NOVEDADES EN 2011 SOBRE FACTORES DE RIESGO CARDIOVASCULAR

Casa del Corazón SEC
Madrid 27.01.2012

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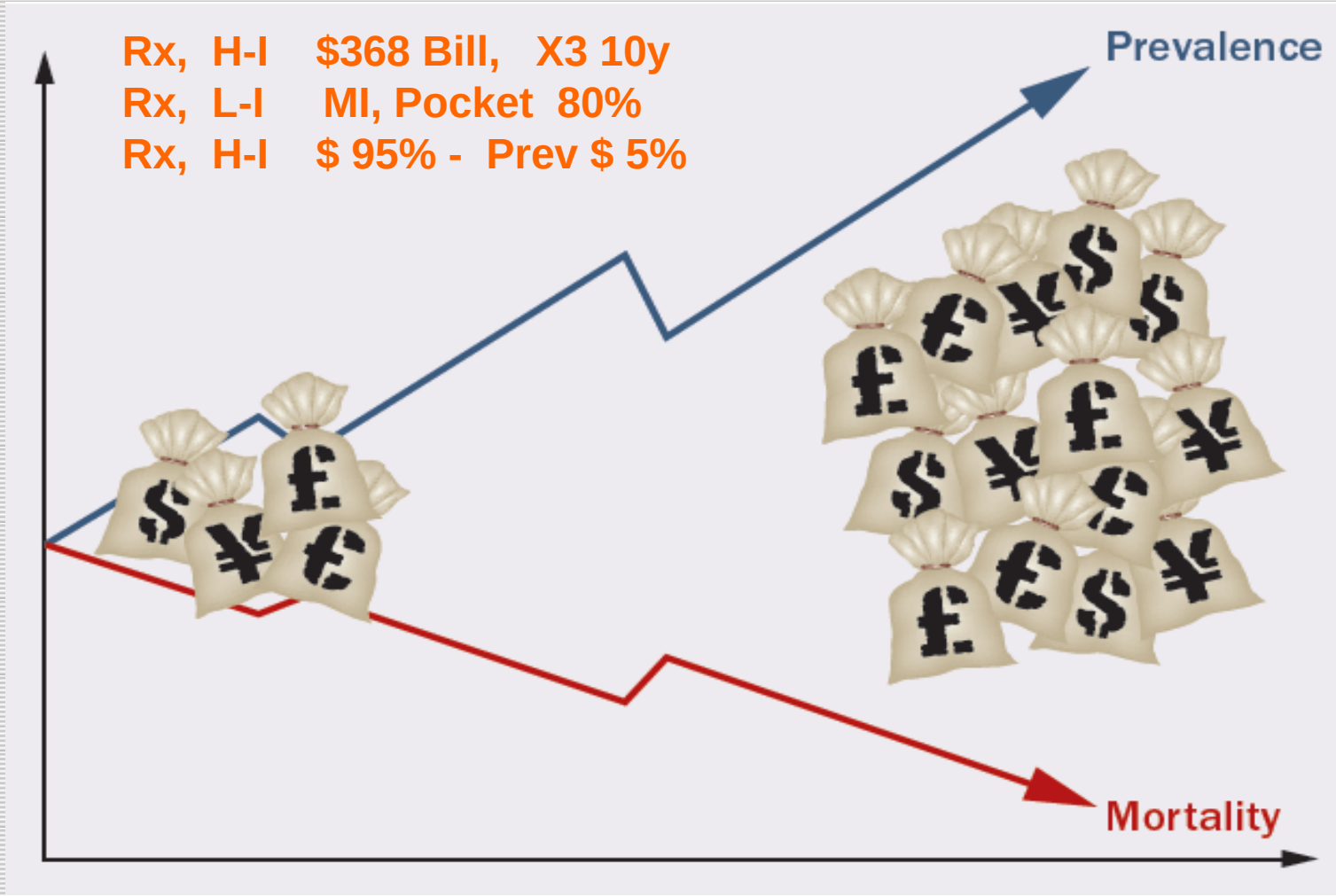
Prevalence of CVD is Increasing Treatment (Live Longer) and Technology ($)



V Fuster et. al. Nat Rev. Cardiol. 2009;6:669.

DISLIPEMIA

European Heart Journal (2011) **32**, 1769–1818
doi:10.1093/eurheartj/ehr158

ESC/EAS GUIDELINES

ESC/EAS Guidelines for the management of dyslipidaemias

The Task Force for the management of dyslipidaemias of the European Society of Cardiology (ESC) and the European Atherosclerosis Society (EAS)

DISLIPEMIA

Importante evaluar el riesgo cardiovascular global del paciente teniendo en cuenta todos los factores (no sólo las tablas de score).

Table 3 Intervention strategies as a function of total CV risk and LDL-C level

Total CV risk (SCORE) %	LDL-C levels				
	<70 mg/dL <1.8 mmol/L	70 to <100 mg/dL 1.8 to <2.5 mmol/L	100 to <155 mg/dL 2.5 to <4.0 mmol/L	155 to <190 mg/dL 4.0 to <4.9 mmol/L	>190 mg/dL >4.9 mmol/L
<1	No lipid intervention	No lipid intervention	Lifestyle intervention	Lifestyle intervention	Lifestyle intervention, consider drug if uncontrolled
Class[a]/Level[b]	I/C	I/C	I/C	I/C	IIa/A
≥1 to <5	Lifestyle intervention	Lifestyle intervention	Lifestyle intervention, consider drug if uncontrolled	Lifestyle intervention, consider drug if uncontrolled	Lifestyle intervention, consider drug if uncontrolled
Class[a]/Level[b]	I/C	I/C	IIa/A	IIa/A	I/A
>5 to <10, or high risk	Lifestyle intervention, consider drug*	Lifestyle intervention, consider drug*	Lifestyle intervention and immediate drug intervention	Lifestyle intervention and immediate drug intervention	Lifestyle intervention and immediate drug intervention
Class[a]/Level[b]	IIa/A	IIa/A	I/A	I/A	I/A
≥10 or very high risk	Lifestyle intervention, consider drug*	Lifestyle intervention and immediate drug intervention	Lifestyle intervention and immediate drug intervention	Lifestyle intervention and immediate drug intervention	Lifestyle intervention and immediate drug intervention
Class[a]/Level[b]	IIa/A	IIa/A	I/A	I/A	I/A

DISLIPEMIA

- Parámetros a medir: CT, LDL, TG y HDL.
- Objetivo principal: LDL.
  - Pacientes de muy alto riesgo: <70 mg/dl (nivel de evidencia IA).
  - Pacientes de alto riesgo: <100 mg/dl (IIaA).
  - Pacientes de riesgo moderado: <115 mg/dl (IIaC).

Reducción al menos del 50% de los niveles basales.

- Relevancia de medidas higiénico-dietéticas:
  - Mejoría de los parámetros lipídicos.
  - Beneficios sobre PA y glucemia.
  - Mejoras en calidad de vida y percepción de la enfermedad.

Table 14 Recommendations for the pharmacological treatment of hypercholesterolaemia

Recommendations	Class[a]	Level[b]	Ref[c]
Prescribe statin up to the highest recommended dose, or highest tolerable dose to reach the target level.	I	A	15, 16, 17
In the case of statin intolerance, bile acid sequestrants or nicotinic acid should be considered.	IIa	B	108, 120
A cholesterol absorption inhibitor, alone or in combination with bile acid sequestrants or nicotinic acid, may also be considered in the case of statin intolerance.	IIb	C	-
If target level is not reached, statin combination with a cholesterol absorption inhibitor or bile acid sequestrant or nicotinic acid may be considered.	IIb	C	-

[a]Class of recommendation.
[b]Level of evidence.
[c]References.

Las estatinas son los fármacos que mejor se han relacionado con la disminución de colesterol total y LDL.

Por cada ↓ de 40 mg/dl de LDL se consigue una reducción del 22% de la morbimortalidad.

Table 16 Recommendations for drug treatment of HTG

Recommendations	Class[a]	Level[b]	Ref[c]
In particular high risk patients (see above), lowering of HTG by using the following drugs:			
is recommended: fibrates	I	B	127
should be considered: nicotinic acid	IIa	B	131
nicotinic acid + laropiprant	IIa	C	-
n-3 fatty acids	IIa	B	135, 136
statin + nicotinic acid[d]	IIa	A	142, 145
statin + fibrate[d]	IIa	C	-
may be considered: combinations with *n*-3 fatty acids[e]	IIb	B	146

[a]Class of recommendation.
[b]Level of evidence.
[c]References.
[d]Evidence for additional lipid-lowering, compared with monotherapy.
[e]The evidence for prevention of CVD using combination therapy is in general limited.
CVD = cardiovascular disease; HTG = hypertriglyceridaemia.

Los ácidos grasos omega-3 pueden reducir los TG hasta en un 30%.

Su dosis no ha de superar los 2-3 g/día.

Los beneficios son independientes a la mejoría del perfil lipídico, por su efecto antitrombótico y antiarritmogénico.

Table 17 Recommendations if drug treatment of low HDL-C is considered

Recommendations	Class[a]	Level[b]	Ref[c]
Nicotinic acid is currently the most efficient drug to raise HDL-C and should be considered.	IIa	A	112
Statins and fibrates raise HDL-C with similar magnitude and these drugs may be considered.	IIb	B	141, 151
The efficacy of fibrates to increase HDL-C may be attenuated in people with type 2 diabetes.	IIb	B	127, 141

[a]Class of recommendation.
[b]Level of evidence.
[c]References.
HDL-C = high-density lipoprotein-cholesterol.

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Niacin in Patients with Low HDL Cholesterol

The NEW ENGLAND JOURNAL of MEDICINE

EDITORIAL

Niacin at 56 Years of Age — Time for an Early Retirement?

Robert P. Giugliano, M.D., S.M.

No. at Risk					
Placebo plus statin	1696	1581	1381	910	436
Niacin plus statin	1718	1606	1366	903	428

Figure 1. Kaplan–Meier Curve for the Primary End Point.

N Engl J Med. 2011 Nov 15.

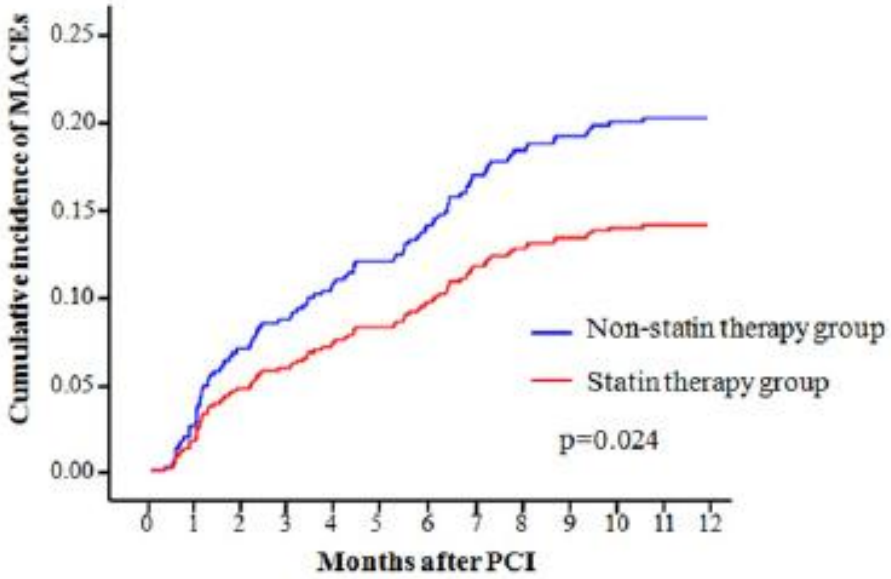
Next ATP IV (?)

1) improved CHD risk estimation expanding the intermediate risk group from FRS 10-20% to 6-20%, consideration of alternative risk assessment algorithms such as the Reynolds Risk Score, especially in women, and use of additional biomarkers such as hs-CRP and atherosclerotic imaging such as CAC and CIMT in intermediate risk subjects to further refine risk;
2) emphasizing lower LDL-C targets in all individuals with any increased CHD risk and consideration of non-HDL as an alternative primary target;
3) de-emphasizing triglyceride and HDL-C as targets of therapy; and
4) emphasizing high-potency statin therapy for individuals at high risk and up-front statin use in all those at intermediate risk to maximize CHD risk reduction and attainment of LDL-C and non-HDL goals.

The upcoming ATP-IV forum

Los pacientes que recibían estatinas, a pesar de ya tener un LDL bajo, tenían mejores tasas de eventos cardiacos mayores.

Pacientes post-IAM con LDL <70 mg/dl.



No. at risk	1,054	894	780	680
Statin therapy group	607	529	457	400
Non-statin therapy group	447	365	323	280

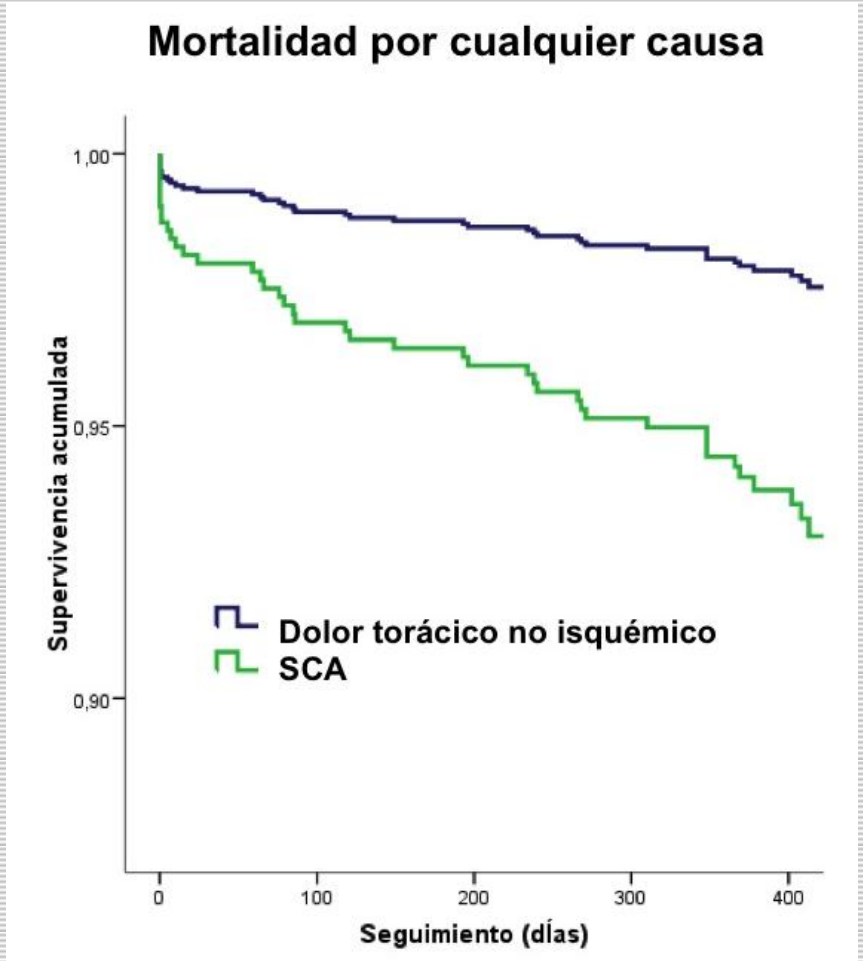
Figure 1 **Estimates of the Rate of the Primary Endpoint Events**

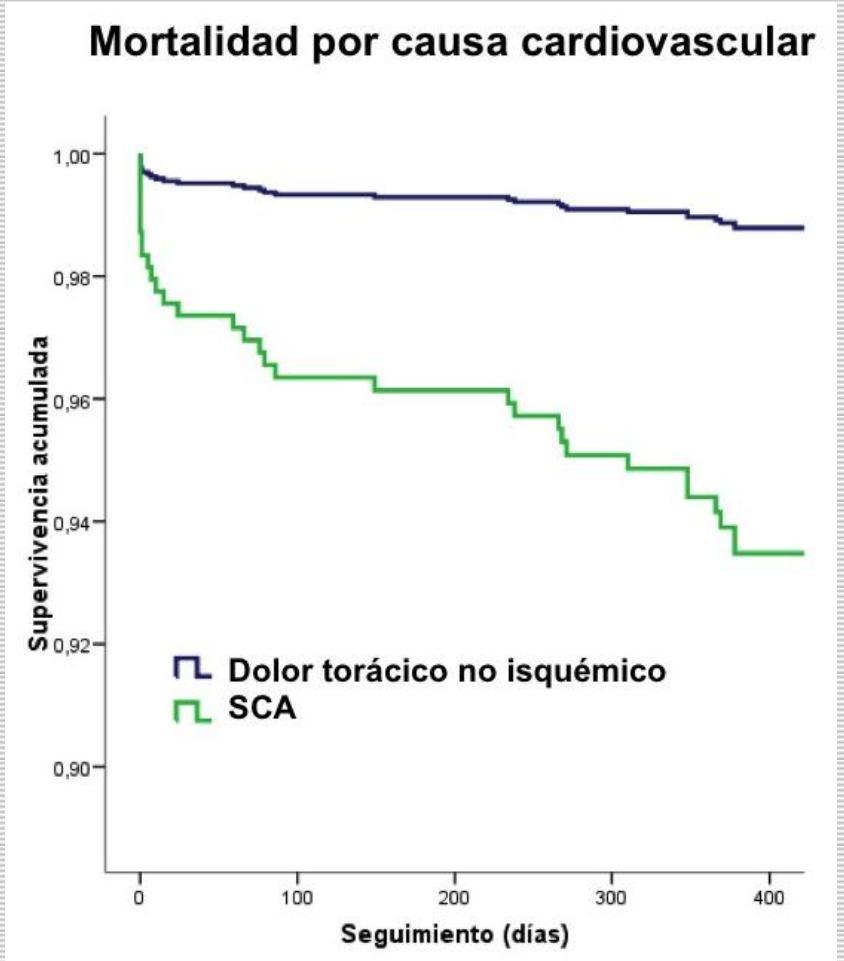
The primary endpoint was the composite of death, recurrent myocardial infarction, and coronary revascularization. MACE = major adverse cardiac event(s); PCI = percutaneous coronary intervention.

HK Lee et al. Benefit of early statin therapy in patients with acute myocardial infarction who have extremely low low-density lipoprotein cholesterol. J Am Coll Cardiol 2011;58:1664-1671.

HDL: principal determinante del SCA

Determinantes bioquímicos de SCA vs. DT no isquémico





Cordero A, Bertomeu V,, et al. Rev Esp Cardiol; on line

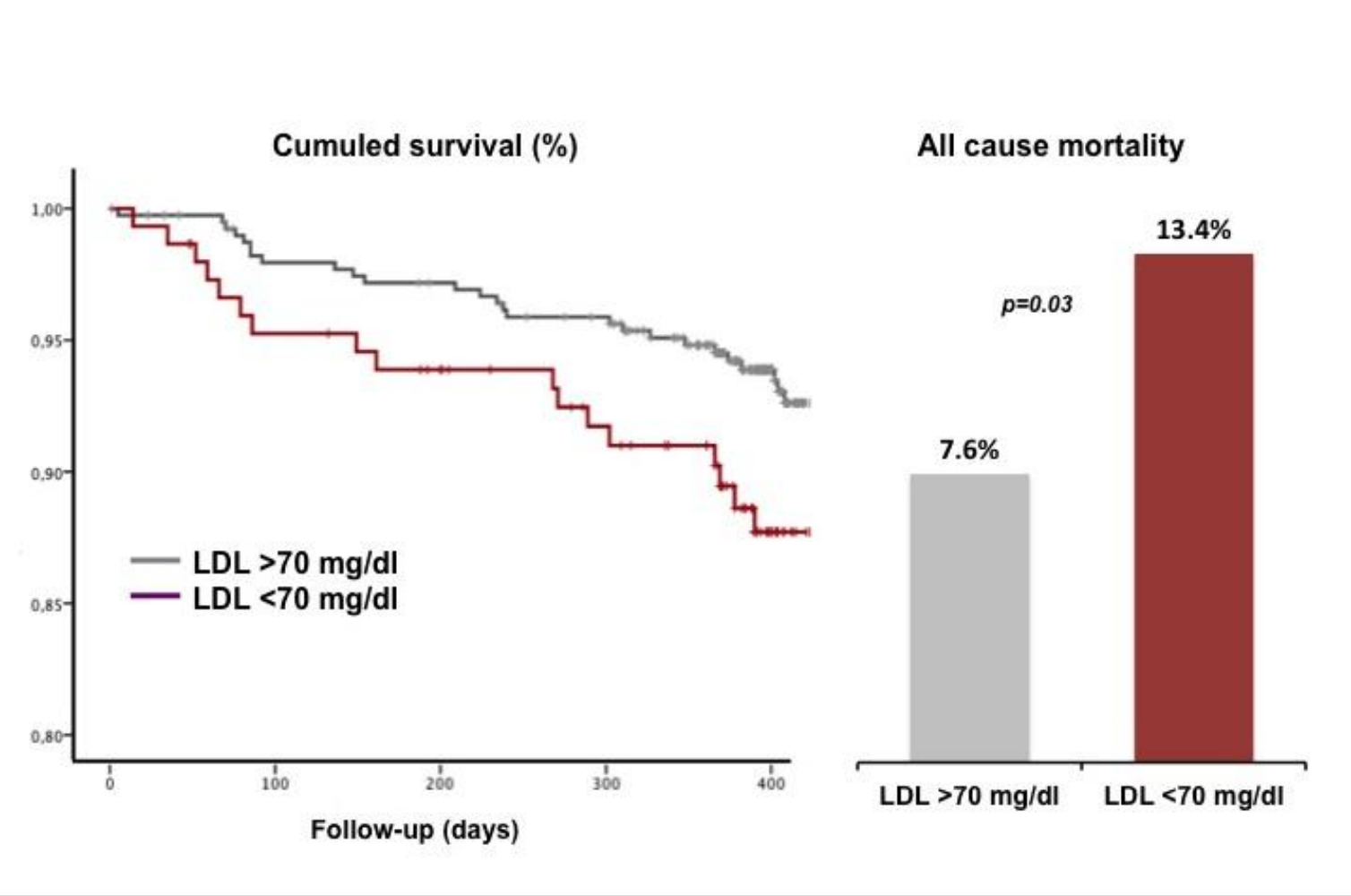
HDL: principal determinante del SCA

Determinantes bioquímicos de SCA vs. DT no isquémico

Variables	OR	IC 95%	p
Sexo femenino	0,36	0,23 - 0,57	<0,01
Fibrilación auricular	0,27	0,14 - 0,52	<0,01
Edad	1,05	1,03 - 1,06	<0,01
Tabaquismo activo	1,73	1,00 - 2,99	0,05
Diabetes	1,75	1,10 - 2,80	0,02
Glucemia >100 mg/dl	1,89	1,22 - 2,94	<0,01
HDL < 40 mg/dl	2,99	1,95 - 4,59	<0,01

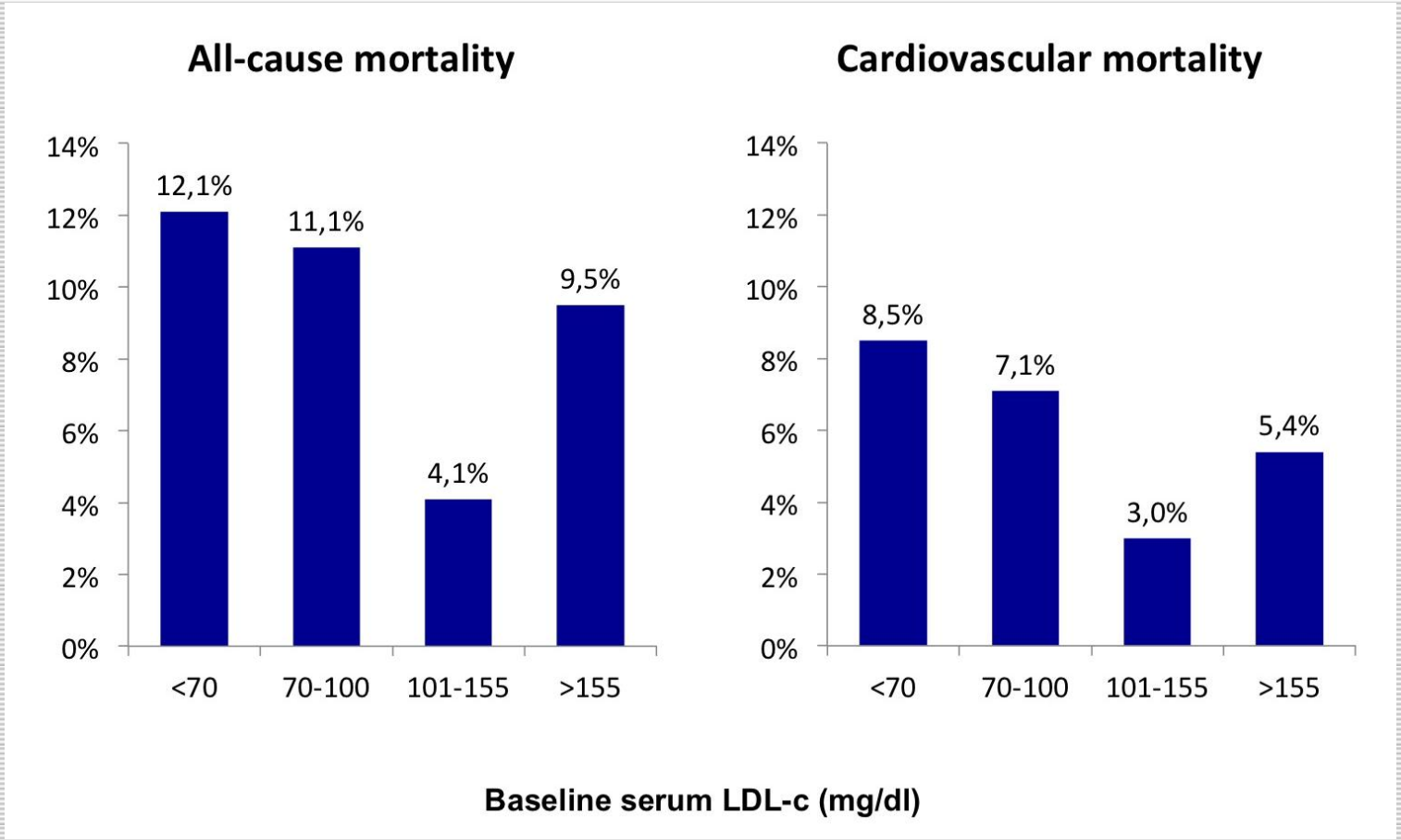
Cordero A, Bertomeu V, et al. Rev Esp Cardiol; on line

LDL bajo: marcador de alto riesgo en Prev 2ia



Cordero A, Bertomeu V, et al. submitted

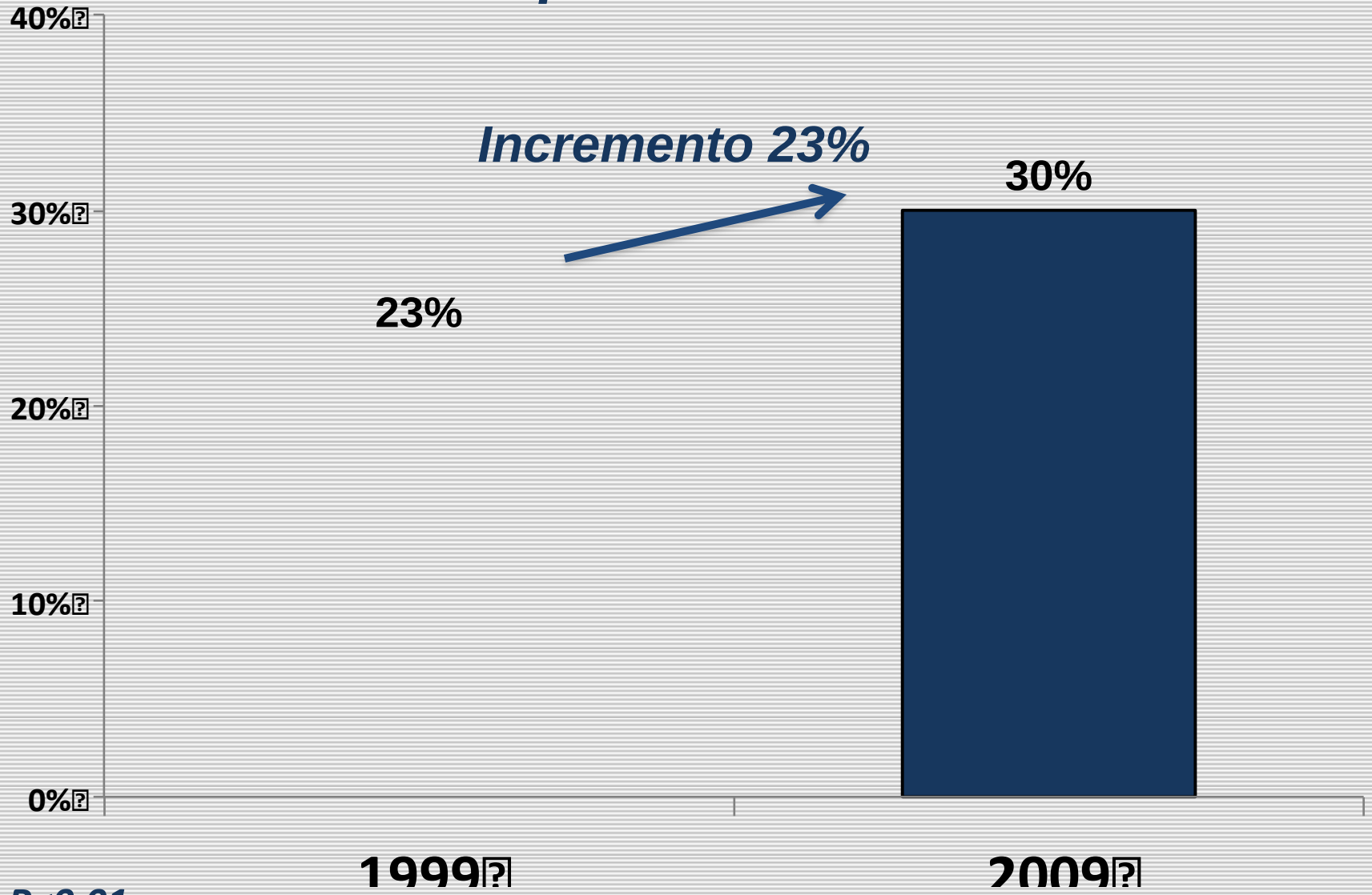
LDL bajo: marcador de alto riesgo en Prev 2ia



Cordero A, Bertomeu V, et al. submitted

DIABETES MELLITUS

CARDIOTENS 1999-2009
Evolución de la prevalencia de DM en HTA



P<0,01

Cordero A, Bertomeu V, et al. ACC 2011

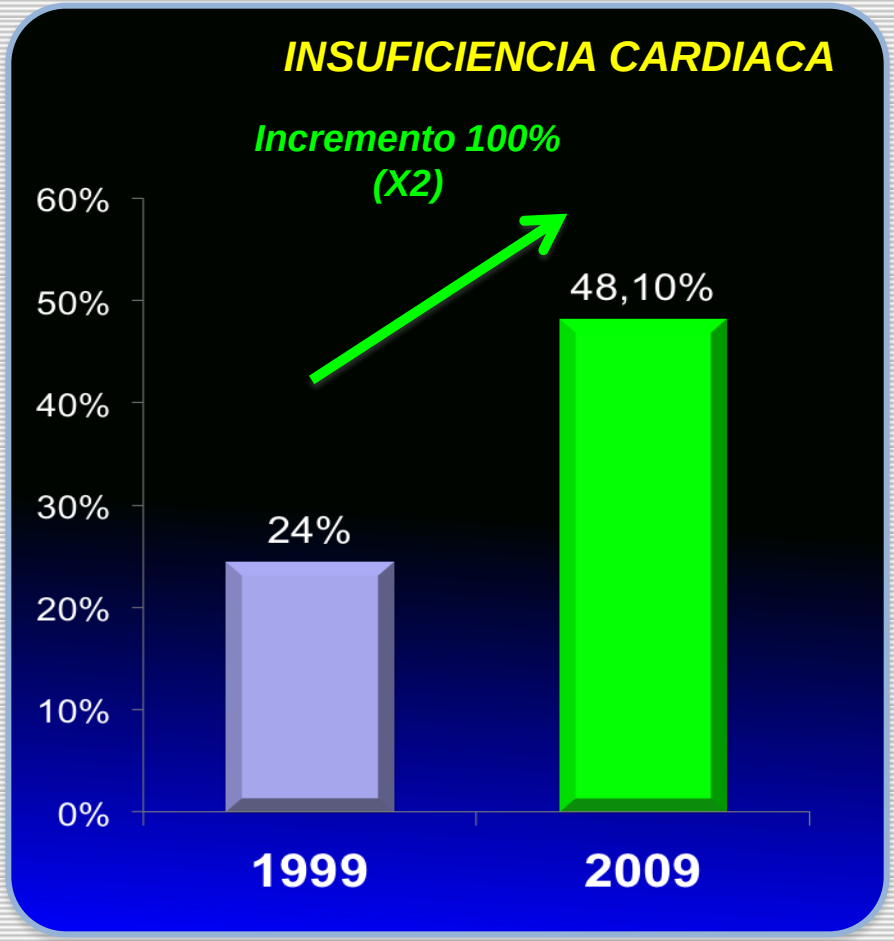
CARDIOTENS 1999-2009
SITUACIÓN ACTUAL EN ESPAÑA

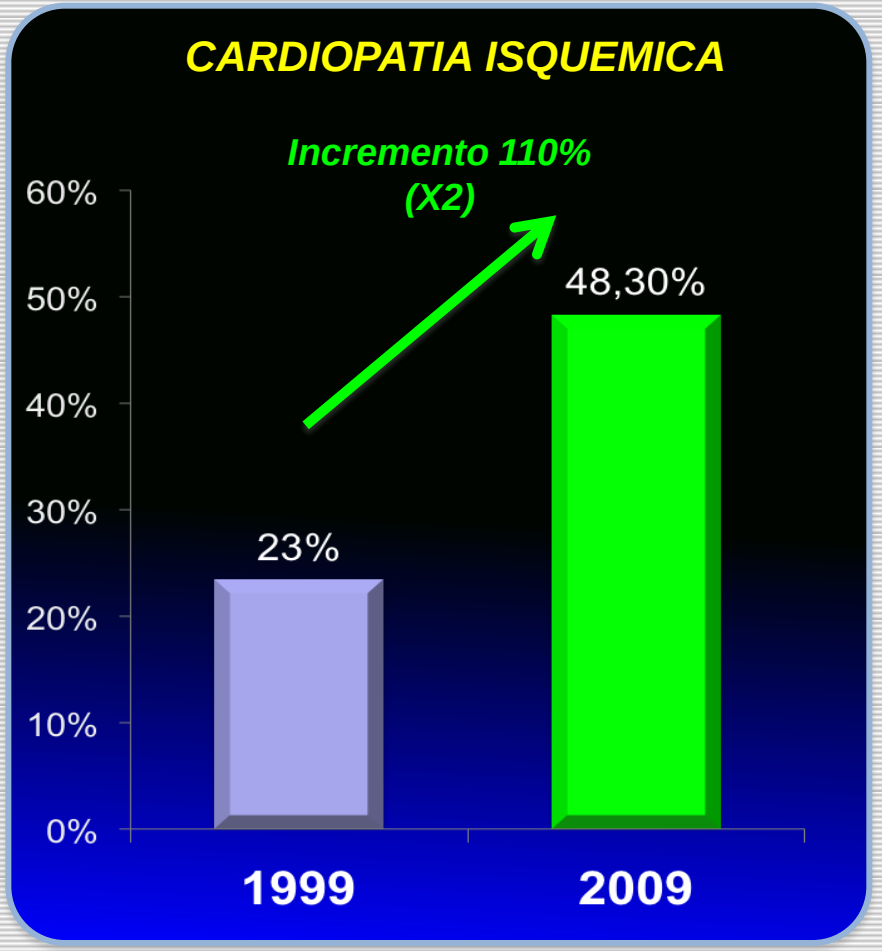
Control metabólico

Prevalencia de DM

SOCIEDAD ESPAÑOLA DE CARDIOLOGÍA

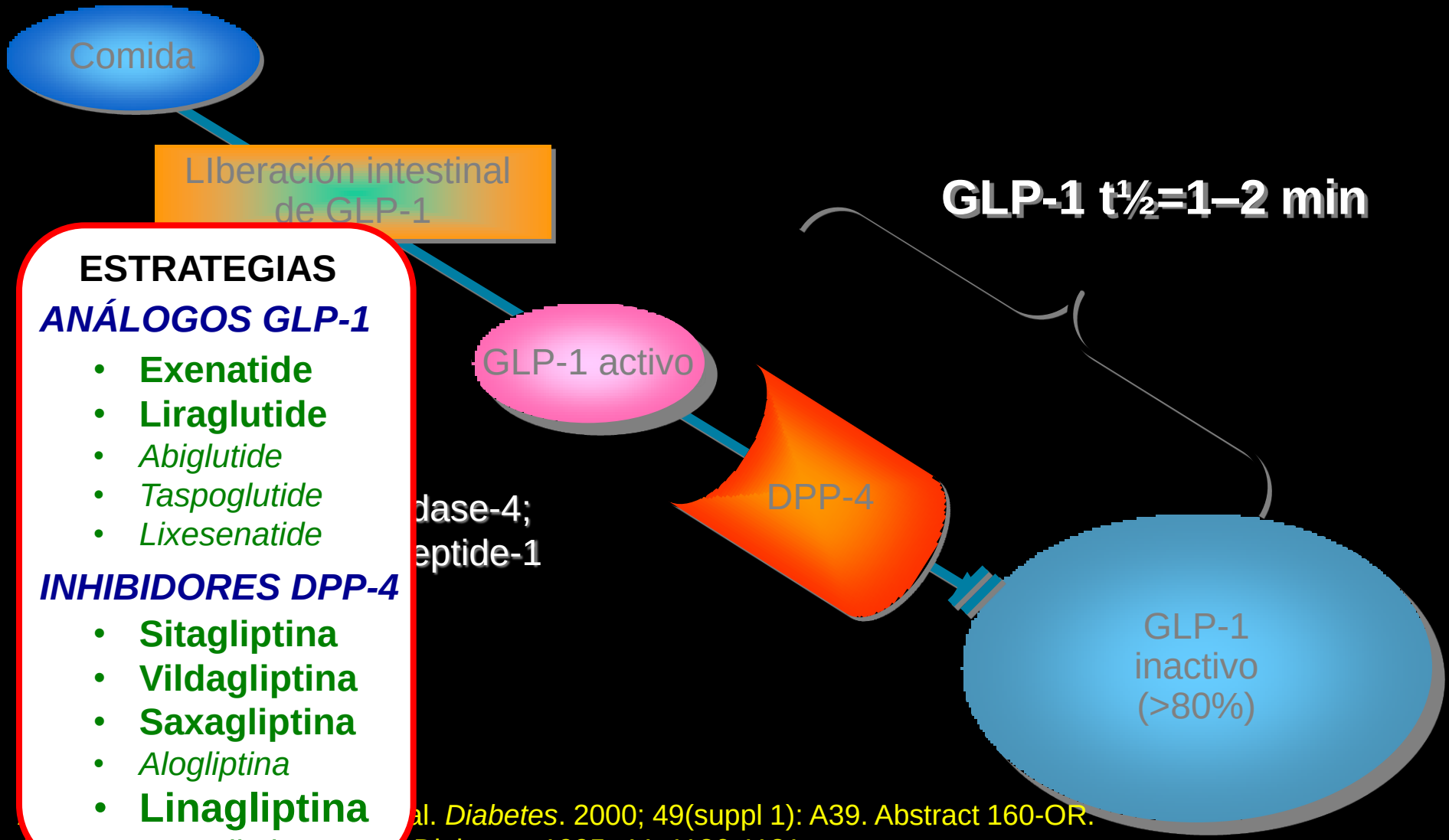
Sección de Hipertensión Arterial





Cordero A, Bertomeu V, et al. ACC 2011

La inhibición de la DPP-4 incrementa el GLP-1 activo



ESTRATEGIAS

ANÁLOGOS GLP-1

- **Exenatide**
- **Liraglutide**
- *Abiglutide*
- *Taspoglutide*
- *Lixesenatide*

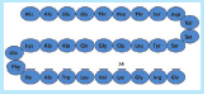
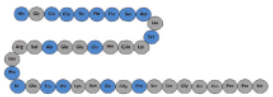
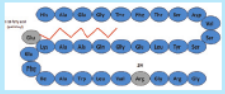
INHIBIDORES DPP-4

- **Sitagliptina**
- **Vildagliptina**
- **Saxagliptina**
- *Alogliptina*
- **Linagliptina**
- *Dutogliptina*

dase-4;
eptide-1

al. *Diabetes*. 2000; 49(suppl 1): A39. Abstract 160-OR.
. Diabetes. 1995; 44: 1126-1131.

Agonistas GLP-1 / inhibidores DPP IV

	GLP-1	Exenatide[69-72]	Liraglutide[73-78]
Structure*			
Homology to GLP-1	100%	53%	97%
Antibody formation	-	Approximately 61% of patients	Approximately 50% of patients
Route	-	Subcutaneous	Subcutaneous
Dosage	-	Twice daily (BID) 1 month at 5 µg BID, then 10 µg BID	Once daily (QD) 1 week at 0.6 mg QD, then 1.2 mg QD. Can increase to 1.8 mg QD if required
Food interaction	-	Must take before meals	No food interaction
Approximate Half-life	1-2 minutes	2.4 hours	13 hours
Elimination	Proteolysis by DPP-4	Glomerular filtration subsequent proteolytic degradation	Metabolism identified as major route of elimination
HbA_{1c} reduction	-	-0.8 to -0.9%	-1.0 % to -1.5%
Mean change in weight	-	-1.6 kg to -2.8 kg (over 30 weeks)	-0.2 kg to -2.8 kg (over 26 weeks)
Indicated in combination with:	-	Metformin and/or a sulfonylurea and/or a thiazolidinedione	Metformin and/or sulfonylurea; metformin and a thiazolidinedione
Contraindication and special warnings	-	Severe renal impairment and gastrointestinal disease	Inflammatory bowel disease and diabetic gastroparesis; thyroid adverse events
Very common adverse events	-	Nausea, vomiting, diarrhoea, Hypoglycaemia with sulfonylurea	Headache, nausea, vomiting, diarrhoea Hypoglycaemia with sulfonylurea

	Sitagliptin[51, 52]	Saxagliptin[53, 54]	Vildagliptin[55, 56]
Route	Oral	Oral	Oral
Dosage	100 mg once daily A lower dose of sulfonylurea or insulin may be considered to reduce the risk of hypoglycaemia	5 mg once daily Dose of sulfonylurea should be lowered in combination treatment	50 mg twice daily 50 mg once daily in combination with a sulfonylurea
Approximate half-life	12.4 hours	2.5 hours	3 hours
Elimination	Metabolism is a minor pathway. Primarily eliminated unchanged in urine	Elimination by metabolism (cytochrome P450 3A4/5) and renal clearance	Elimination by metabolism (not CYP 450 enzymes) and renal clearance
HbA_{1c} reduction (monotherapy)	Moderate decrease Up to -0.8%	Moderate decrease Up to -0.8%	Moderate decrease Up to -0.8%
Effect on weight	Weight neutral	Weight neutral	Weight neutral
Indicated in combination	Monotherapy (when metformin is inappropriate) **Dual therapy** with metformin, a thiazolidinedione, or a sulfonylurea **Triple therapy** with sulfonylurea + metformin; thiazolidinedione + metformin **Insulin** with or without metformin	**Dual therapy** with metformin, a thiazolidinedione, or a sulfonylurea	**Dual therapy** with metformin, a thiazolidinedione, or a sulfonylurea
Contraindication and special warnings	Not recommended in patients with moderate to severe renal failure (creatinine clearance < 50 mL/min). No dose adjustment in mild to moderate liver impairment	Not recommended in patients with moderate to severe renal failure (creatinine clearance < 50 mL/min). No dose adjustment in mild to moderate liver impairment	Not recommended in patients with moderate to severe renal failure (creatinine clearance < 50 mL/min). Contraindicated in patients with liver impairment
Very common adverse events	Hypoglycaemia with sulfonylurea	Hypoglycaemia with sulfonylurea	Hypoglycaemia with sulfonylurea

EFICACIA

SEGURIDAD

ACCIÓN DE LAS INCRETINAS SOBRE EVENTOS CARDIOVASCULARES

ESTUDIOS OSBERVACIONALES

Epidemiology/Health Services Research

ORIGINAL ARTICLE

Risk of Cardiovascular Disease Events in Patients With Type 2 Diabetes Prescribed the Glucagon-Like Peptide 1 (GLP-1) Receptor Agonist Exenatide Twice Daily or Other Glucose-Lowering Therapies

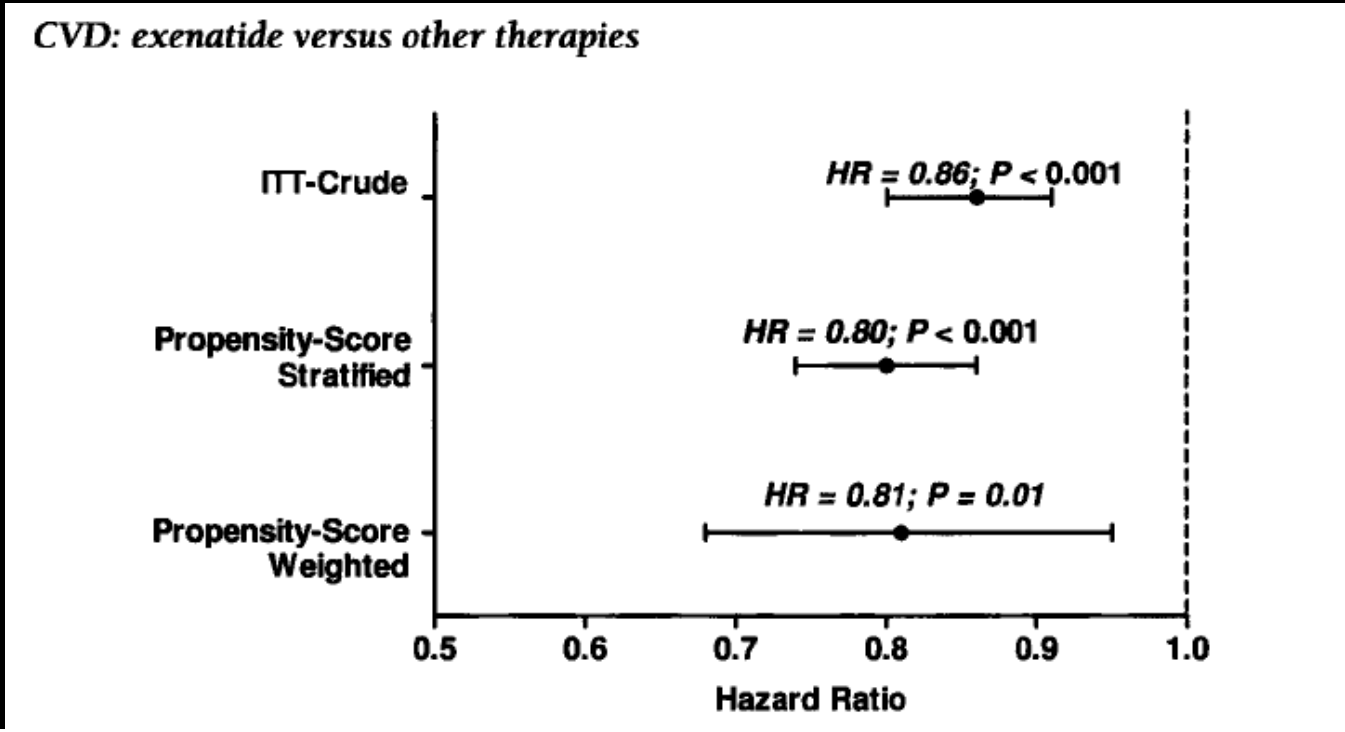
A retrospective analysis of the LifeLink database

- Pacientes con nuevo tratamiento antidiabético desde Junio 2005
- Comparación de pacientes tratados con exenatide vs. resto de antidiabéticos
- Excluidos los pacientes con evento CV los 9 meses previos a la inclusión
- Objetivo primario: IAM, ACV, revascularización coronaria

Best et al. Diabetes Care 2011;34:90-95

Resultados

- 383.525 pacientes incluidos (21.754 tratados con exenatide).
- Grupo exenatide: mayor severidad de DM y mayor uso de fármacos para el tratamiento de factores CV.



Ingreso por causas cardiovasculares: HR 0,88 (0,79-0,98); p=0,02

Ingreso por cualquier causa: HR 0,94 (0,91-0,97); p<0,001

Best et al. Diabetes Care 2011;34:90-95

ACCIÓN DE LAS INCRETINAS SOBRE EVENTOS CARDIOVASCULARES

LIRAGLUTIDE

Weighing Risks and Benefits of Liraglutide — The FDA's Review of a New Antidiabetic Therapy

Mary Parks, M.D., and Curtis Rosebraugh, M.D., M.P.H.

El análisis combinado de los ensayos en fase II y III muestra que liraglutide cumple el estándar de la FDA respecto al riesgo cardiovascular. Las tasas de eventos cardiovasculares fueron bajas, pero está pendiente de nuevos estudios de seguridad cardiovascular.

Parks, Rosebrauhg. N Engl J Med 2010; 362:774-777

ACCIÓN DE LAS INCRETINAS SOBRE EVENTOS CARDIOVASCULARES

Williams-Herman *et al. BMC Endocrine Disorders* 2010, **10**:7
http://www.biomedcentral.com/1472-6823/10/7

BMC Endocrine Disorders

original article

Diabetes, Obesity and Metabolism 12: 485–494, 2010.

Postgraduate Medicine®
The Rapid Peer-Reviewed Journal for Physicians

A Systematic Assessment of Cardiovascular Outcomes in the Saxagliptin Drug Development Program for Type 2 Diabetes

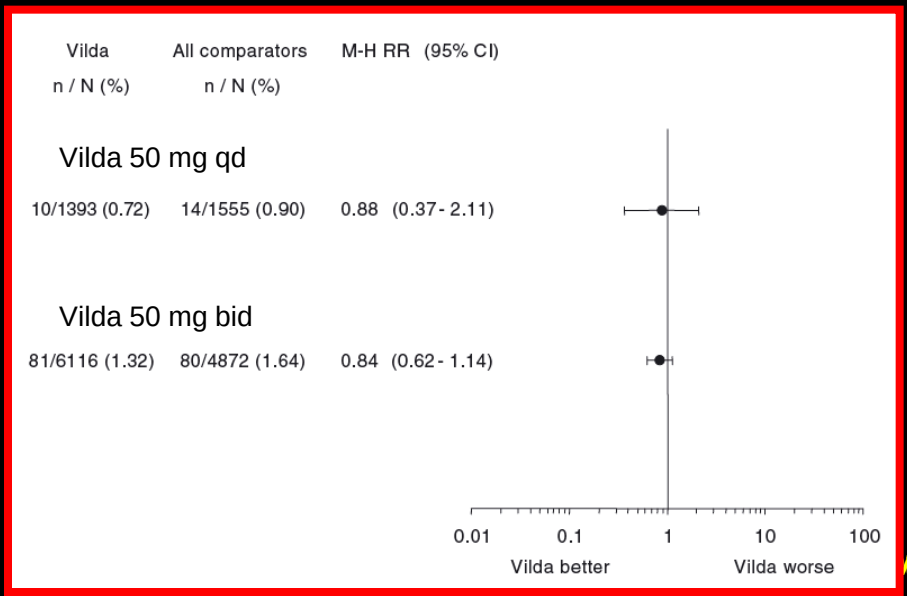
Robert Frederich, MD, PhD; John H. Alexander, MD, MHS, FACC; Fred T. Fiedorek, MD; Mark Donovan, PhD; Niklas Berglind, BSc; Susan Harris, MS; Roland Chen, MD; Robert Wolf, MD; and Kenneth W. Mahaffey, MD

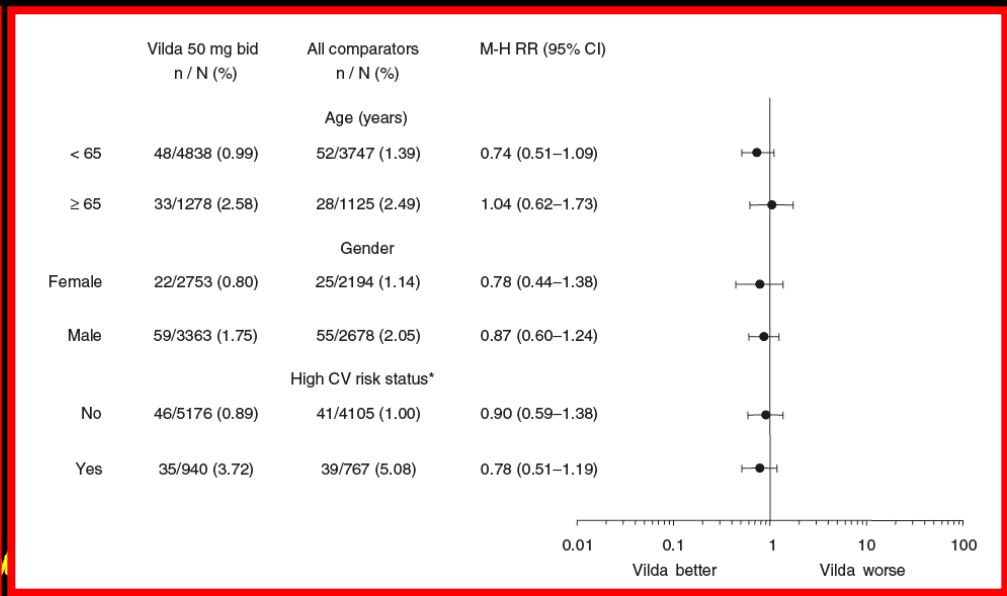
SITAGLIPTINA

- 19 ensayos clínicos aleatorizados de duración 12 semanas - 2 años.
- 10.246 pacientes incluidos (82% con FRCV adicionales)
- Baja incidencia de eventos: 0,6 vs. 0,9/100 pacientes/año con sitagliptina vs. comparador: HR 0,68 (0,41 - 1,12)

VILDAGLIPTINA

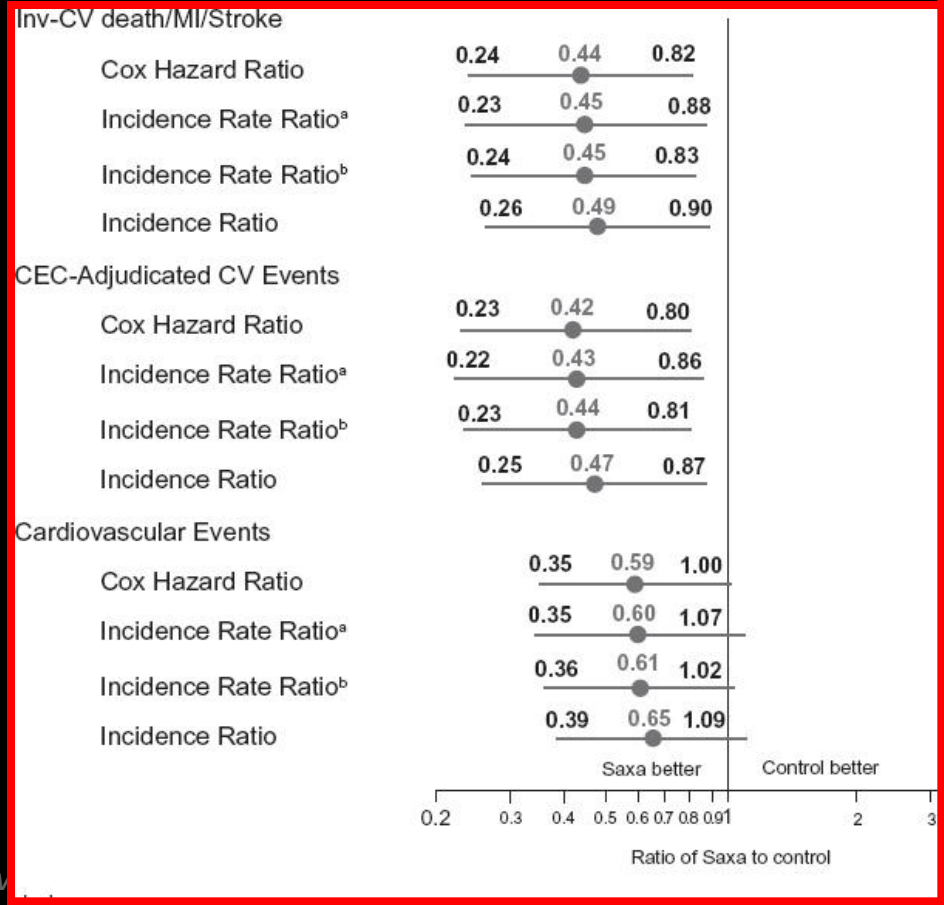
- 25 ensayos clínicos aleatorizados de duración 12 semanas - 2 años.
- 13.570 pacientes incluidos (40% con ≥ 3 FRCV y 15% con enf CV previa)
- HR 0,88 (0,37 – 2,11) (50 mg/24h); HR 0,84 (0,62 - 1,14) (50 mg/12h)

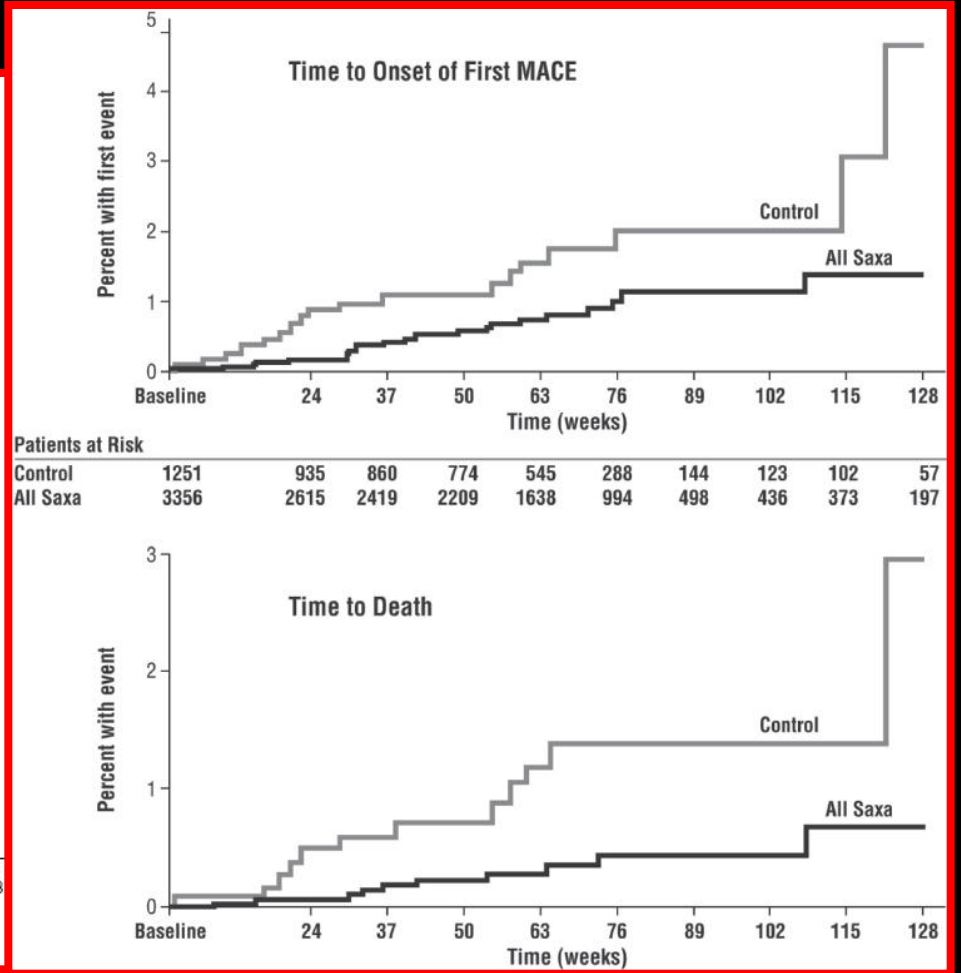




SAXAGLIPTINA

- 8 ensayos clínicos aleatorizados de duración 12 semanas - 48 meses.
- 4.607 pacientes incluidos (>80% con FRCV adicionales y 12% con enf CV previa)
- RR 0,59 (0,35 – 1,00)

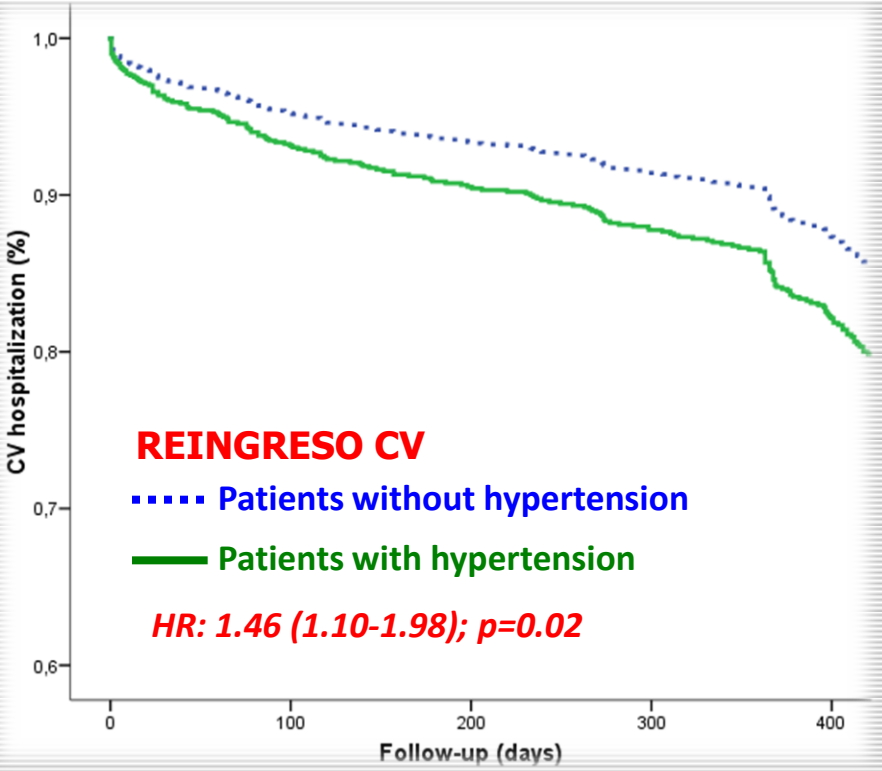


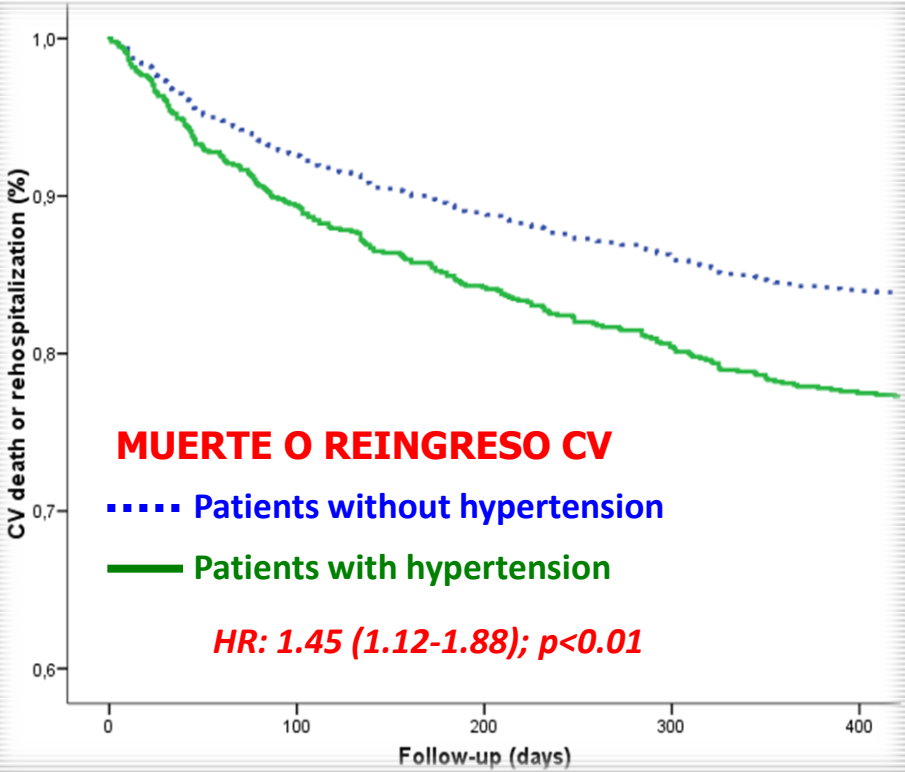


HIPERTENSIÓN ARTERIAL

Impacto de la HTA en la Cardiología

Pacientes hospitalizados en HSJ durante 10 meses
1007 pacientes consecutivos, 70% HTA



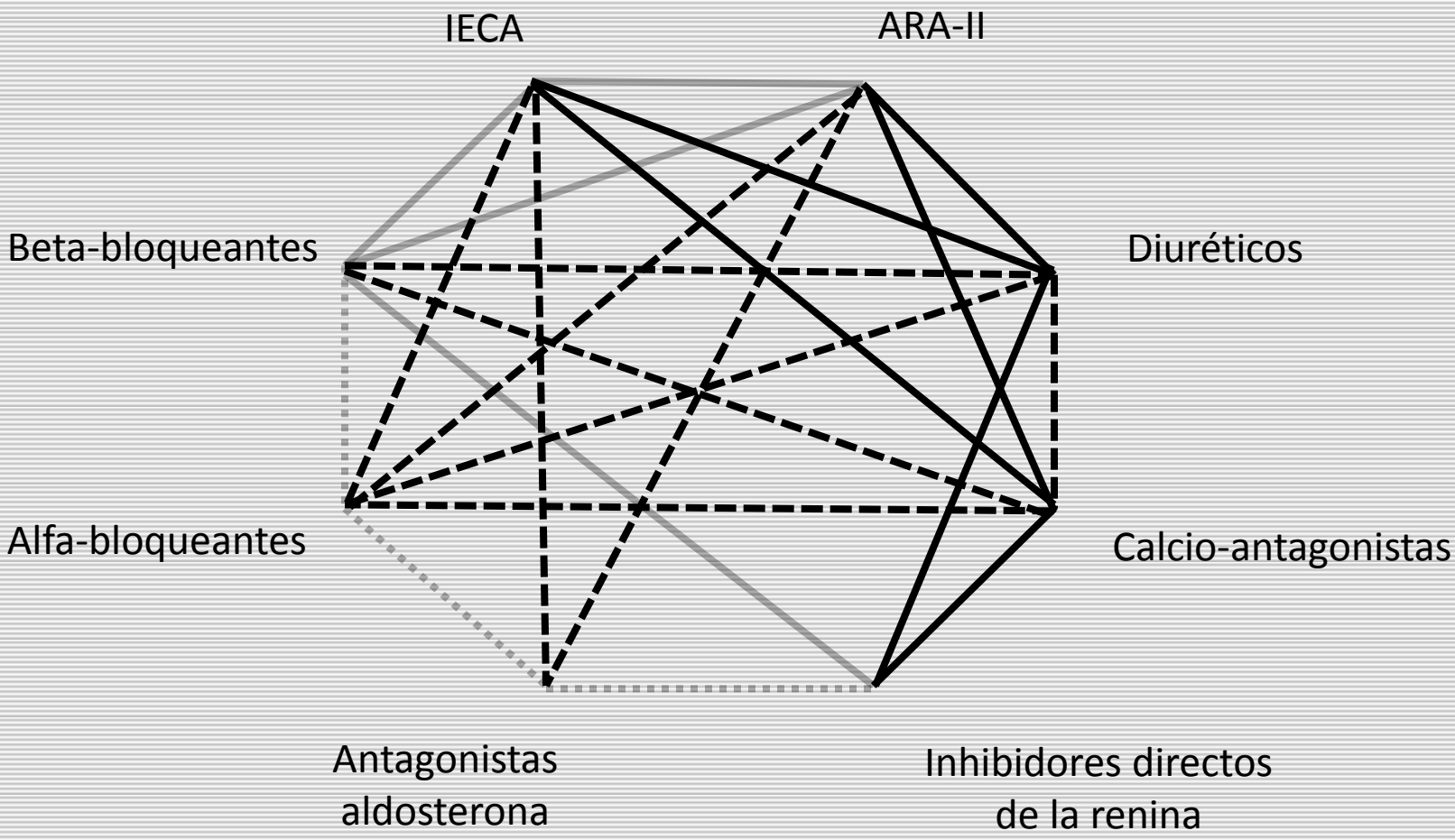


Cordero A, Bertomeu V, et al. Am J Cardiol 2011; 108:1570-1575

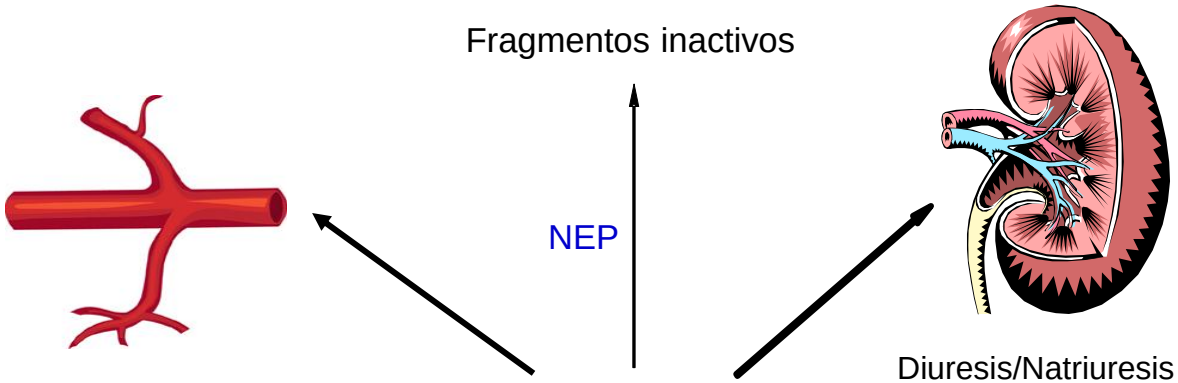
COMBINACIONES

- PREFERIDAS:
  - Inhibidores del SRAA + Ca-antagonistas.
  - Inhibidores del SRAA + diuréticos.
- ACEPTABLES:
  - Beta-bloqueantes + diuréticos.
  - Ca-antagonistas + diuréticos.
  - Ca-antagonistas + beta-bloqueantes.
  - Doble bloqueo de calcio-antagonistas.
- INEFICACES:
  - Doble bloqueo de SRAA.
  - Inhibidores SRAA + beta-bloqueantes.
  - Beta-bloqueantes + alfa-bloqueantes.
  - Alfa-bloqueantes + inhibidores aldosterona.

Peter S. Sever and Franz H. Hypertension management 2011: optimal combination therapy. Messerli. Eur Heart J (2011) 32(20): 2499-2506.

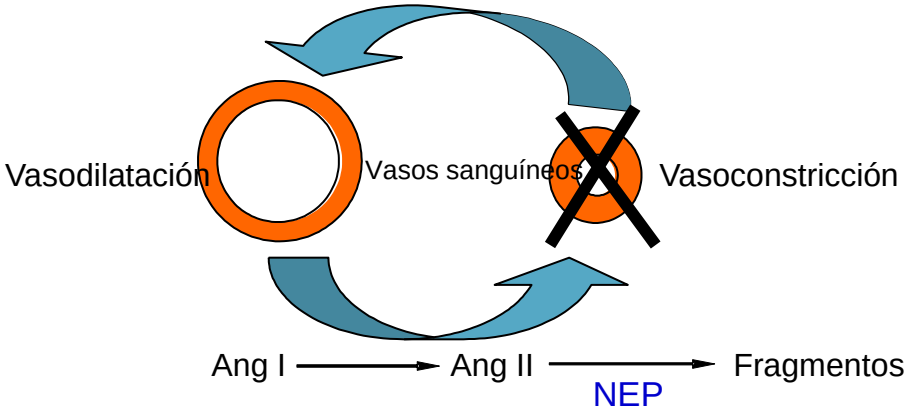

IECA
ARA-II
Beta-bloqueantes
Diuréticos
Alfa-bloqueantes
Calcio-antagonistas
Antagonistas aldosterona
Inhibidores directos de la renina
Combinaciones preferidas
Combinaciones aceptables
Combinaciones inefectivas
Combinaciones no estudiadas

Concepto biológico: tratamiento con actividad dual



Valsartán

Vasodilatación
- ↓ Presión arterial
- ↓ Tono simpático
- ↓ Niveles aldosterona
- ↓ Retención de sodio
- ↓ Crecimiento celular



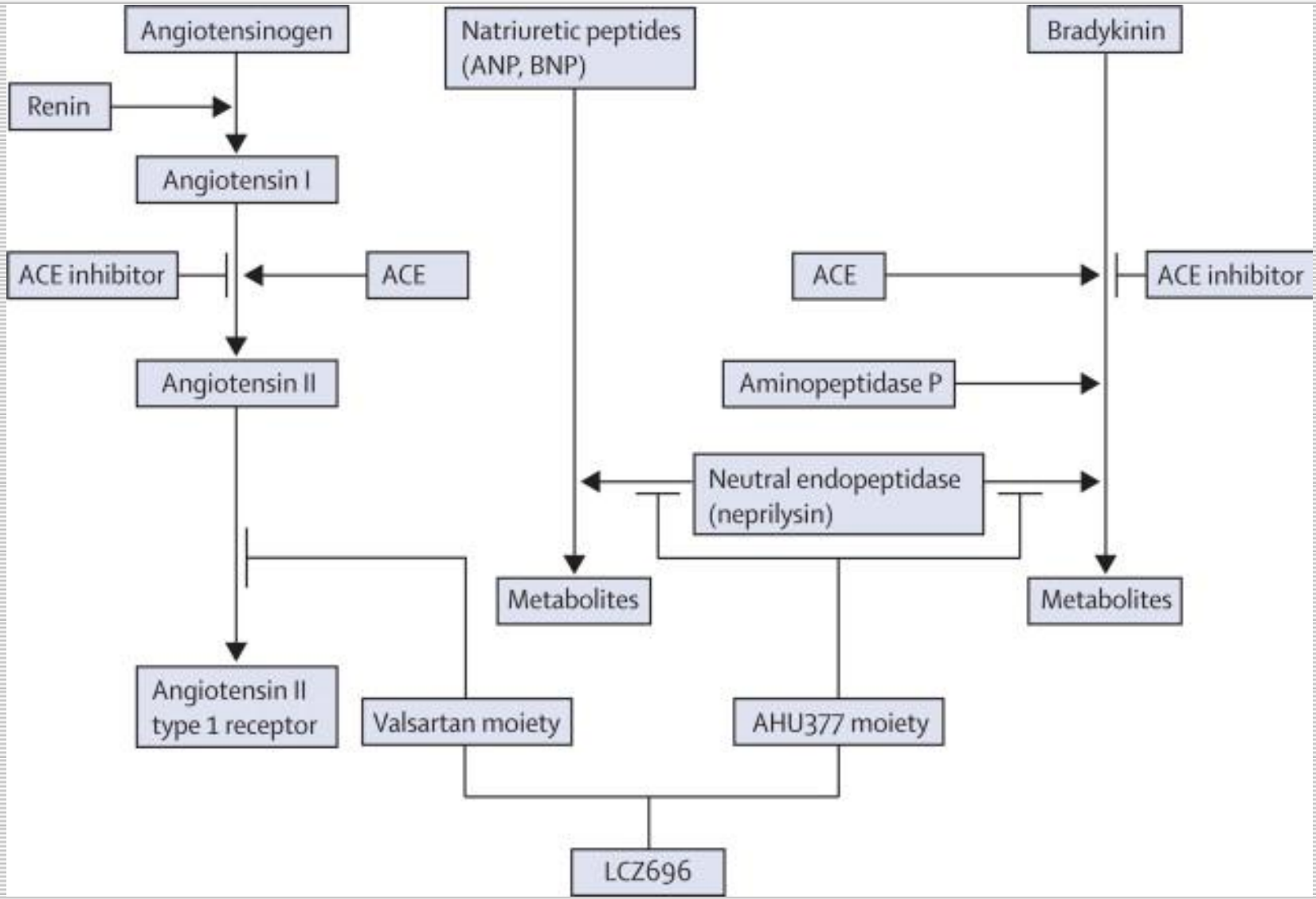
NEP ¡inhibitor

Vasodilatación
- ↓ Presión arterial
- ↓ Tono simpático
- ↓ Niveles de aldosterona

Natriuresis

Diuresis

LCZ696 se convierte en AHU377 (que a su vez se metaboliza a LBQ657) y valsartan



Waeber B, Feihl F. Lancet 2010; 375: 1228–9

ACTIVACIÓN DE BARORRECEPTORES

- Mecanismo:

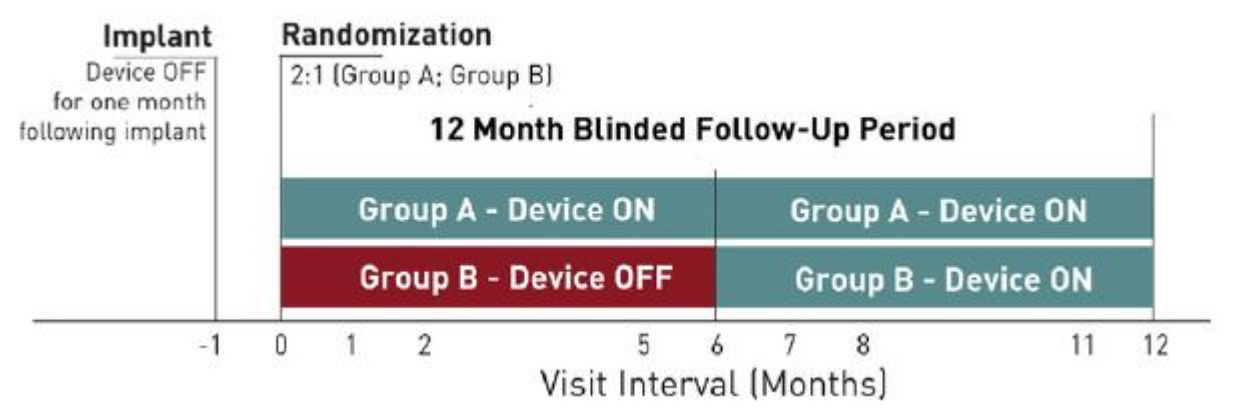
  ↓ actividad simpática

  ↑ actividad parasimpática

  → · ↓ resistencias periféricas
  · ↑ flujo renal
  · ↓ retención de sodio
  · mejora remodelado miocárdico

- Ensayo RHEOS PIVOTAL TRIAL:
  - 265 pacientes con HTA resistente.
  - Implantación de dispositivo en bulbo carotídeo para activar los barorreceptores.
  - Objetivos:
    - Primarios: eficacia a corto y largo plazo, seguridad del dispositivo.
    - Secundarios: diferencia del cambio de PA.
  - Seguimiento medio: 21 meses.

A todos los pacientes se les implantó el dispositivo. Durante los 6 primeros meses, sólo el grupo A lo llevó activado. Después, hasta completar un total de 12 meses, ambos grupos recibían la terapia.



J Bisognano et al. Baroreflex activation therapy lowers blood pressure in patients with resistant hypertension. J Am Coll Cardiol 2011; 58; 7:765-773.

De la misma forma, los pacientes con el dispositivo activado también consiguen mayores diferencias al disminuir su PA basal (previa al implante).

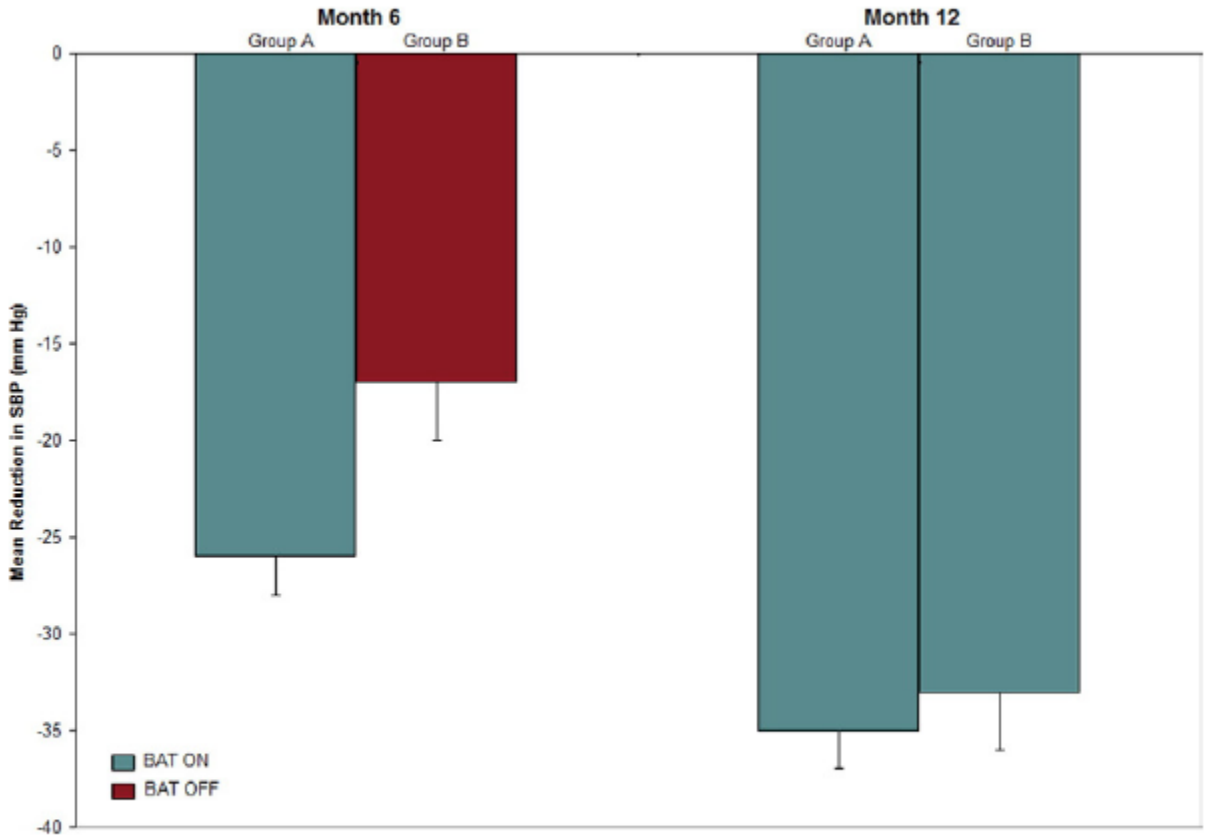


Figure 5 **Observed Mean Change in SBP**

Data with standard error of the change from the pre-implant time point are displayed for the 2 randomized groups. **Red bars** = BAT is off; **green bars** = BAT is on.

J Bisognano et al. Baroreflex activation therapy lowers blood pressure in patients with resistant hypertension. J Am Coll Cardiol 2011; 58; 7:765-773.

DENERVACIÓN QUIRÚRGICA

The Effects of Splanchnicectomy on the Blood Pressure in Hypertension

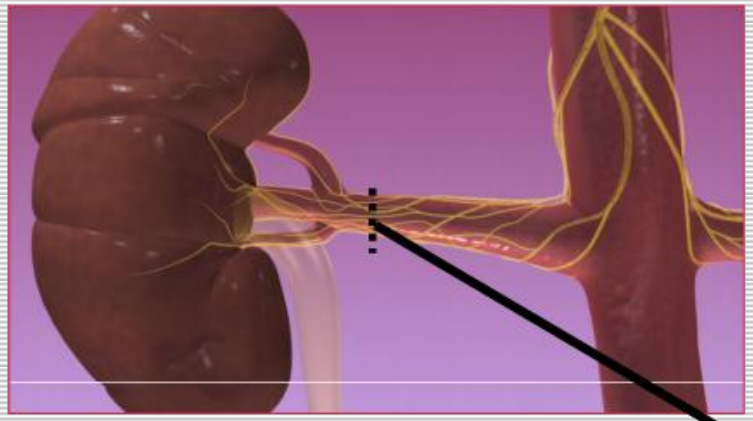
A Controlled Study

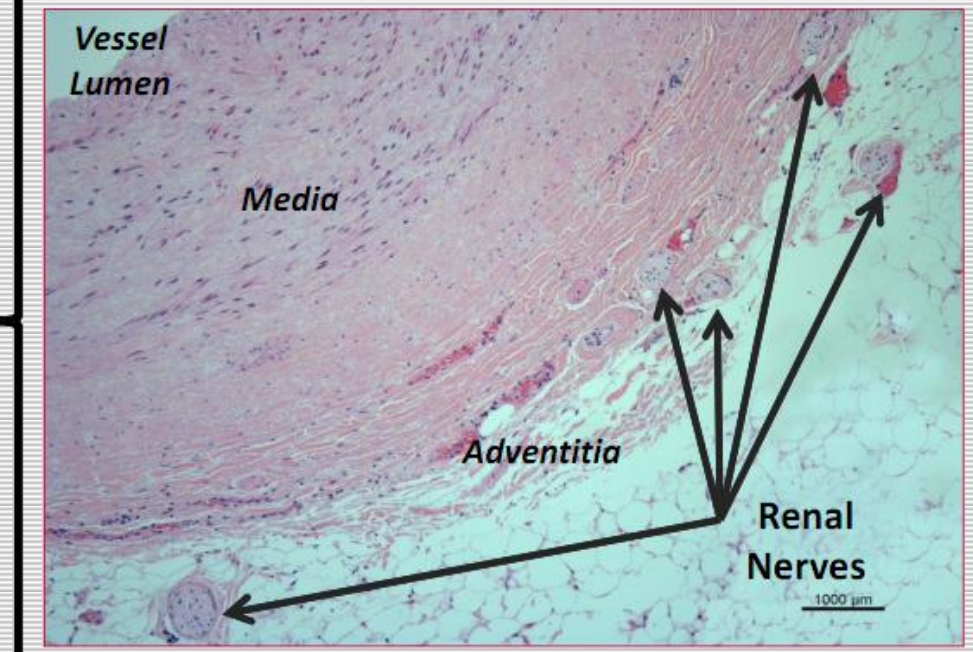
By S. W. Hoobler, M.D., J. T. Manning, M.D., W. G. Paine, M.D.. S. G. McClellan, M.D., P. O. Helcher, M.D., Henry Renfert, Jr., M.D., M. M. Peet, M.D., and E. A. Kahn, M.D.

The effect of supradiaphragmatic splanchnicectomy on the blood pressure of 294 hypertensive patients followed for 10 to 18 months after surgery is compared with the effects of nonspecific medical management in a control group of 79 patients similarly studied. The data are presented in simple graphic form. It is concluded that 29 per cent of the hypertensive patients had reductions in blood pressure outside the range of spontaneous variation, that the vascular complications of hypertension decreased the likelihood of a good result, and that extension of the sympathetic ganglionectomy upward appeared to increase the frequency of good results without requiring a two-stage operation or producing significant postoperative orthostatic hypotension.

Page. J Clin Invest. 1935;14(1):22–26.
Hoobler. Circulation. 1951 Aug;4(2):173-83.

DENERVACIÓN RENAL





SNS renal adyacente a pared arterias renales principales

Localización anatómica del SNS renal permite abordaje percutáneo

Catheter-based renal sympathetic denervation for resistant hypertension: a multicentre safety and proof-of-principle cohort study

Henry Krum, Markus Schlaich, Rob Whitbourn, Paul A Sobotka, Jerzy Sadowski, Krzysztof Bartus, Boguslaw Kapelak, Anthony Walton, Horst Sievert, Suku Thambar, William T Abraham, Murray Esler

- Estudio piloto (proof-of-principle)
- 50 pacientes no aleatorizados (TAS ≥ 160 con 3 antihipertensivos incluyendo diurético, sin secundarismo conocido y FG ≥ 45 mL/min/1.73 m^2)
- Objetivos
  - Primario: Efecto TA
  - Secundarios: desbordamiento NA y función renal

Krum. Lancet 2009;373:1275-1281

Catheter-based renal sympathetic denervation for resistant hypertension: a multicentre safety and proof-of-principle cohort study

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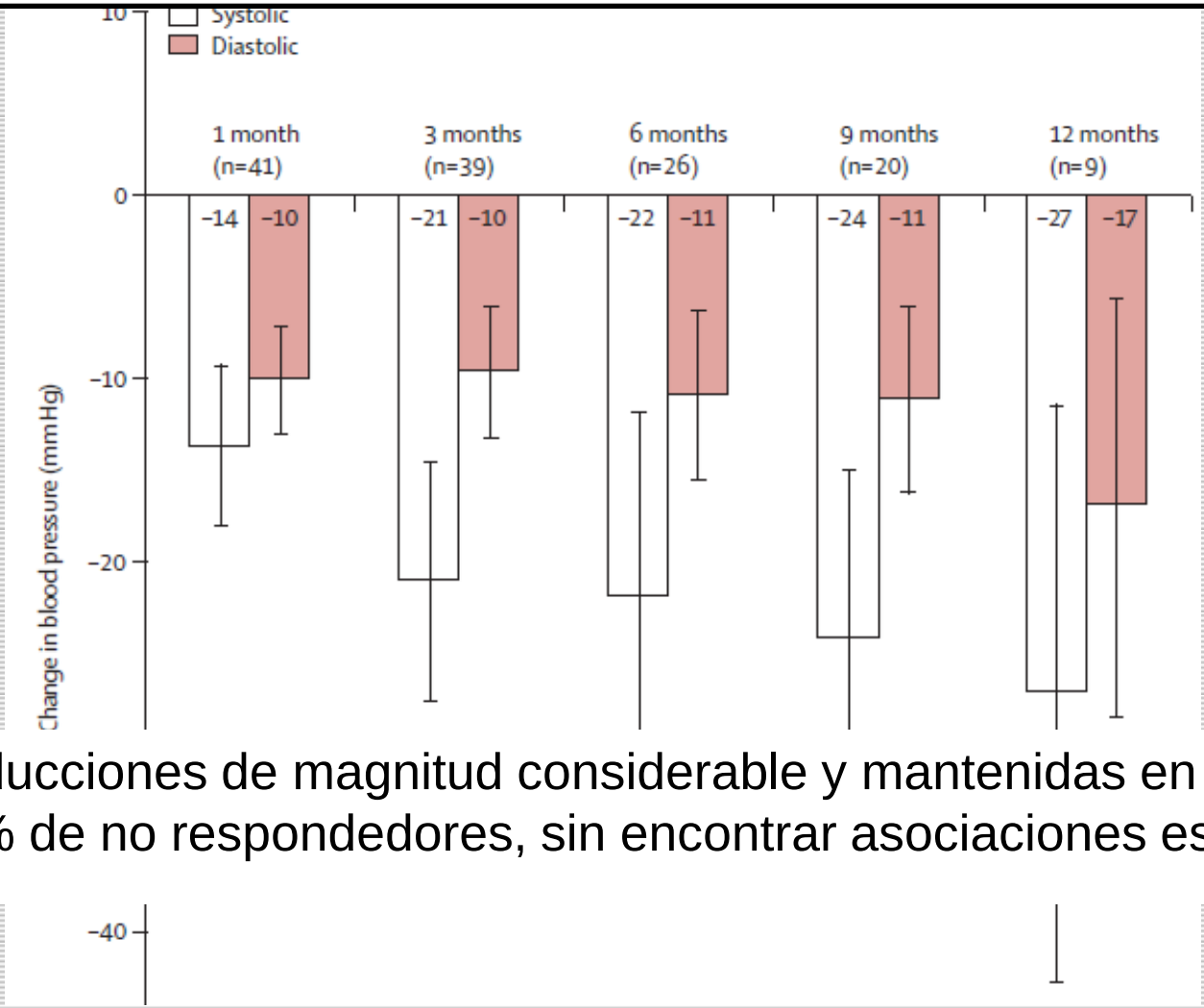


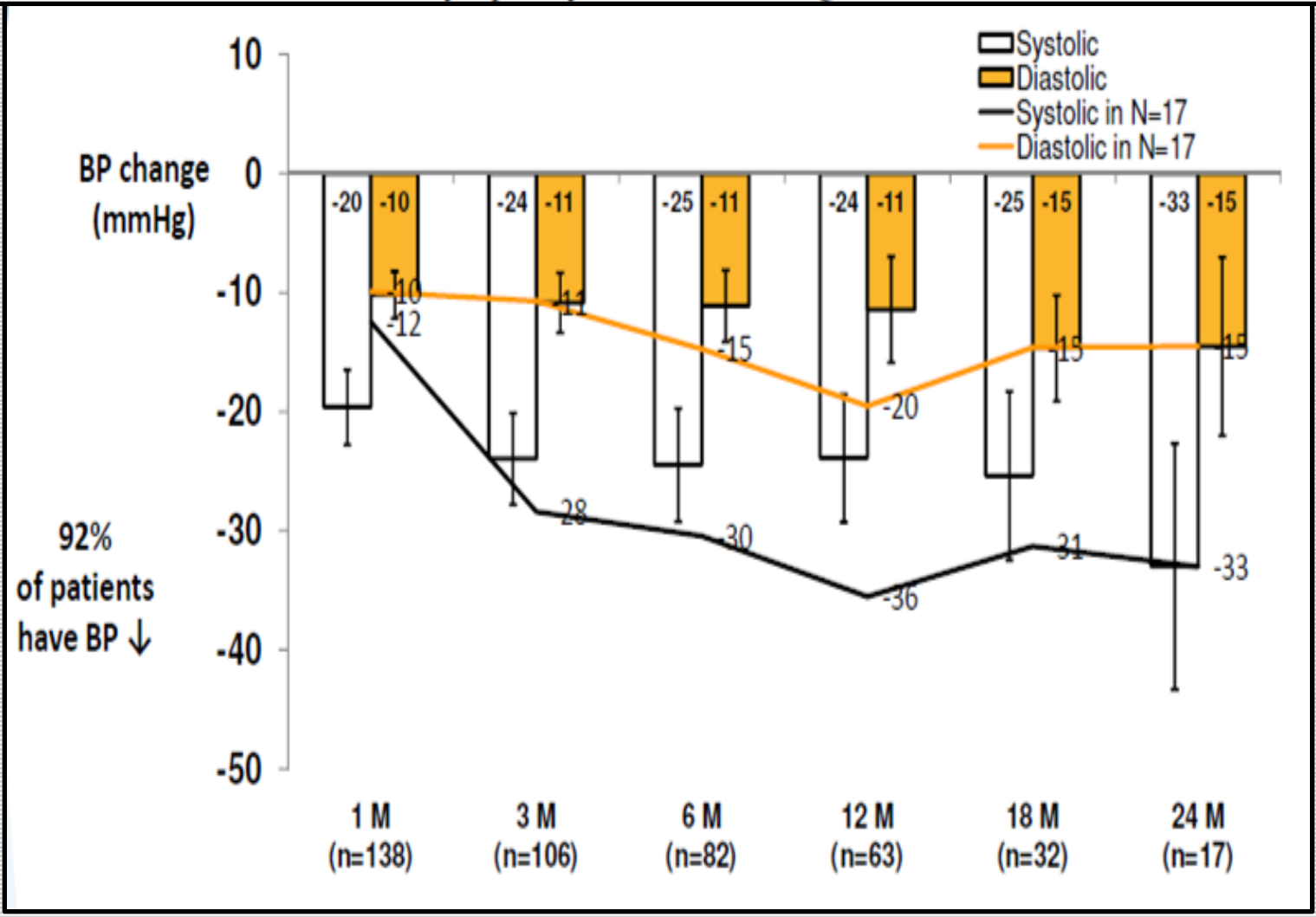
- Reducciones de magnitud considerable y mantenidas en el tiempo
- 13% de no respondedores, sin encontrar asociaciones específicas

Krum. Lancet 2009;373:1275-1281

Catheter-Based Renal Sympathetic Denervation for Resistant Hypertension

Durability of Blood Pressure Reduction Out to 24 Months

Symplicity HTN-1 Investigators*



Symplicity HTN-1. Hypertension. 2011;57:911

Renal sympathetic denervation in patients with treatment-resistant hypertension (The Symplicity HTN-2 Trial): a randomised controlled trial

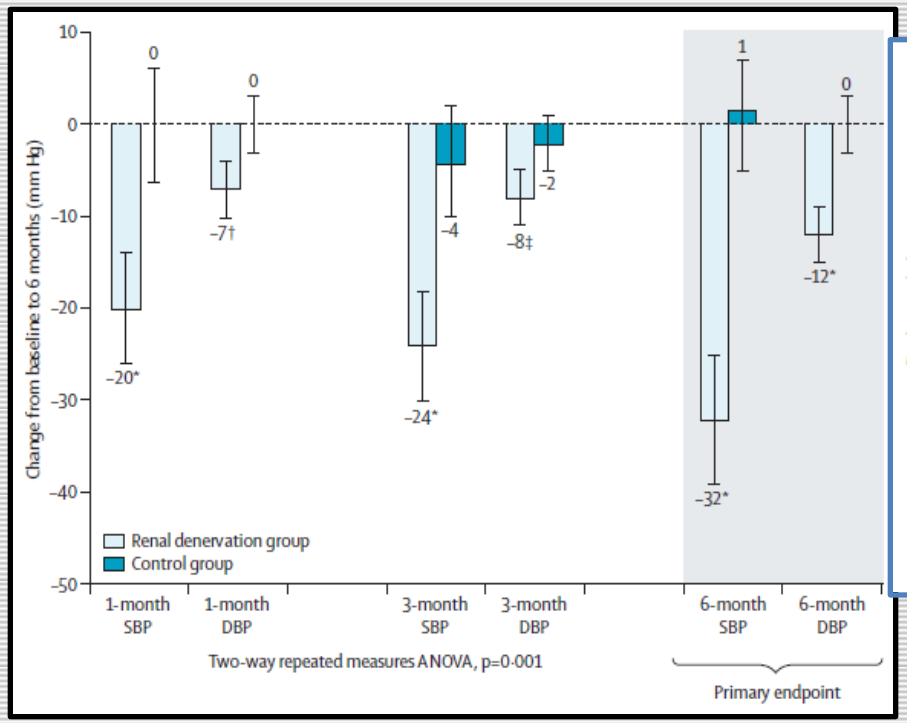
Symplicity HTN-2 Investigators*

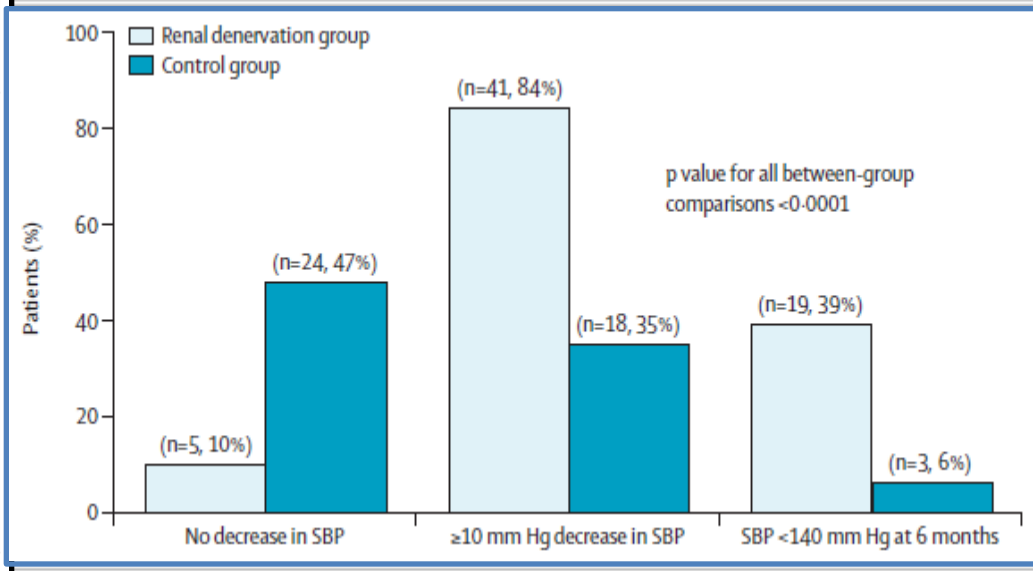
- Ensayo clínico aleatorizado
- 106 pacientes con HTA refractaria
  - TAS ≥ 160 (150 en DM)
  - ≥ 3 fármacos antihipertensivos
- Exclusión
  - FG < 45 mL/min/1,73 m^2
  - A. renal estenótica, < 4 mm diámetro o < 20 mm longitud

Symplicity HTN-2 Investigators. Lancet 2010;376:1903-1909

Renal sympathetic denervation in patients with treatment-resistant hypertension (The Symplicity HTN-2 Trial): a randomised controlled trial

*Symplicity HTN-2 Investigators**





Symplicity HTN-2 Investigators. Lancet 2010;376:1903-1909

European Heart Journal (2011) 32, 2143–2152
doi:10.1093/eurheartj/ehr080

CLINICAL RESEARCH
Prevention

Achievement of treatment goals for primary prevention of cardiovascular disease in clinical practice across Europe: the EURIKA study

- Ensayo que pretende estudiar el grado de control sobre los FRCV en prevención primaria.
- Realizado en países de toda Europa con datos principalmente extraídos de médicos de atención primaria.
- Resultados:
  - Edad media: 63,2 años. Hombres 48,4%.
  - HTA 72,7%; DM 26,8%; DLP 57,7 %; obesidad 43,6%.
  - Sedentarismo 19,8%.
  - Objetivos:
    - PA <140/90 mmHg (DM: <130/80 mmHg).
    - Colesterol total <190 mg/dl; LDL < 115 mg/dl (DM: <175 mg/dl y <100 mg/dl, respectivamente).
    - HbA1c <6.5%; glucosa en ayunas <110 mg/dl.
    - IMC <30 kg/m2; perímetro cintura <102 cm en hombres y <88 cm en mujeres.

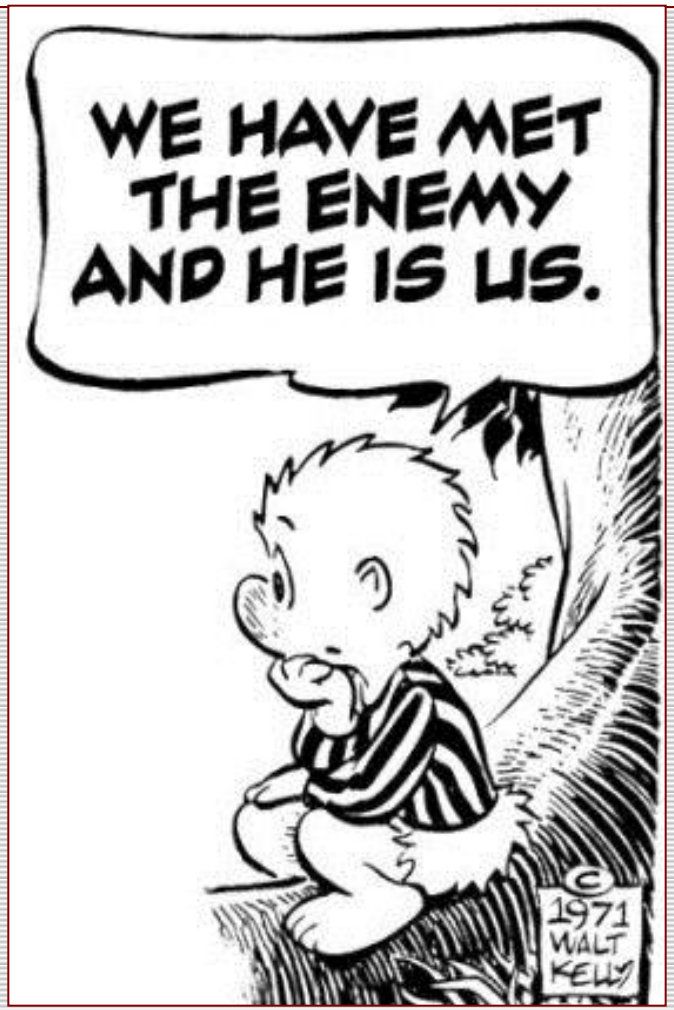
ESTUDIO EURIKA

- Resultados:

FRCV	PACIENTES TRATADOS (%)	OBJETIVO ALCANZADO (% PACIENTES)	
HTA	94,2	38,8	
DM2	87,2	HbA1c	36,7
		Glucosa en ayunas	20
		Ambas	7,2
DLP	74,4	Colesterol total	43,3
		Colesterol total + LDL	41,2
Obesidad	92,2 (cumplen medidas higiénico-dietéticas)	IMC	24,7
		Perímetro cintura	6,8
		Ambas	3,2

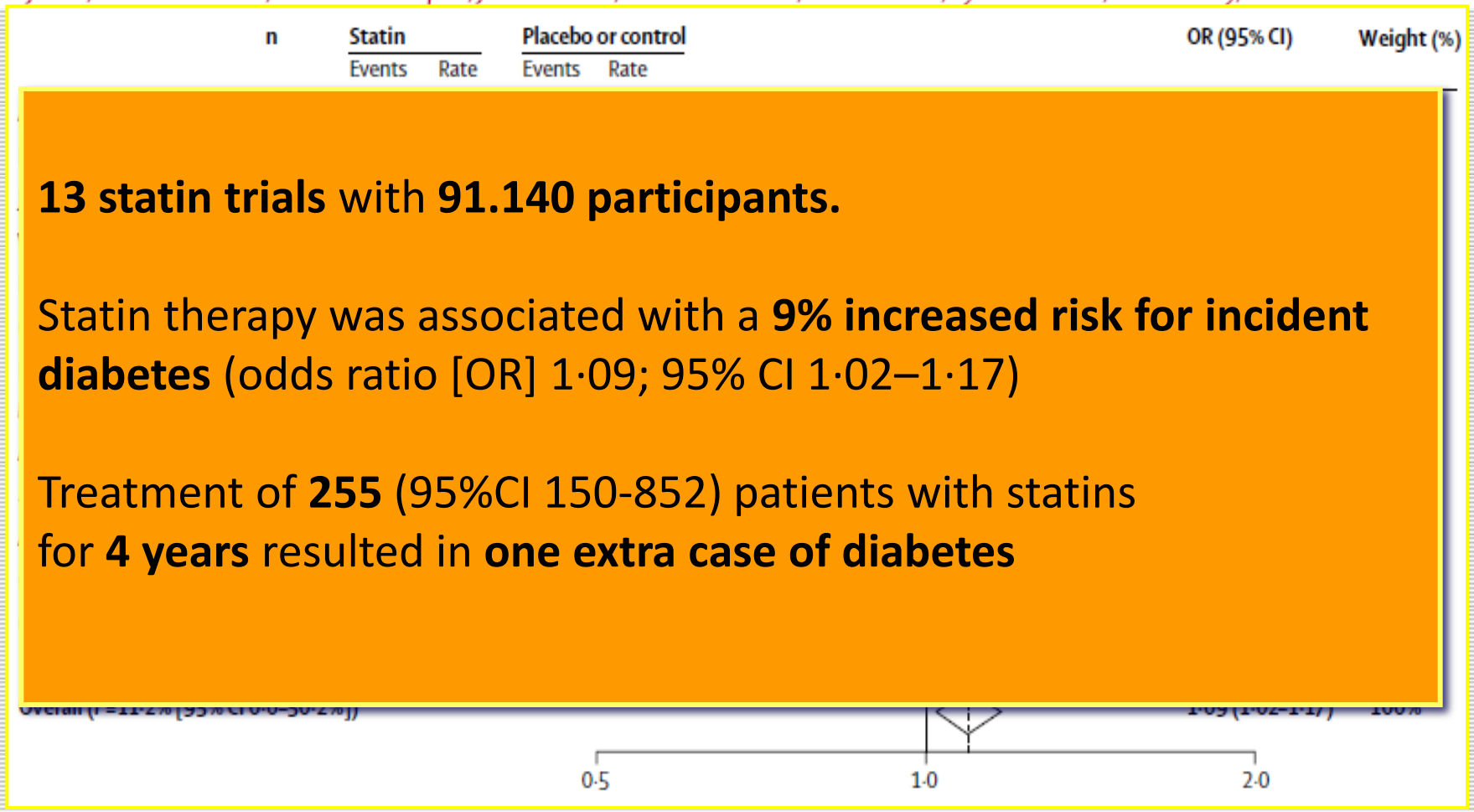
Is prevention a fantasy, or the future of medicine? A panoramic view of recent data, status, and direction in cardiovascular prevention

R Koner. Ther Adv Cardiovasc Dis 2011; 5: 61-81



Statins and risk of incident diabetes: a collaborative meta-analysis of randomised statin trials

Naveed Sattar, David Preiss, Heather M Murray, Paul Welsh, Brendan M Buckley, Anton J M de Craen, Sreenivasa Rao Kondapally Seshasai, John J McMurray, Dilys J Freeman, J Wouter Jukema, Peter W Macfarlane, Chris J Packard, David J Stott, Rudi G Westendorp, James Shepherd, Barry R Davis, Sara L Pressel, Roberto Marchioli, Rosa Maria Marfisi, Aldo P Maggioni, Luigi Tavazzi, Gianni Tognoni, John Kjekshus, Terje R Pedersen, Thomas J Cook, Antonio M Gotto, Michael B Clearfield, John R Downs, Haruo Nakamura, Yasuo Ohashi, Kyoichi Mizuno, Kausik K Ray, Ian Ford



13 statin trials with **91.140 participants.**

Statin therapy was associated with a **9% increased risk for incident diabetes** (odds ratio [OR] 1·09; 95% CI 1·02–1·17)

Treatment of **255** (95%CI 150-852) patients with statins for **4 years** resulted in **one extra case of diabetes**

Sattar N. Lancet 2010; 375: 735-742

Statins and risk of incident diabetes: a collaborative meta-analysis of randomised statin trials

Naveed Sattar, David Preiss, Heather M Murray, Paul Welsh, Brendan M Buckley, Anton J M de Craen, Sreenivasa Rao Kondapally Seshasai, John J McMurray, Dilys J Freeman, J Wouter Jukema, Peter W Macfarlane, Chris J Packard, David J Stott, Rudi G Westendorp, James Shepherd, Barry R Davis, Sara L Pressel, Roberto Marchioli, Rosa Maria Marfisi, Aldo P Maggioni, Luigi Tavazzi, Gianni Tognoni, John Kjekshus, Terje R Pedersen, Thomas J Cook, Antonio M Gotto, Michael B Clearfield, John R Downs, Haruo Nakamura, Yasuo Ohashi, Kyoichi Mizuno, Kausik K Ray, Ian Ford

Statin therapy is associated with a **slightly increased risk of development of diabetes, but the risk is low both in absolute terms and when compared with the reduction in coronary events**.

Clinical practice in patients with moderate or high cardiovascular risk or existing cardiovascular disease **should not change**

Sattar N. Lancet 2010; 375: 735-742