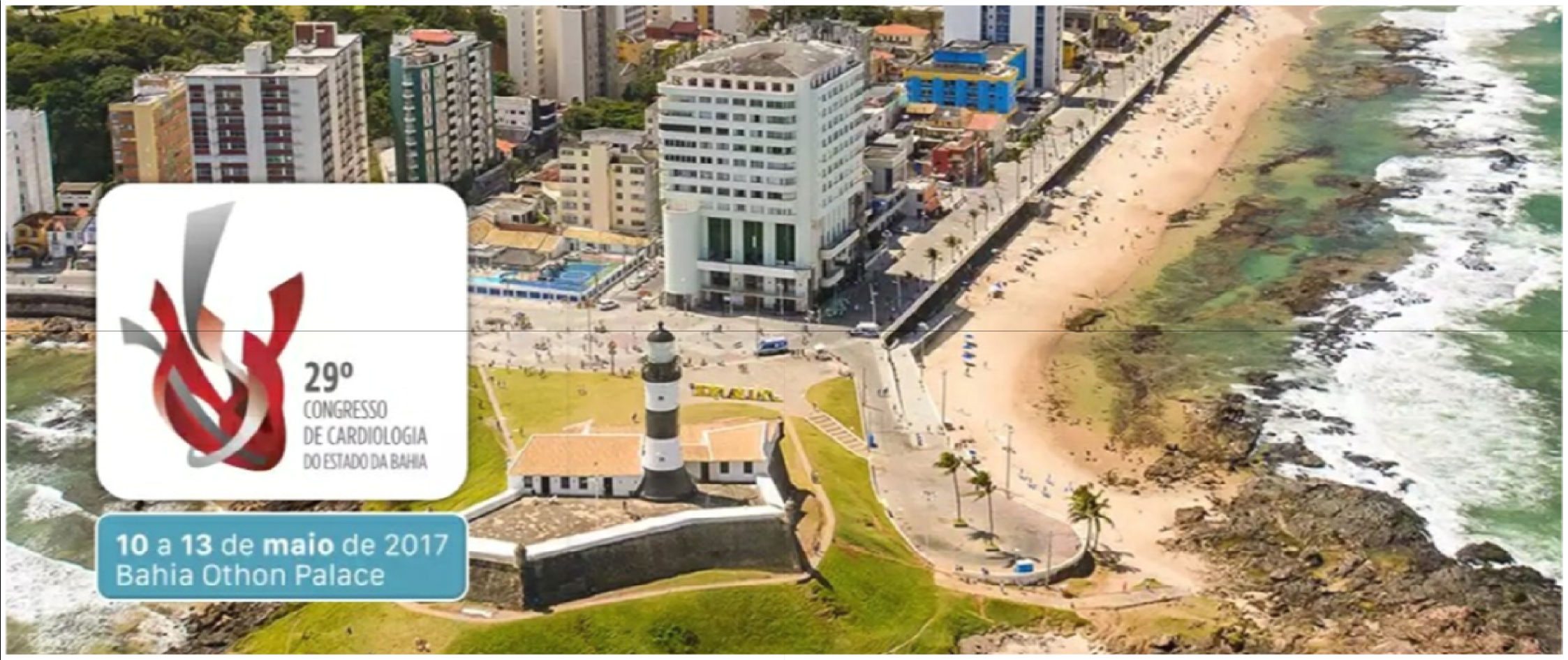


Paciente com DM, HAS e DAC (IAM recente), HBAC 7%, IMC 42: A curva J teria importância no tratamento deste paciente?

Claudio Marcelo B. das Virgens

Salvador, 11 de maio de 2017

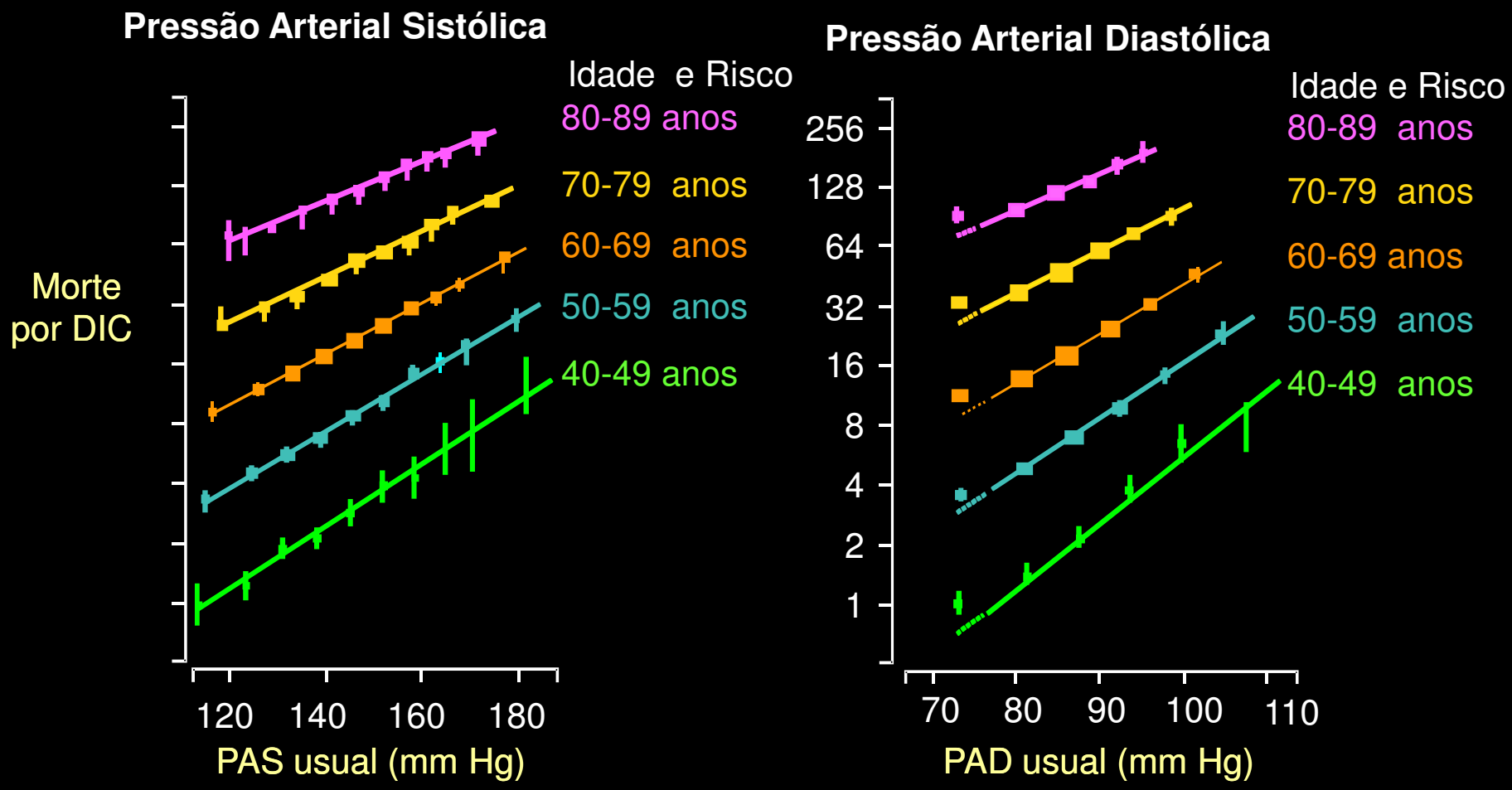
Resolução 1595/2000 do Conselho Federal de Medicina
Declaração de potencial conflito de interesses

Ausência de conflitos de interesse em relação ao tema da conferência

Claudio Marcelo B. das Virgens

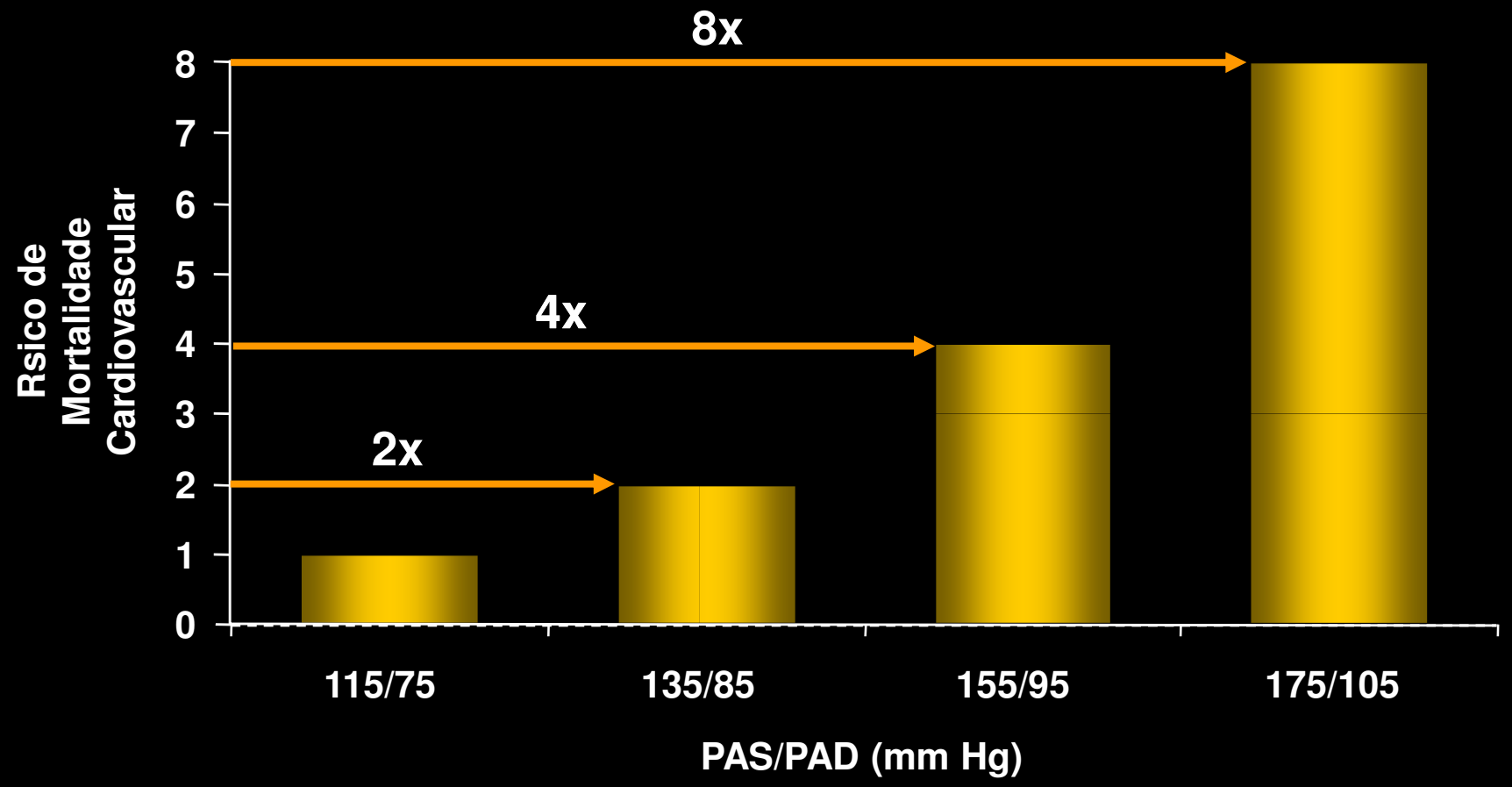
“Lower SBP and DBP Is Better”

Freqüência de Doença Cardíaca Isquêmica por PAS, PAD e Idade



Lewington S et al. *Lancet*. 2002;360(9349):1903-1913.

O Risco de Mortalidade Cardiovaslcular Dobra a Cada Aumento de 20/10 mm Hg da Pressão Arterial*



PAS = Pressão Arterial Sistólica; PAD = Pressão Arterial Diastólica.
*idade 40-69 anos, PA de início 115/75 mm Hg

Chobanian AV et al. *JAMA*. 2003;289:2560-2572.
Lewington S et al. *Lancet*. 2002;360:1903-1913

Dados Epidemiológicos

Principais causas de mortalidades

Lotufo, PA. RSOCESP 1996, 6: 541-7

Hipertens Riesgo Vasc. 2015;32(2):71–82

ELSEVIER

Hipertensión
y riesgo vascular

www.elsevier.es/hipertension

REVIEW

Optimal blood pressure targets in 2014 – Does the guideline recommendation match the evidence base?

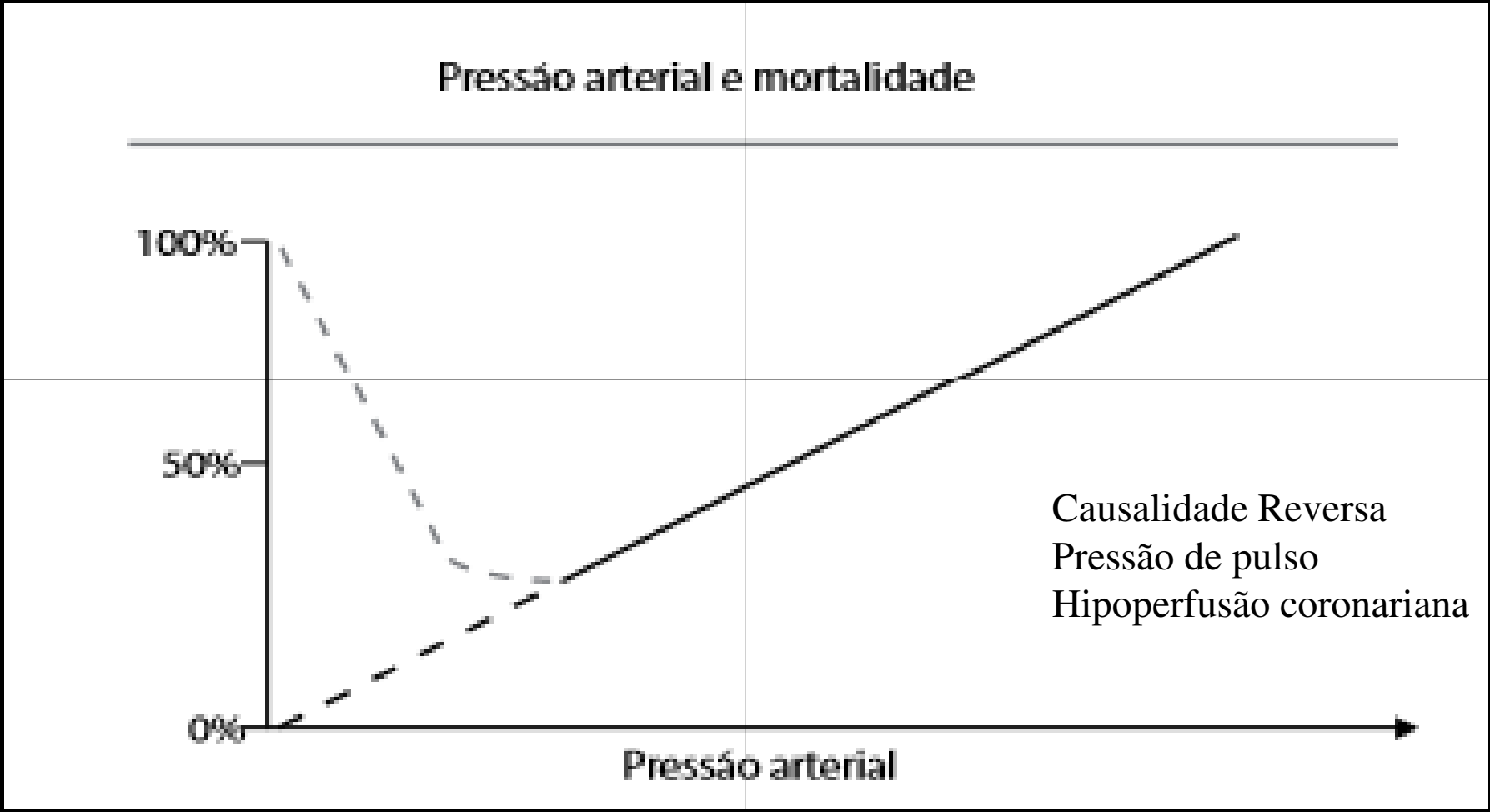
Clinical Trial of BP Lowerng in Diabetic Patients: Mean Achieved Systolic (SBP)

Trial	N	Mean SBP conventional	Mean SBP intensive	CVD Risk Reduction
SHEP	583	155	146	22-56%
Syst-EUR	492	162	153	62-69%
HOT	1,501	148	144	30-67%
UKPDS	1,148	154	144	32-44%
ABCD	470	138	132	No CVD ↓
ADVANCE	11,140	140	135	14% mortality ↓

SHEP - JAMA. 1991 Jun 26;265(24):3255-64.
Syst-Eur. Lancet. 1997;350:757-764.
HOT randomised trial. Lancet 1998;351:1755– 62.

UKPDS - THE LANCET • Vol 352 • September 12, 1998
ABCD N Engl J Med 2000; 343:1969.
ADVANCED. N Engl J Med 2008 Jun 6.

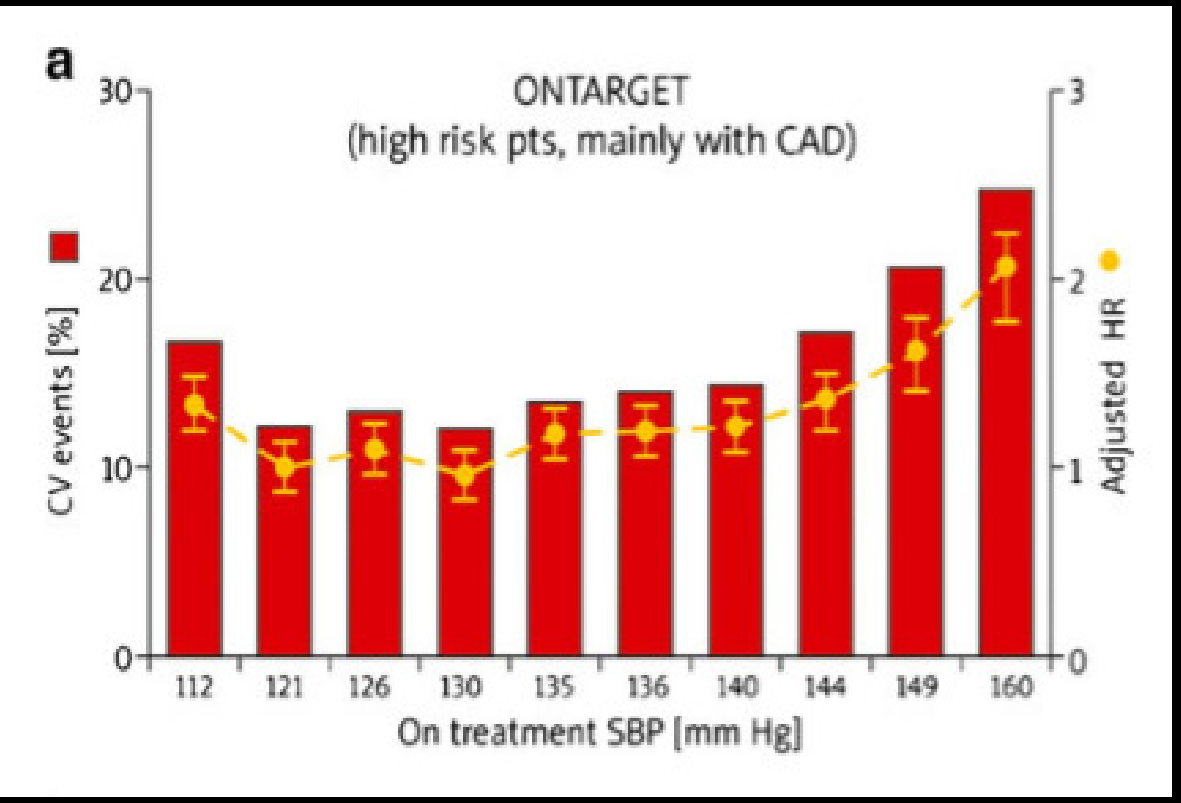
Relation of reduction in pressure to first myocardial infarction in patients receiving treatment for severe hypertension.



Lancet 1979, 1(8121):861-865.
JACC Vol. 54, No. 20, 2009:1827–34
Rev Bras Hipertens vol.17(3):156-159, 2010.

Curva J e Desfechos Cardiovasculares

Ongoing Telmisartan Alone and in Combination with Ramipril Global Endpoint Trial (ONTARGET)



J Hypertens. 2009;27:1360–9.

Treating to New Targets (TNT)

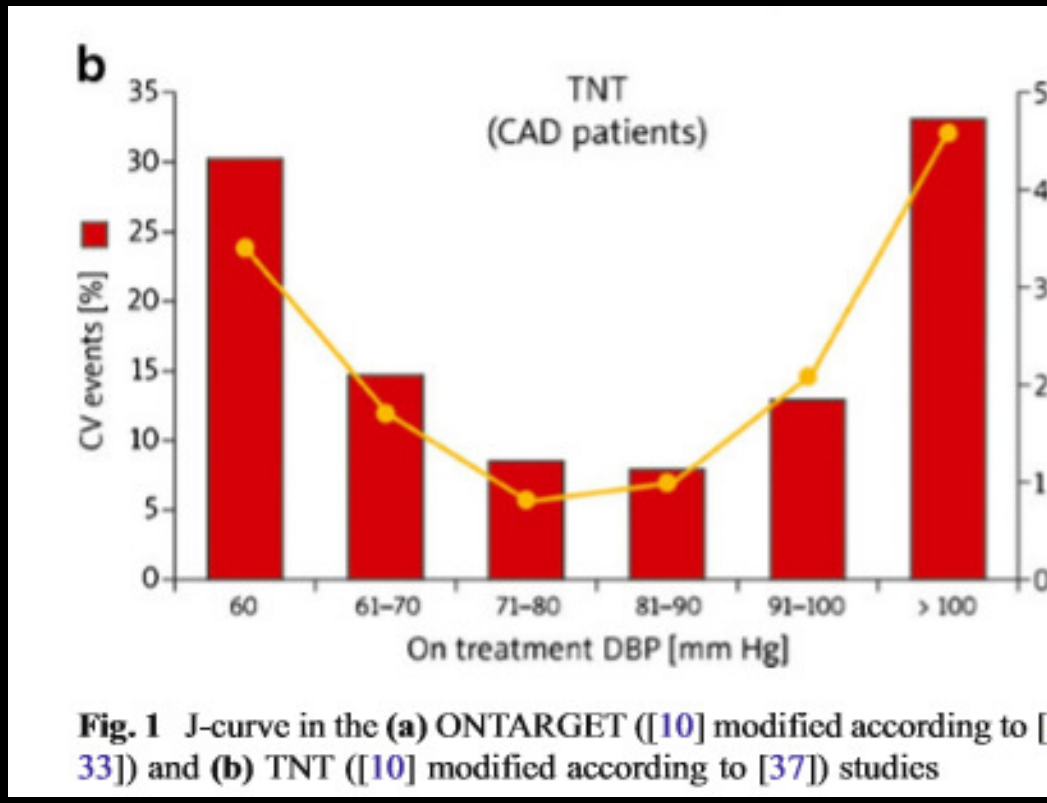
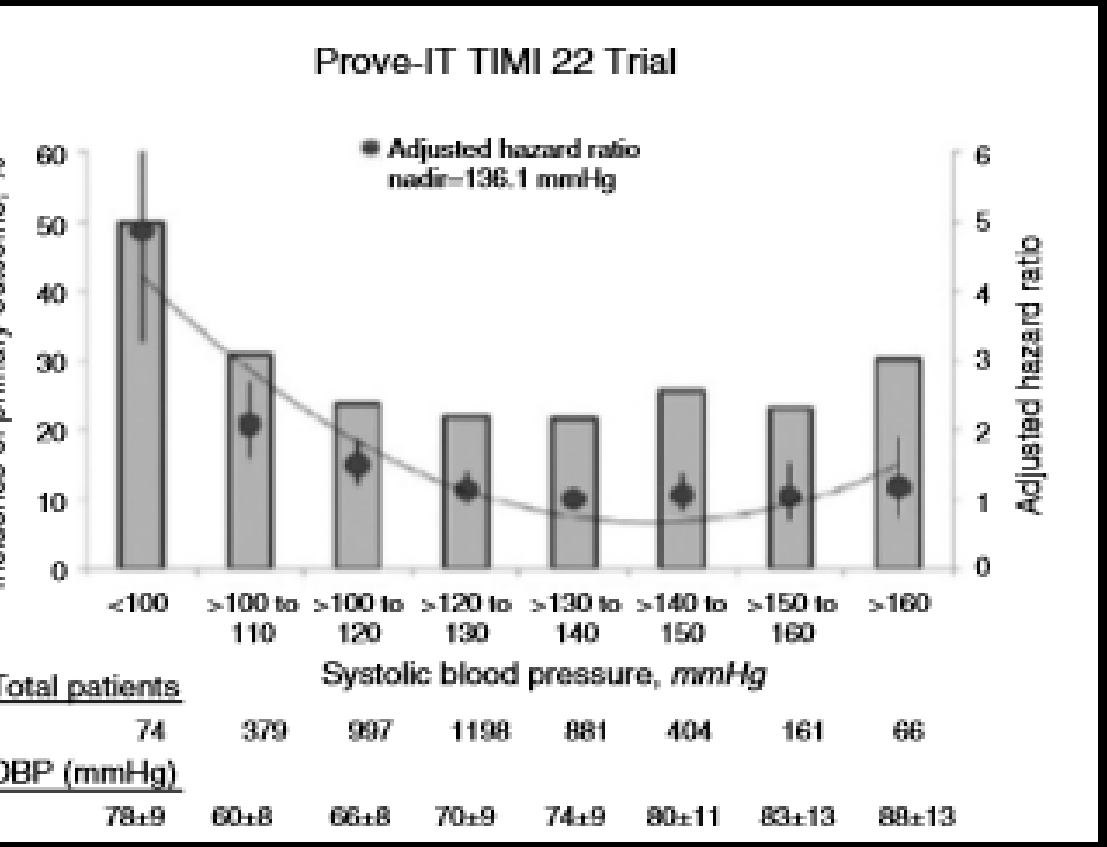
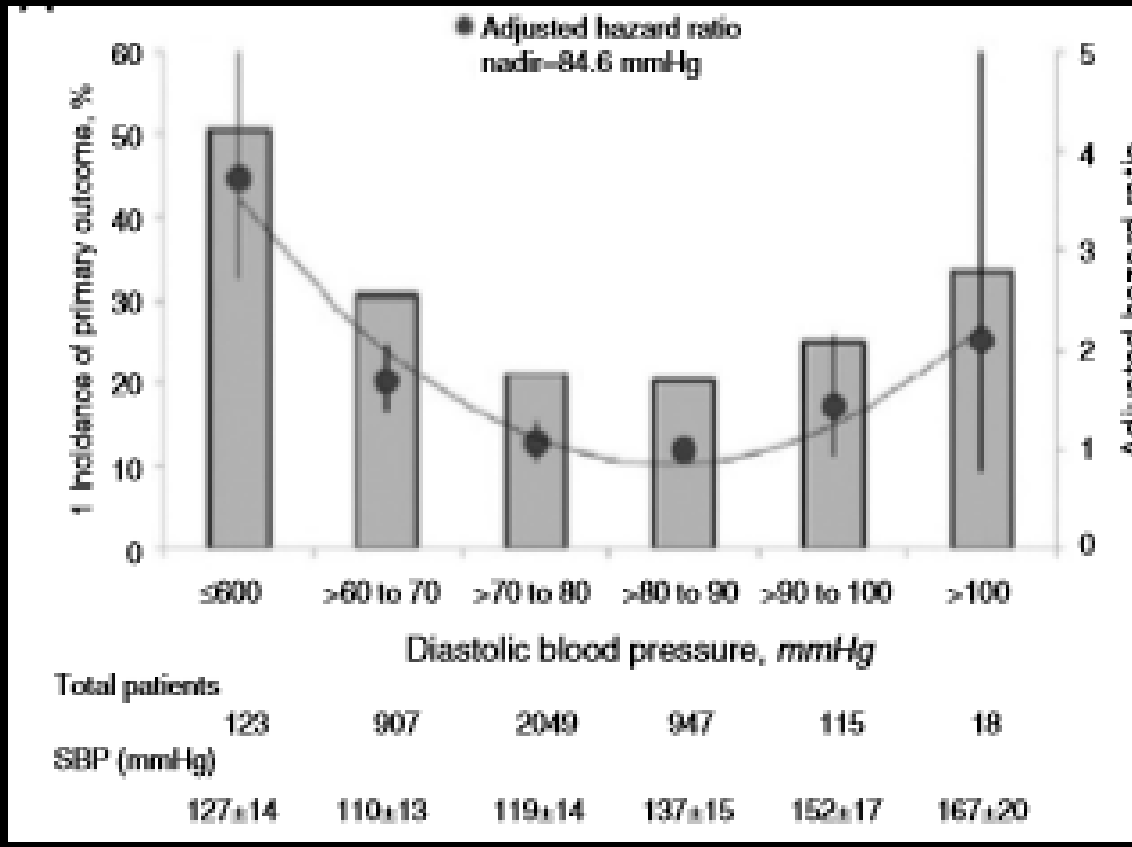


Fig. 1 J-curve in the **(a)** ONTARGET ([10] modified according to [33]) and **(b)** TNT ([10] modified according to [37]) studies

J Am Coll Cardiol. 2009;53:A217

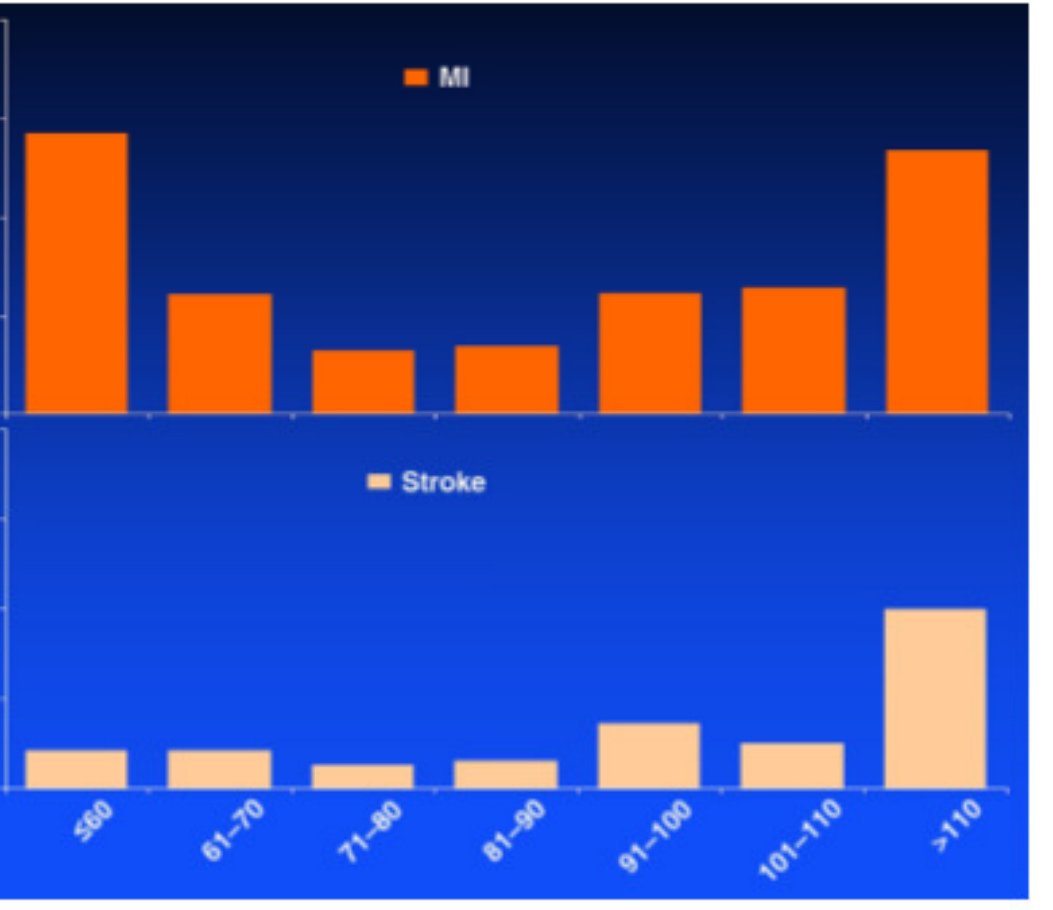
PRavastatin OR atorVastatin Evaluation andInfection Therapy-Thrombolysis In Myocardial Infarction (PROVEIT-TIMI) 22 trial.

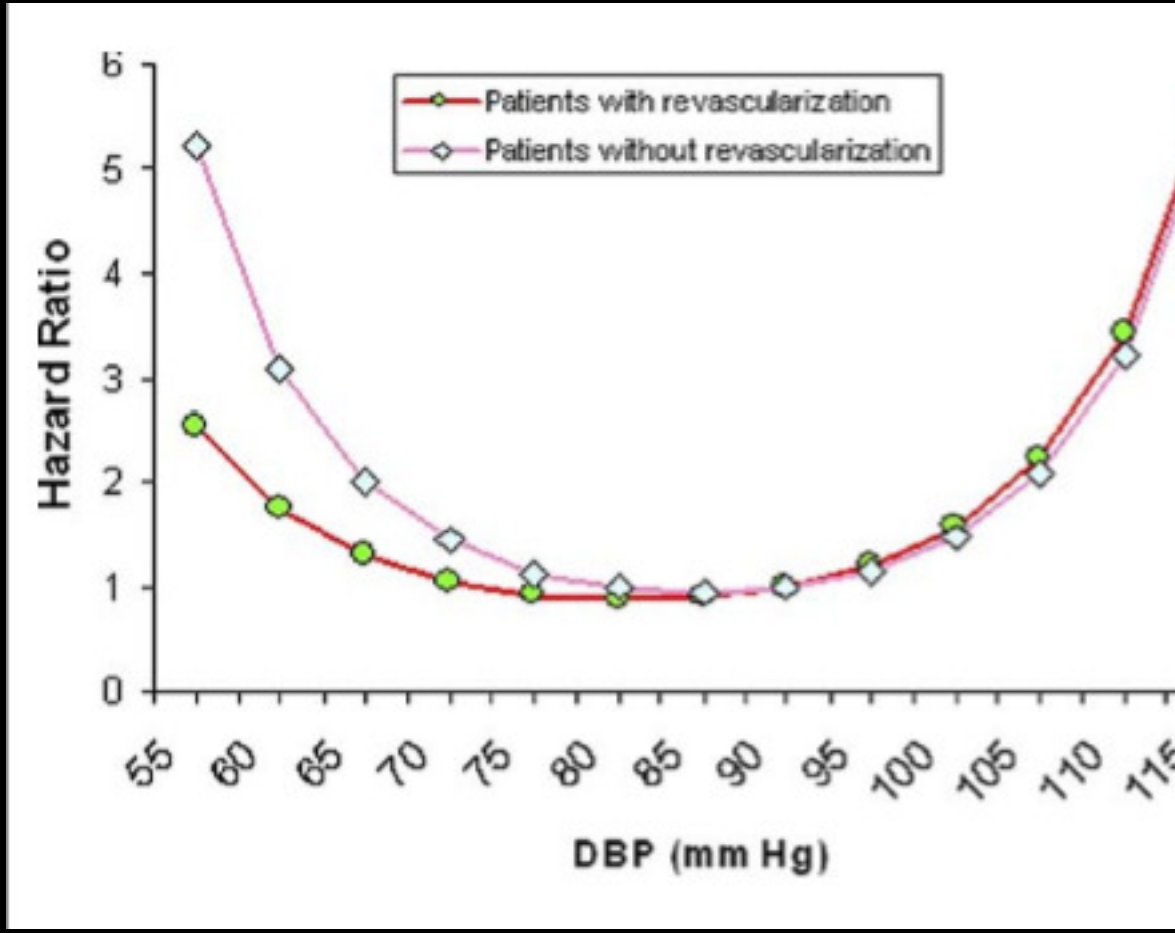




Circulation. 2010;122:2142---51.67

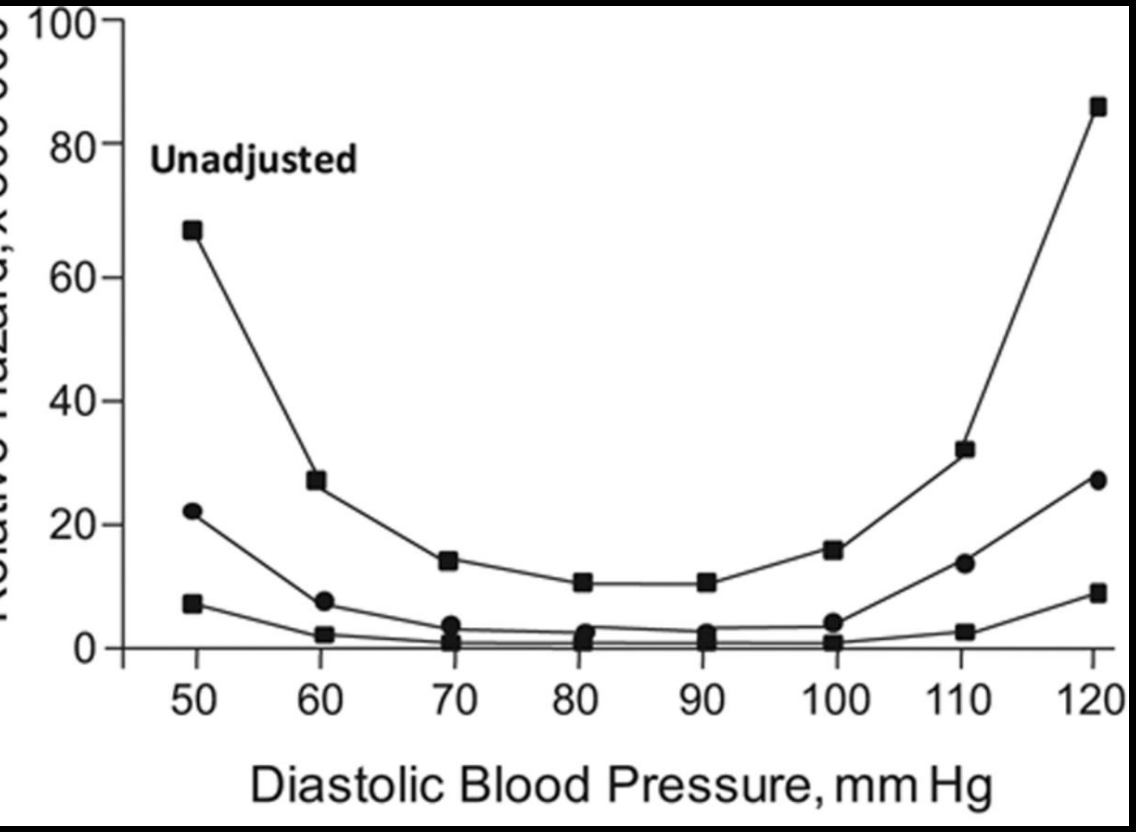
e J-Curve Between Blood Pressure and Coronary Artery Disea or Essential Hypertension

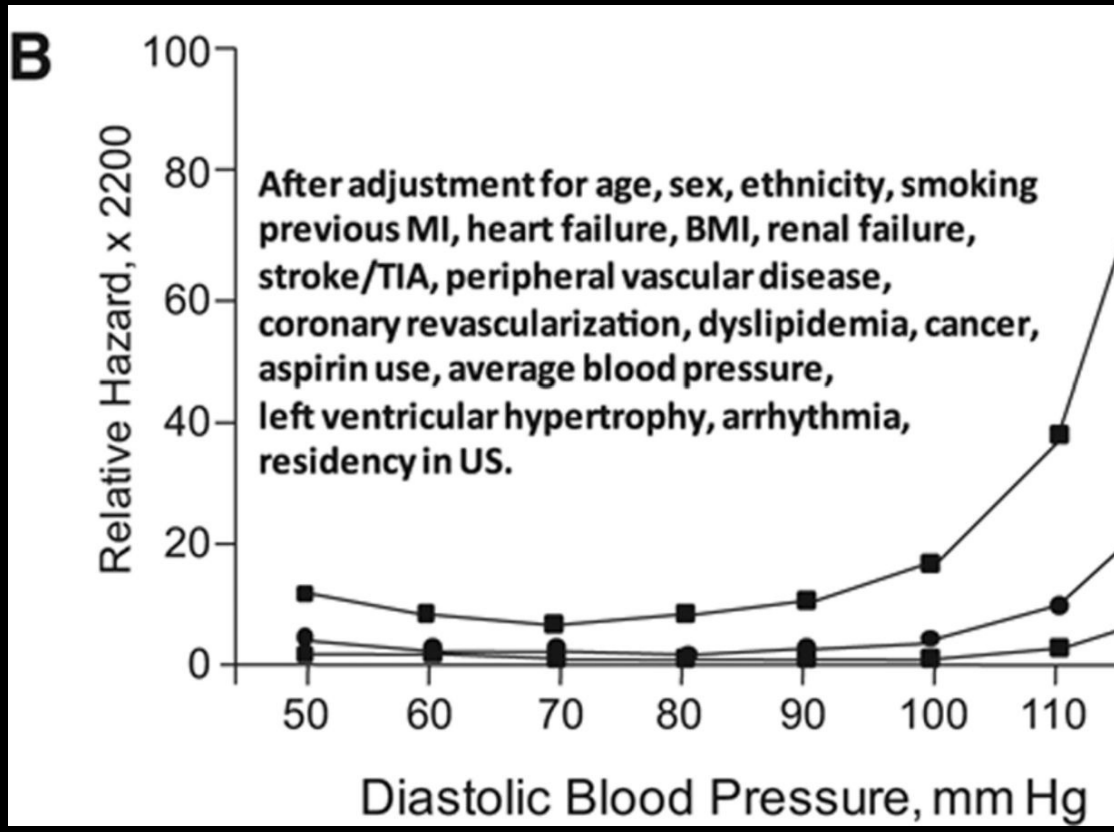




culation. 2010;122:2142---51.67
CC Vol. 54, 2009:1827–34

ggressive Blood Pressure Lowering Is Dangerous: The J-Curv

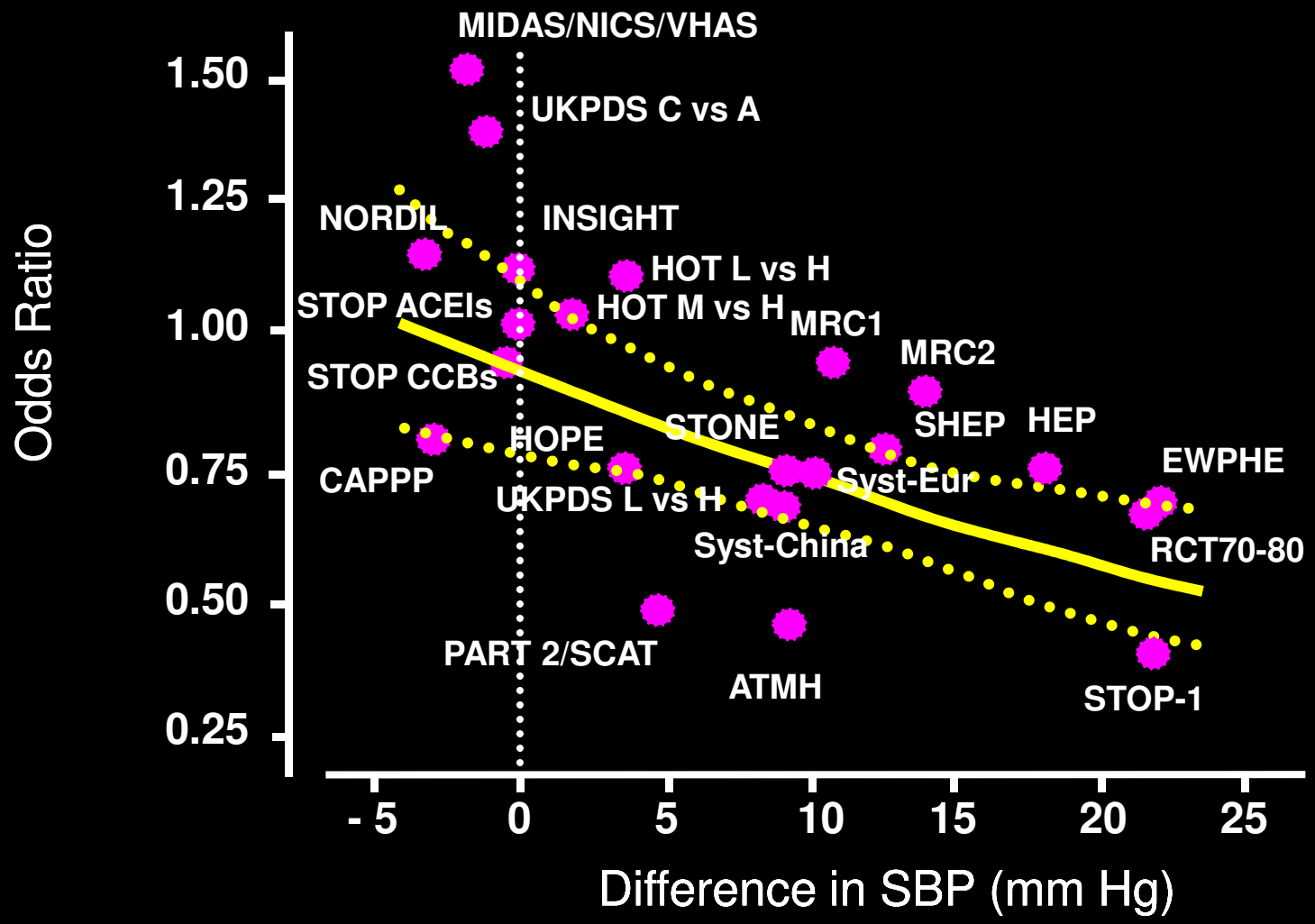




usted (A) and adjusted (B) relation between achieved (average in-treatment) diastolic blood pressure and risk of prim me in hypertensive patients with coronary artery disease enrolled in the International Verapamil-Trandolapril Study.

rtension. 2014;63:37-40

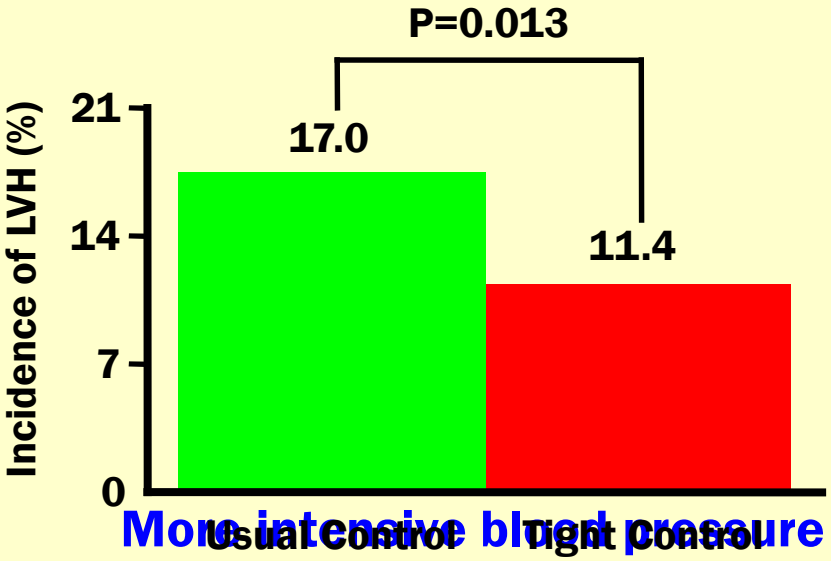
Relação entre Redução da SBP e a Mortalidade Cardiovascular

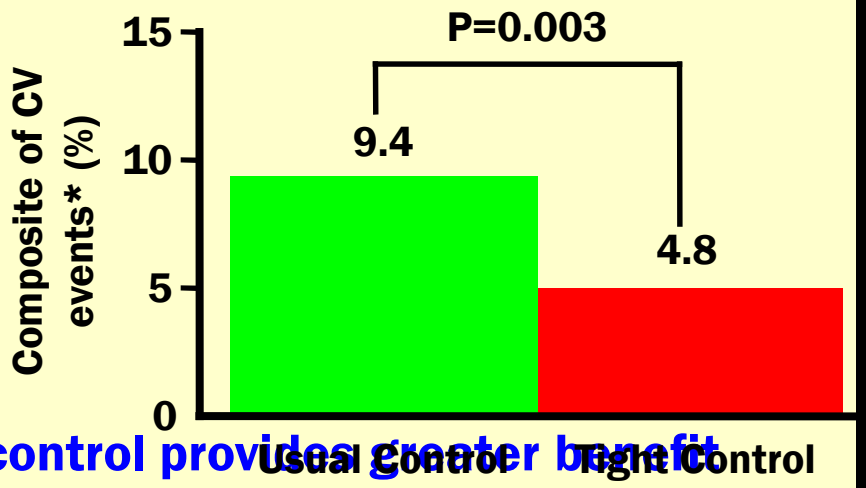


Staessen JA, et al. *Lancet*. 2001;358:1305-15.

Cardio-SIS Trial

1,111 patients ≥55 years with SBP ≥150 mm Hg randomized to treatment to achieve usual BP control (SBP <140 mm Hg) or intensive BP control (SBP <130 mm Hg)





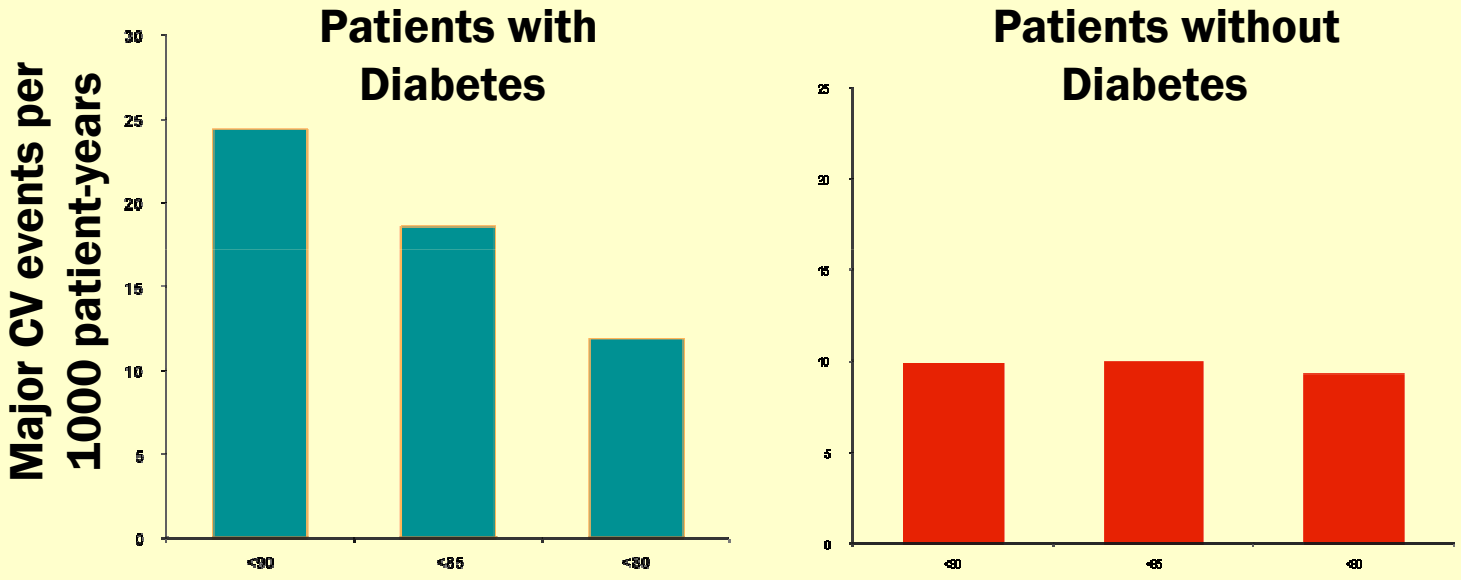
More intensive blood pressure control provides greater benefit

*Composite of death, MI, CVA, TIA, CHF, angina, new AF, revascularization, aortic dissection, PAD, and ESRD

AF=Atrial fibrillation, ESRD=End stage renal disease, CHF=Congestive heart failure, CVA=Cerebrovascular accident, LVH=Left ventricular hypertrophy, MI=Myocardial infarction, PAD=Peripheral artery disease, SBP=Systolic blood pressure, TIA=Transient ischemic attack

Hypertension Optimal Treatment (HOT) Study

18,790 patients with a baseline diastolic BP of 100-115 mm Hg randomized to a target diastolic BP of ≤90 mm Hg, ≤85 mm Hg, or ≤80 mm Hg

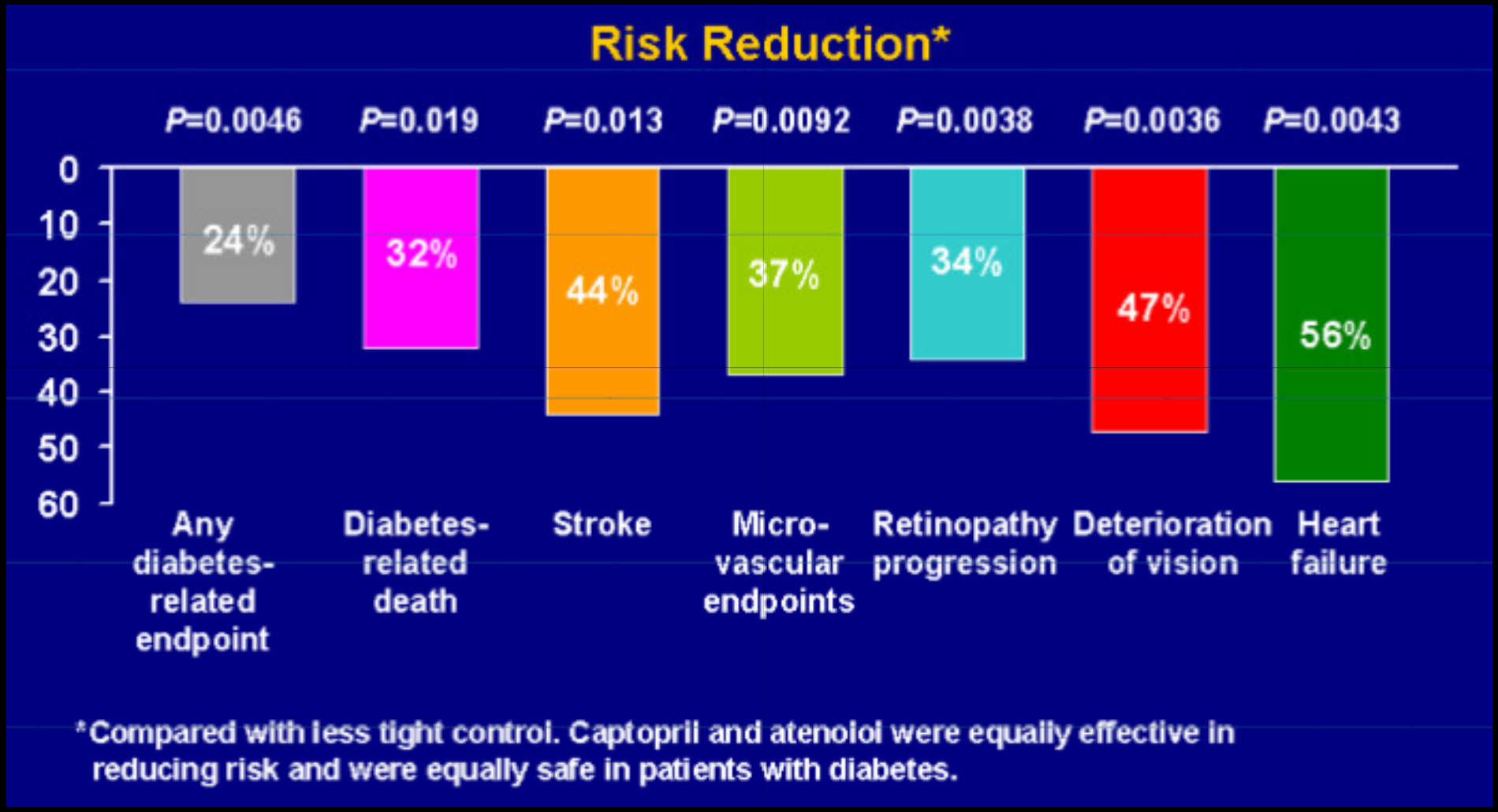


More intensive blood pressure control provides greater benefit in diabetics

Hansson L et al. *Lancet* 1998;351:1755-1762

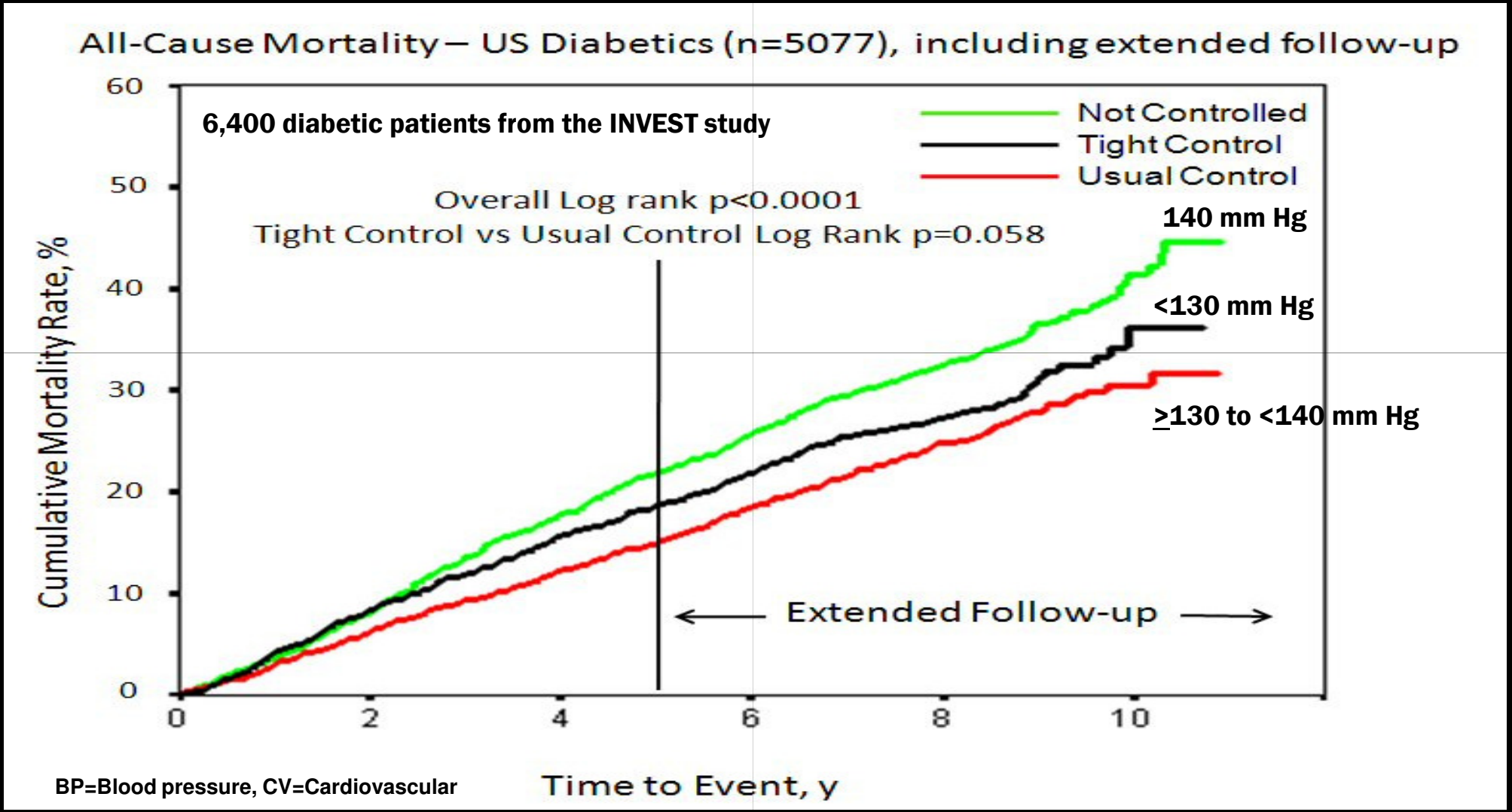
BP=Blood pressure, CV=Cardiovascular

UKPDS Results: Tight BP Control



BMJ. 1998;317: 703-713

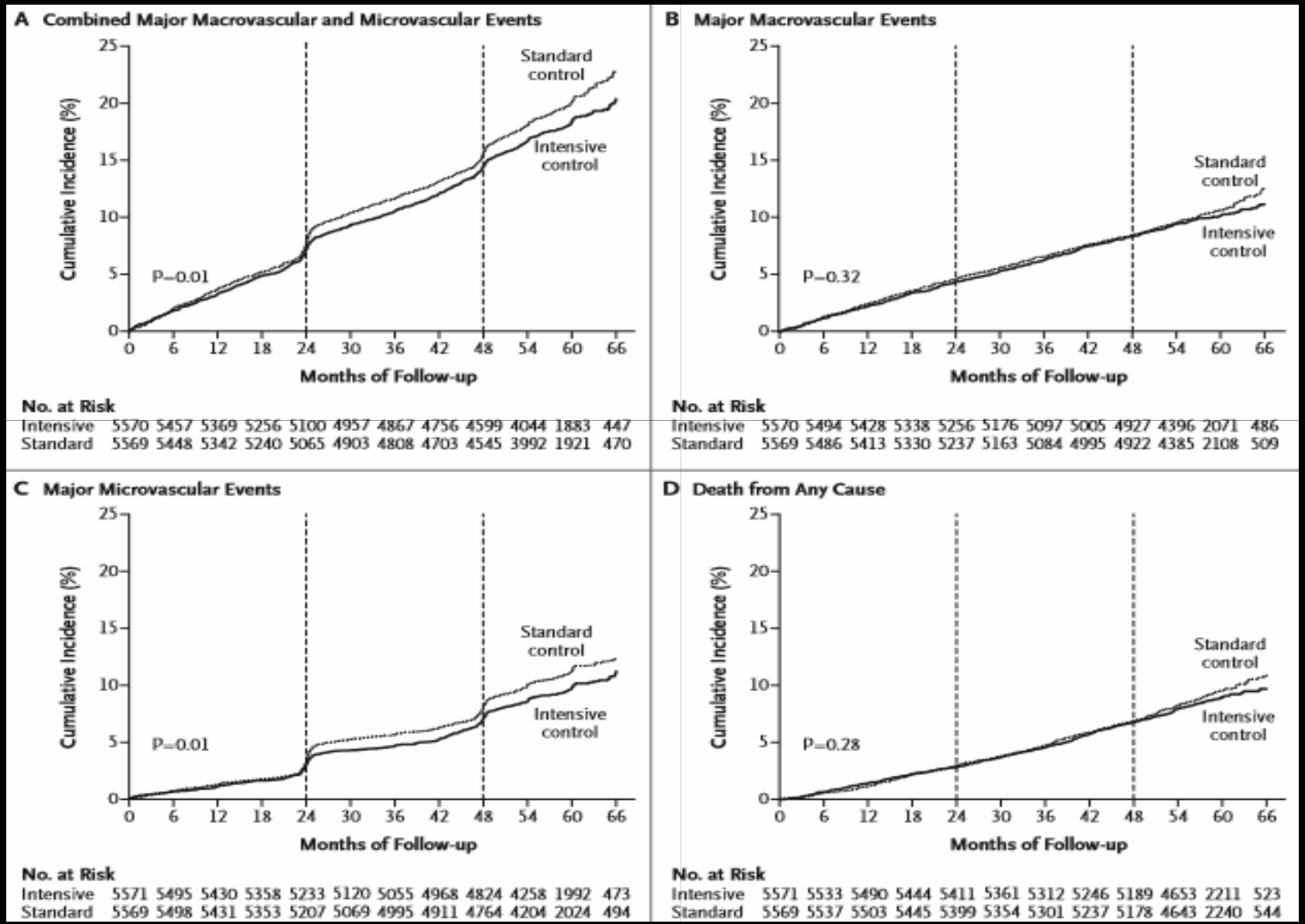
International Verapamil-Trandolapril Study (INVEST)—DM Substudy



BP=Blood pressure, CV=Cardiovascular

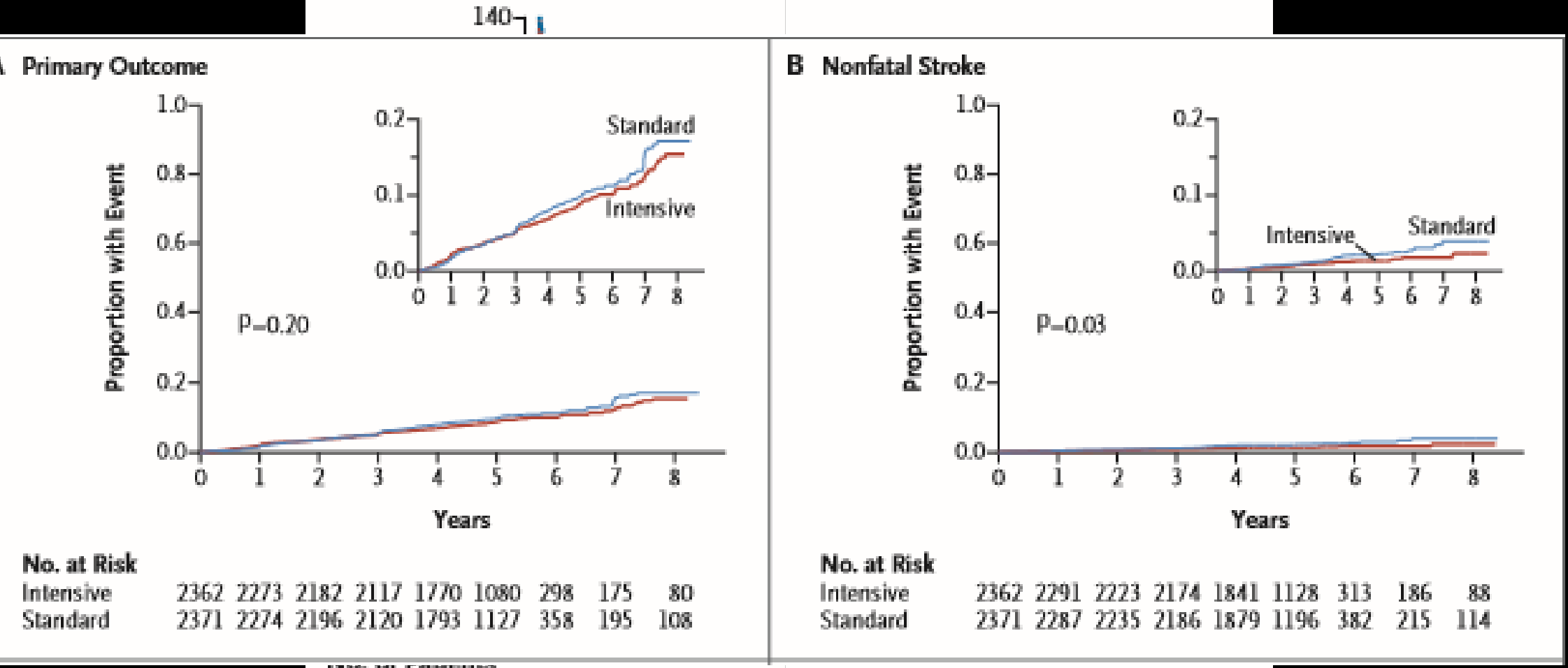
Cooper-DeHoff RM et al. *JAMA* 2010;304:61-68

Intensive Blood Glucose Control and Vascular Outcomes in Patients with Type 2 Diabetes
The ADVANCE Collaborative Group



N Engl J Med 2008;358:2560-72.

Effects of Intensive Blood-Pressure Control in Type 2 Diabetes Mellitus
The ACCORD Study Group



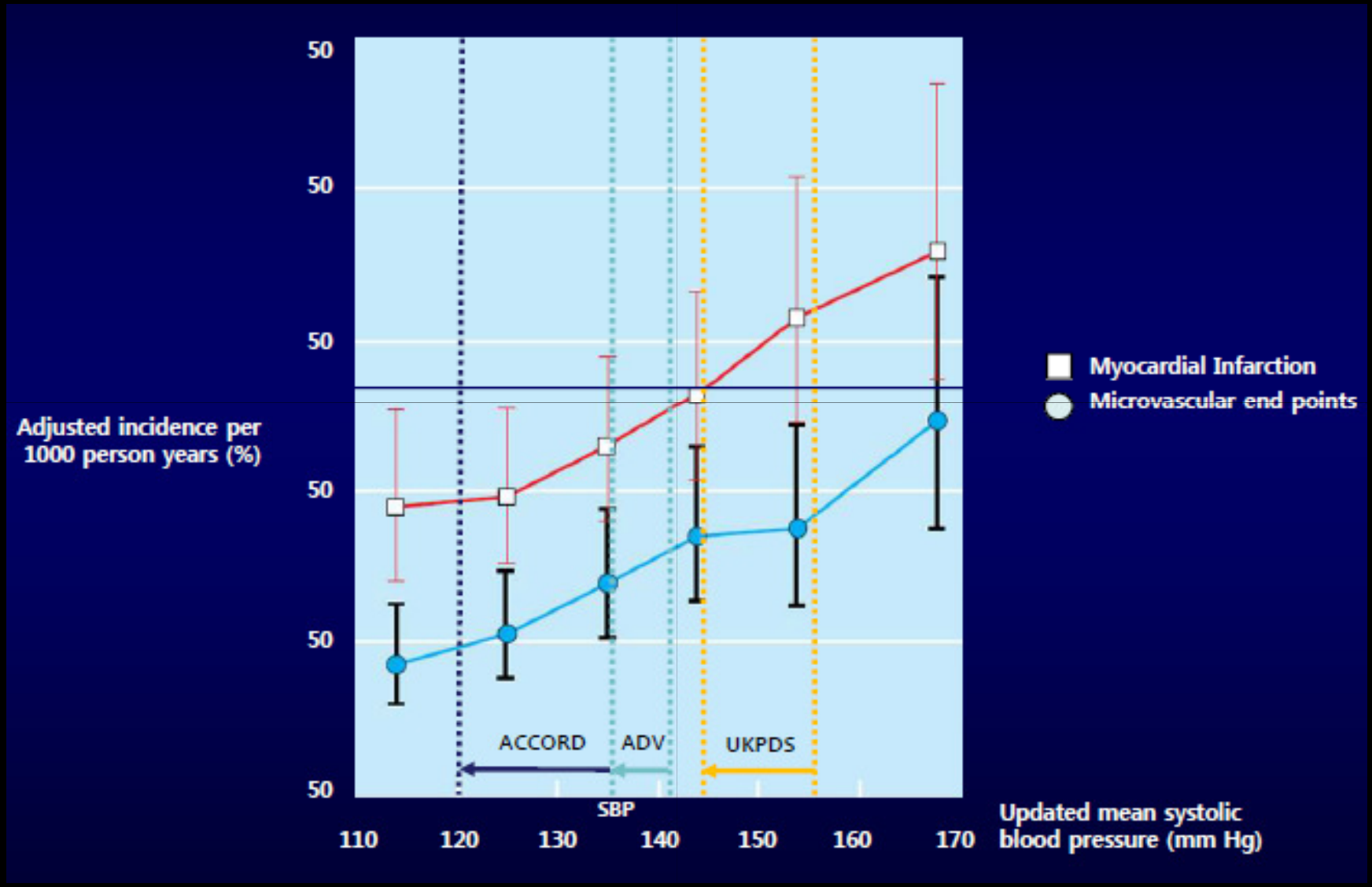
ACCORD study group. *NEJM* 2010;362:1575-1585

ACCORD Results are Mixed

Outcome	Intensive Events (%/yr)	Standard Events (%/yr)	HR (95% CI)	P
CVD (Primary)	208 (1.87)	237 (2.09)	0.88 (0.73-1.06)	0.20
Cardiovascular Deaths	60 (0.52)	58 (0.49)	1.06 (0.74-1.52)	0.74
Total Stroke	**36 (0.32)**	**62 (0.53)**	**0.59 (0.39-0.89)**	**0.01**

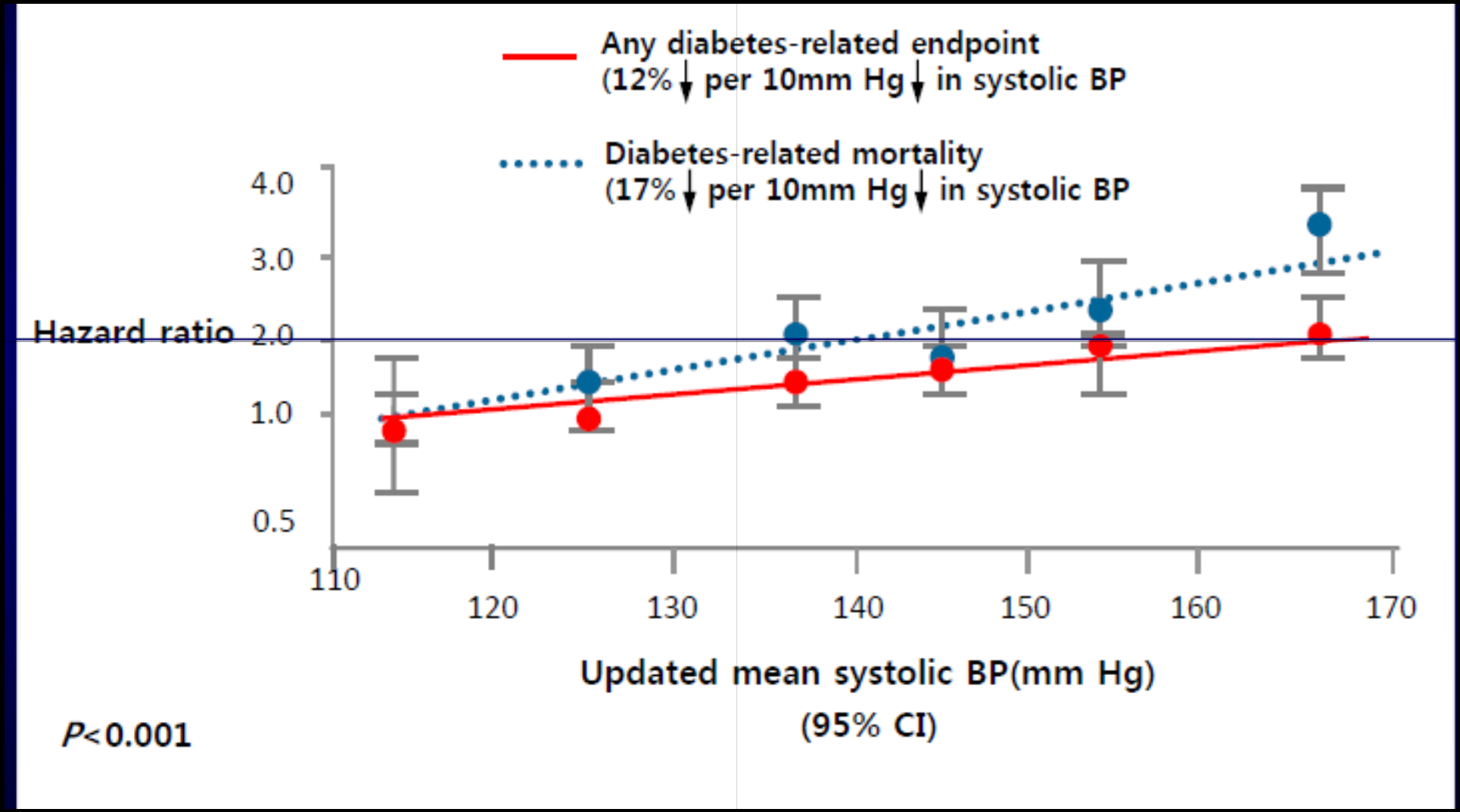
ACCORD study group. *NEJM* 2010;362:1575-1585

UKPDS, ADVANDE AND ACCORD Trial



UK Prospective Diabetes Study; BMJ Vol 321: 412-419, 12 August 2000

No J-Curve in UKPDS



UK Prospective Diabetes Study; BMJ Vol 321: 412-419, 12 August 2000

What Make This Difference?

	ACCORD	*INVEST*	*ONTARGET*	*UKPDS*
Age	62	66	66.4	53
DM duration (years)	10	May be long?	% of DM Pts = 37.5	0
Prior CV event (%)	34%	100%	MI 49%, stable angina 34.8%	0

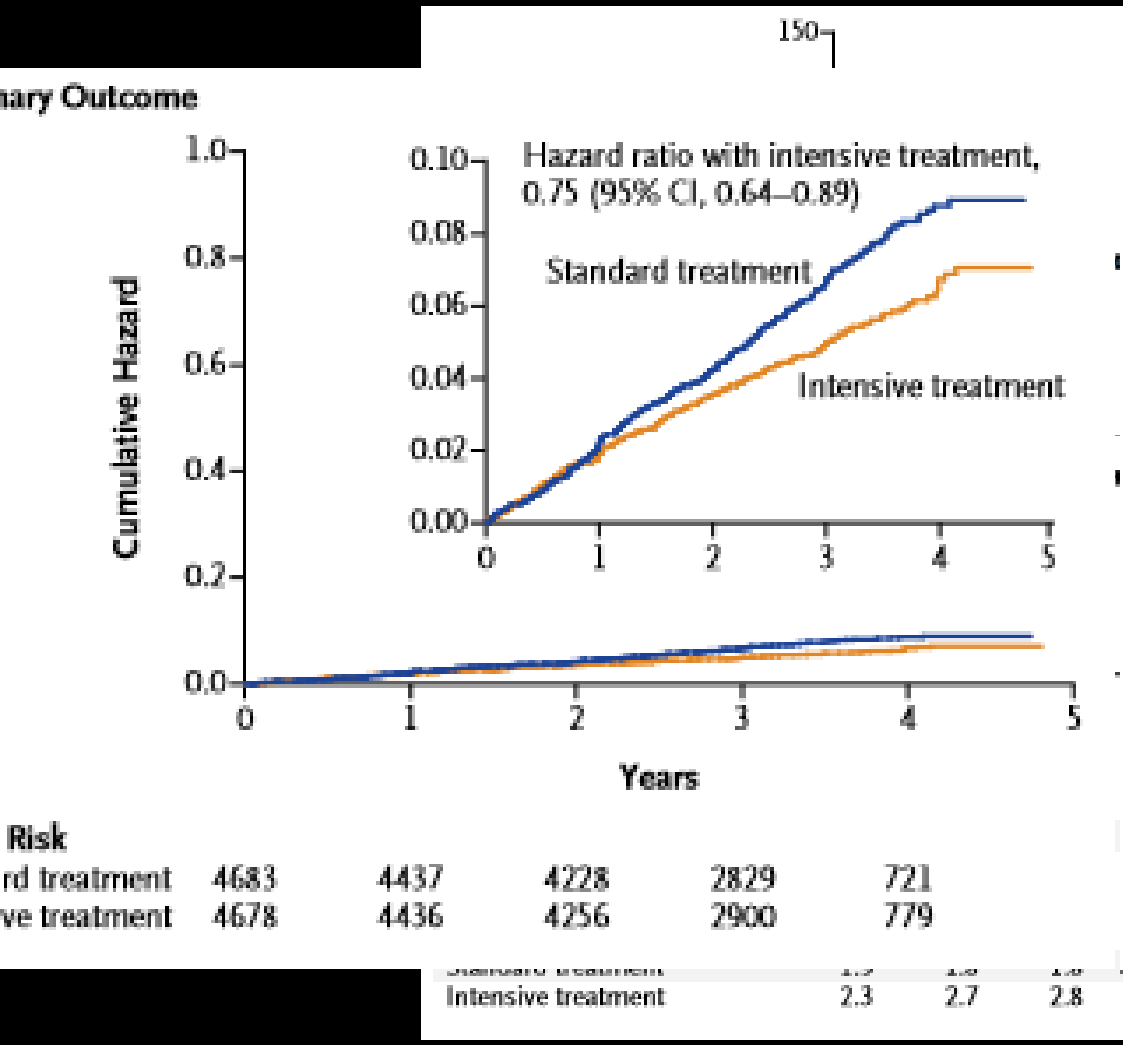
A Lesson from Unsuccessful Trial - ABC Management in ACCORD

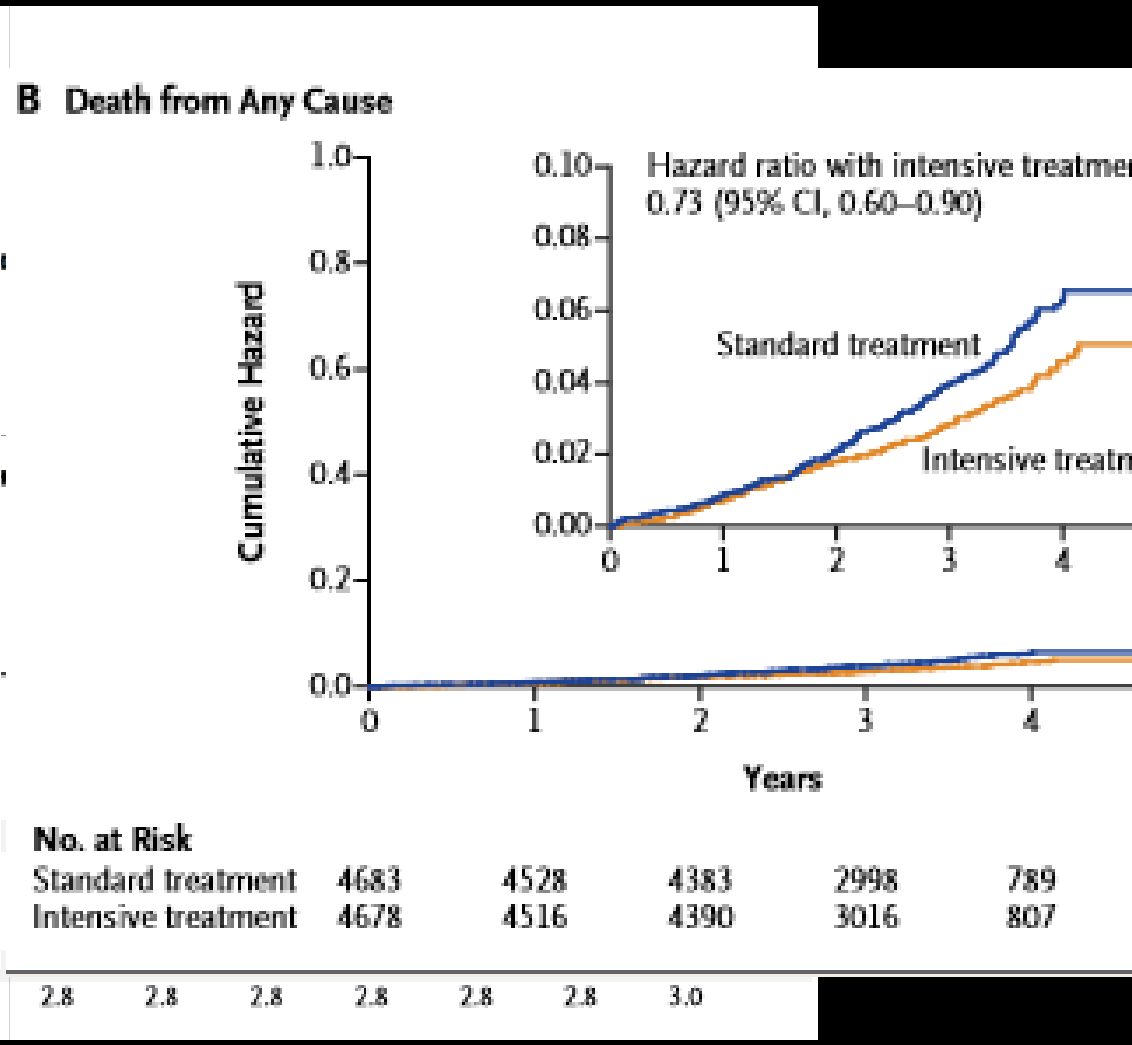
	Intensive	Standard
A1c (average)	6.4%	7.5%
Blood pressure - systolic (average)	119.3 mmHg	133.5 mmHg
Cholesterol (at the end)		
LDL cholesterol	81.1 mg/dl	80 mg/dl
Triglyceride	122 mg/dl	144 mg/dl
HDL cholesterol	41.2 mg/dl	40.5 mg/dl

Event rate in the standard therapy group was 50% lower than the expected rate
- Multifactorial intervention is important!

A Randomized Trial of Intensive versus Standard Blood-Pressure Contr

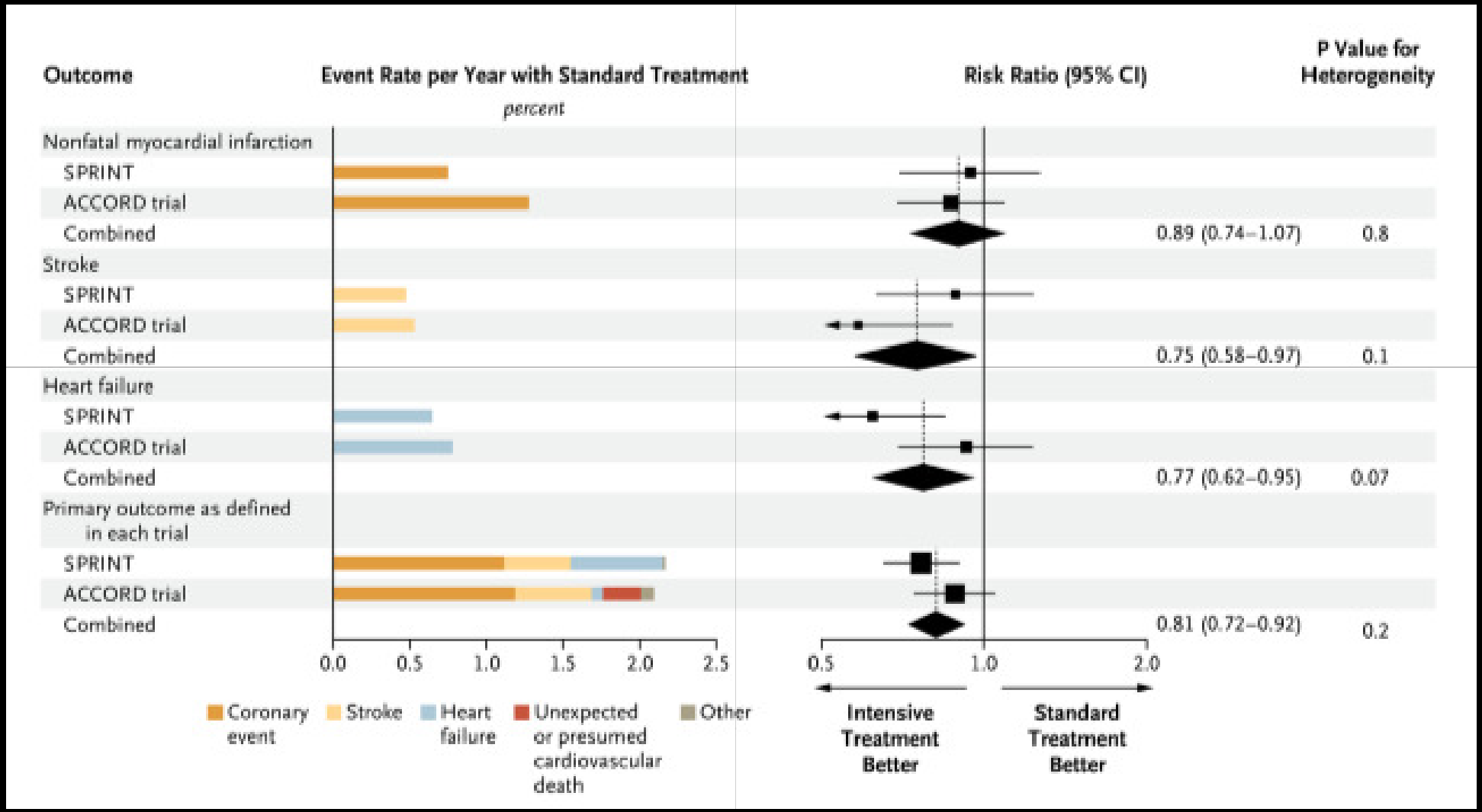
The SPRINT Research Group





N Engl J Med 2015;373:2103-16

Hypertension Treatment ACCORDing to SPRINT



Texas Heart Institute Journal • Aug. 2016, Vol. 43, No.4

A curva J teria importância no tratamento em DM?

1. Recomenda-se manter níveis pressóricos sistólicos<130 mmHg em portadores de DM e em pacientes de muito alto risco cardiovascular (eventos CV prévio).

2. O fenômeno da Curva – J pode ocorrer em portadores de doença aterosclerótica arterial, na vigência de controle preessórico excessivo.