



# Antagonista

10 a 13 de Maio  
Bahia Othon Palace Hotel  
Salvador - Bahia

## Manejo pressórico, evidencias em muito idosos

Congresso Baiano de Cardiologia- 2017

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Não tenho conflito de interesse.

# Conceito

- Muito Idoso  $\geq 85$  anos- 83% são hipertensos

Grau de fragilidade e de Co-morbidades

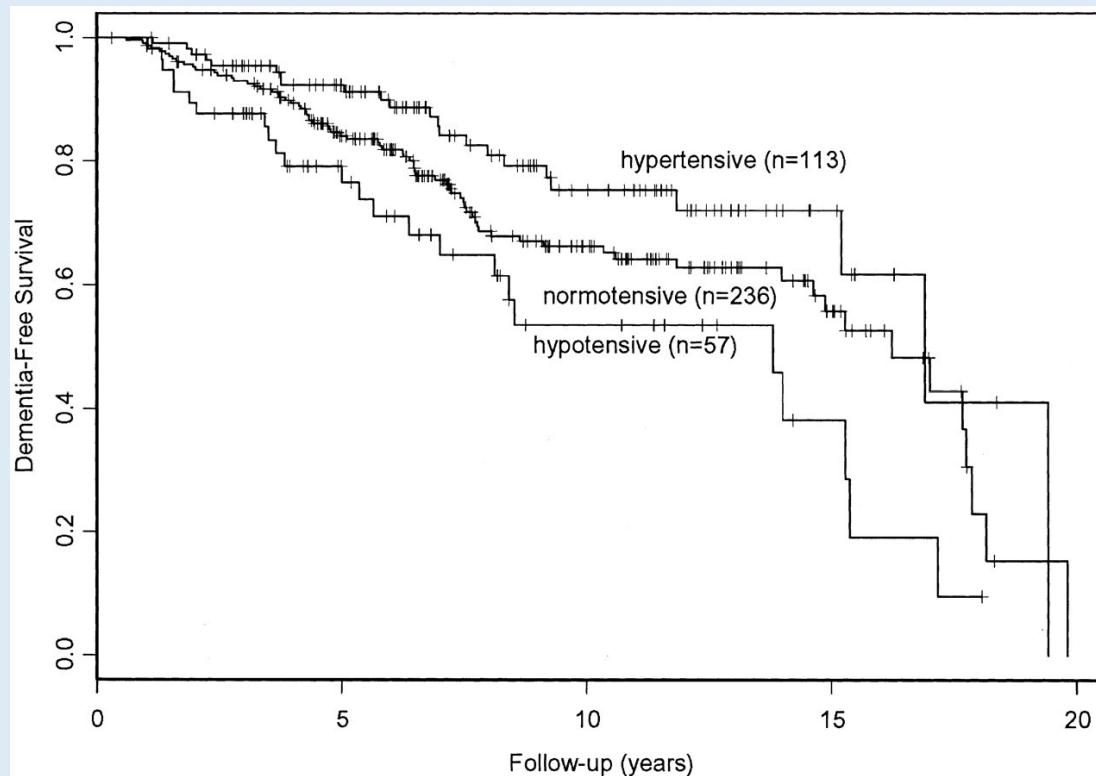


86 anos, caminha 40 min. por dia, administra uma empresa.



86 anos, Parkinson avançado, sequela de AVC, contato verbal mínimo, emagrecido e acamado

**Figure. Risk of developing any dementia in subjects with low (<70 mm Hg), normal (70 to 90 mm Hg), and high (>90 mm Hg) diastolic blood pressure at baseline.**



J. Verghese et al. Neurology 2003;61:1667-1672

©2003 by Lippincott Williams & Wilkins



# A rigidez aórtica e os episódios de hipotensão estão associados à função cognitiva prejudicada em indivíduos mais idosos com queixas subjetivas de perda de memória

## Objective

Though CV risk factors and markers of arterial aging are recognized risky for cognition, no study has simultaneously investigated the impact of multiple cardiac, arterial (large and small vessels), and hemodynamic parameters on cognitive function in older subjects.

## Methods

Two hundred eighty older subjects with subjective complaints of memory loss and no previous stroke (mean age  $78.3 \pm 6.3$  years) were studied. Global cognitive function was evaluated with the Mini-Mental State Examination (MMSE). Cognitive impairment was defined as a MMSE < 21. We measured: traditional CV risk factors; aorta stiffness (Pulse Wave Velocity, PWV); LV mass; presence of WML at neuroimaging; episodes of hypotension (SBP < 100 mm Hg during 24 h Ambulatory Blood Pressure Monitoring).

## Results

In both cross-sectional and longitudinal analyses PWV, WML, and episodes of hypotension were significantly associated with poorer cognitive function—controlling for age, sex, education, depression, traditional CV risk factors, and medications. LV mass was no longer associated with cognition in multiple regression. Older subjects with stiffer arteries or episodes of hypotension presented a 4-fold and an 11-fold, respectively, greater odds for progression from normal cognitive function to cognitive impairment. A synergistic effect between PWV, WML, and hypotension was observed: the occurrence of any two of PWV, WML, or hypotension was accompanied by lower MMSE; in the presence of all three factors, a further significant decline in cognitive function was observed.

International Journal of Cardiology

Volume 169, Issue 5, 20 November 2013, Pages 371–377

## Caso clinico

MCC, 93 A.

QP: Mal estar que a despertava a noite. Exame físico- PA=152/88 casual(consultório) medidas em casa normais, ausência de Hipotensão postural.

Usando diurético tiazídico 12,5mg, BRA 20mg e Anlodipino 2,5mg

**Mapa ao lado**

#### Suspenso BRA e anlodipino

mantido tiazídico pela manhã e IECA à noite.

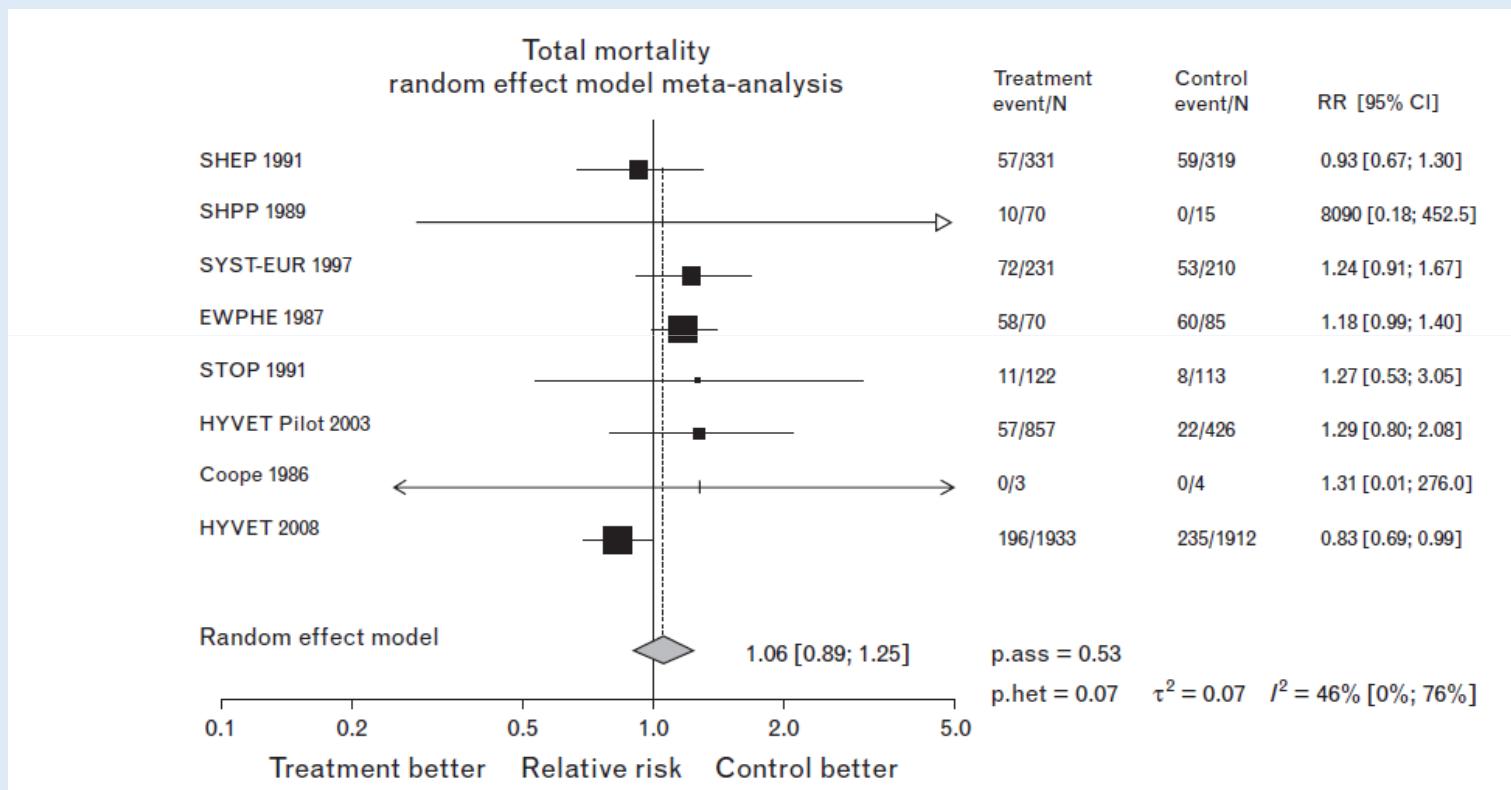
Sem queixas. Aguardando novo MAPA para comparação.

PA=96/58mmHg. as 17;45 3;00h de madrugada

Tabela das Medições							
Nº do Exame	Paciente:	Data de Instalação: 28/03/2017 16:21:02					
		PA	PAZ	ZAM	ESP	AC	Comentários
1	16:39	187	85	131	102	71	Medição manual
2	17:00	218	89	148	129	81	
3	17:15	125	69	121	113	82	
4	17:30	154	70	112	91	91	
5	17:48	96	58	76	38	85	
6	18:00	158	74	112	82	83	
7	18:33	194	84	134	110	96	
8	18:45	121	91	137	100	93	
9	19:00	137	59	95	78	88	
10	19:15	138	71	101	65	91	
11	19:30	168	70	115	97	87	
12	19:45	144	71	105	73	86	
13	20:00	128	59	91	69	80	
14	20:30	111	66	86	45	82	
15	20:45	104	63	82	41	73	
16	21:00	120	54	84	66	72	
17	21:15	156	68	108	88	69	
18	21:30	142	67	101	75	67	
19	21:48	181	97	136	84	85	
20	22:00	153	70	108	83	76	
21	22:15	140	71	103	69	75	
22	22:30	178	80	125	98	74	

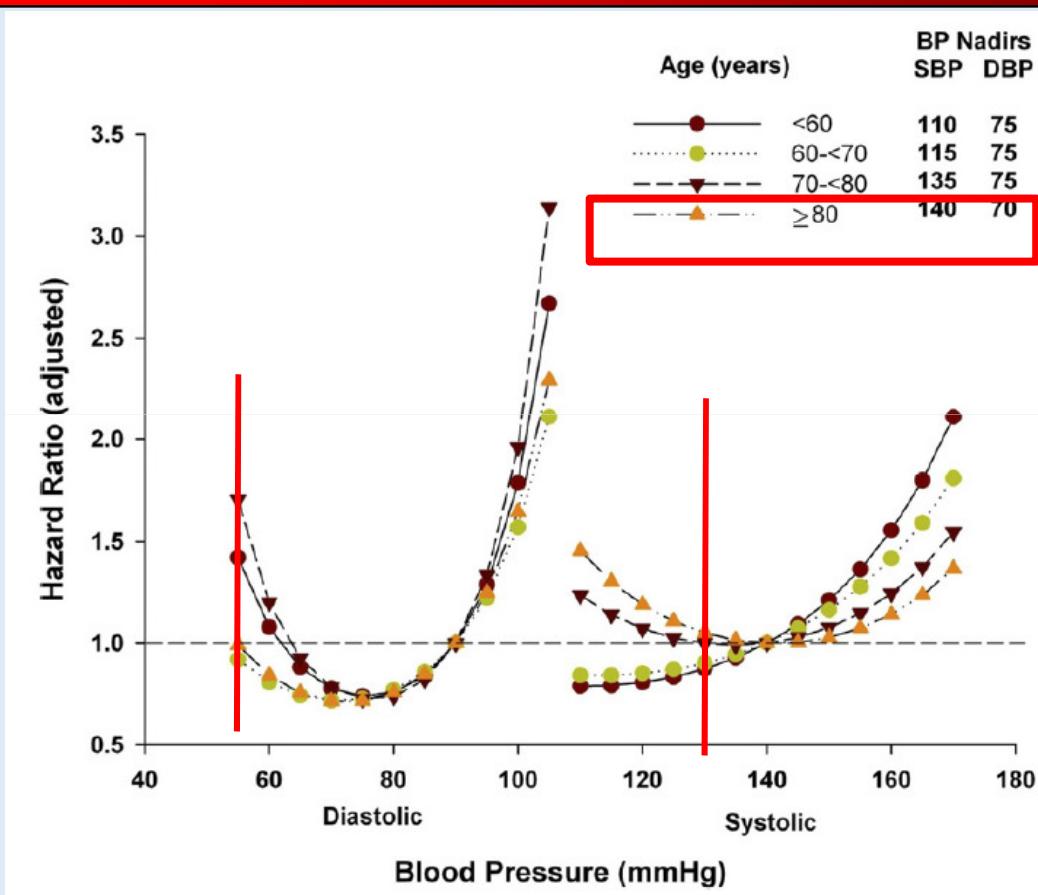
# Hipertensão Arterial no doente muito idoso

8  
estudos  
ate 2010



Journal of Hypertension 2010, 28:1366–1372

## Risco de Eventos Adversos por Idade e PA



ACCF/AHA 2011 Hypertension in the Elderly. JACC 2011; 57(20): 2037-2114

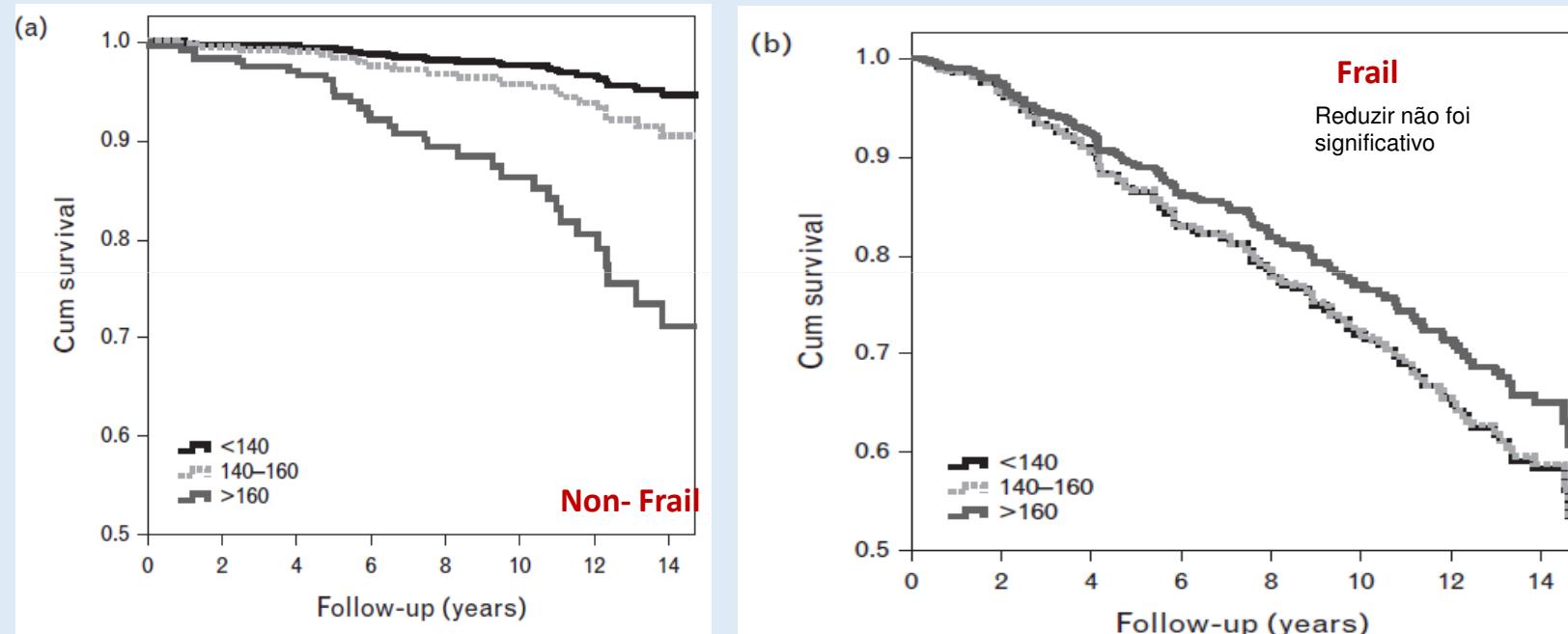
# Hipertensão Arterial no hipertenso idoso

## Blood pressure goals in hypertensive patients

Recommendations	Class <sup>a</sup>	Level <sup>b</sup>	Ref. <sup>c</sup>
A SBP goal <140 mmHg:			
a) is recommended in patients at low–moderate CV risk;	I	B	266, 269, 270
b) is recommended in patients with diabetes;	I	A	270, 275, 276
c) should be considered in patients with previous stroke or TIA;	IIa	B	296, 297
d) should be considered in patients with CHD;	IIa	B	141, 265
e) should be considered in patients with diabetic or non-diabetic CKD.	IIa	B	312, 313
In elderly hypertensives less than 80 years old with SBP $\geq$ 160 mmHg there is solid evidence to recommend reducing SBP to between 150 and 140 mmHg.	I	A	265
In fit elderly patients less than 80 years old SBP values <140 mmHg may be considered, whereas in the fragile elderly population SBP goals should be adapted to individual tolerability.	IIb	C	-
In individuals older than 80 years and with initial SBP $\geq$ 160 mmHg, it is recommended to reduce SBP to between 150 and 140 mmHg provided they are in good physical and mental conditions.	I	B	287
A DBP target of <90 mmHg is always recommended, except in patients with diabetes, in whom values <85 mmHg are recommended. It should nevertheless be considered that DBP values between 80 and 85 mmHg are safe and well tolerated.	I	A	269, 290, 293

Journal of Hypertension 2013, 31:1281–1357

# Hipertensão Arterial no doente idoso e muito idoso

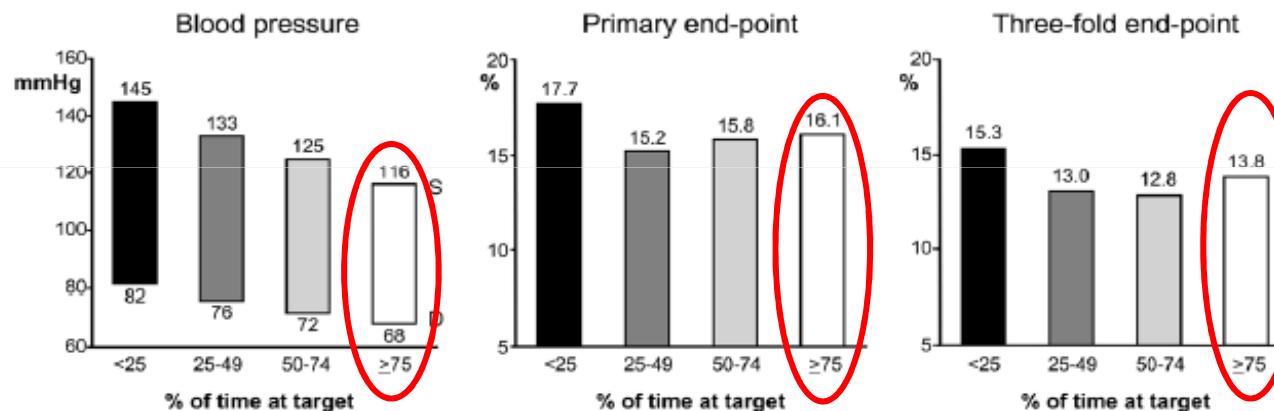


**FIGURE 1** Survival curves. SBP and cardiovascular mortality in both the (a) nonfrail and (b) frail patients aged 60 years and older. RR, relative risk.

Journal of Hypertension 2015, 33:000–000

## CONTROVERSIES IN HYPERTENSION

### Aggressive Blood Pressure Lowering Is Dangerous: The J-Curve



**Figure 2.** Incidence of cardiovascular outcomes (primary end point) according to the percentage of visits in which blood pressure (BP) was reduced to <130/80 mmHg with resulting different on-treatment mean BP values (left). The 3-fold end point to cardiovascular morbidity and mortality except for incident heart failure. D indicates diastolic; and S, systolic. Data from the ONTARGET trial. Adapted with permission from Mancia et al.<sup>28</sup> Authorization for this adaptation has been obtained both from the owner of the copyright in the original work and from the owner of copyright in the translation or adaptation.

Mancia e Yusuf Lancet 2015

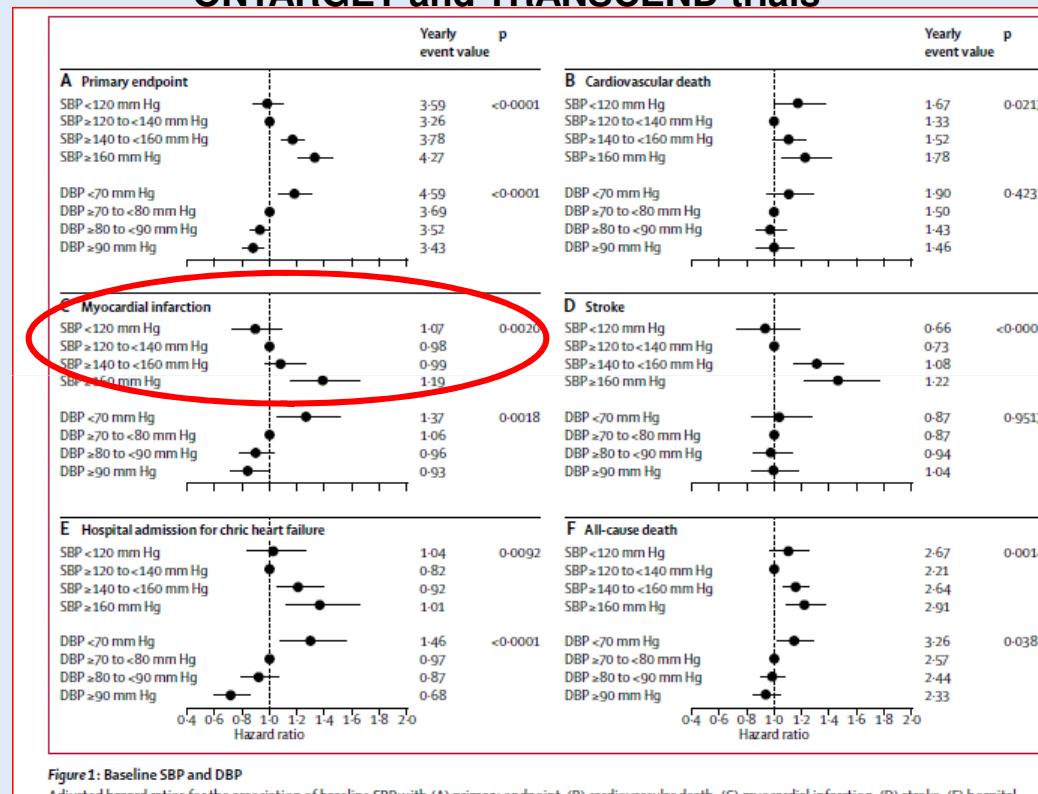
## Estudo SPRINT – Eventos Adversos

**Table 3.** Serious Adverse Events, Conditions of Interest, and Monitored Clinical Events.

Variable	Intensive Treatment (N = 4678)	Standard Treatment (N = 4683)	Hazard Ratio	P Value
<i>no. of patients (%)</i>				
Serious adverse event*	1793 (38.3)	1736 (37.1)	1.04	0.25
Conditions of interest				
Serious adverse event only				
Hypotension	110 (2.4)	66 (1.4)	1.67	0.001
Syncope	107 (2.3)	80 (1.7)	1.33	0.05
Bradycardia	87 (1.9)	73 (1.6)	1.19	0.28
Electrolyte abnormality	144 (3.1)	107 (2.3)	1.35	0.02
Injurious fall†	105 (2.2)	110 (2.3)	0.95	0.71
Acute kidney injury or acute renal failure‡	193 (4.1)	117 (2.5)	1.66	<0.001
Emergency department visit or serious adverse event				
Hypotension	158 (3.4)	93 (2.0)	1.70	<0.001
Syncope	163 (3.5)	113 (2.4)	1.44	0.003
Bradycardia	104 (2.2)	83 (1.8)	1.25	0.13
Electrolyte abnormality	177 (3.8)	129 (2.8)	1.38	0.006
Injurious fall†	334 (7.1)	332 (7.1)	1.00	0.97
Acute kidney injury or acute renal failure‡	204 (4.4)	120 (2.6)	1.71	<0.001
Monitored clinical events				
Adverse laboratory measure§				
Serum sodium <130 mmol/liter	180 (3.8)	100 (2.1)	1.76	<0.001
Serum sodium >150 mmol/liter	6 (0.1)	0	0.02	
Serum potassium <3.0 mmol/liter	114 (2.4)	74 (1.6)	1.50	0.006
Serum potassium >5.5 mmol/liter	176 (3.8)	171 (3.7)	1.00	0.97
Orthostatic hypotension¶				
Alone	777 (16.6)	857 (18.3)	0.88	0.01
With dizziness	62 (1.3)	71 (1.5)	0.85	0.35

SPRINT Study. N Engl J Med 2015; 9 Nov. DOI: 10.1056/NEJMoa1511939

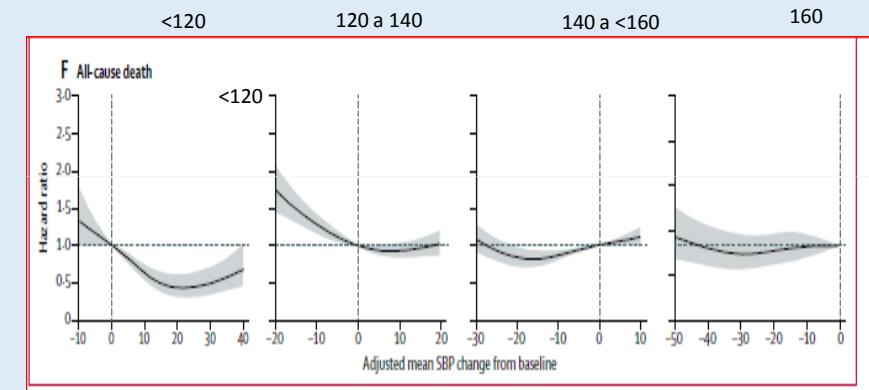
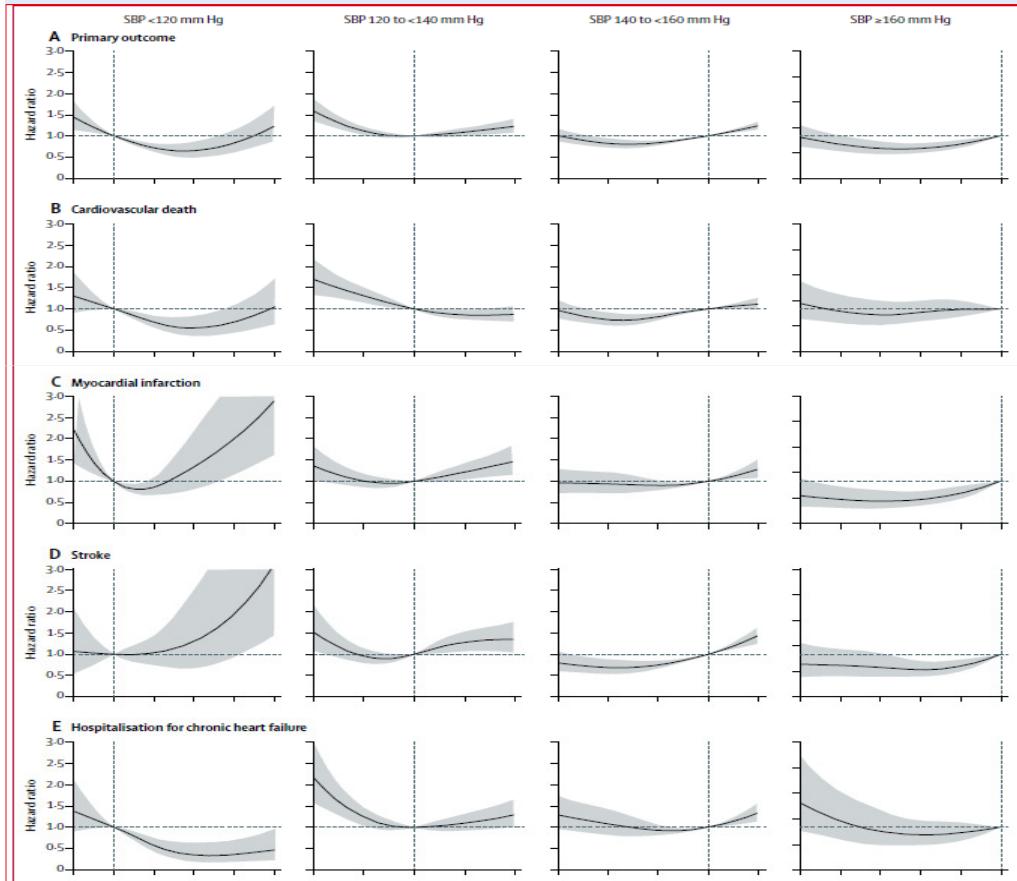
## Achieved blood pressure and cardiovascular outcomes in high-risk patients: results from ONTARGET and TRANSCEND trials



Mancia e Yusuf, Lancet  
2017 Abril

# Achieved blood pressure and cardiovascular outcomes in high-risk patients: results from ONTARGET and TRANSCEND trials

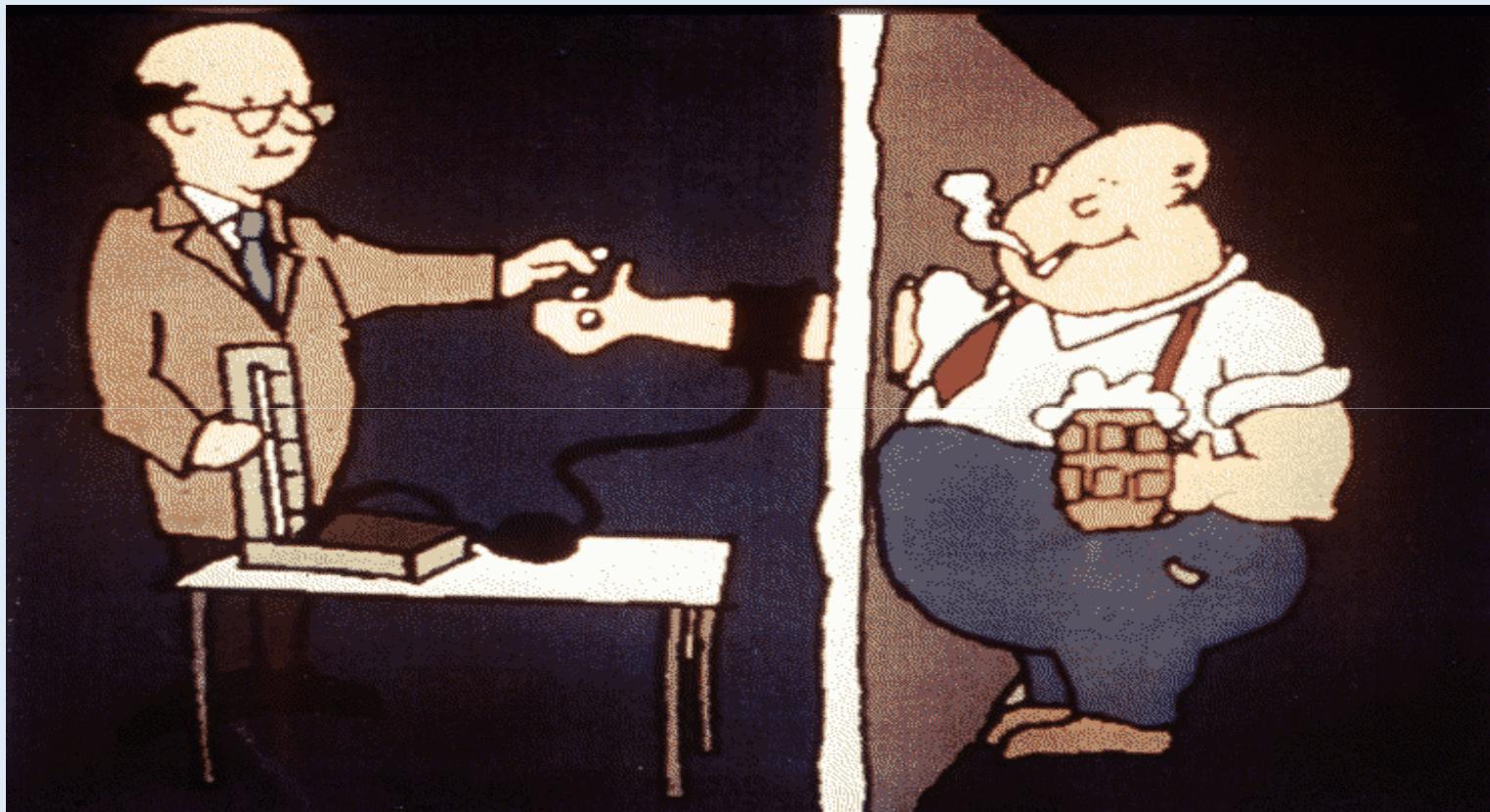
Mancia e Yusuf Lancet 2017 Abril



**Figure 5: Hazard ratios according to changes from baseline in mean achieved SBP, separately for SBP groups at baseline**

Cubic splines for the adjusted hazard ratios for changes in SBP for different groups at baseline for (A) primary endpoint, (B) cardiovascular death, (C) myocardial infarction, (D) stroke, (E) hospital admission for chronic heart failure, and (F) all-cause death. Shaded areas indicate 95% CIs. The analyses were adjusted for heart rate, age, sex, body-mass index, renal function, physical activity, education, alcohol consumption, tobacco use, history of hypertension, history of diabetes, myocardial infarction, stroke or transient ischaemic attack, heart rhythm, concomitant medications, study, and study medications. SBP=systolic blood pressure

## Tratar o Paciente ou Tratar a PA



Manter PAS entre 120 e 139mmHG nos frágeis em geral e 110 e 129 no hígidos