Ictus e Ipertensione arteriosa

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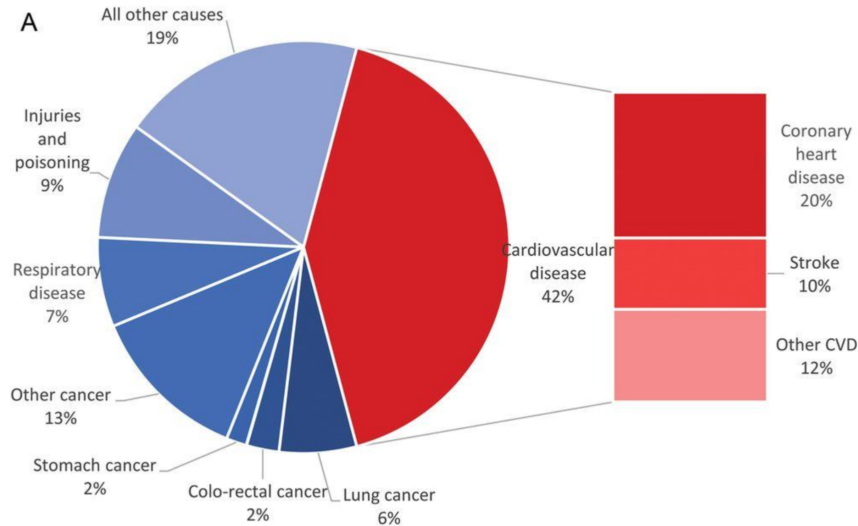
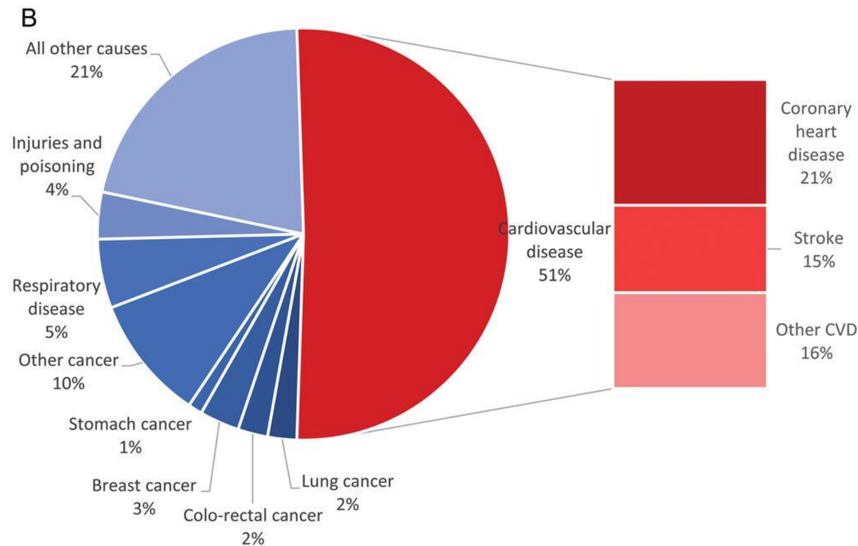
Proportion of all deaths due to major causes in Europe.

Average of latest available year.

Men



Women



European Heart Journal

Nichols M et al. Eur Heart J 2014;35:2950-2959

SPECIAL ISSUE
OVERCOMING
WHY WE EAT SO MUCH
THE ANTI-FAT CRUSADERS
WEIGHT-LOSS HEROES
WHAT TO TELL YOUR KIDS
A GUIDE TO DIET BOOKS
JACK ACTS HIS AGE!
ARE YOU AT RISK?

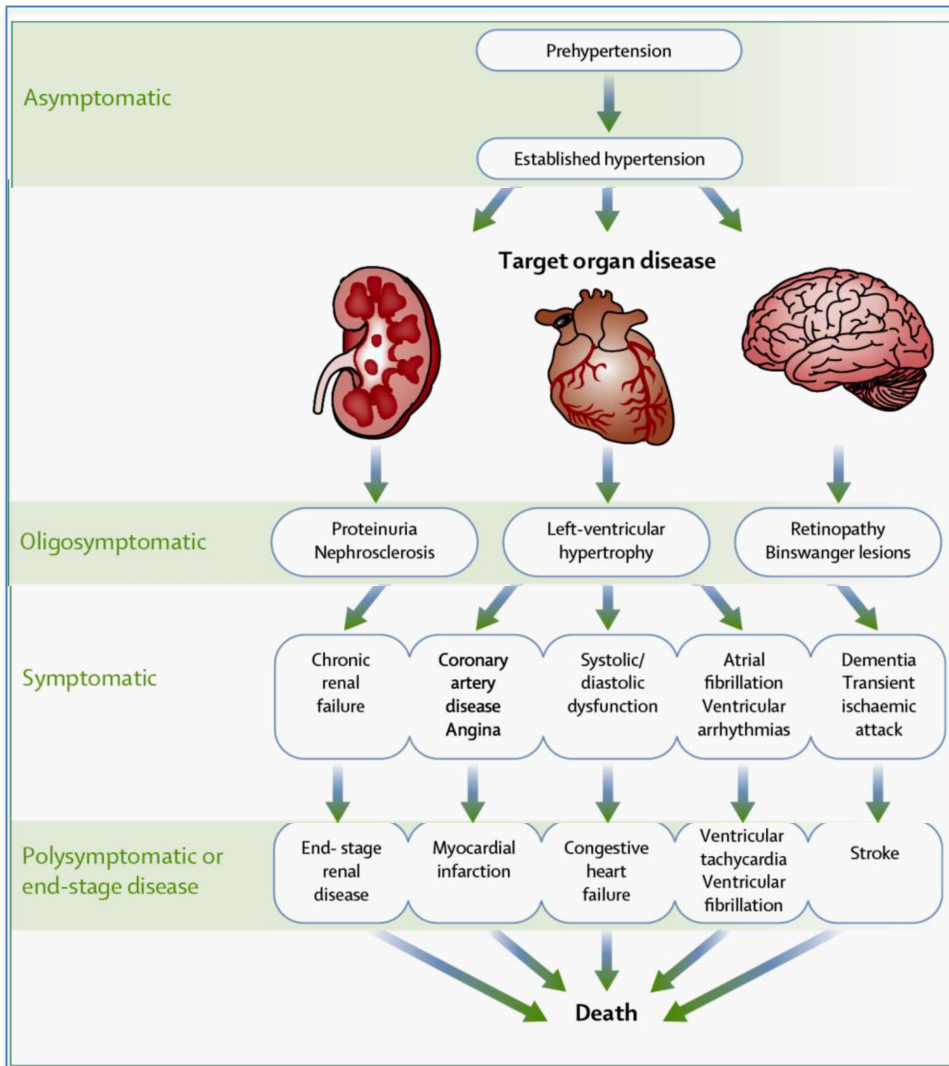
TIME
And Now the Bad News...

THE YEAR IN MEDICINE
TIME
THE STEALTH KILLER
Europe's HIGH BLOOD PRESSURE crisis is spinning out of control. Learn about it, treat it—and maybe save your life

Worldwide burden of HBP

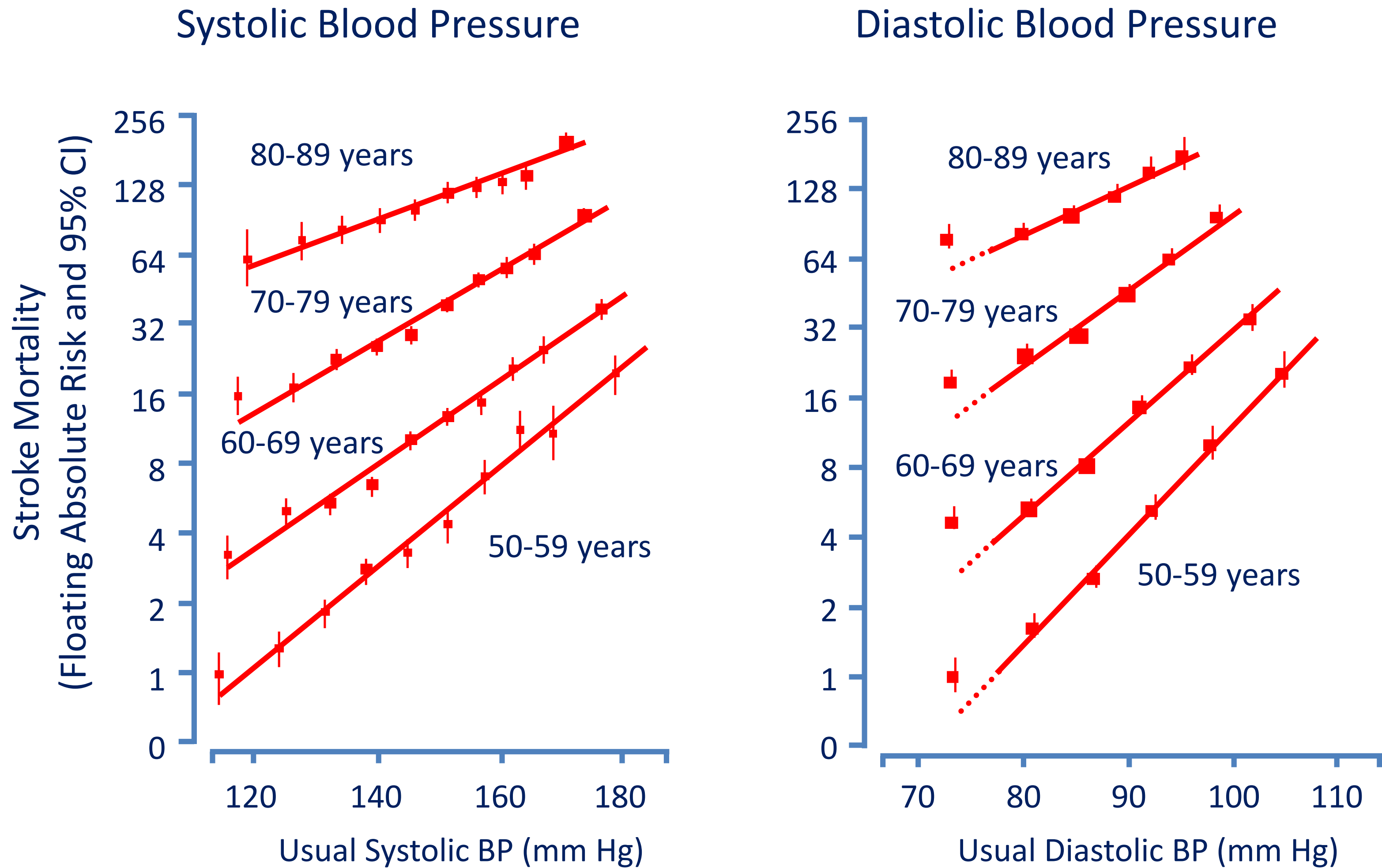
- HTN affects about **40% of the industrialized populations** and its **prevalence is increasing** in particular for high risk pts[1]
- According to WHO is the **1*st* leading cause of death**
- HTN is associated with **additional RF's** in over 80% of patients[2]
- HNT is a **co-morbid condition** in over 85% of cardiac patients[3]
- On a worldwide base, NTH is responsible for [4]:
  - **10.7 million** deaths each year (14.7% of total)
  - 6.3 millions of years of disability (4.4% of total)
  - **54% of Stroke** and 47% of CHD, ≈30% ESRD[5]

1. Lawes, Hoorn, Rodgers: Lancet 2008; 371: 1513-18
2. Banegas JR, Borghi C et al, Eur Heart J 2011
3. Arnett KD et al, Circulation 2014
4. Lim SS et al, The Lancet 2013:380: 2224 – 2260
5.US Renal Data System ,2015



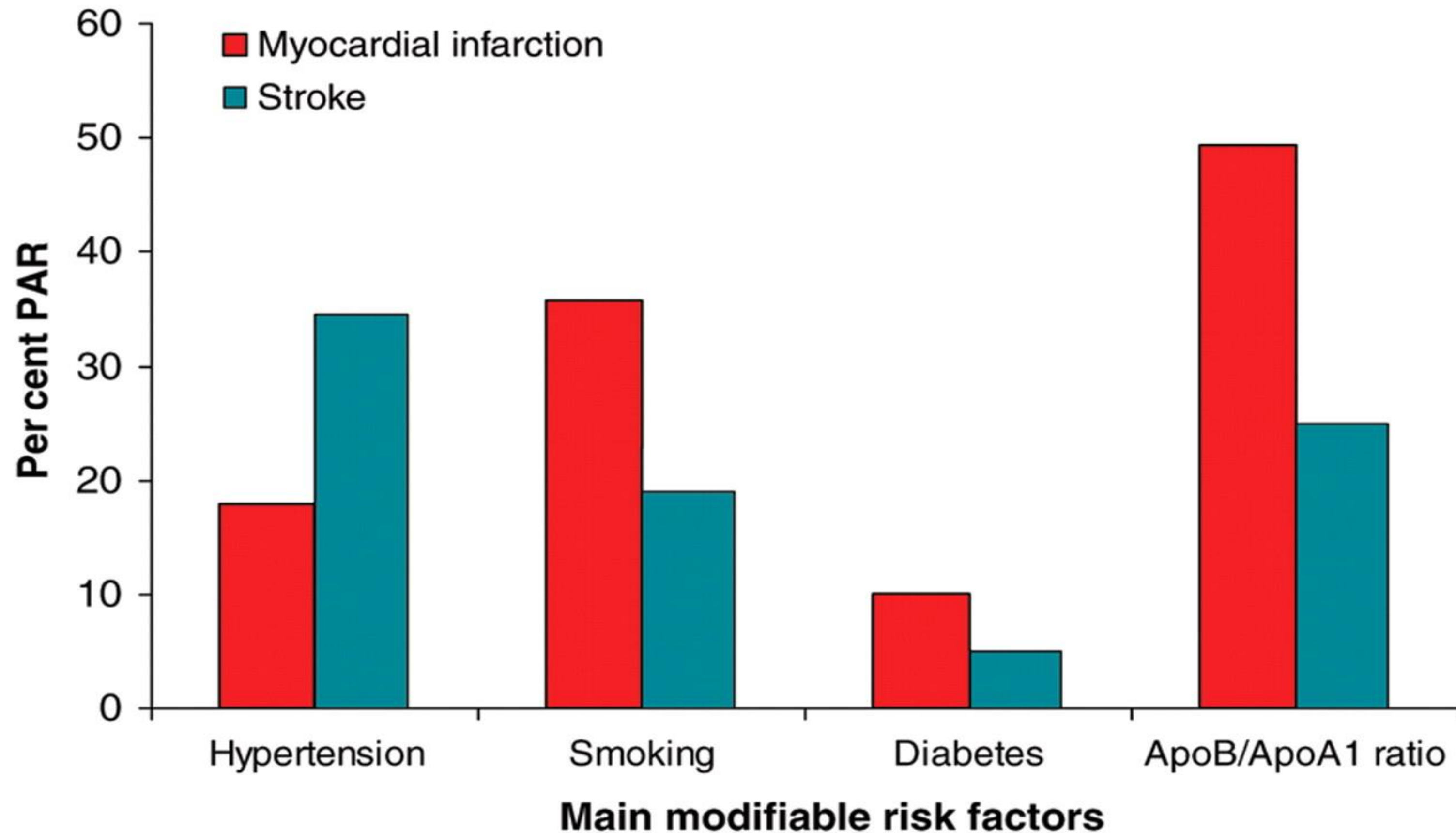
Mechanisms responsible for interactions between HTN and CVD

Stroke Mortality vs Usual BP by Age



Prospective Studies Collaboration. *Lancet*. 2002;360:1903-1913.

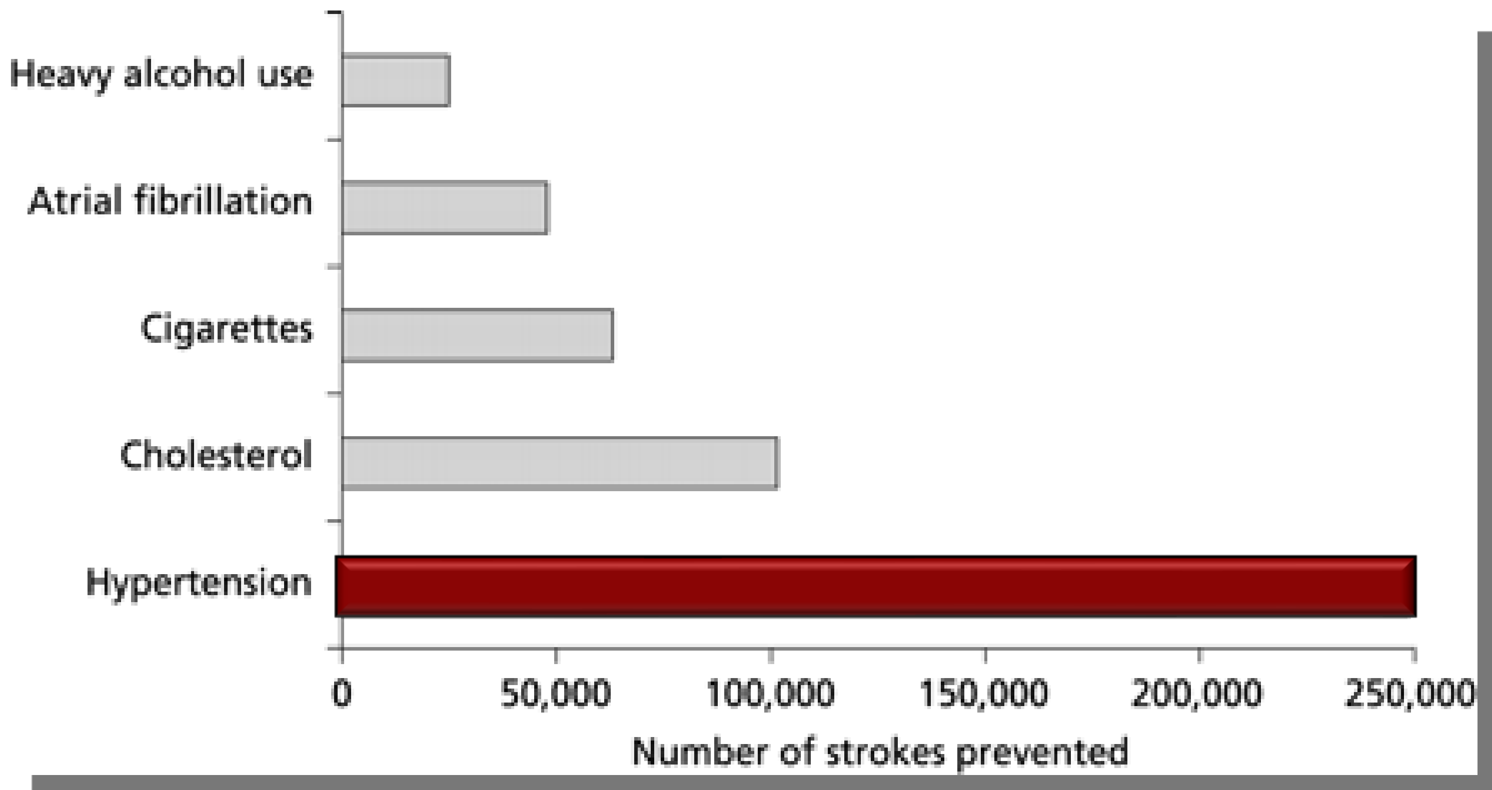
Percentage population attributable risk of main modifiable RF for AMI and stroke based on INTERHEART and INTERSTROKE studies



European Heart Journal

Endres M et al. Eur Heart J 2011;32:545-552

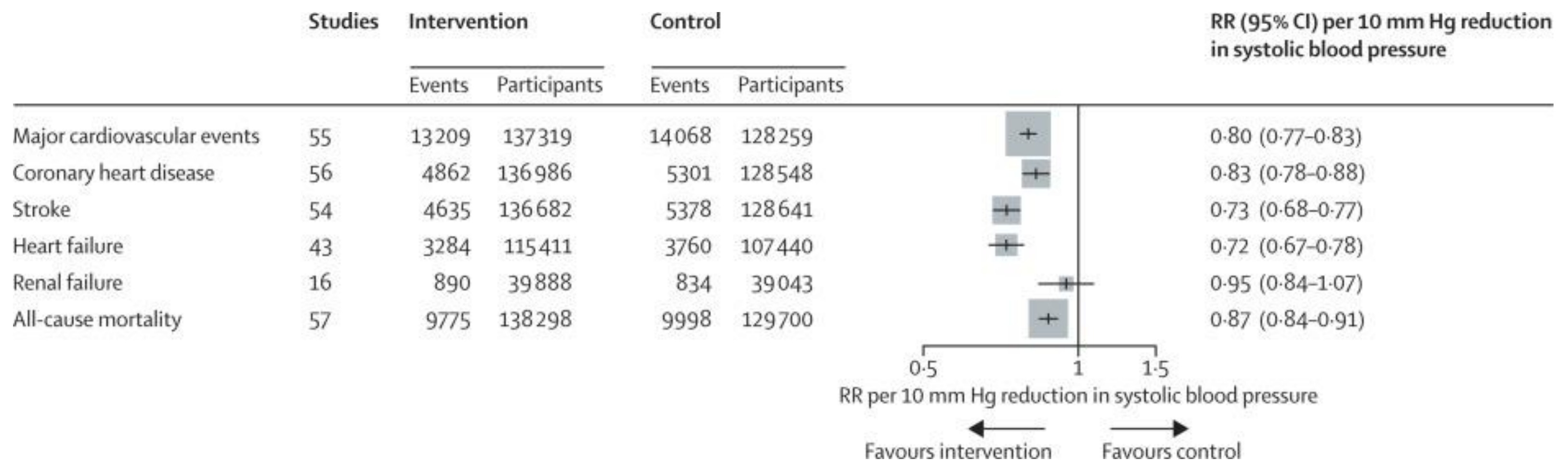
Number of strokes preventable in the USA by control of individual risk factors



Gorelick PB et Al., JAMA 1999

Standardised effects of a 10 mm Hg reduction in systolic blood pressure.

A systematic review and metanalysis of 123 studies and 613.815 patients

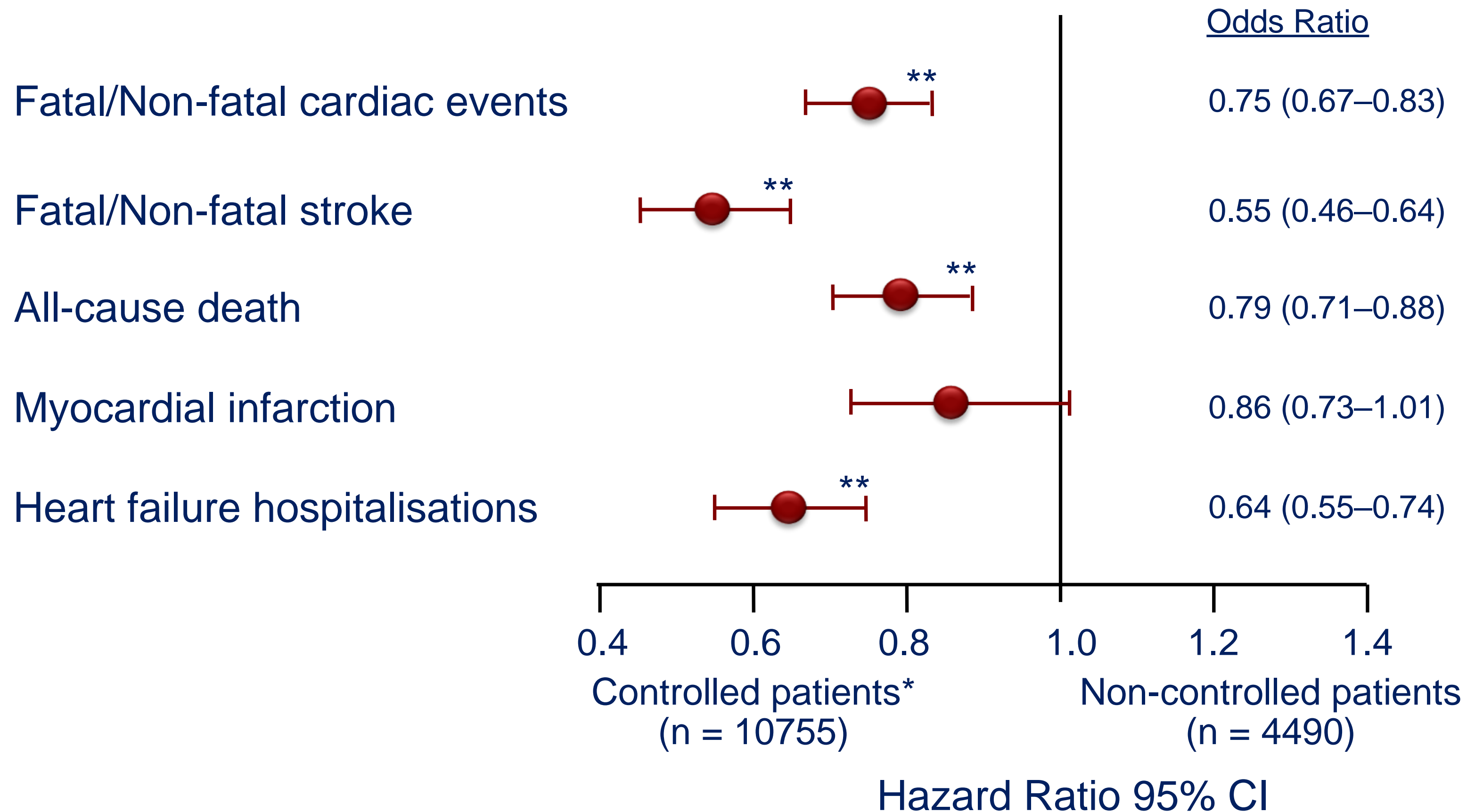


	Studies	Intervention		Control		RR (95% CI) per 10 mm Hg reduction in systolic blood pressure
		Events	Participants	Events	Participants	
Major cardiovascular events	55	13209	137319	14068	128259	0·80 (0·77–0·83)
Coronary heart disease	56	4862	136986	5301	128548	0·83 (0·78–0·88)
Stroke	54	4635	136682	5378	128641	0·73 (0·68–0·77)
Heart failure	43	3284	115411	3760	107440	0·72 (0·67–0·78)
Renal failure	16	890	39888	834	39043	0·95 (0·84–1·07)
All-cause mortality	57	9775	138298	9998	129700	0·87 (0·84–0·91)

Ettehad E et al, Lancet 2015 ,

VALUE: Analysis of Results Based on BP Control

Pooled Treatment Groups

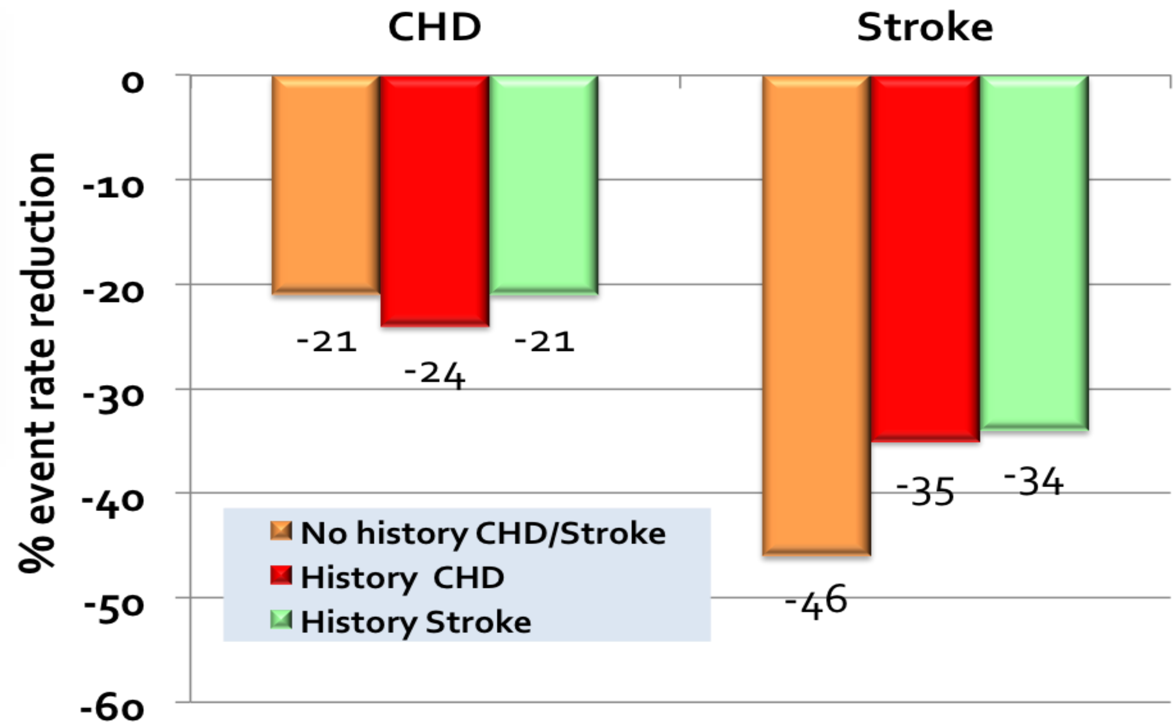


*SBP < 140 mmHg at 6 months.

***P* < 0.01.

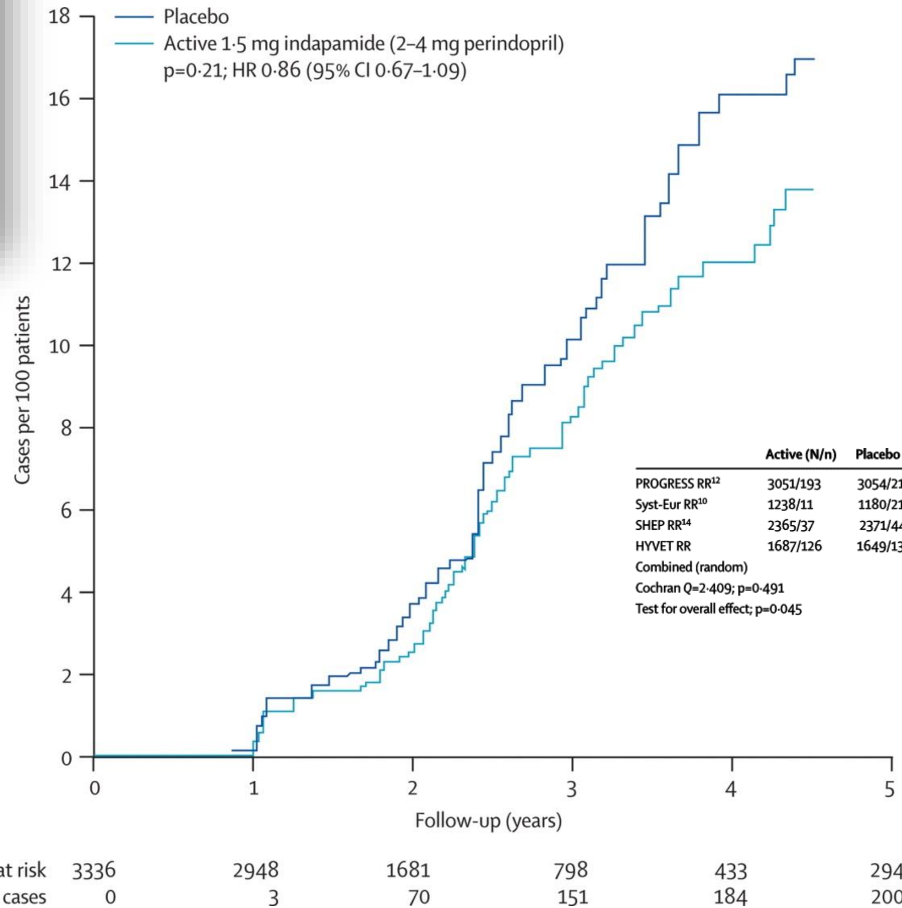
Weber MA et al. *Lancet.* 2004;363:2047–49.

Reduction in the rate of CHD and stroke for a BP reduction of 10 mm Hg SBP or 5 mm Hg DBP



Law, MR et al. BMJ 2009;338:b1665

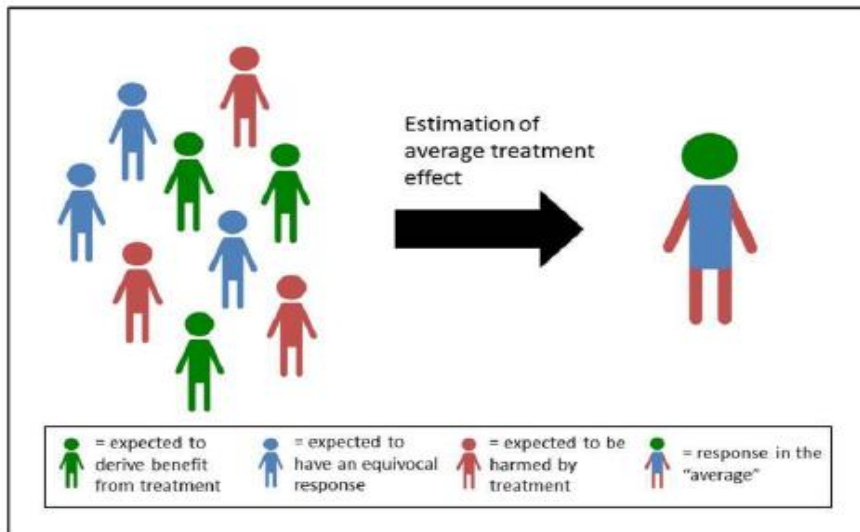
Incidence on dementia in the HYVET-COG study

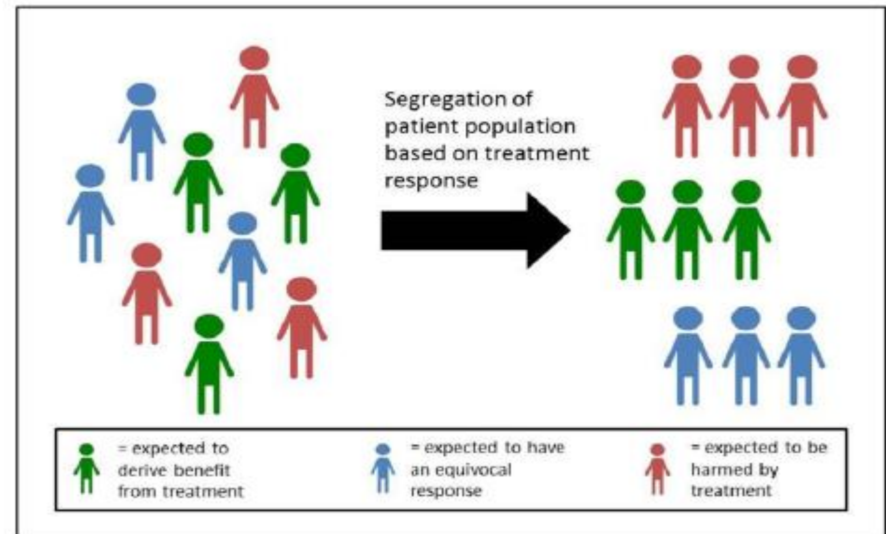


	Active (N/n)	Placebo (N/n)	Hazard ratio (95% CI)
PROGRESS RR[12]	3051/193	3054/217	0·89 (0·74–1·07)
Syst-Eur RR[10]	1238/11	1180/21	0·50 (0·25–1·02)
SHEP RR[14]	2365/37	2371/44	0·84 (0·55–1·30)
HYVET RR	1687/126	1649/137	0·90 (0·71–1·13)
Combined (random)			0·87 (0·76–1·00)
Cochran Q=2·409; p=0·491			
Test for overall effect; p=0·045			

Peters R et al, Lancet 2008

Average treatment effect in the population and identification of heterogeneity





Yeh RW et al, Circulation 2017

Ipertensione e Ictus: Sommario practico

- La ipertensione arteriosa si associa ad un aumento del rischio di ictus ischemico ed emorragico.
- L'aumento del rischio è proporzionale all'aumento della pressione arteriosa sistolica e diastolica
- Il rischio di ictus nei pazienti ipertesi è proporzionalemente maggiore di quello di infarto miocardico.
- La riduzione della pressione arteriosa si associa ad un ridotto rischio di ictus (-27%/ 10 mmHg di riduzione PA sistolica) soprattutto in coloro che raggiungono target di protezione (< 140/90 mmHg).
- Il vantaggio è evidente nei pazienti con e senza pregresso ictus e rallenta il deficit cognitivo.