



Un vistazo por el mundo de la diabetes: desde el inicio hasta el 2014

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(Huang Di Nei Jing)

消渴
(emaciación-sed)

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Medicina tradicional china

- Descripción hace 2000 años
- Causa: consumir demasiada comida rica en:
 - Grasa
 - Azúcares
 - Ricas
- Ocurre comúnmente en personas adineradas
- Tratamiento: resistir una dieta rica

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Egipcios

- Descripción 1500 AC
- Probablemente DM-1
- Mucha poliuria

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Hindúes

- Madhumeha
- Orina mielosa
- Orina que atrae hormigas
- Sushruta y Charaka en 400-500 AD por primera vez separaron tipo 1 y 2:
 - Tipo 1 en jóvenes
 - Tipo 2 en sobrepeso

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Diabetes

- El término fue empleado por primera vez por Apollonio de Memphis
- Raro en la antigua Grecia
- Galeno describió que había visto sólo 2 casos en su vida
- Areteaus mencionó que “vida (con diabetes) era corta, desagradable y dolorosa”

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“mellitus”

- Agregado por John Rolle a finales de 1700s para diferenciarlo de diabetes insípido

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Josef von Mering

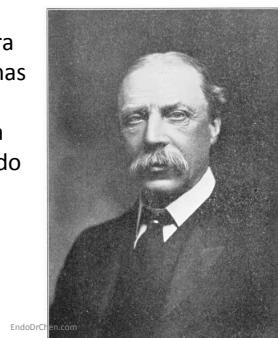
En 1889 describieron que perros pancreatectomizados desarrollaban signos y síntomas clásicos de diabetes



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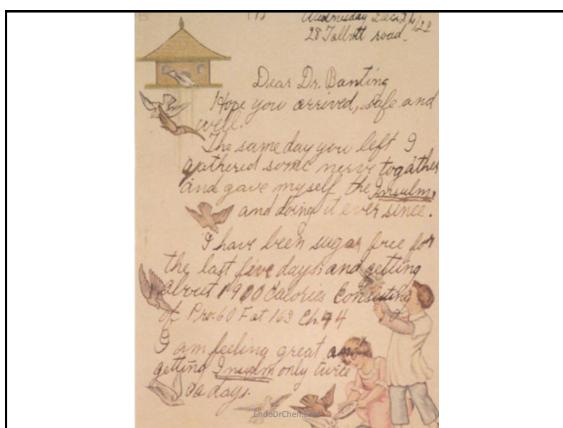
Edward Albert Sharpey-Schafer

- Sugirió por primera vez que las personas con diabetes eran deficientes de una sustancia producida en el páncreas, llamado insulina



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Insulinas y premio Nobel

- Banting y MacLeod por descubrimiento de insulina
- Sir Frederick Sanger por determinar la secuencia de amino ácidos de la insulina
- Rosalyn Yalow y Solomon Berson, premio Nobel de Medicina y Fisiología por el radioinmunoensayo para medir insulina

Insulinas

- Primera administración a seres humanos fue el 11 de enero de 1922
- Insulina simple de administración IM 2 veces al día con volúmenes de entre 5 y 18 cc
- 1936 NPH
- 1954 lentes

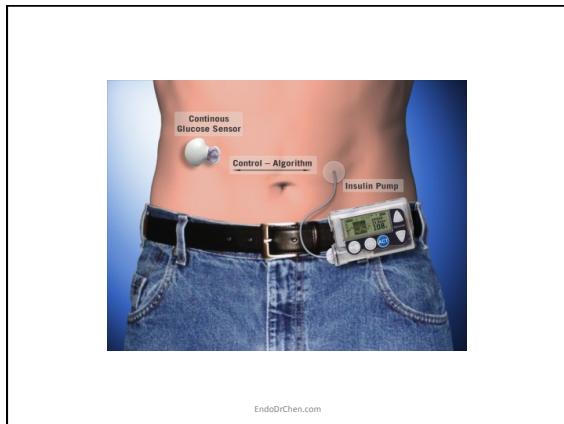
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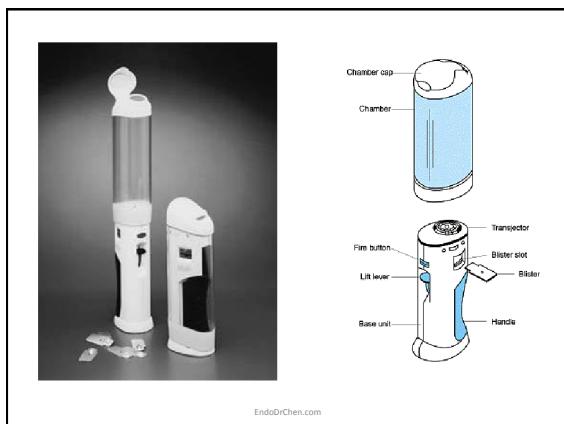
Análogos de insulina

- Aparecieron a mediados de los 90s
- Ultrarrápidos
- basales

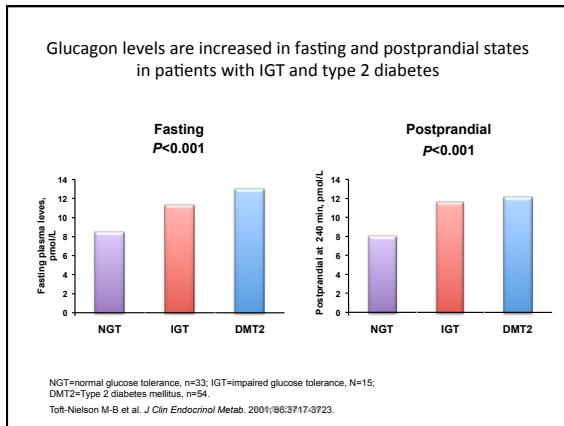
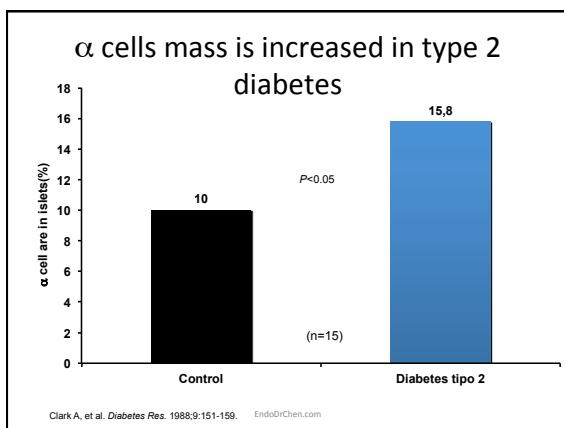
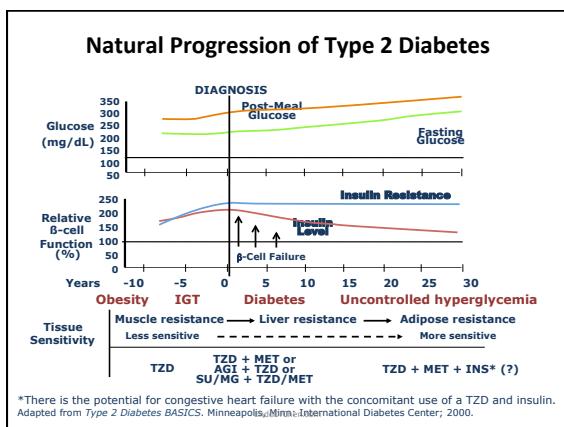
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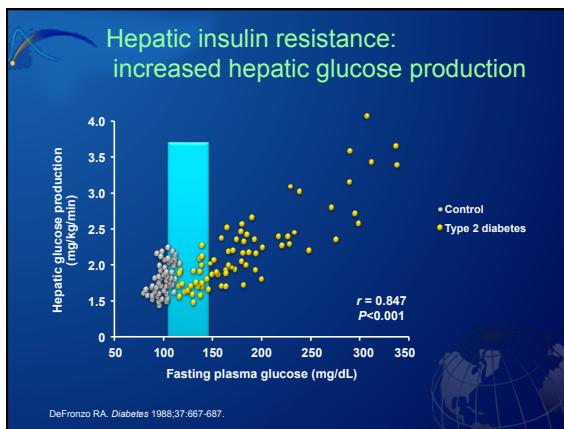
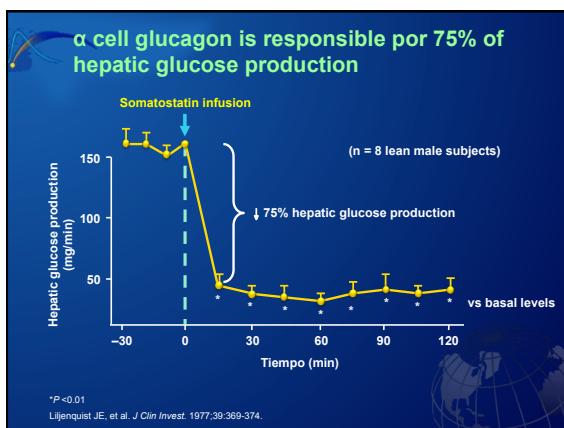
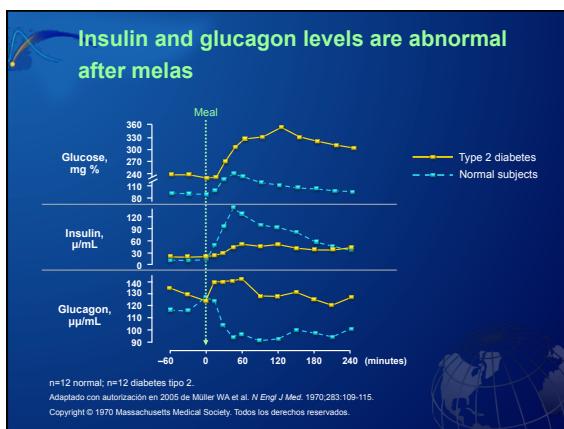








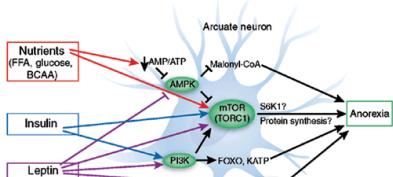




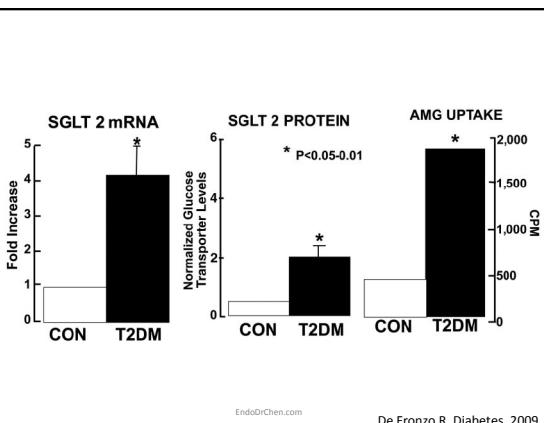
Aumento en la producción hepática de glucosa

- Como manifestación de resistencia a la insulina
- Como consecuencia de disfunción de células alfa

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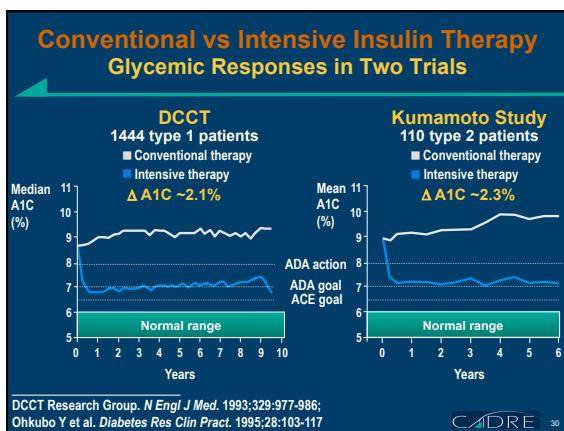
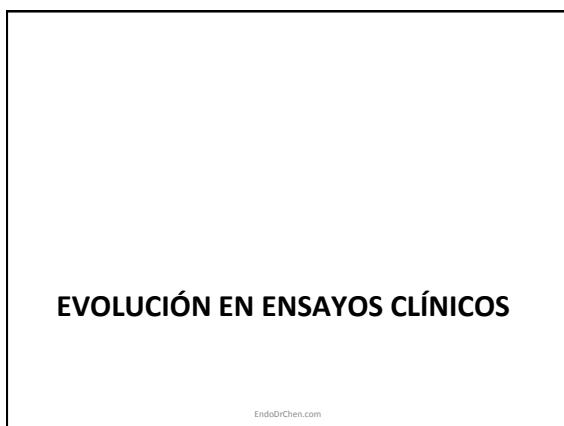
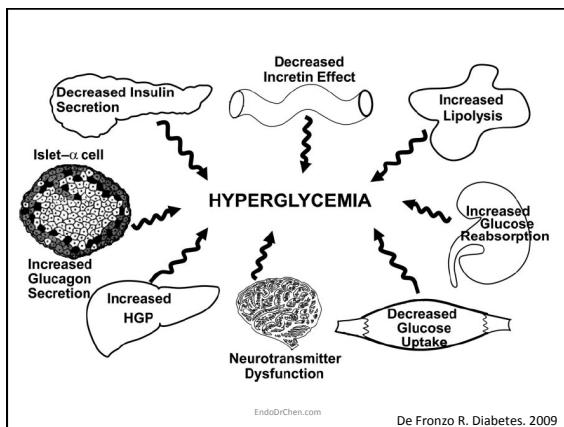


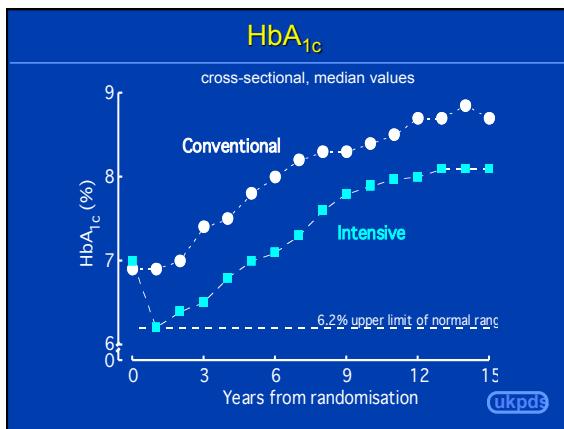
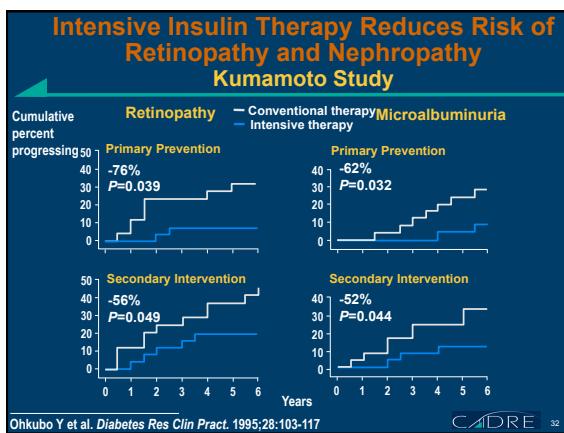
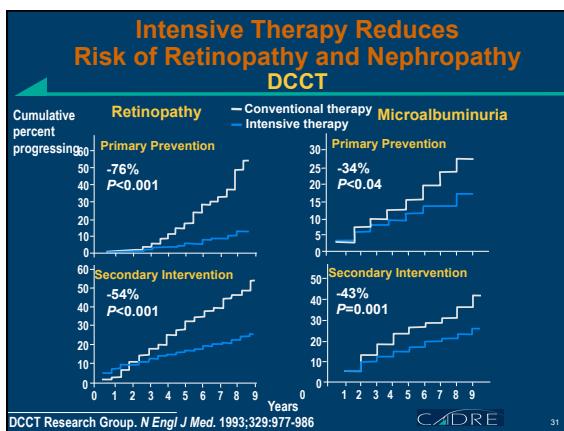
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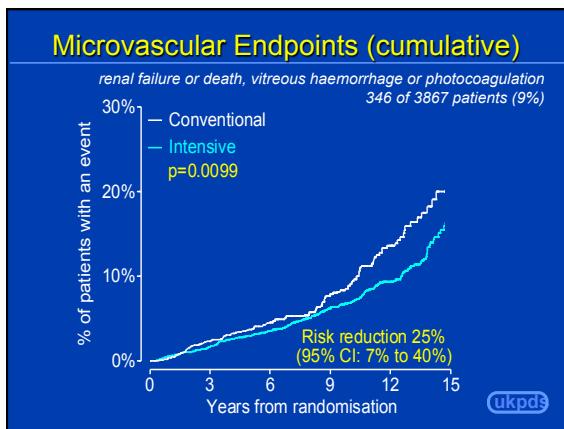
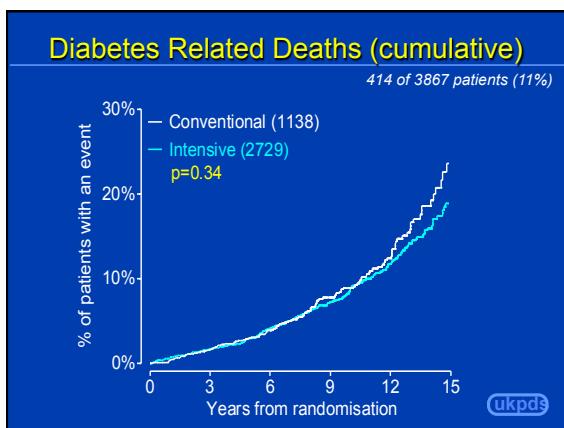
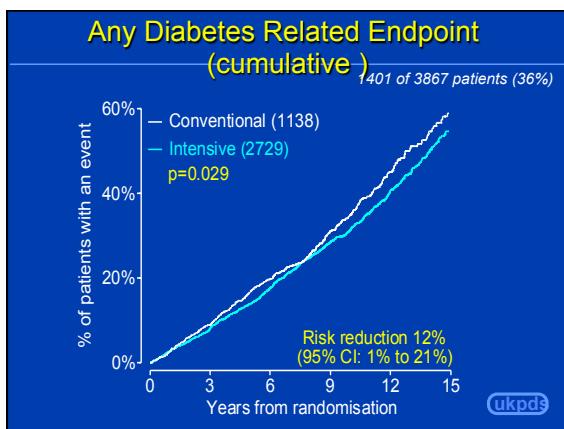


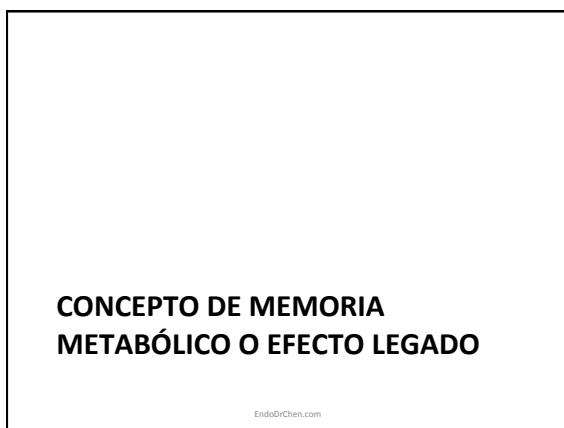
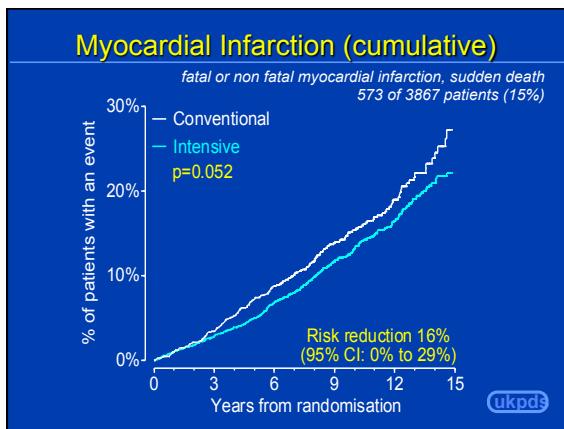
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De Fronzo R. Diabetes. 2009









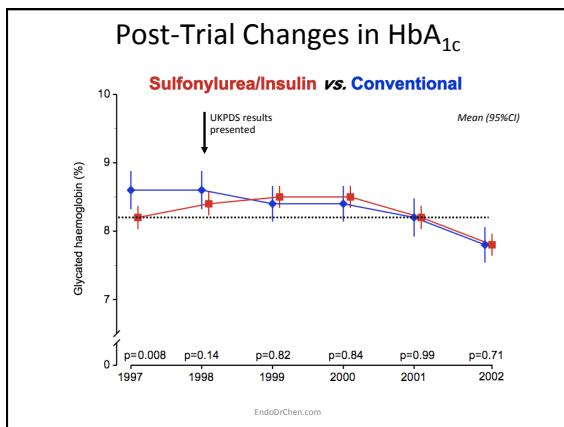
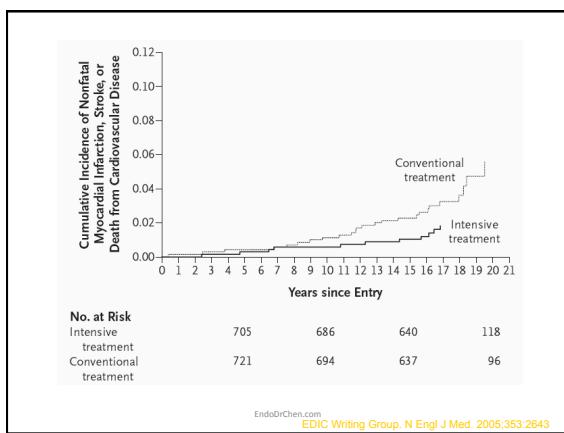
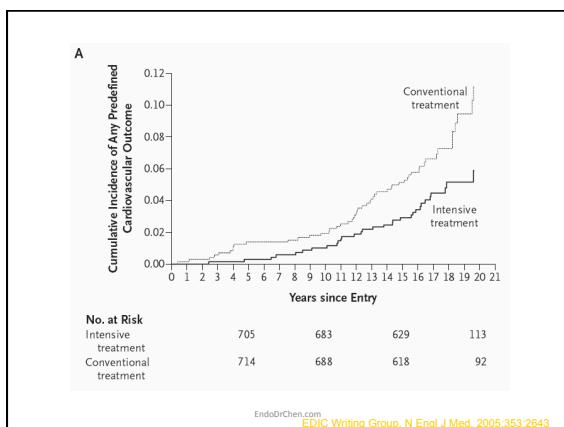
EDIC

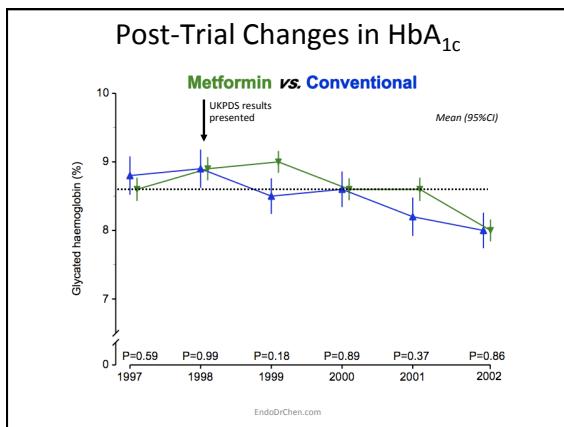
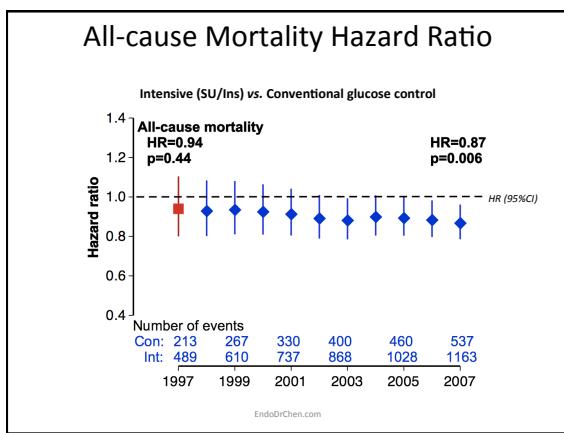
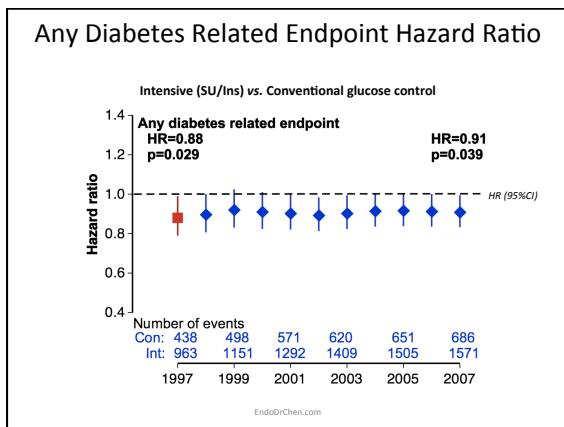
Table 1. (Continued.)

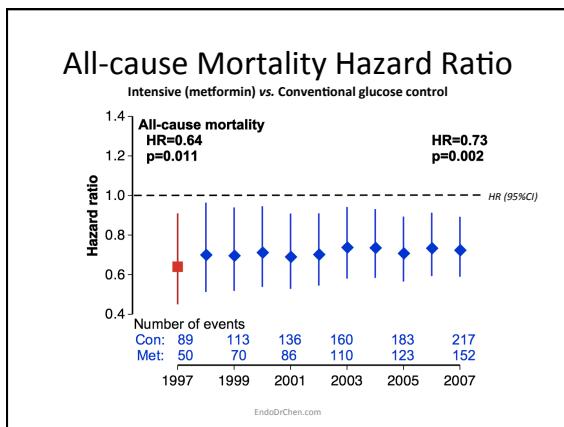
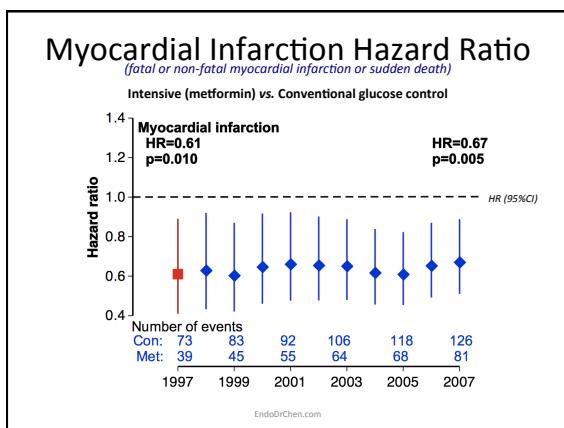
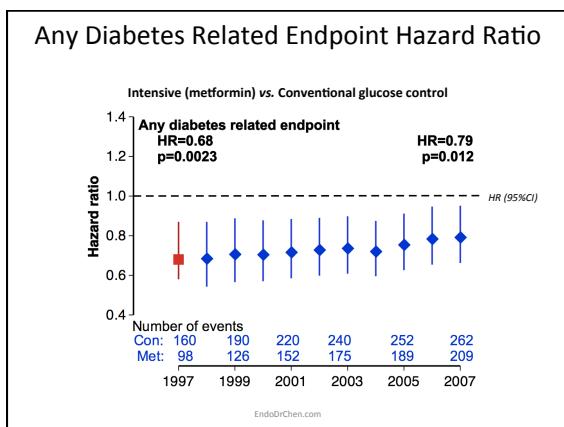
Characteristic	DCCT at Baseline (1983-1989)		End of DCCT (1993)		Year 11 of EDIC (2004)†	
	Intensive Treatment (N=711)	Conventional Treatment (N=730)	Intensive Treatment (N=698)	Conventional Treatment (N=723)	Intensive Treatment (N=593)	Conventional Treatment (N=589)
Glycosylated hemoglobin (%)	9.1±1.6	9.1±1.6	7.4±1.1	9.1±1.5§	7.9±1.3	7.8±1.3
Heart rate (beats/min)	68±11	68±11	69±11	71±12‡	70±12	70±12
Medication (%)†						
ACE inhibitors or ARBs (for any cause)	—	—	—	—	38	43
Hormone-replacement therapy	—	—	—	—	6	4
≥14 Aspirin tablets/yr/mo	—	—	—	—	37	40
Beta-blocker	—	—	—	—	3	7§
Statins	—	—	—	—	34	33
Intensive diabetes management (%)‡‡	0	0	98	10§	97	94

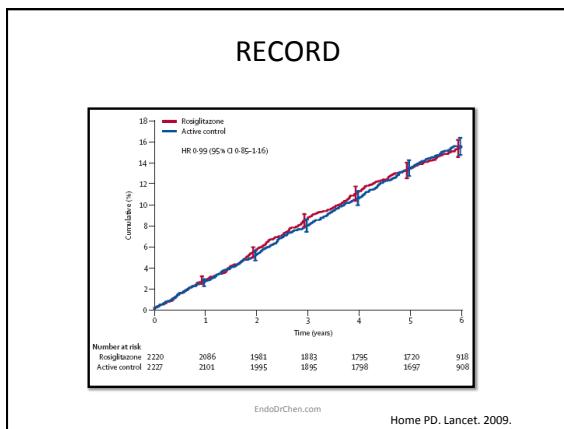
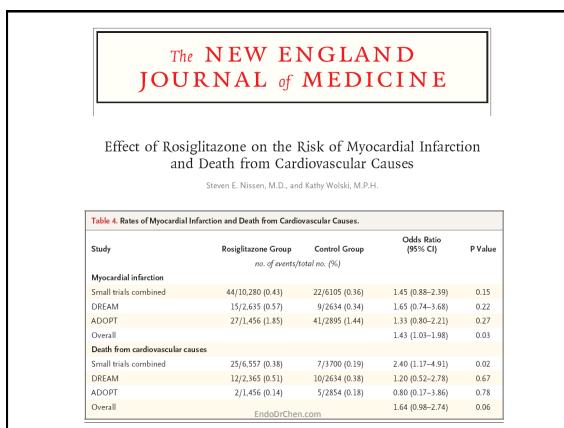
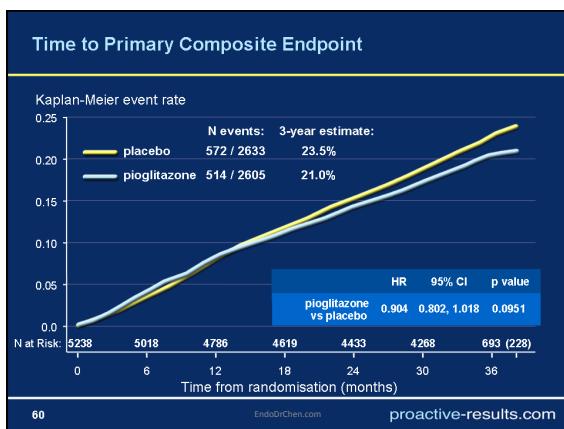
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EDIC Writing Group. N Engl J Med. 2005;353:2643

This slide contains a table titled 'EDIC' showing data from the Diabetes Control and Complications Trial (DCCT) and the Epidemiology of Diabetes Interventions and Complications (EDIC) study. The table compares baseline characteristics and Year 11 outcomes for intensive and conventional treatment groups. The table includes columns for DCCT at Baseline (1983-1989), End of DCCT (1993), and Year 11 of EDIC (2004). The table includes data for glycosylated hemoglobin (%), heart rate (beats/min), and various medication percentages. The website 'EndoDrChen.com' and the reference 'EDIC Writing Group. N Engl J Med. 2005;353:2643' are listed at the bottom.









Drugs

Home Drugs Drug Safety and Availability

Drug Safety and Availability

- Drugs and Statements
- Importing Prescription Drugs
- Medication Guides
- Drug Safety Communications
- Drug Shortages
- Postmarket Drug Safety Information for Patients and Healthcare Professionals
- Information by Drug Class
- Medication Errors
- Drug Safety Podcasts
- Safe Use Initiative
- Drug Recalls
- Drug Supply Chain Integrity
- Multistate outbreak of fungal meningitis and other infections

FDA Drug Safety Communication: FDA requires removal of some prescribing and dispensing restrictions for rosiglitazone-containing diabetes medicines

Safety Announcement | **Data Summary**

This update is in follow-up to the FDA Drug Safety Communications issued on November 4, 2011, and May 15, 2012.

En Español

Safety Announcement

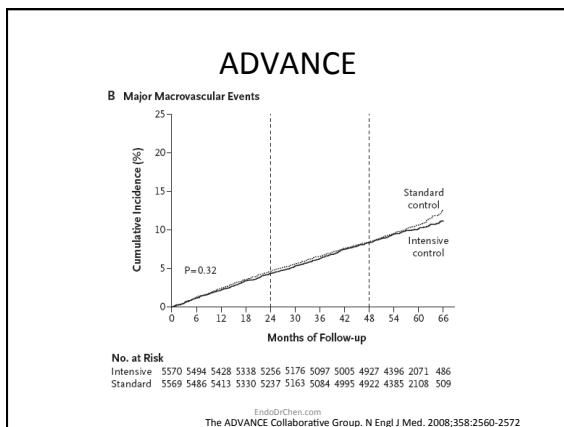
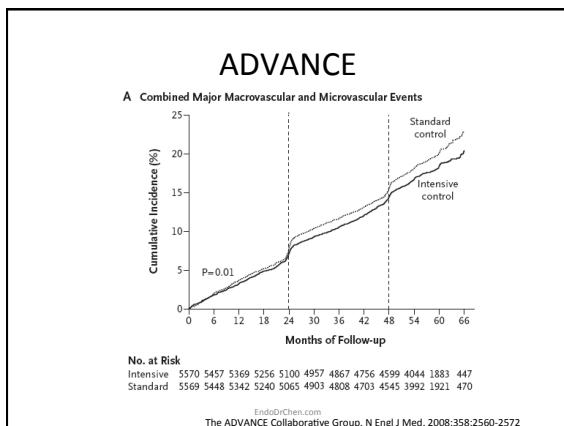
[11-29-2013] The U.S. Food and Drug Administration (FDA) has determined that recent data for rosiglitazone-containing drugs, such as Avandia, Avandaryl, Avandamet, and generic, do not show an increased risk of heart attack compared to the standard type 2 diabetes medicines metformin and sulfonylureas. This decision is based on a review of data from a large, long-term study that found no increased risk of heart attack in patients taking rosiglitazone medicines that were put in place in 2010. This decision is based on our review of data from a large, long-term study that and is supported by a comprehensive, outside, expert re-evaluation of the data conducted by the Data Safety and Risk Management Program (DSRP).

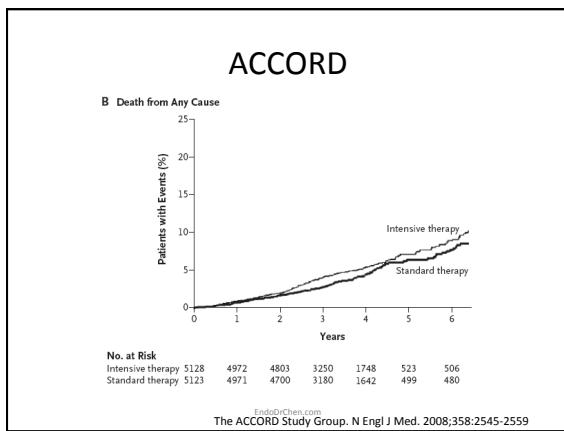
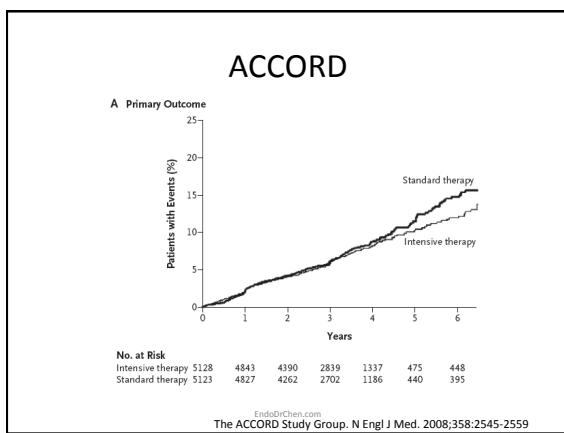
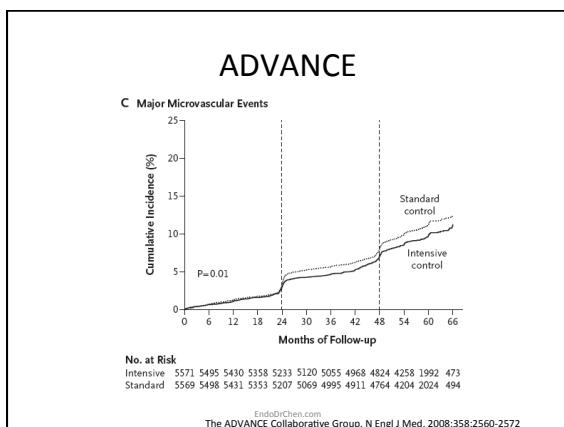
Type 2 diabetes is a disease that can lead to serious complications and premature death. Rosiglitazone is a medicine used to treat type 2 diabetes. It is important for people with type 2 diabetes to work closely with their health care professionals to determine treatment options that are most appropriate.

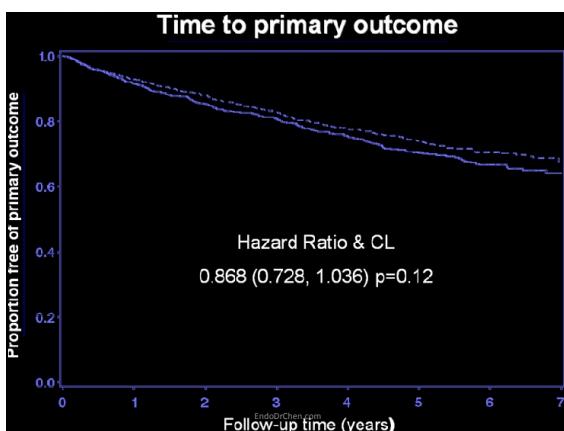
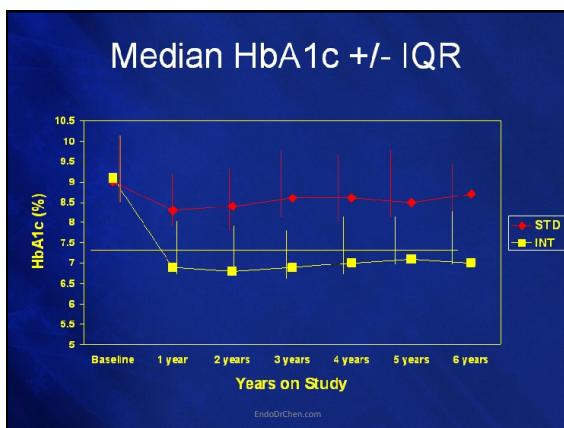
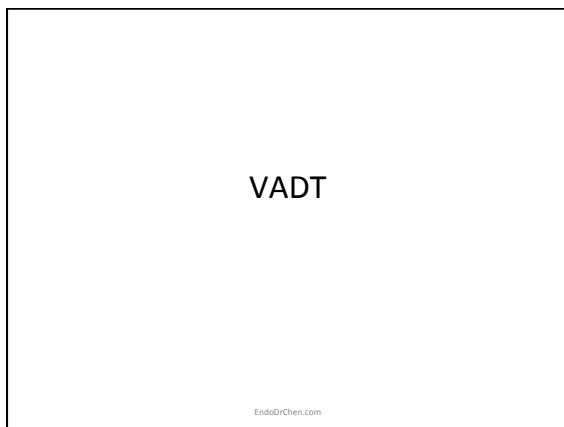
FDA continues to monitor the effectiveness of drugs after they go on the market. In the case of rosiglitazone medicines, previous data from a large, combined analysis of mostly short-term, randomized controlled trials (RCTs) had shown an increased risk of heart attack. This information required a Risk Evaluation and Mitigation Strategy (REMS), called the rosiglitazone REMS program. The Rosiglitazone REMS program restricted the use of rosiglitazone medicines to help ensure that their benefits continue to outweigh their risks.

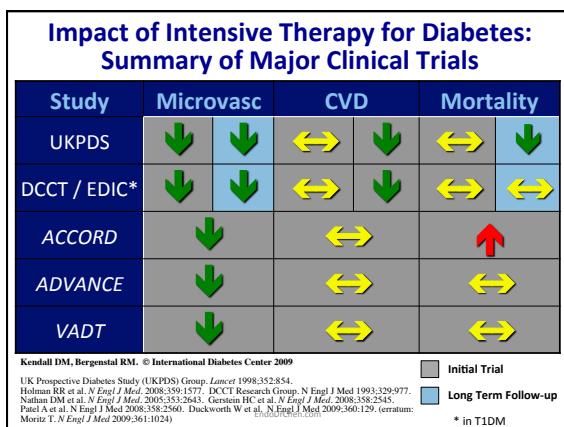
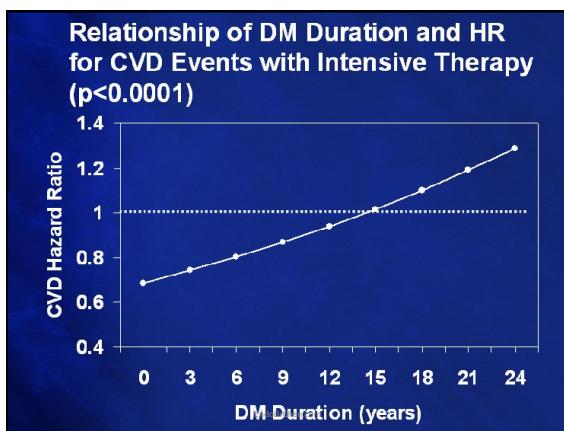
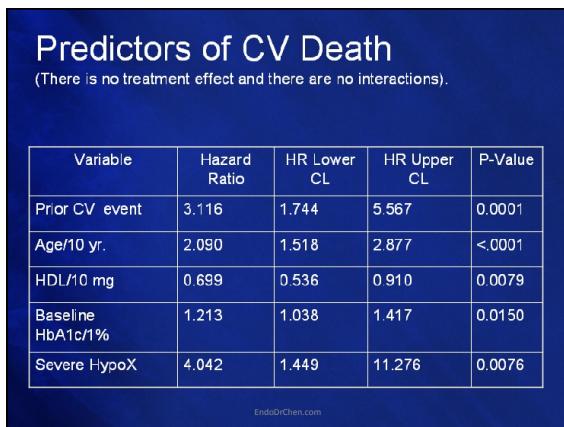
Although some scientific uncertainty about the cardiovascular safety of rosiglitazone medicines still remains, in light of new findings from the REASON (Rosiglitazone Evaluated for Cardiovascular Outcomes in a Network of Diabetes [RECORD]) trial, our concern is substantially reduced and the rosiglitazone REMS requirements will be modified (see Data Summary). We are also making

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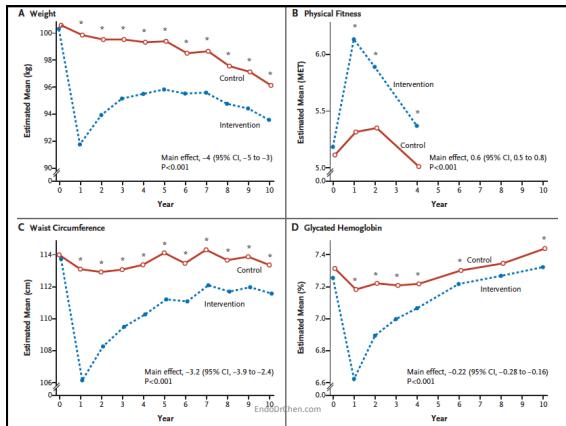
Y QUÉ HAY DE LA MODIFICACIÓN DE ESTILOS DE VIDA?

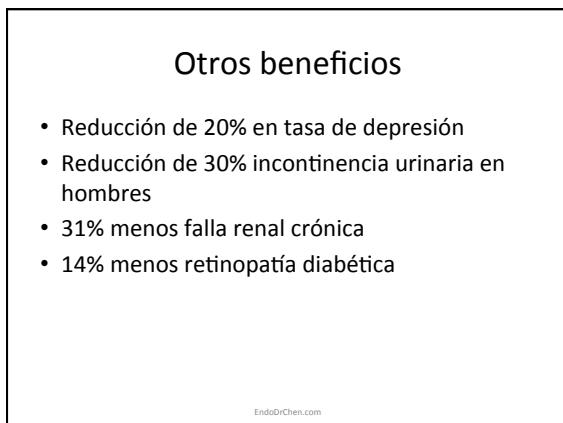
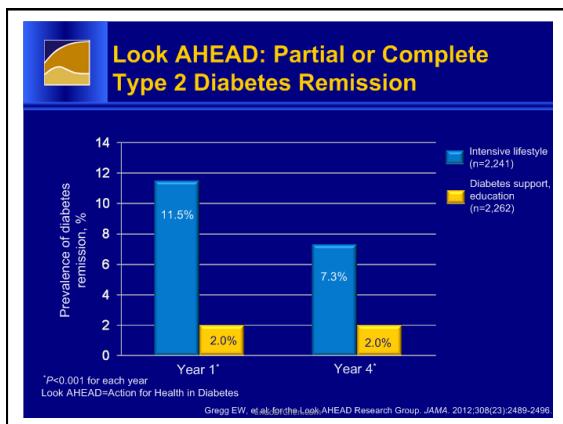
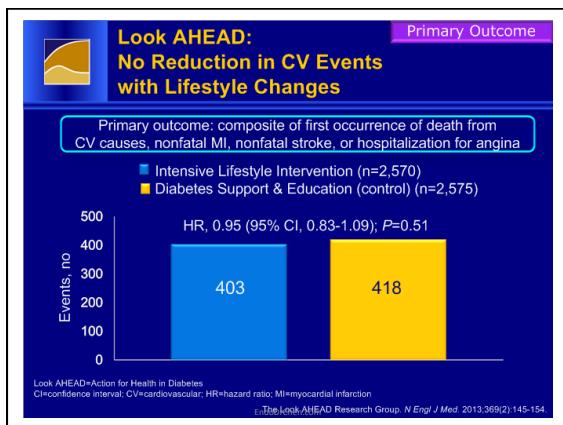
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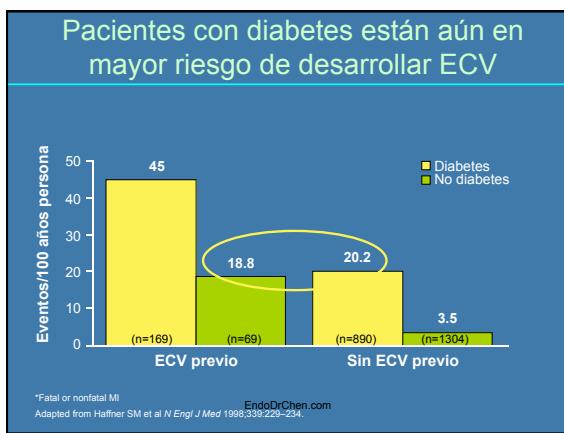
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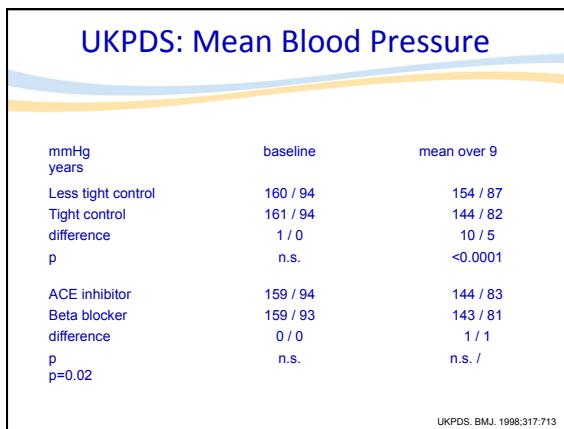


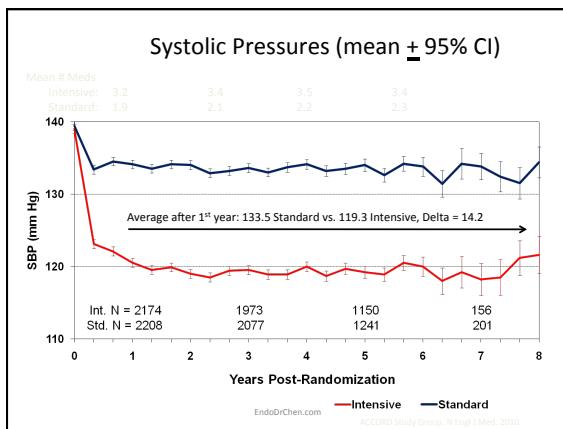
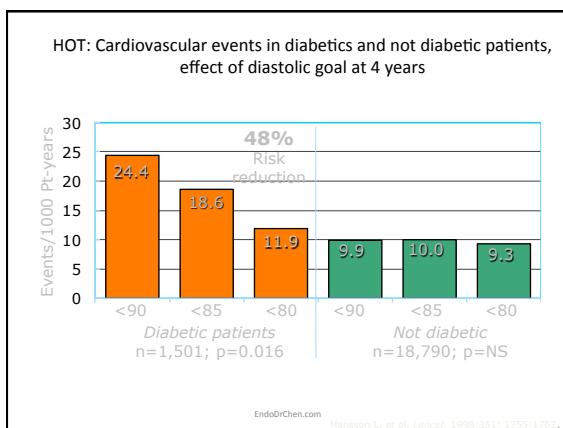
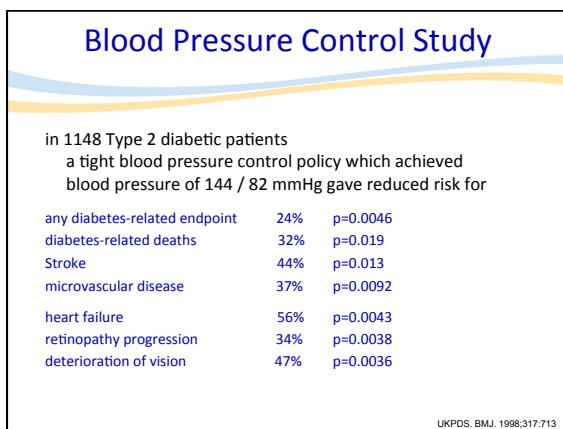


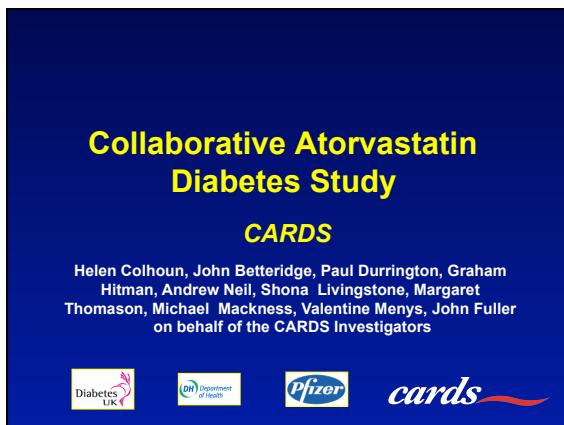
CÓMO HA EVOLUCIONADO EL CONCEPTO DE DIABETES Y RIESGO CARDIOVASCULAR?

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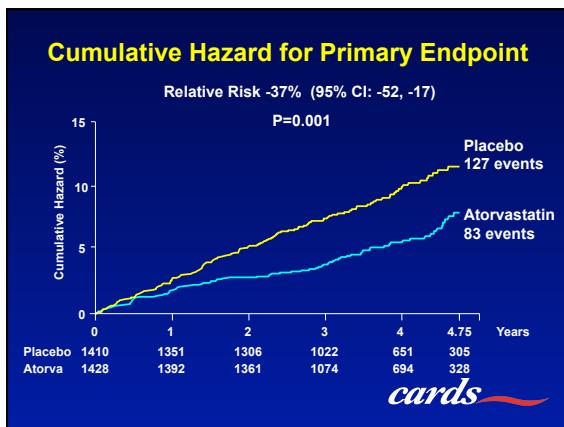


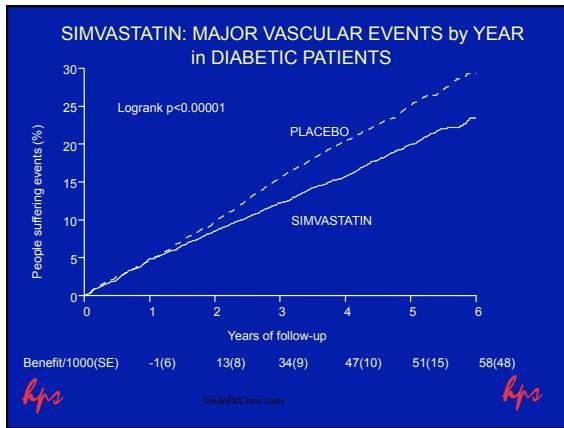
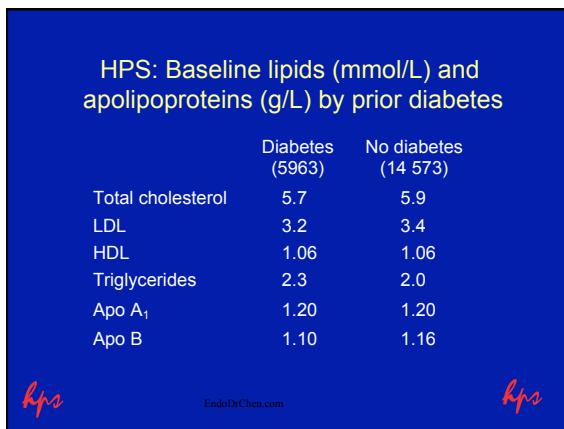
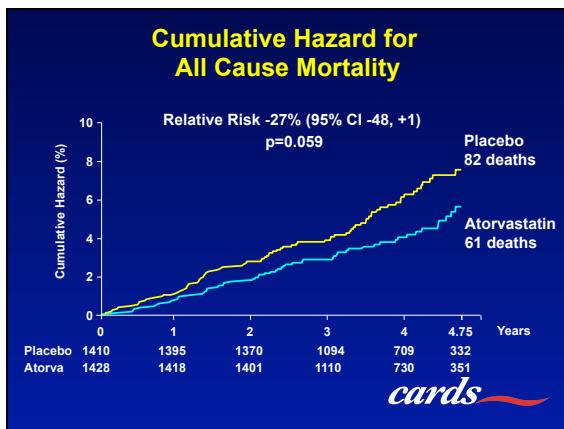


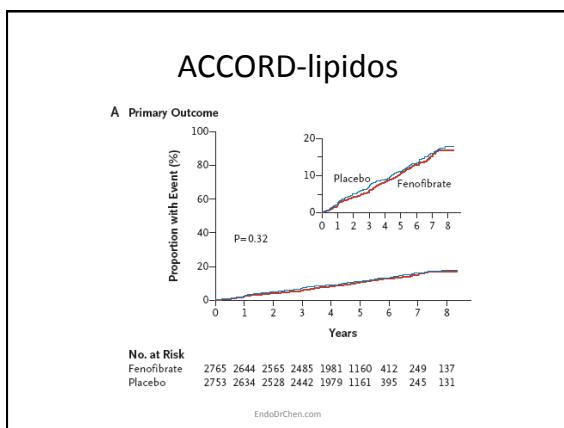
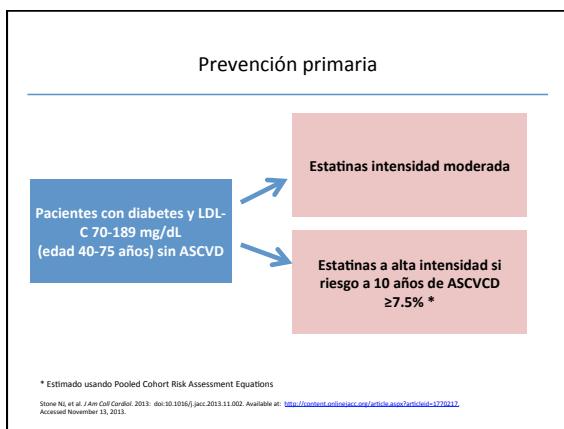
CARDS Patient Baseline Lipids		
	Placebo Median (IQR)	Atorvastatin Median (IQR)
Triglycerides (mmol/L) (mg/dL)	1.67 (1.17, 2.40) 148 (104, 212)	1.70 (1.20, 2.40) 150 (106, 212)
Non-HDL-C (mmol/L) (mg/dL)	3.93 (3.38, 4.50) 152 (131, 174)	4.00 (3.42, 4.50) 155 (132, 174)
Apolipoprotein A1 (mg/dL)	150 (132, 169)	150 (134, 169)
Apolipoprotein B (mg/dL)	115 (98, 131)	116 (101, 132)

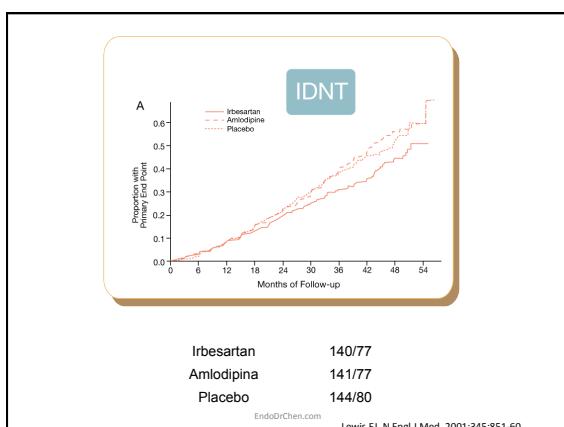
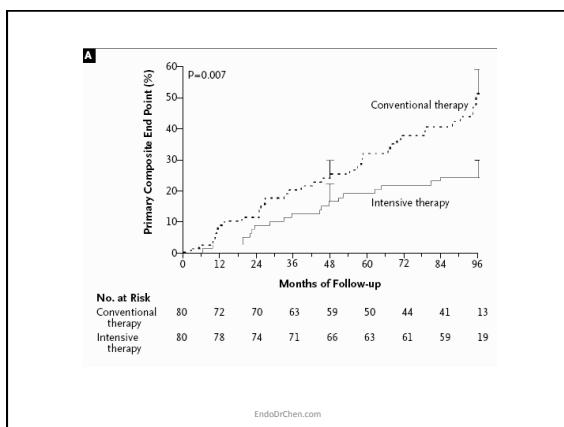
IQR = Interquartile range

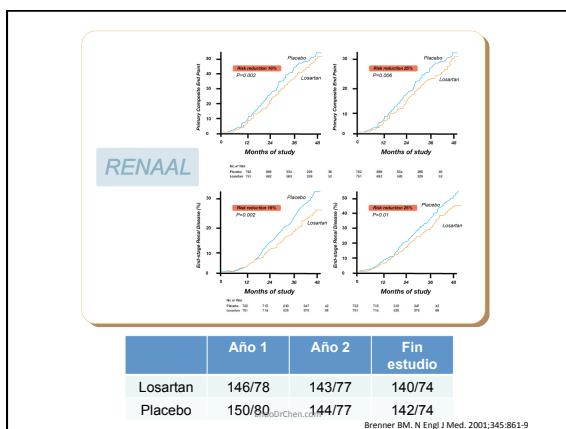
cards









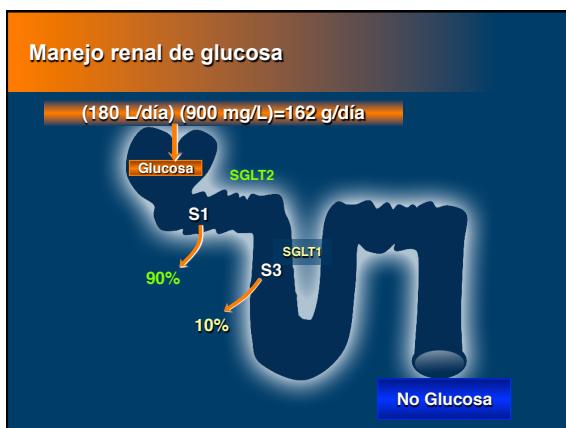
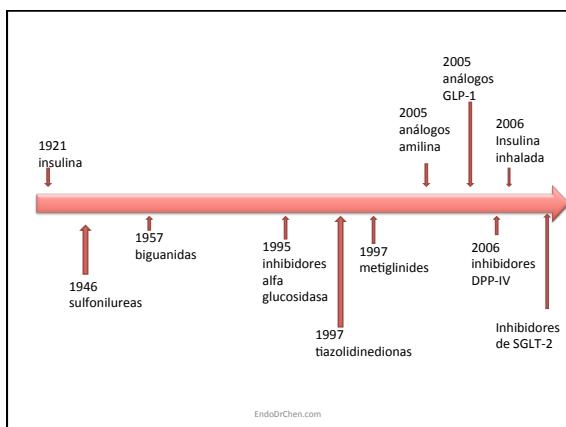


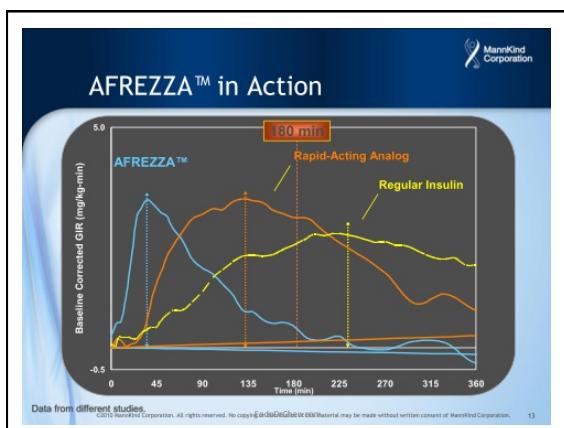
ORIGINAL ARTICLE

Combined Angiotensin Inhibition for the Treatment of Diabetic Nephropathy

End Point	Losartan plus Placebo (N = 724)	Losartan plus Lisinopril (N = 724)	Hazard Ratio with Losartan plus Lisinopril (95% CI)	P Value
<i>no. of patients (%)</i>				
Primary end point: [†]	152 (21.0)	132 (18.2)	0.88 (0.70–1.12)	0.30
Secondary end point: [‡]	101 (14.0)	77 (10.6)	0.78 (0.58–1.05)	0.10
ESRD	43 (5.9)	27 (3.7)	0.66 (0.41–1.07)	0.07
Death	60 (8.3)	63 (8.7)	1.04 (0.73–1.49)	0.75
Myocardial infarction, heart failure, or stroke	136 (18.8)	134 (18.5)	0.97 (0.76–1.23)	0.79
Myocardial infarction	40 (5.5)	52 (7.2)	1.30 (0.87–1.97)	0.20
Congestive heart failure	106 (14.6)	89 (12.3)	0.82 (0.62–1.09)	0.17
Stroke	18 (2.5)	18 (2.5)	0.98 (0.52–1.85)	0.95







Insulinas

- Nuevos análogos de insulinas
- Hialuronidasa
- Acoplado a análogos GLP-1 (lixisenatide)

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Transplante de islotes

- Limitado por número de donantes
- Protocolos de inmunosupresión
- Resultados variables según centro

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Manual closed-loop insulin delivery in children and adolescents with type 1 diabetes: a phase 2 randomised crossover trial

Roman Hovorka, Janet M Allen, Daniela Eller, Ludovic J Chassin, Julie Harris, Dongyuan Xing, Craig Kollman, Tomas Hovorka, Anne Mette F Larsen, Marianne Nodde, Alessandra De Palma, Małgorzata E Wilinska, Carlo L Acerini, David B Dunger

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The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Nocturnal Glucose Control with an Artificial Pancreas at a Diabetes Camp

Moshe Phillip, M.D., Tadej Battelino, M.D., Eran Atlas, M.Sc.,
Olga Kordonouri, M.D., Natasa Bratina, M.D., Shahar Miller, B.Sc.,
Torben Biester, M.D., Magdalena Avbelj Stefanija, M.D., Ido Muller, B.Sc.,
Revital Nirni, M.D., and Thomas Danne, M.D.

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Conclusiones

- Nuevos conceptos en fisiopatología
- Reconocimiento como enfermedad cardiovascular
- La mayoría de evidencia científica en intervención proviene de los últimos 20 años
- Campo emocionante para los siguientes años!

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X CONGRESO ENDOCRINOLOGÍA
Centroamérica y el Caribe
28 al 30 de agosto, 2014

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