Update
in Device treatment

CRT

1) EF < 35%
2) Bredd på QRS komplex > 120 ms och
3) Funktionklass III-IV
4) Optimal läkemedelsbehandling

ICD

Sekundär Prevention

1. Hjärtsviktspatienter med överlevt hjärtstopp

Primär Prevention

2. LVEF < 35% efter hjärtinfarkt (> 40 dagar efter hjärtinfarkt) samt icke-ischemisk hjärtsvikt
3. NYHA klass II-III
4. Optimal läkemedelsbehandling föreligger
5. Förväntad överlevnad med god livskvalitet > 1 år

PCI /CABG

vid <u>instabil</u> koronarsjukdom med samtidig nedsättning av vänster kammares funktion.

Hjärtsvikt hos de äldre

Var vi står ? Vad vi gör ?

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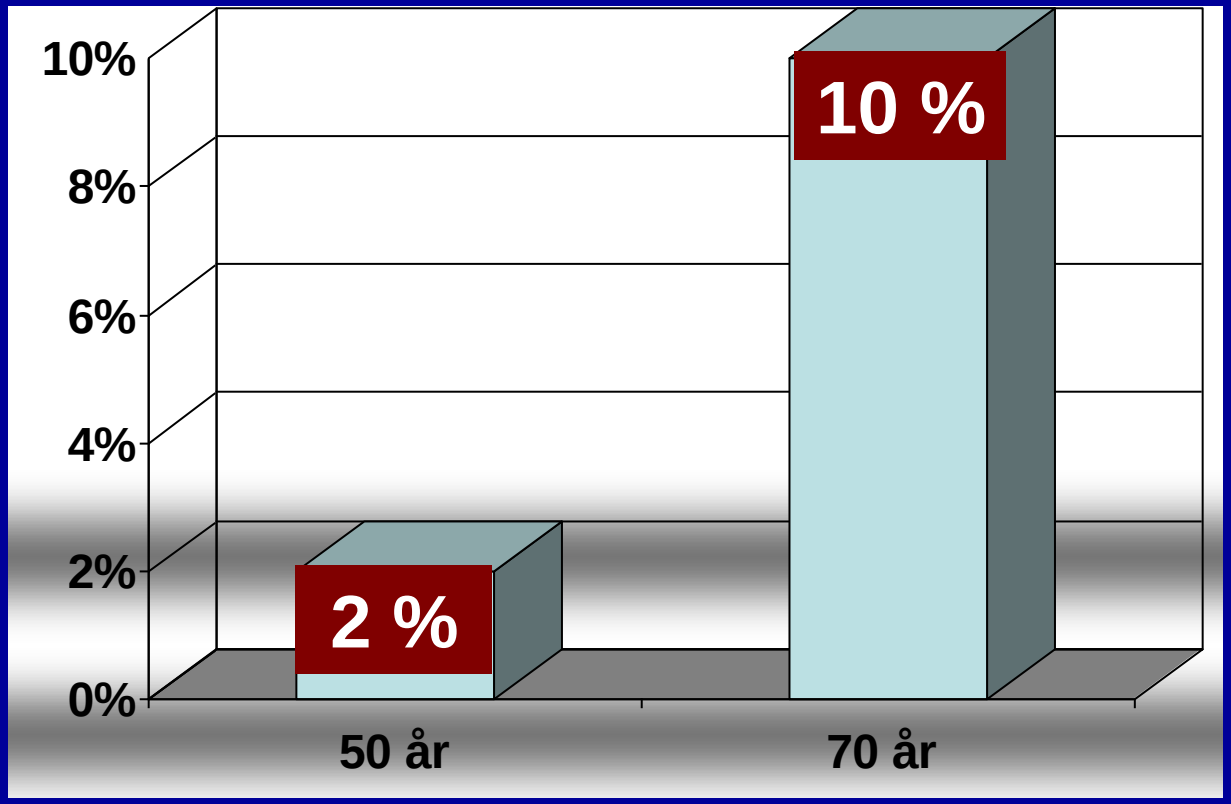
CHF in the elderly

- A Global Challenge

Marparten >65 år



Desto högre risk

Ju äldre,

Hjärtsvikt –ett växande problem !

1) Medelåldern i befolkningen ökar

2) Antalet individer som överlever efter hjärtinfarkt ökar

Till priset av utveckling av latent och symptomgivande hjärtsvikt !

3) Antalet hjärtsvikt patienter som överlever ökar

Sverige - Väldens äldsta befolkning

2006

- 1,5 milj >65 år
- Ca 500,000 >80 år
- Ca 70,000 >90 år

2020

- 2 milj >65 år

Kostnad för sjukvård+ äldreomsorgen

- 150-160 miljader/år

Ett tillstånd med många ansikten

Heart failure in the elderly: Unique for itself

Baseline Characteristics of Patients Recruited in COMET Subdivided According to Age (mean, 62 ys.; range, 18-90)

	< 60 years (n = 1171)	60-70 years (n = 1119)	> 70 years (n = 739)
Female, %	17%	19%	26%
BMI, m ± sd	28 ± 5	27 ± 4	25 ± 4
Dyspnoea score ≥ 4, %	13%	18%	27%
Fatigue score ≥ 4, %	13%	16%	26%
NT-ProBNP, median	804	1314	1826
Creatinine, median	92	102	114
Diabetes, %	20%	29%	25%
Atrial fibrillation, %	15%	20%	27%
Paced rhythm, %	2%	7%	12%

All these variables were significantly different between the different age subgroups

Cleland et al., Cardiovasc Drugs Ther 2004; 18:139

Factors Distinguishing HF in the Elderly from HF at Middle Age

	Middle age	Elderly
Prevalence	<1%	≈10%
Sex	Men > women	Women > men
Etiology	CAD	Hypertension
Clinical features	Typical	Atypical
LVEF	Reduced	Normal
Comorbidities	Few	Multiple
Physician	Cardiologist	Primary care
RCTs	Many	Few
Therapy	Evidence-based	Empiric

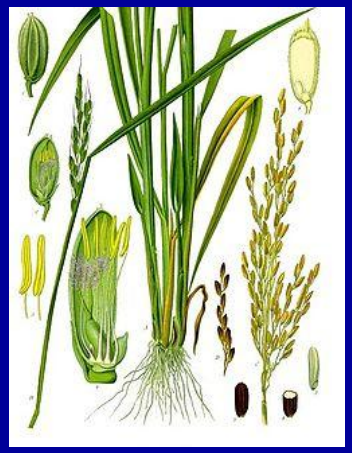
Rich MW, Am J Med 2005; 118:342

HF in the elderly, unique for itself

Höga ålder ≠ siffran

Föråldrande process som bara fortsätter … !

Strukturellt & funktionellt



Och

Mycket studier finns → **Hos de yngre**

Få studier finns → **Hos de äldre**

Evidens baserad och rekommenderad svikt behandling

Systolisk hjärtsvikt hos yngre

Mean Age and Proportions of Elderly Patients in Multicenter Trials

Trial	No. of patients	Mean Age	% > 70 years
CONSENSUS I	253	71	**50%**
SOLVD-T	**6 797**	**61**	**15%**
DIG	7 788	63	**27%**
MERIT-HF	3 991	64	32%
CIBIS-II	2 647	61	...
COPERNICUS	2 289	63	...
RALES	1 633	61	...
EPHESUS	6 642	64	
ELITE-II	**3 152**	**71**	**58%**
Val-HeFT	5 010	62	...
CHARM	7 601	66	**23% (>75)**

Hjärtsvikt hos äldre

Behandlingar är ofta tyckande (empirisk)

Systolisk

Hjärtsvikt med bevarad systolisk funktion (HFNEF)

HFNEF

Hjärtsvikt med bevarad EF

Hjärtsvikt symptom

LVEF > 50% och

Normalstor VK

Diastolisk dysfunktion

HFNEF med DD (diastolisk dysfunktion)

Beta blockerare

Hos äldre hjärtsvikt

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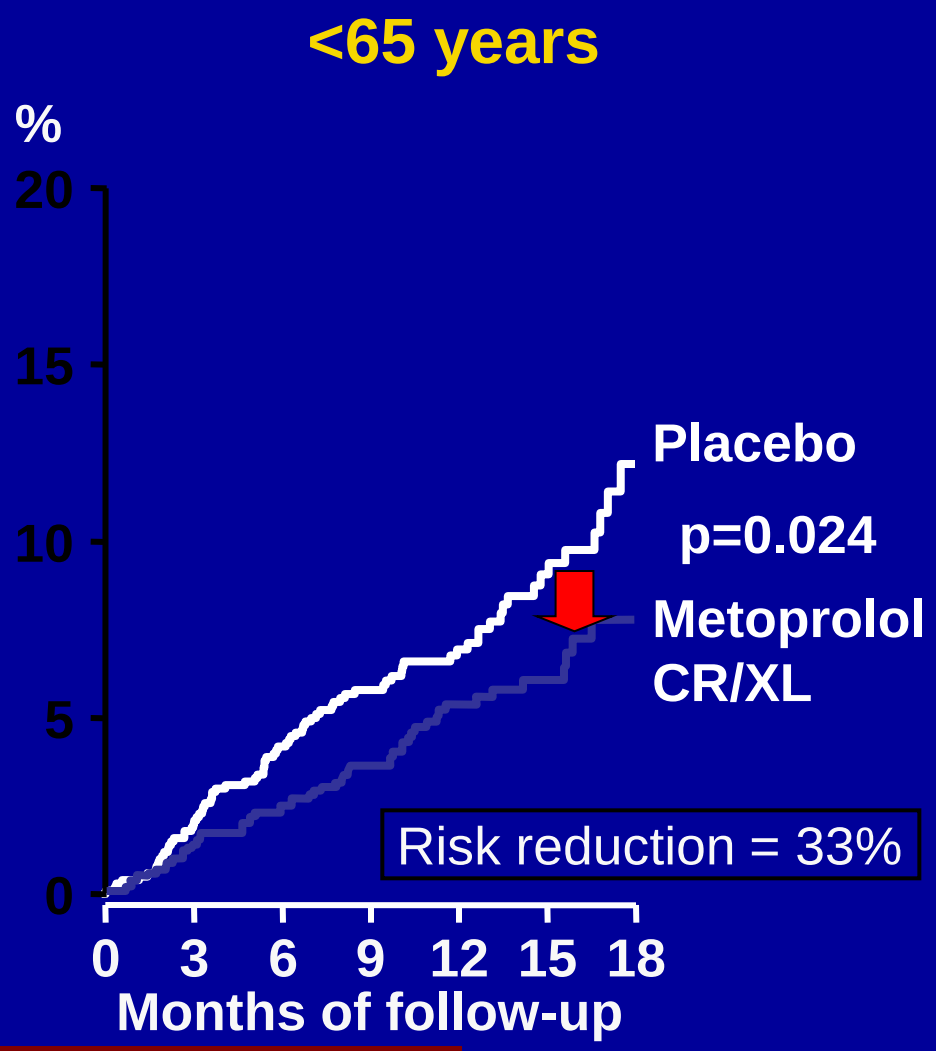
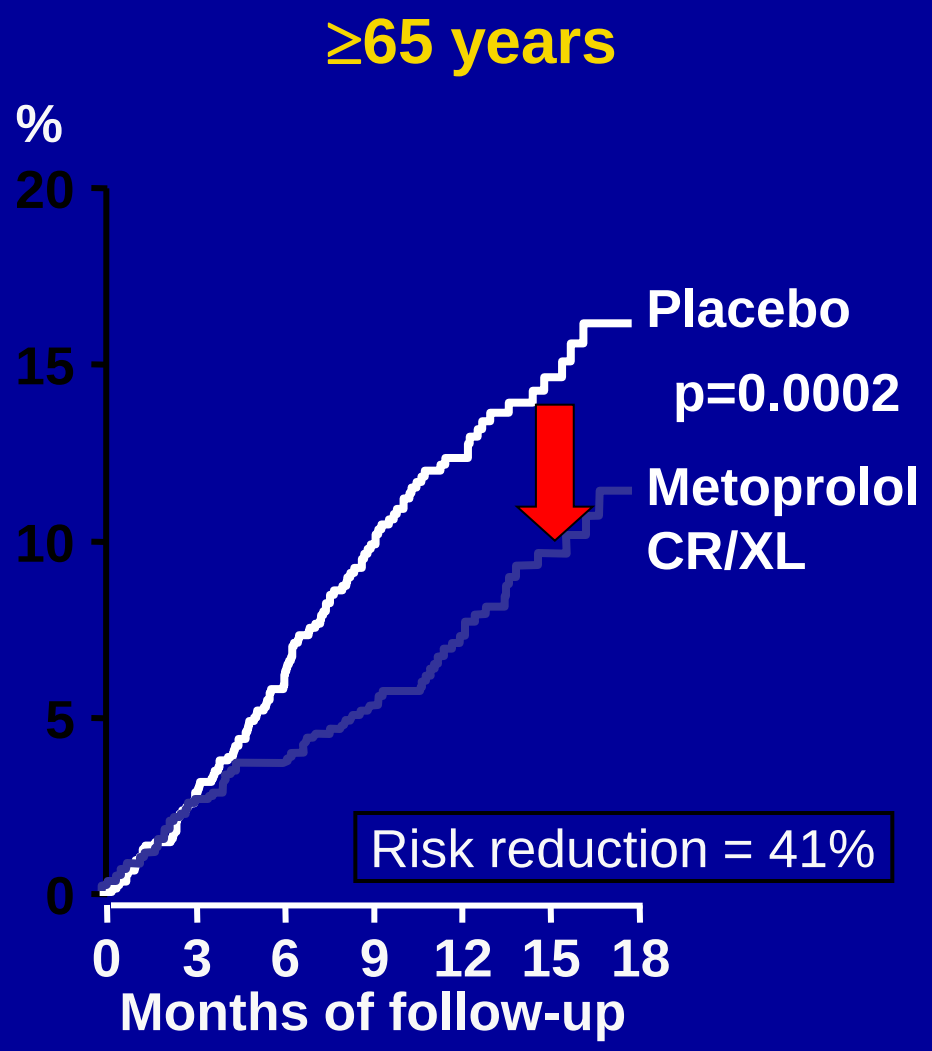
Post hoc analys!

Death from cardiovascular causes

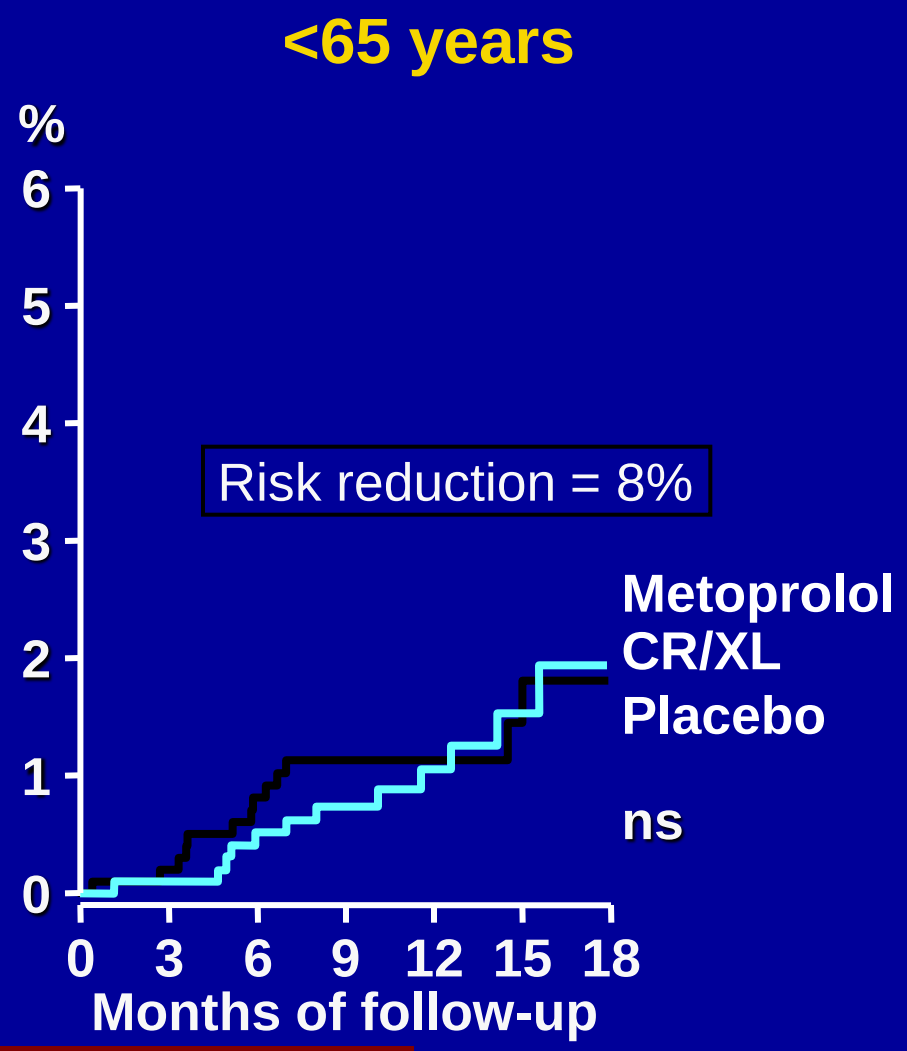


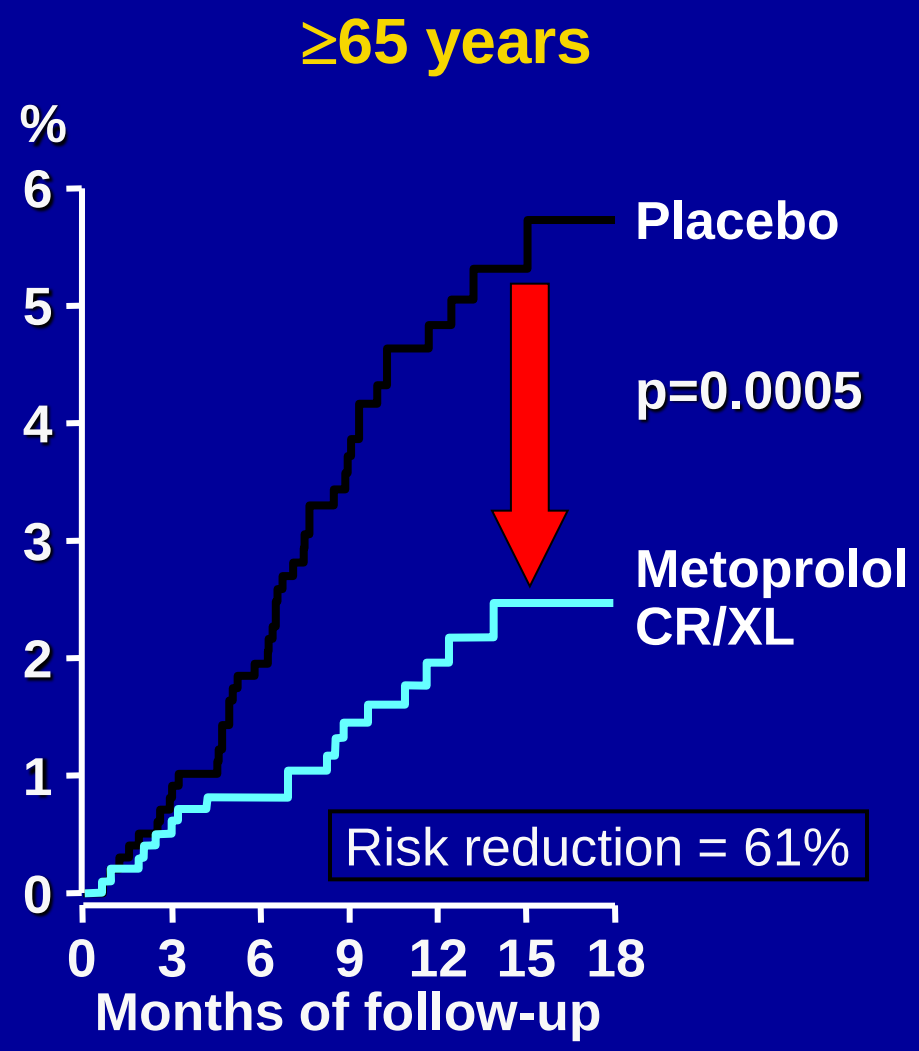


MERIT-HF

Deedwania P et al, Eur Heart J 2004;25:1300-9

Death from worsening heart failure





MERIT-HF

Deedwania P et al, Eur Heart J 2004;25:1300-9

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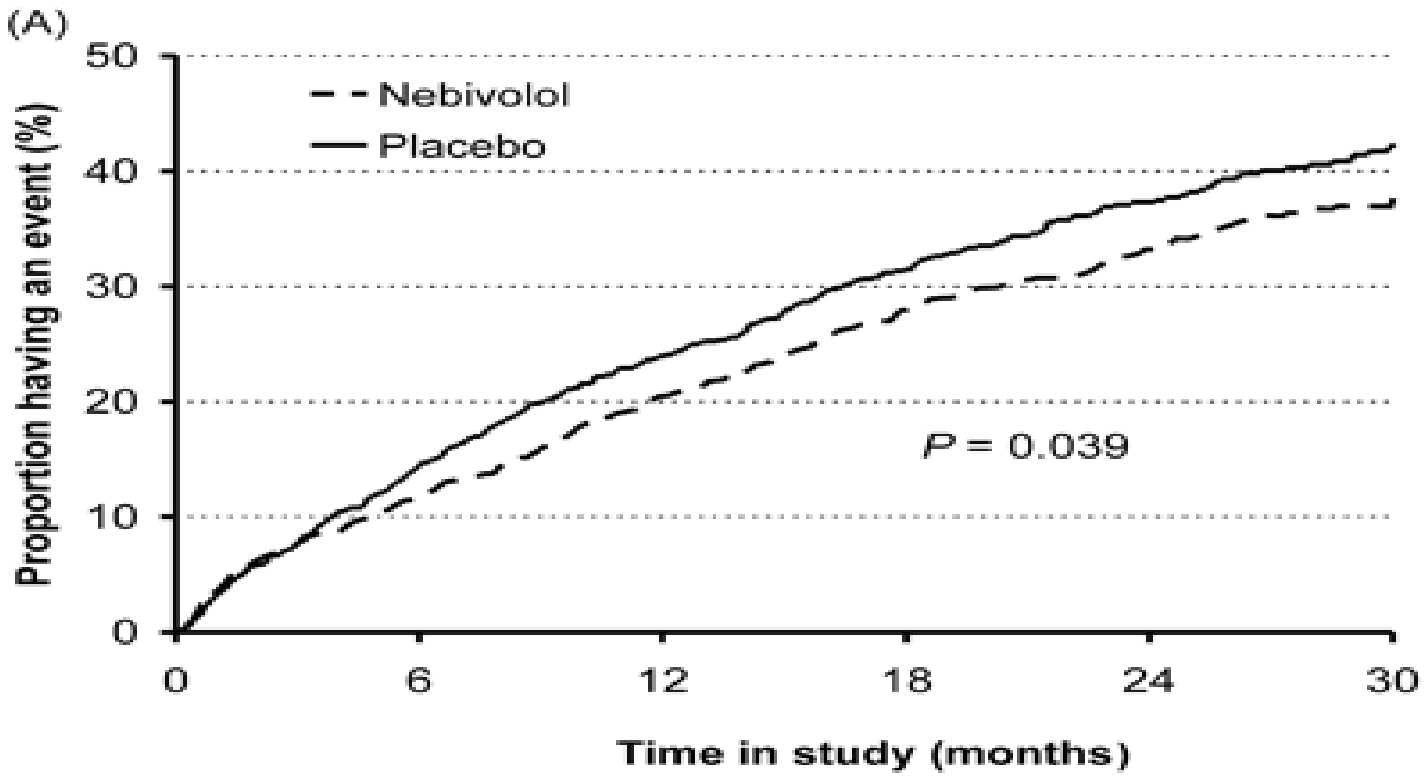
Prospective study !

The ONLY one !

SENIORS Nebivolol in the elderly



Number at risk

Nebivolol	1067	933	757	517	318	185
Placebo	1061	900	721	487	303	182

Flather et al., EHJ 2005

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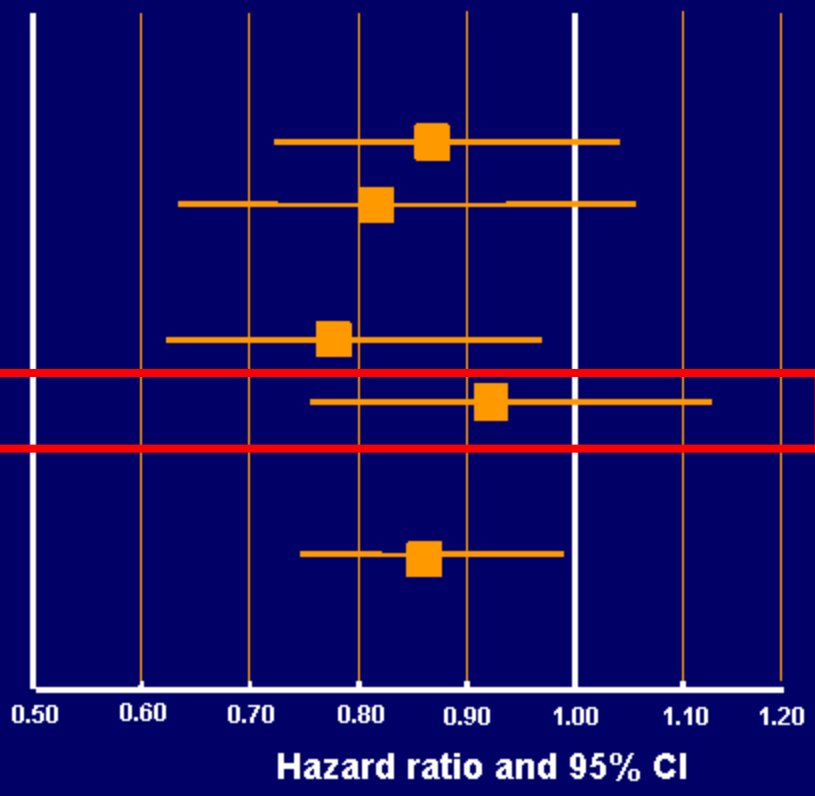
Death or CV Hospitalisation by Subgroup

	Nebivolol	Placebo
LVEF		
≤ 35 %	219 (32.1%)	249 (36.3%)
> 35 %	110 (28.9%)	125 (33.6%)
Age		
70-75 y	148 (27.5%)	176 (33.5%)
> 75 y	184 (34.8%)	199 (37.1%)
Total	332 (31.1%)	375 (35.3%)



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Effect of Beta blocker in the elderly

?

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RAAS Blockade

in elderly population with CHF

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Meta analys !

For systolic CHF in the elderly

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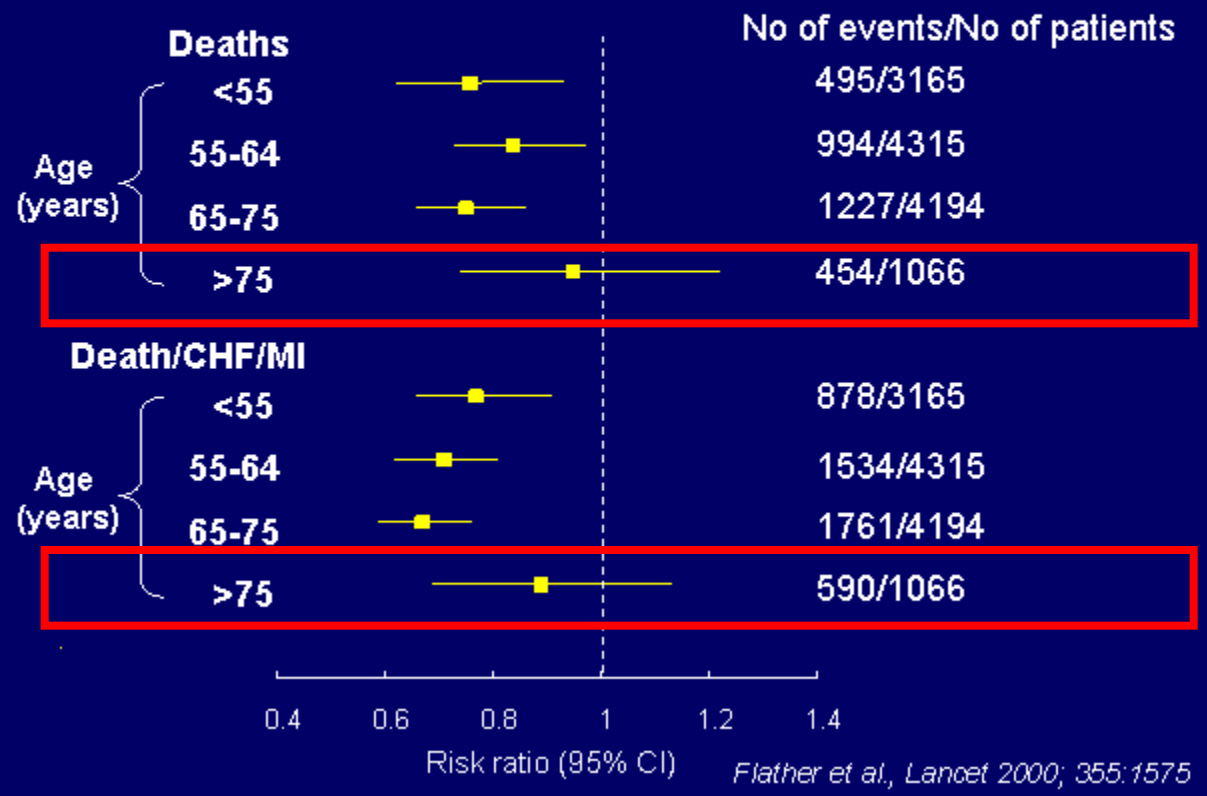
Effects of ACE inhibitors on outcome in patients subdivided on the basis of their age: Meta-analysis of the SOLVD, SAVE, AIRE and TRACE trials



Flather et al., Lancet 2000; 355:1575

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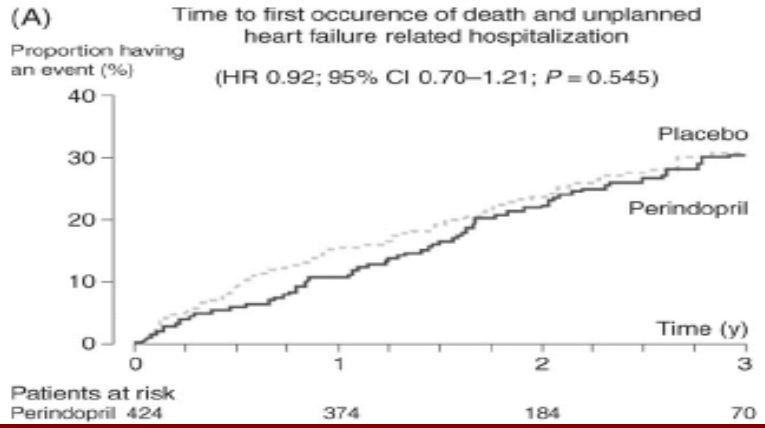
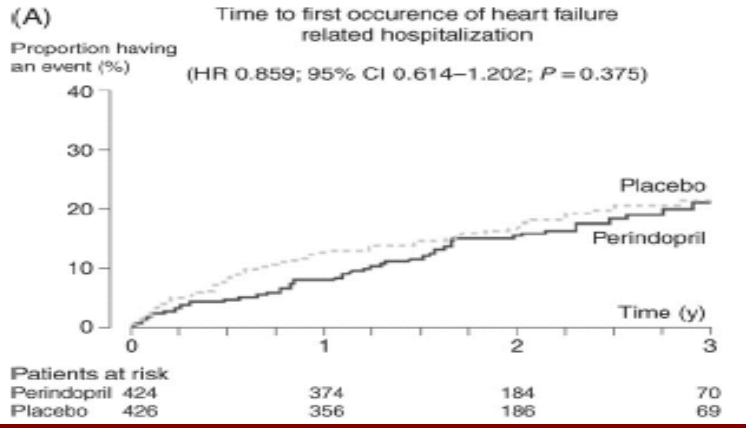
Prospective study !

The ONLY one !

FASTTRACK The perindopril in elderly people with chronic heart failure (PEP-CHF) study





No benefit in long-term mortality and morbidity but effect after 1 year

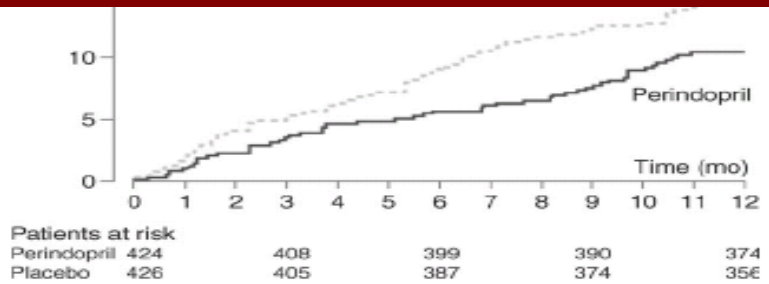


Figure 2 (A) Kaplan–Meier curves showing time to first occurrence of the primary endpoint, all-cause mortality or unplanned heart failure related hospitalization, for the entire duration of the study. (B) Kaplan–Meier curves showing time to first occurrence of primary endpoint events during the first year of follow-up during which most patients remained on their assigned therapy.

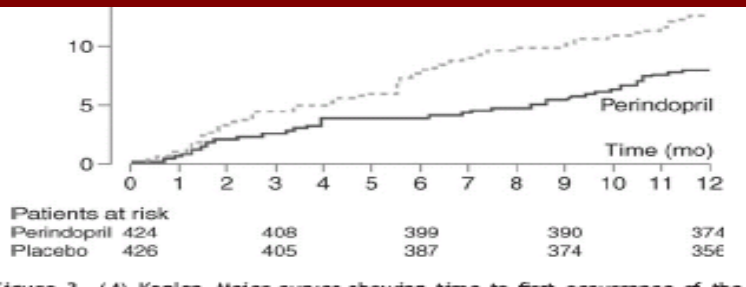


Figure 3 (A) Kaplan–Meier curves showing time to first occurrence of the pre-specified secondary endpoint, unplanned heart failure related hospitalization, for the entire duration of the study. (B) Kaplan–Meier curves showing time to first occurrence of the pre-specified secondary endpoint, unplanned heart failure related hospitalization, during the first year of follow-up during which most patients remained on their assigned therapy.

Cleland et al., Eur Heart J 2006

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Effect of RAAS blockade in the elderly

?

Effect of BB, ACEI, ARB

Effect of aldosteron antagonist

Effect of PCI/CABG

Effect of CRT/ICD

Usefulness of NTpro BNP

?

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Which is better

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Young

=

Old

≠

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What shall we do ?

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CHF in the elderly