devono essere seguiti a domicilio. E' importante l'eco a domicilio?

BRIEF ARTICLE

Management of chronic heart failure: Role of home echocardiography in monitoring care programs

Silvia Soreca, Sergio Aprile, Andrea Cardone, Giovanni Carella, Biagio Fimiani, Franco Guarnaccia, Giosuè Santoro, Valentina Apuzzi, Giorgio Bosso, Antonio Valvano, Giovanni Zito, Ugo Oliviero

Abstract

AIM: To identify a possible role of home echocardiography for monitoring chronic heart failure (CHF) patients.

METHODS: We prospectively investigated 118 patients hospitalized during the last year for CHF who could not easily reach the pertaining District Healthcare Center. The patients were followed up with 2 home management programs: one including clinical and electrocardiographic evaluations and also periodic home echocardiographic examinations (group A), the other including clinical and electrocardiographic evaluations only (group B).

RESULTS: At the end of the 18-mo follow-up no significant differences were observed between the 2 groups as regards the primary endpoint: rehospitalization oc-

curred in 4 patients of the group A and in 6 patients of the group B; major cardiovascular events occurred in 2 and in 3 patients, respectively. No significant differences were observed with respect to the secondary endpoints: one vascular event appeared in both the groups, 3 cardiovascular deaths occurred in group A and 2 in group B. No significant differences were observed between the 2 groups as regards the composite endpoint of death plus hospitalization.

CONCLUSION: Home echocardiography for monitoring of CHF patients does not improve the cardiovascular endpoints. In our CHF patients, a low incidence of vascular events was observed.

© 2012 Baishideng. All rights reserved.

Clinical and Laboratory parameters of CHF patients

	Group A	Group B
Sex (M/F)	31/29	29/29
Age (yr)	77 ± 7	78 ± 6
Weight (kg)	73 ± 16	75 ± 20
Height (cm)	164 ± 4	162 ± 8
Body mass index	28 ± 4	26 ± 6
Systolic blood pressure (mmHg)	140 ± 12	136 ± 10
Diastolic blood pressure (mmHg)	81 ± 8	83 ± 10
Creatinine (mg/dL)	1.8 ± 0.4	1.7 ± 0.6
Azotemia (mg/dL)	62 ± 12	59 ± 10
Uricemia (mg/dL)	6.5 ± 3.0	6.6 ± 2.6
Na (mmol/L)	143 ± 5	141 ± 8
K (mmol/L)	5.0 ± 0.2	4.9 ± 0.8
C-reactive protein (mg/dL)	0.9 ± 0.4	0.9 ± 0.6
B-type natriuretic peptide (pg/dL)	586 ± 260	600 ± 244

Echocardiographic parameters in the 2 CHF groups at the beginning and at the end of the study

	At the beginning of the study		At the end of the study	
	Group A	Group B	Group A	Group B
End diastolic volume (mL)	170.8 ± 72.8	166.8 ± 78.4	168.8 ± 71.4	170.1 ± 74.2
End systolic volume (mL)	106.3 ± 64.2	105.3 ± 70.2	108.1 ± 60.1	109.3 ± 60.8
Stroke volume (mL)	60.2 ± 15.8	57.6 ± 18.2	56.2 ± 15.4	57.3 ± 18.3
Ejection fraction (%)	35.8 ± 11.8	35.0 ± 14.0	35.7 ± 10.8	35.8 ± 12.6
Isovolumetric relaxation time (ms)	97.2 ± 25.6	93.9 ± 29.7	97.6 ± 26.2	94.1 ± 30.6
Peak E wave velocity (m/s)	0.86 ± 0.98	0.85 ± 0.68	0.83 ± 0.52	0.88 ± 0.44
Peak A wave velocity (m/s)	0.67 ± 0.69	0.66 ± 0.19	0.66 ± 0.49	0.69 ± 0.32
Peak E deceleration time (ms)	187.6 ± 67.2	190.4 ± 64.4	187.9 ± 63.2	191.7 ± 69.2
TDI peak E' wave velocity (m/s)	0.09 ± 0.06	0.08 ± 0.09	0.08 ± 0.04	0.08 ± 0.05
TDI peak A' wave velocity (m/s)	0.08 ± 0.05	0.08 ± 0.07	0.06 ± 0.09	0.07 ± 0.04
E/E' ratio	10.75 ± 6.31	10.62 ± 5.14	10.5 ± 5.3	11.08 ± 6.2
Pulmonary systolic pressure (mmHg)	24 ± 8	28 ± 6	26 ± 12	30 ± 10

Data are expressed as mean ± SD. Differences between groups are not significant. TDI: Tissue Doppler imaging.

Management of CHF: Role of periodic echocardiography in home care programs

Table 3 Endpoints in the 2 chronic heart failure groups (%)

Endpoint	Group A	Group B
Primary endpoint		
Hospitalization	6 (10)	9 (15.5)
Worsening symptoms of HF	4	6
Major vascular events	2	3
Secondary endpoint		
Home treated vascular events	1 (1.7)	1 (1.7)
Cardiovascular death	3 (5)	2 (3.4)
Combined endpoint		
Cardiovascular deaths + hospitalizations	9 (15)	11 (18.9)

Differences between groups are not significant. HF: Heart failure.

2013 ACCF/AHA Guideline for the Management of HF: Recommendations for Noninvasive Cardiac Imaging

Recommendations	COR	LOE
Patients with suspected, acute, or new-onset HF should undergo a chest x-ray	I	C
A 2-dimensional echocardiogram with Doppler should be performed for initial evaluation of HF	I	C
Repeat measurement of EF is useful in patients with HF who have had a significant change in clinical status or received treatment that might affect cardiac function or for consideration of device therapy	I	C
Noninvasive imaging to detect myocardial ischemia and viability is reasonable in HF and CAD	IIa	C
Viability assessment is reasonable before revascularization in HF patients with CAD	IIa	B (117–121)
Radionuclide ventriculography or MRI can be useful to assess LVEF and volume	IIa	C
MRI is reasonable when assessing myocardial infiltration or scar	IIa	B (122–124)
<u>Routine repeat measurement of LV function assessment should not be performed</u>	III: No Benefit	B (125,126)

CAD indicates coronary artery disease; COR, Class of Recommendation; EF, ejection fraction; HF, heart failure; LOE, Level of Evidence; LV, left ventricular; LVEF, left ventricular ejection fraction; and MRI, magnetic resonance imaging.

Gli obiettivi del trattamento dello scompenso cardiaco cronico

1. Prognosi

- Ridurre la mortalità

2. Morbidità

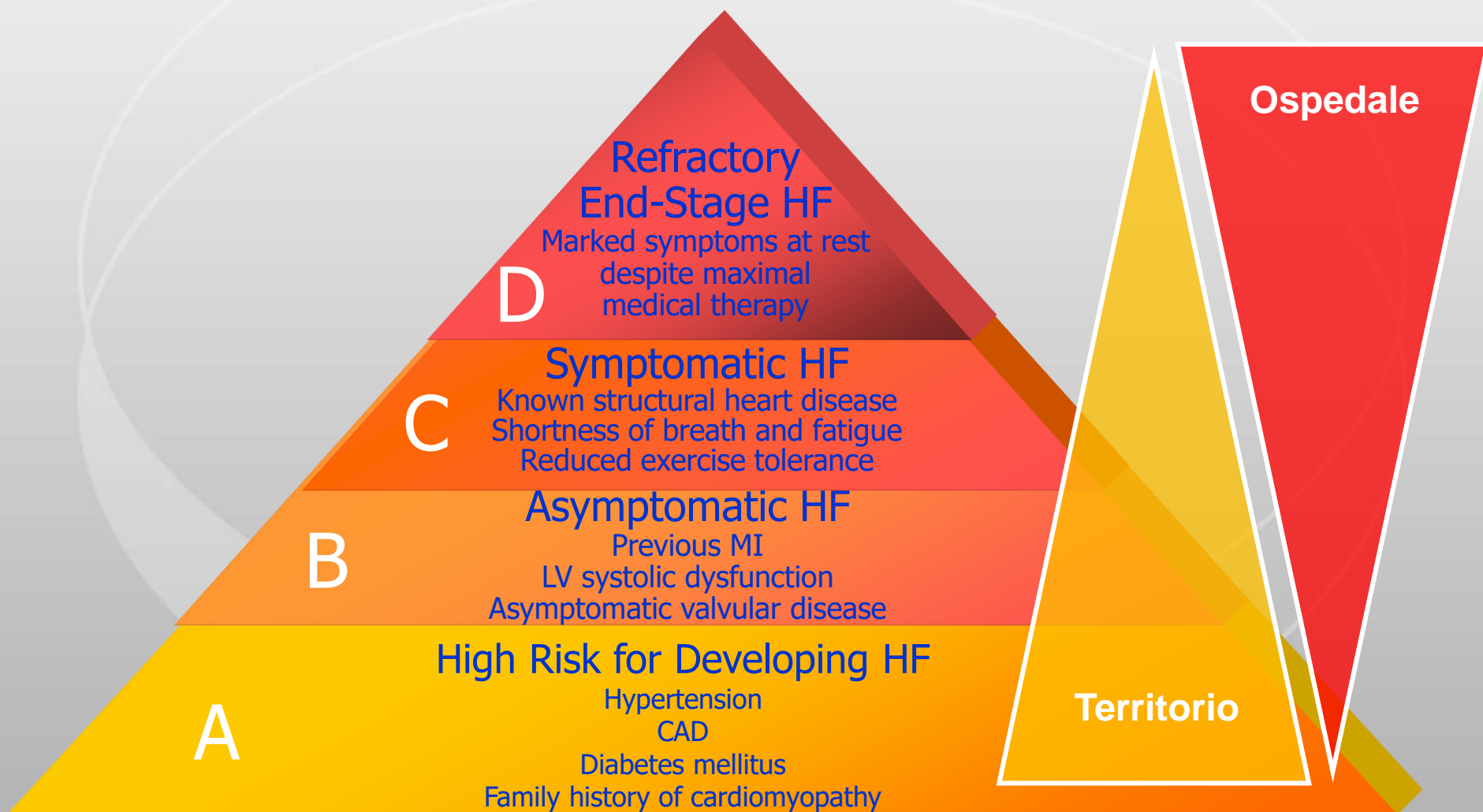
- Alleviare i sintomi
- Migliorare la qualità della vita
- Controllare l'edema e la ritenzione idrica
- Aumentare la capacità di esercizio
- Ridurre l'affaticamento e l'affanno
- Ridurre le ospedalizzazioni
- Fornire assistenza ai terminali

3. Prevenzione

- Prevenire il danno miocardico
- Evitare la progressione del danno miocardico
- Impedire il rimodellamento miocardico
- Prevenire l'accumulo di liquidi
- Prevenire le ospedalizzazioni

	STADIO A	Paziente a rischio di evoluzione verso l'insufficienza cardiaca senza segni di cardiopatia strutturale
NYHA I	STADIO B	Paziente con cardiopatia strutturale o funzionale che non ha ancora sviluppato sintomi di scompenso
NYHA II, III	STADIO C	Paziente con sintomi pregressi o attuali di scompenso associati a cardiopatia strutturale
NYHA IV	STADIO D	Stadio terminale che richiede strategie e centri specializzati

Pyramid Approach to HF Stages



- Stadio A

ALTO RISCHIO DI SCOMPENSO CARDIACO

- Assenza di alterazioni elettrocardiografiche
- Assenza di scompenso

Pazienti con:

- Ipertensione, diabete mellito, storia familiare di cardiopatia, etc.
- Farmaci cardiotossici

Medico di
medicina generale

- Stadio B

PRESENZA DI ALTERAZIONI ELETTRICHE E ANATOMICO-STRUTTURALI.

- Assenza di sintomi sospeso

Pazienti con:

- Precedenti infarto miocardico, disfunzione sistolica del ventricolo sinistro, stenosi aortica, valvulopatia asintomatica

Cardiologo ambulatoriale

- Stadio C

Presenza di alterazioni elettrocardiografiche

- Sintomi di tipo anginoso precedente o contemporaneo

Pazienti con

- Disfunzione ventricolare sinistra, ridotta tolleranza all'esercizio

Cardiologo ospedaliero

- Stadio D

SCOMPENSO DI ENERGETTARIO

- Necessità di centri specialistici

Pazienti con:

- Sintomi di scompenso nonostante la terapia medica ottimizzata, ricorrenti ricoveri ospedalieri

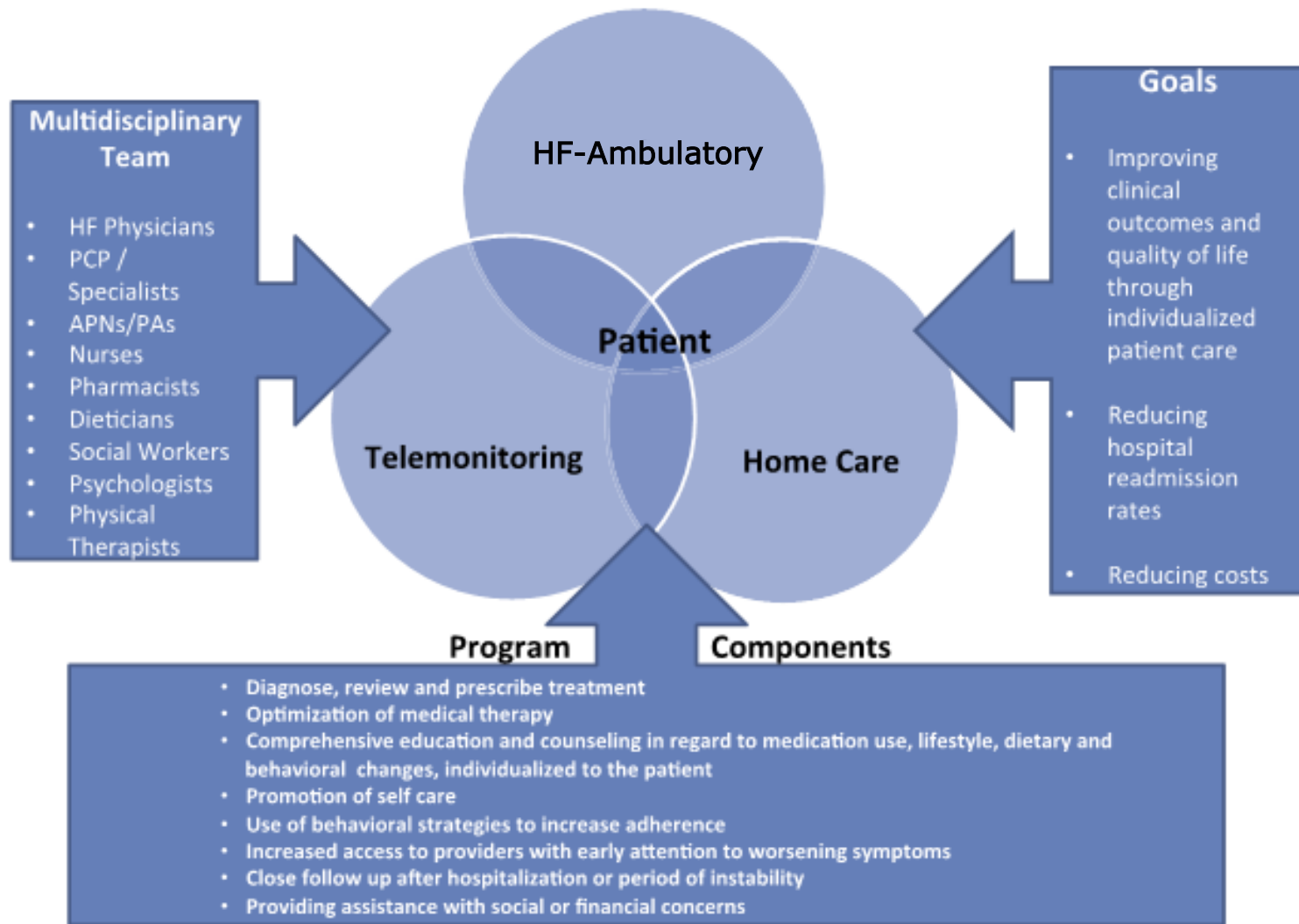
Strutture ad alta specializzazione

La vera continuità assistenziale da creare non è quella tra Ospedale e Territorio o tra Ospedale e Ambulatorio Cardiologico

Ma quella fra regime di ricovero (UTIC, corsia di degenza) e Ambulatorio Cardiologico dove vengono gestite le cardiopatie (follow-up)

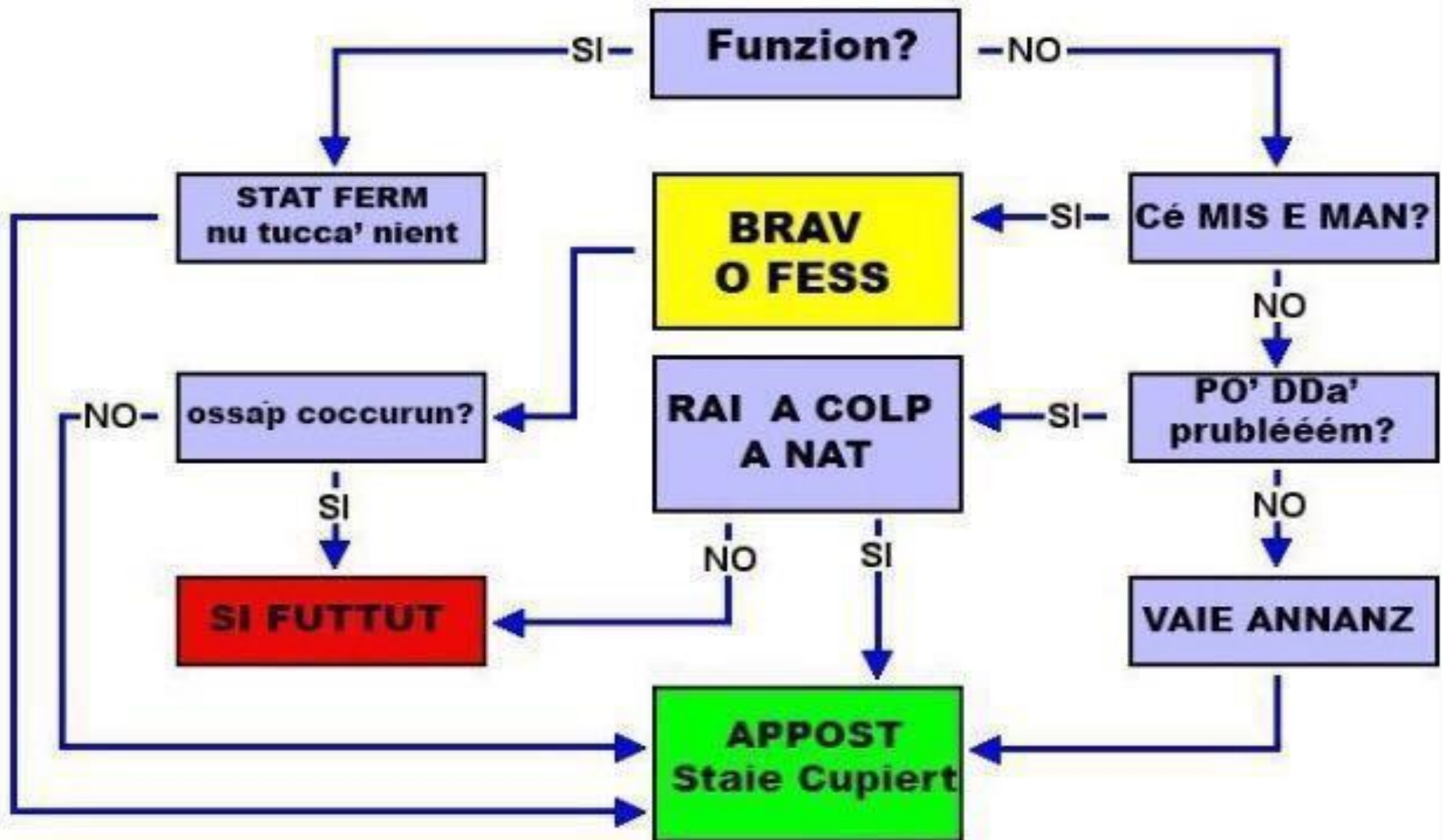
Gli Ambulatori Cardiologici operano infatti con gli stessi strumenti e con le stesse finalità sia in ospedale che sul territorio

Team-Based Care for Outpatients with Heart Failure



Lo Scompenso Cardiaco è una malattia grave, che può essere prevenuto e ridimensionato utilizzando al meglio gli operatori e le cure disponibili

SCHEMA PER LA SOLUZIONE DI OGNI PROBLEMA

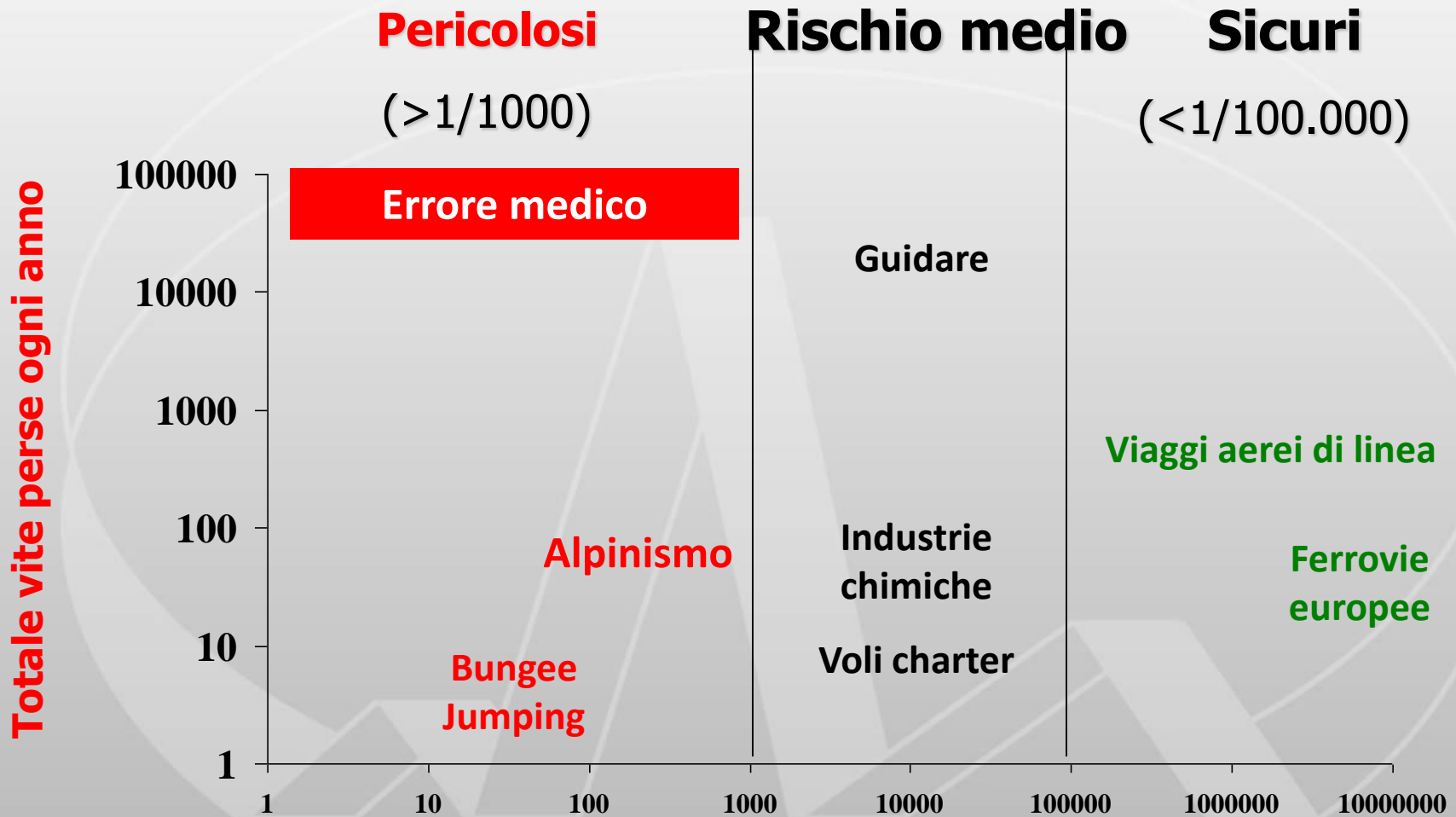




BUNGEE JUMPING

Quanto sono pericolose le cure mediche?

(Modificata da Lucian Leape)

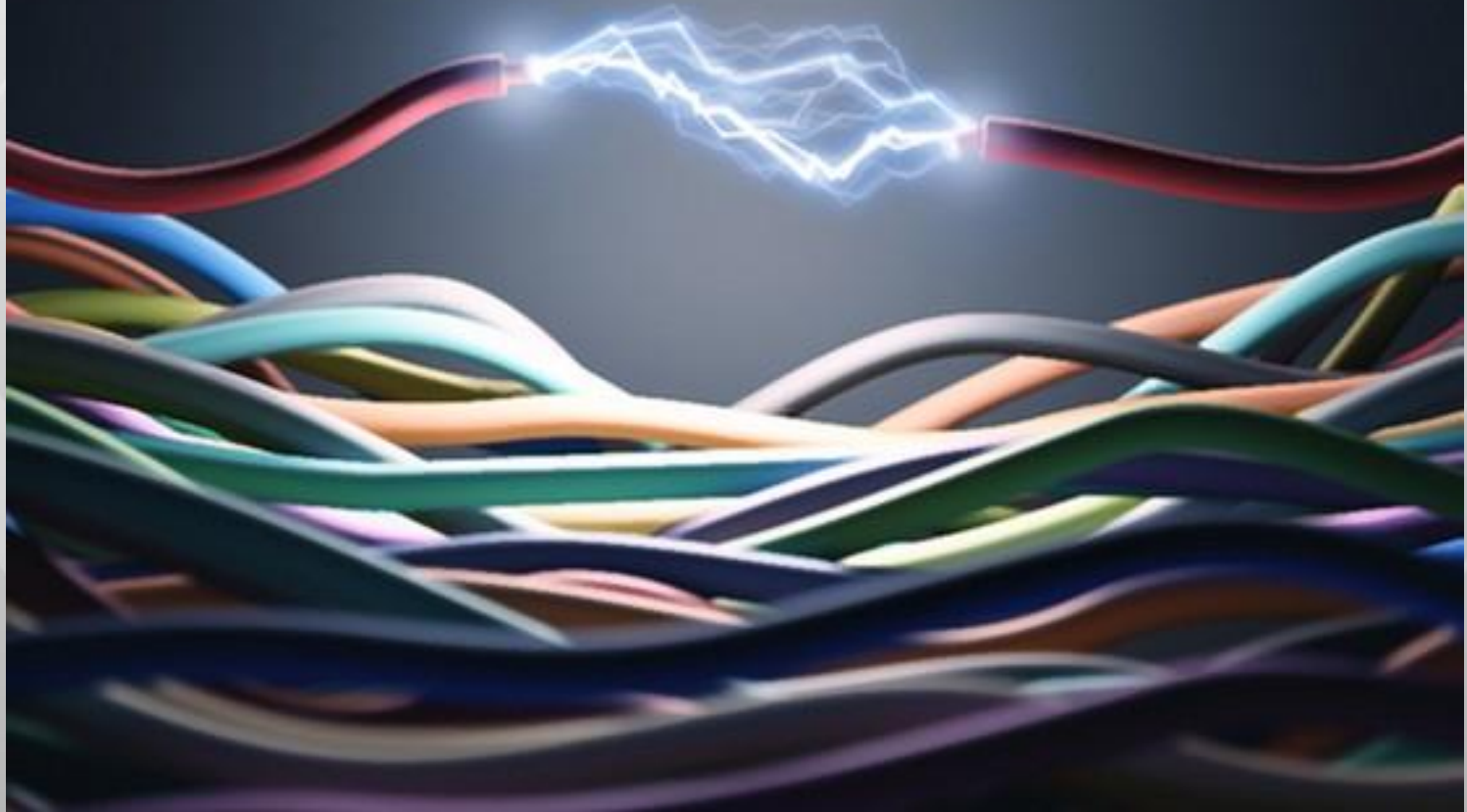


Quanto sono pericolose le cure mediche?

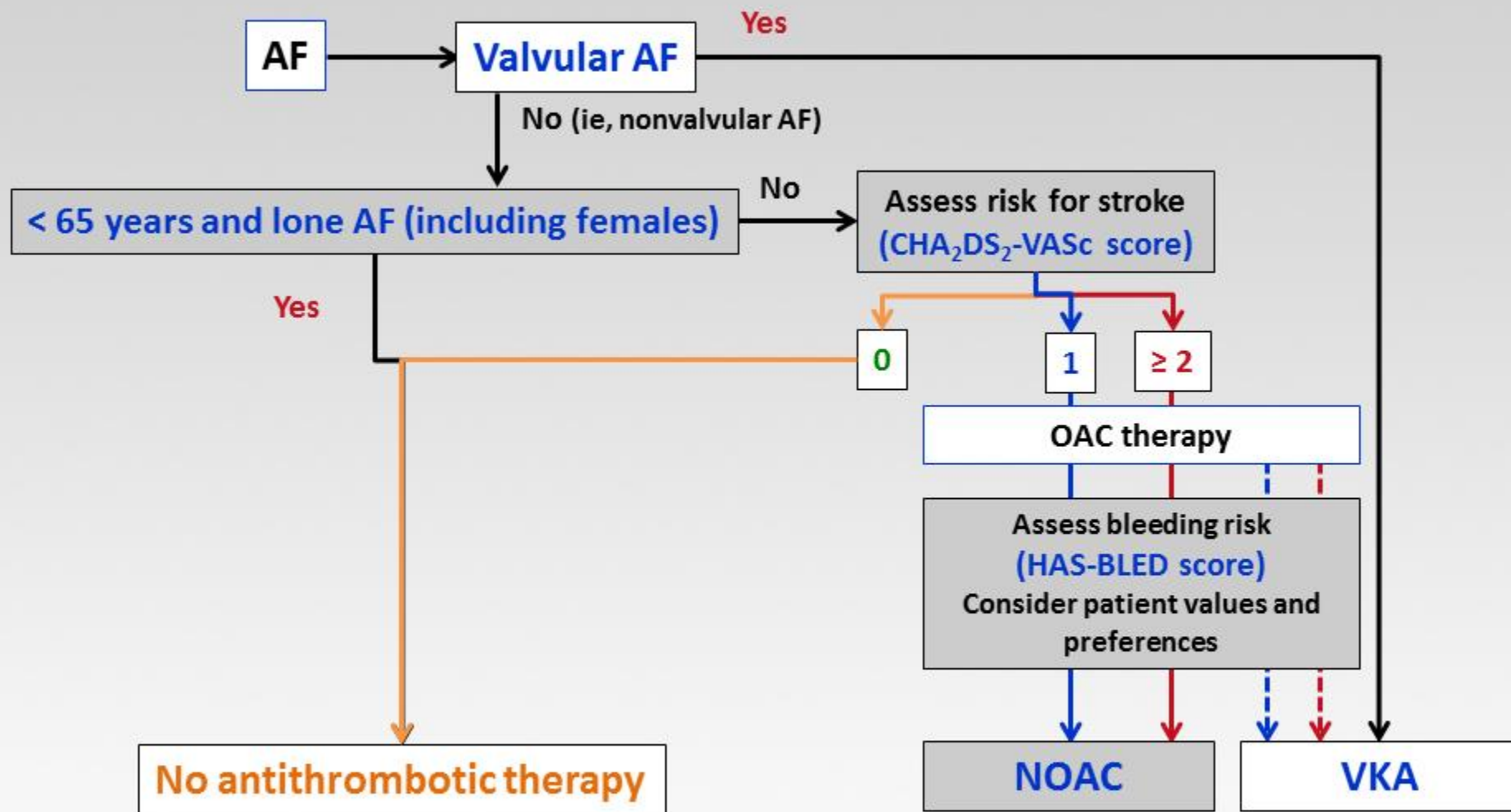
(Modificata da Lucian Leape)

Attività	Tasso di mortalità
Bungee jumping	1/100
Alpinismo	1/300
Errore Medico	1/500
Guidare	1/20,000
Aerei di linea	1/8,000,000
Ferrovie Europee	1/10,000,000

Grazie...



Clinical Flowchart for OAC[¶]



NOAC = novel oral anticoagulation; HAS-BLED = hypertension, abnormal renal/liver function, stroke, bleeding history or predisposition, labile international normalized ratio, elderly, drugs/alcohol concomitantly

Note: Aspirin no longer included in flowchart due to weak evidence for its effectiveness

