



Un vistazo por el mundo de la diabetes: desde el inicio hasta el 2013

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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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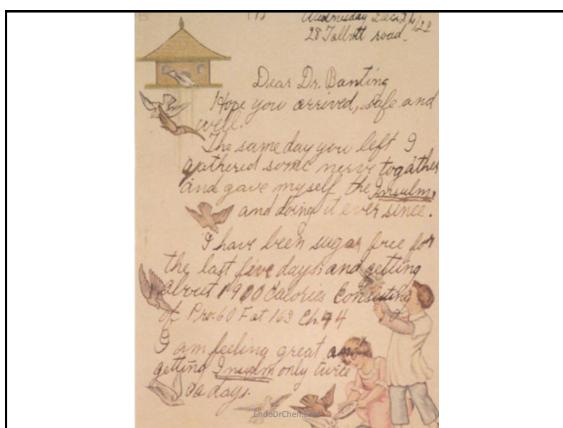
Edward Albert Sharpey-Schafer

- 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

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Insulinas

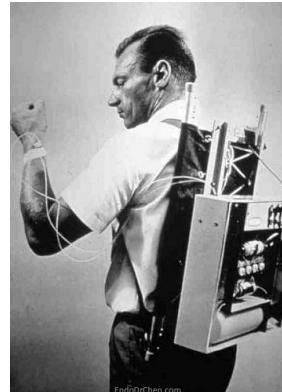
- Primera administración a seres humanos fue el 11 de enero de 1922
- Insulina simple de administración IM 2 veces al día con volúmenes de entre 5 y 18 cc
- 1936 NPH
- 1954 lentes

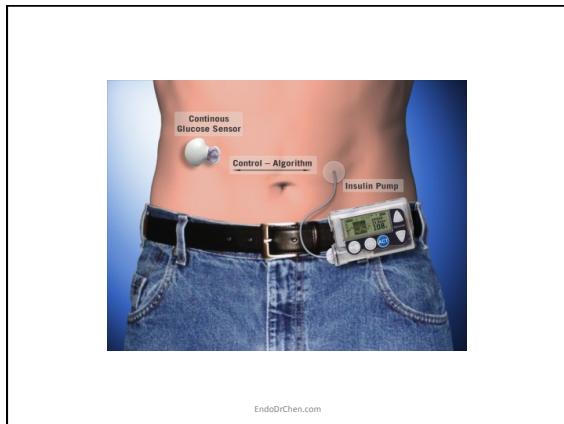
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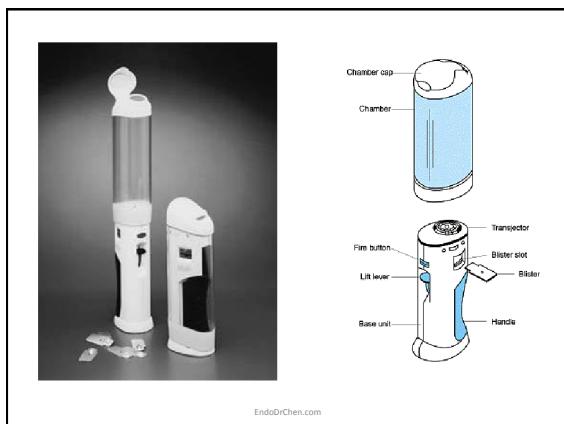
Análogos de insulina

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

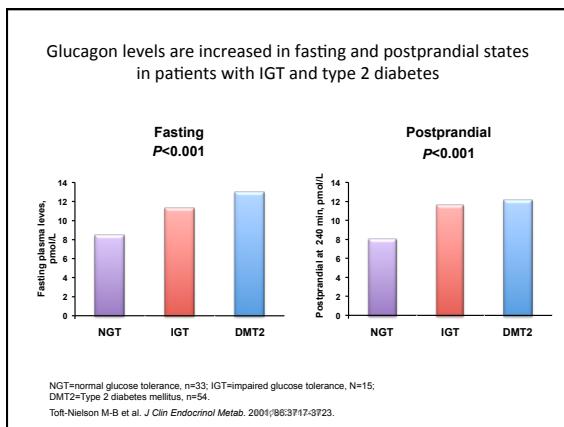
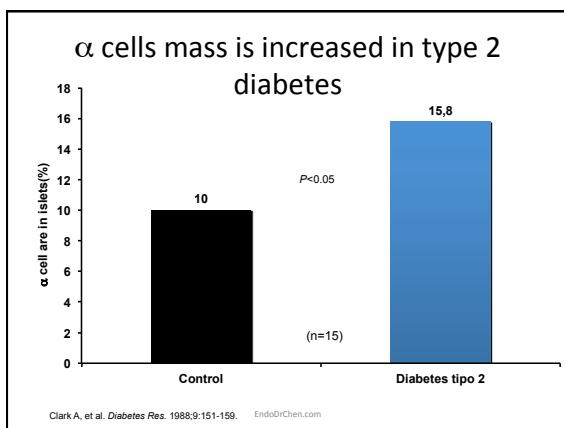
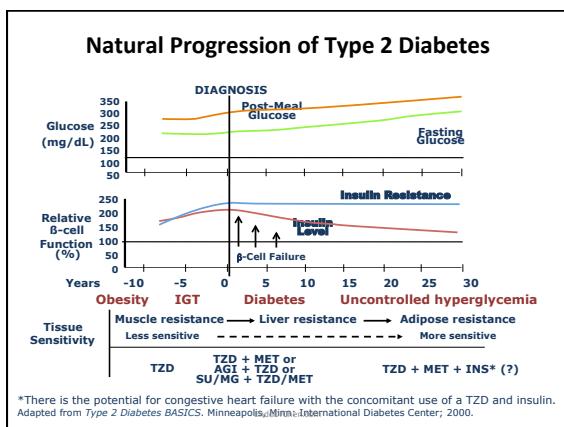
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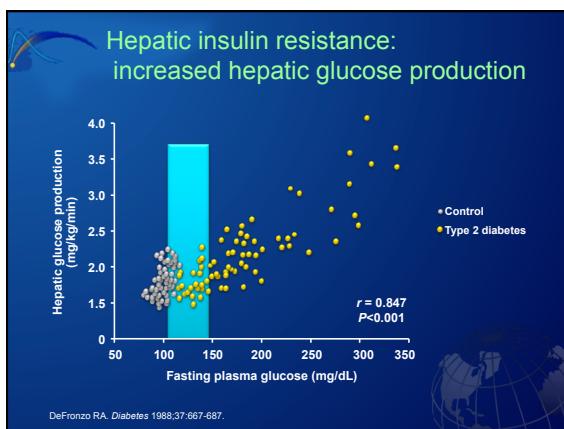
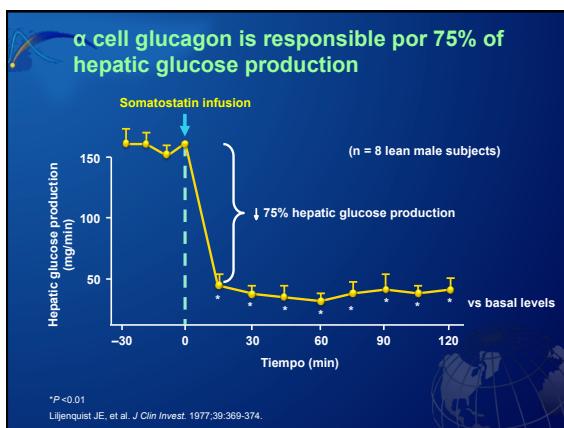
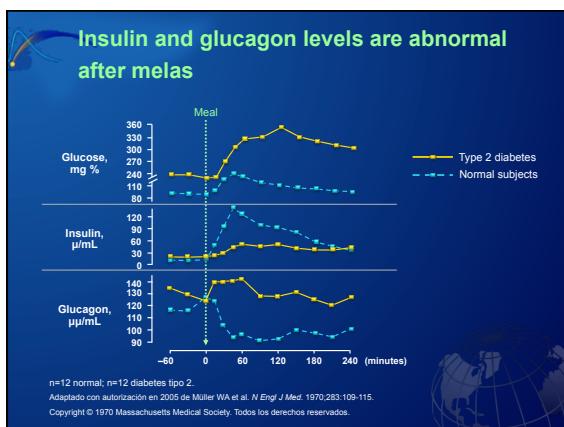








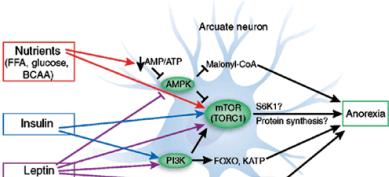




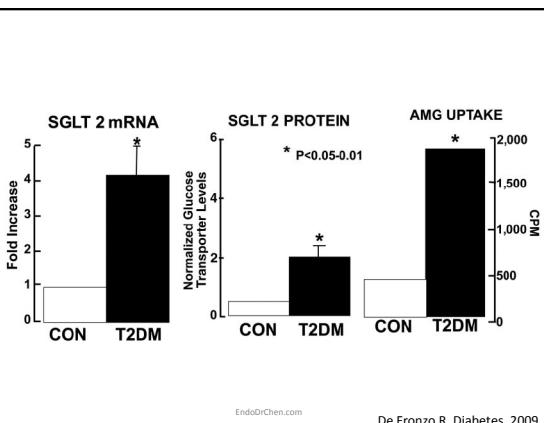
Aumento en la producción hepática de glucosa

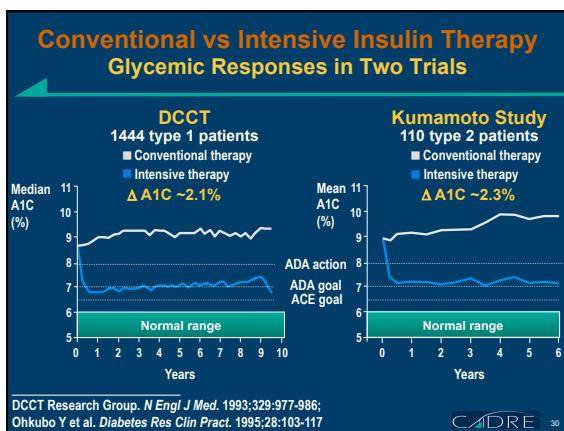
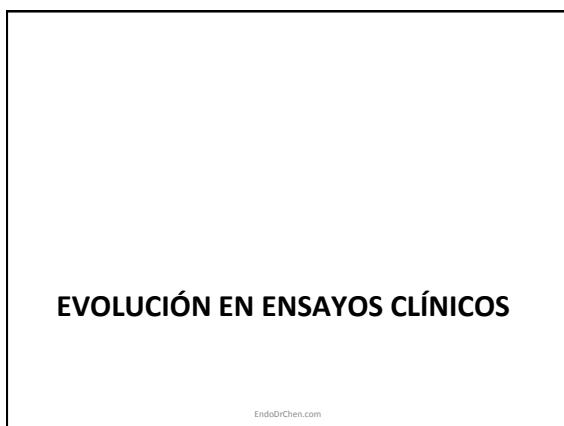
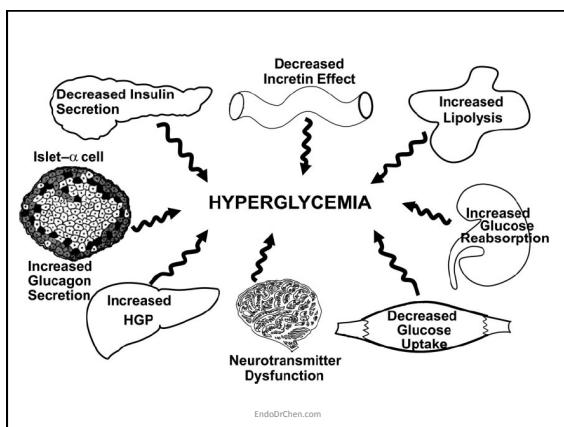
- Como manifestación de resistencia a la insulina
- Como consecuencia de disfunción de células alfa

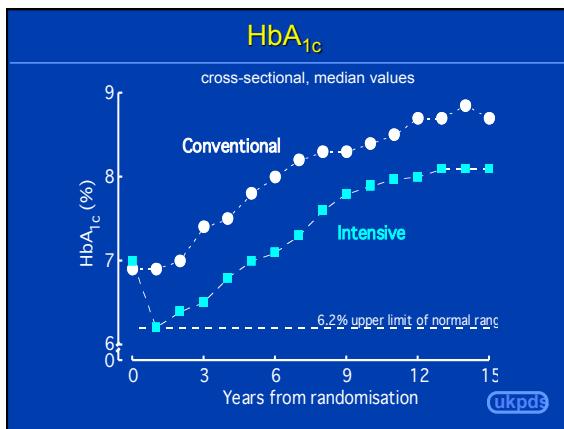
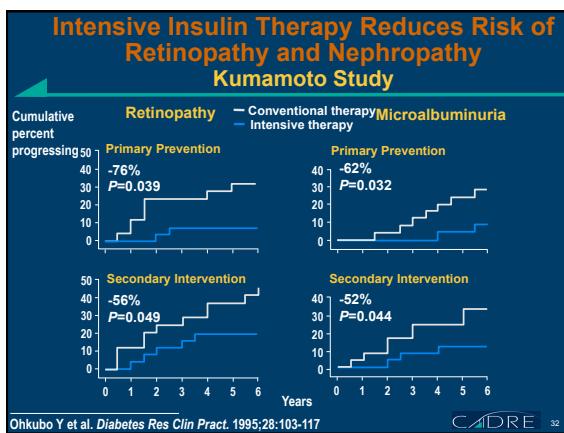
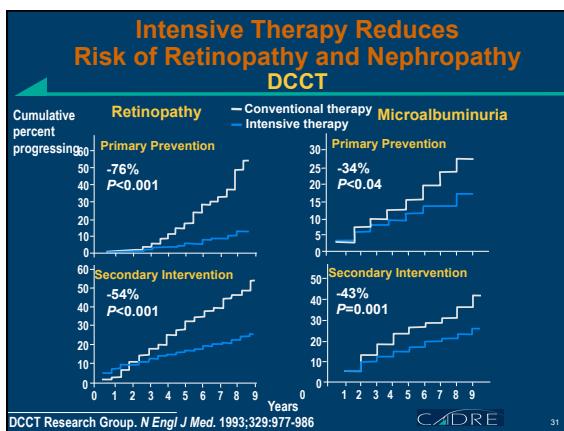
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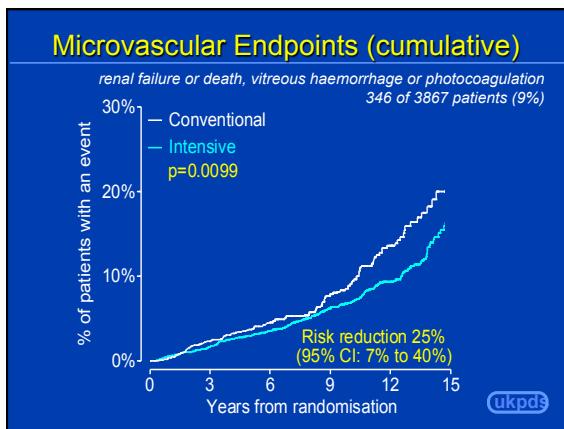
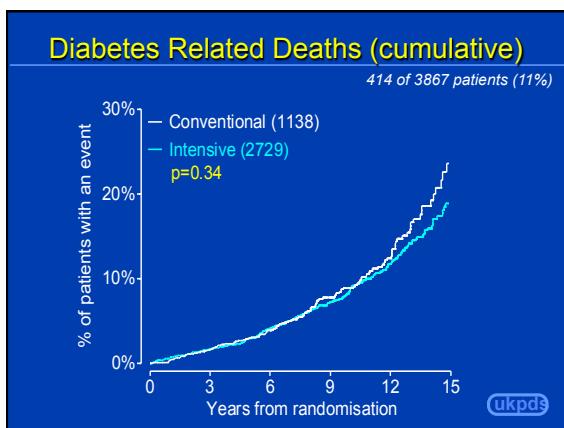
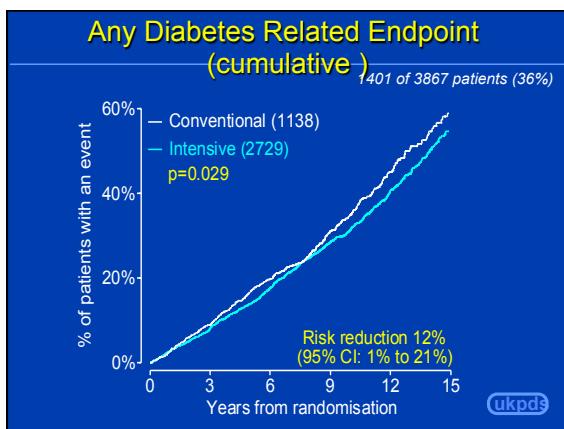


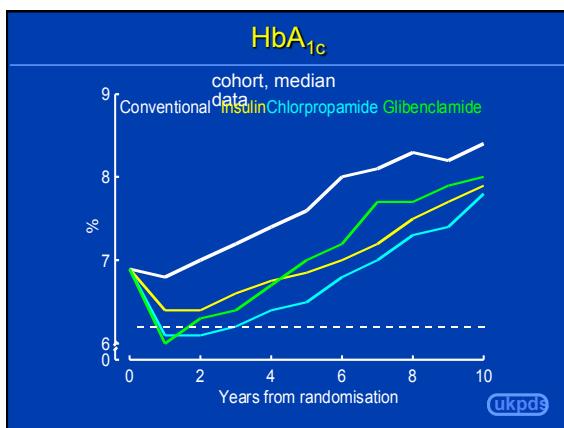
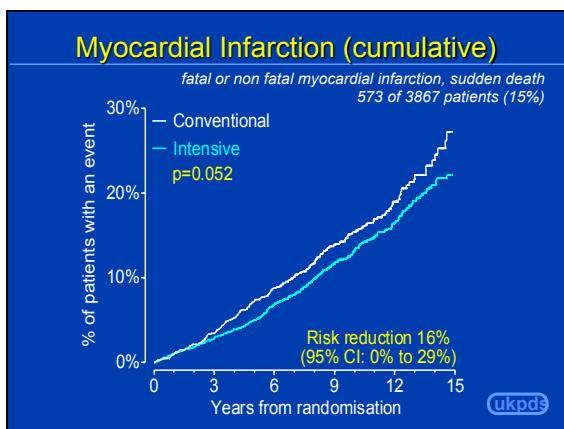
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	No. of Patients	No. (%) of Patients Who Progressed	Adjusted Odds Reduction, % (95% CI)	P Value
Retinal Change				
3-Step progression from no retinopathy				
Conventional therapy	109	18 (16)	66 (26-64)	.006
Intensive therapy	173	11 (6)		
Severe nonproliferative retinopathy or worse				
Conventional therapy	556	53 (10)	76 (52-88)	<.001
Intensive therapy	559	11 (2)		
Proliferative retinopathy				
Conventional therapy	564	48 (8)	74 (46-87)	<.001
Intensive therapy	590	10 (2)		
Clinically significant macular edema				
Conventional therapy	564	45 (8)	77 (52-89)	<.001
Intensive therapy	582	9 (2)		
Laser therapy (focal or scatter)				
Conventional therapy	544	35 (6)	77 (45-91)	.002
Intensive therapy	575	6 (1)		
Renal Change				
Micropurpura ¹				
Conventional therapy	573	63 (11)	53 (26-70)	.002
Intensive therapy	601	31 (5)		
Albuminuria ²				
Conventional therapy	637	33 (5)	86 (60-95)	<.001
Intensive therapy	659	4 (1)		

¹DOCT Trial: Diabetes Control and Complications Trial. ²EDIC: Epidemiology of Diabetes Interventions and Complications; and CI, confidence interval. Data from The DCCT/EDIC Research Group. ¹All albumin excretion rate (AER) was 40 to 200 mg/d in participants with AER of less than 40 mg/d at DCCT closeout examination. ²The AER was 300 mg/d or more in participants with AER of less than 300 mg/d at DCCT closeout examination.

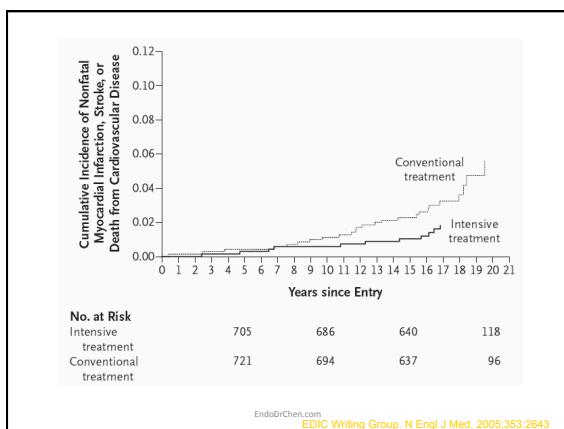
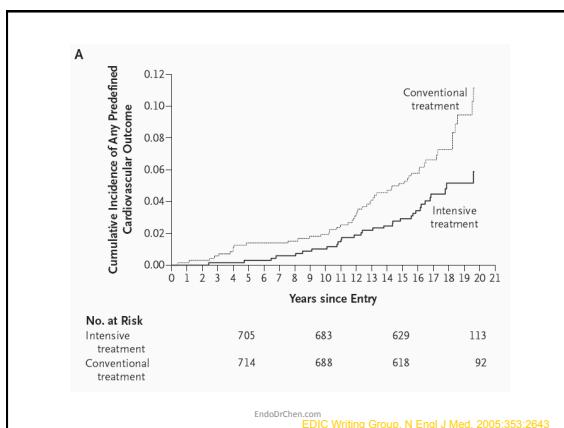
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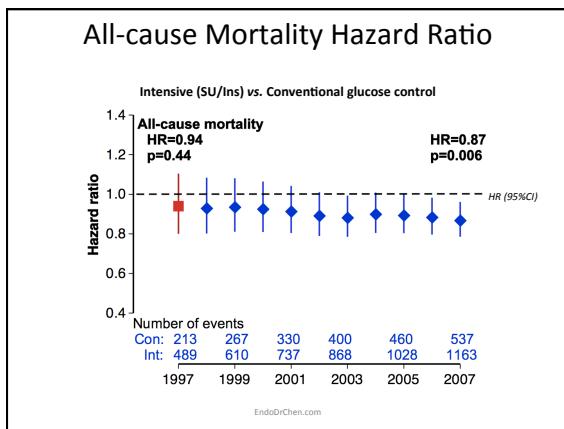
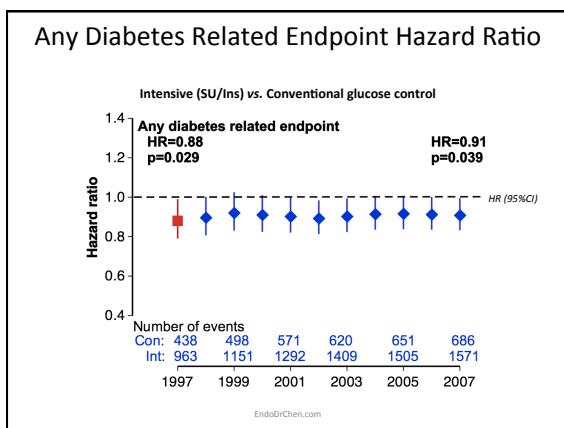
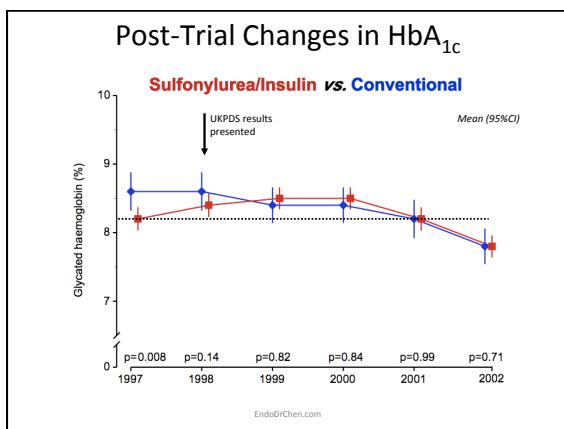
EDIC Writing Group. JAMA. 2002;287:2563.

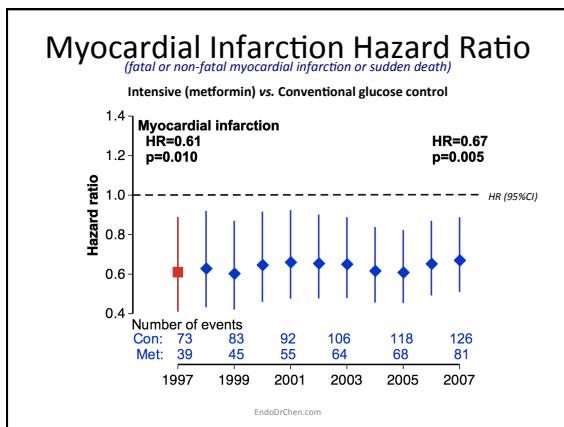
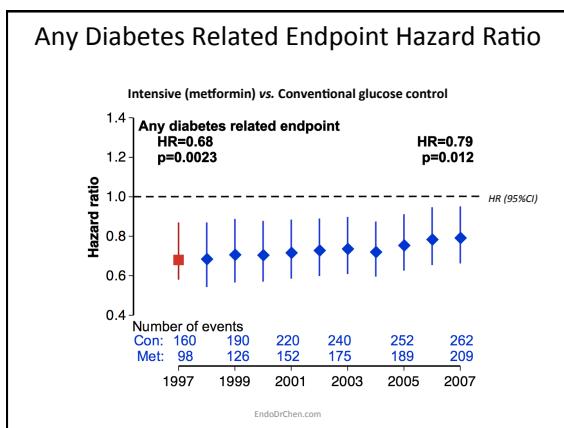
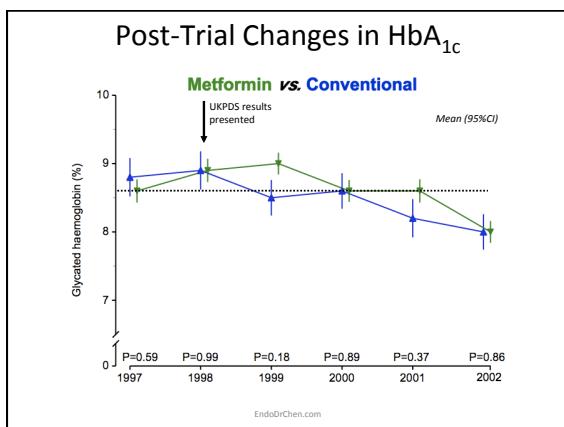
EDIC

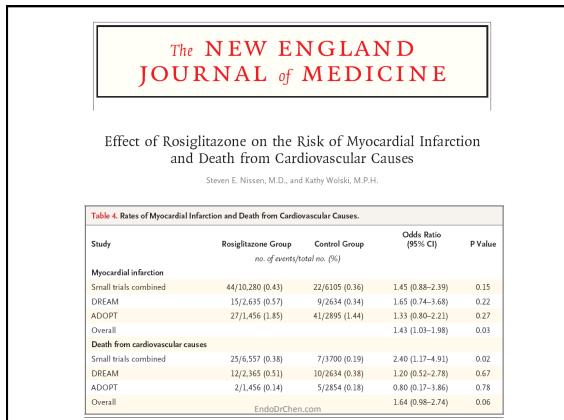
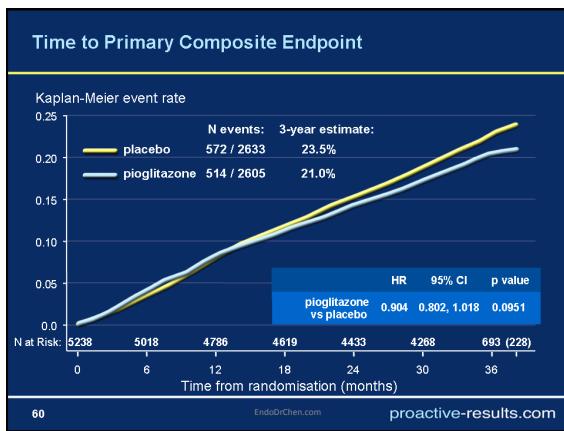
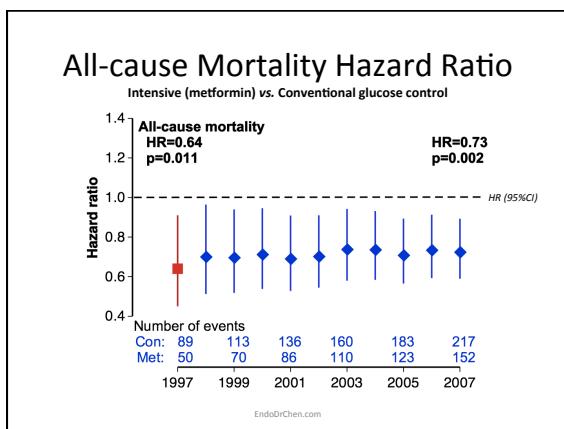
Table 1. (Continued.)					
Characteristic	DCCT at Baseline (1983–1989)	End of DCCT (1993)	Intensive Treatment (N=711)	Conventional Treatment (N=730)	Year 11 of EDIC (2004)†
Glycosylated hemoglobin (%)	9.1±1.6	9.1±1.6	7.4±1.1	9.1±1.5‡	7.9±1.3
Heart rate (beats/min)	68±11	68±11	69±11	71±12§	70±12
Medication (%)†‡	—	—	—	—	38 43
ACE inhibitors or ARBs (for any cause)	—	—	—	—	6 4
Hormone-replacement therapy	—	—	—	—	37 40
≥14 Aspirin tablets/mo	—	—	—	—	3 7§
Beta-blocker	—	—	—	—	34 33
Statins	—	—	—	—	97 94
Intensive diabetes management (%)‡‡	0	0	98	10§	97 94

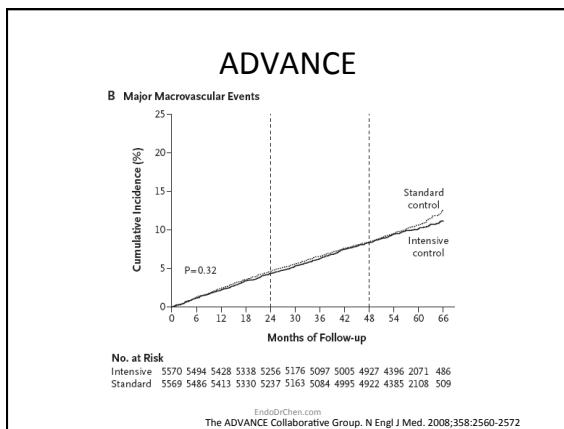
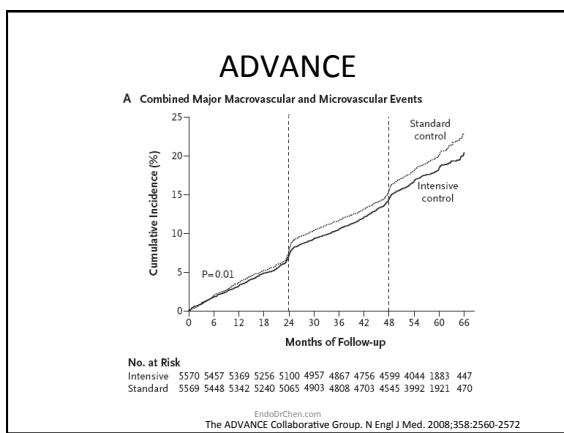
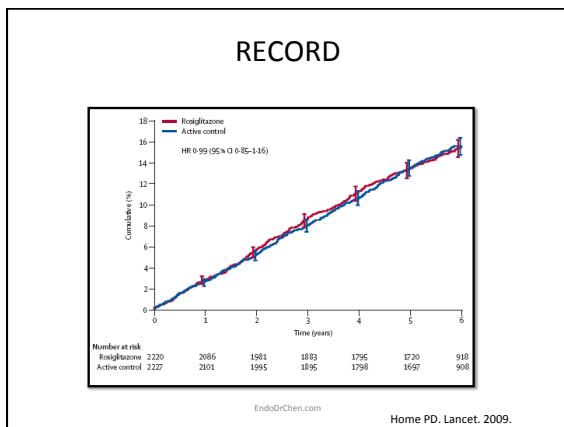
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EDIC Writing Group. N Engl J Med. 2005;353:2643

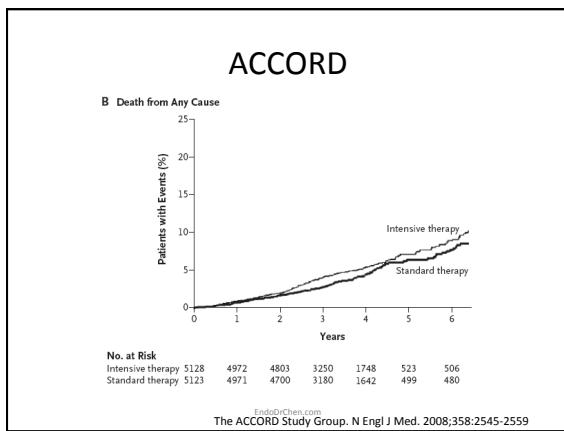
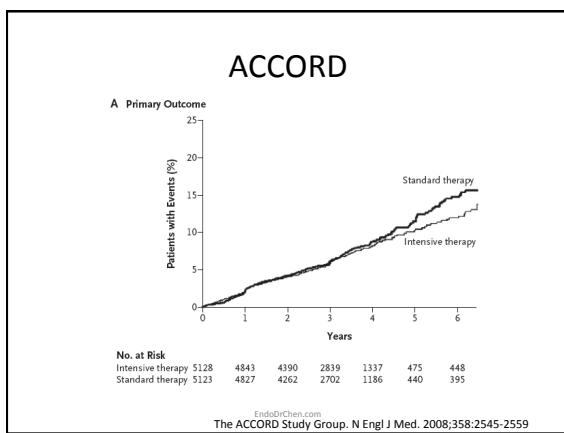
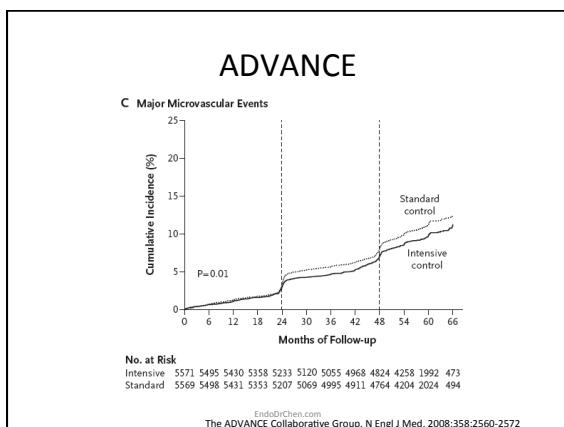


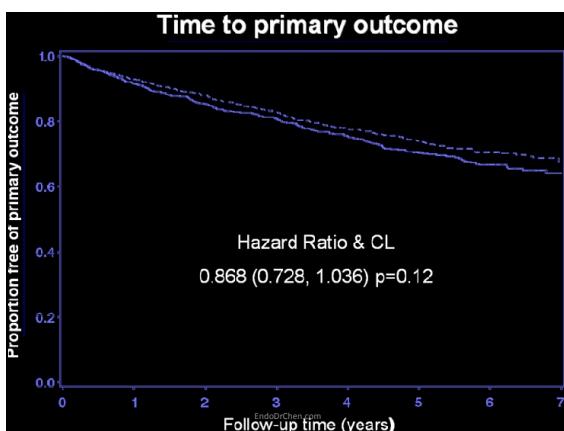
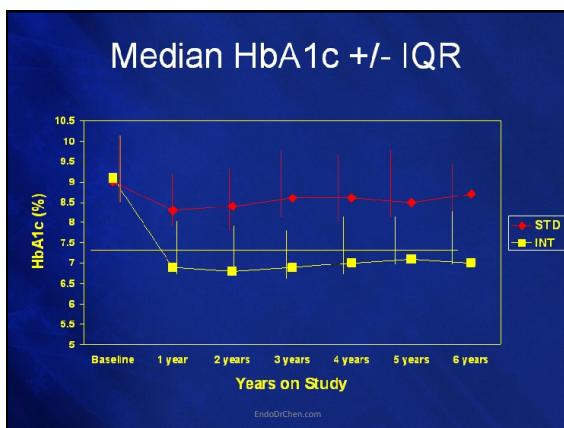
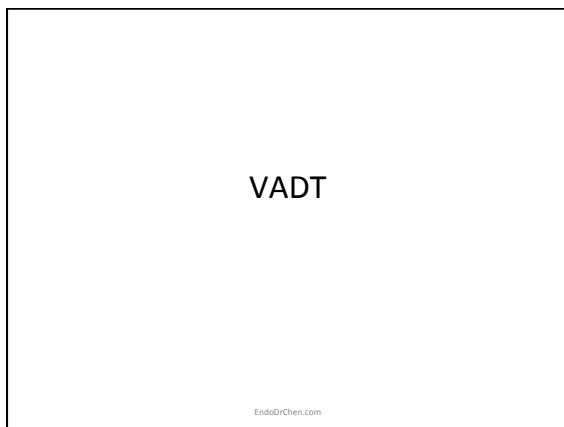


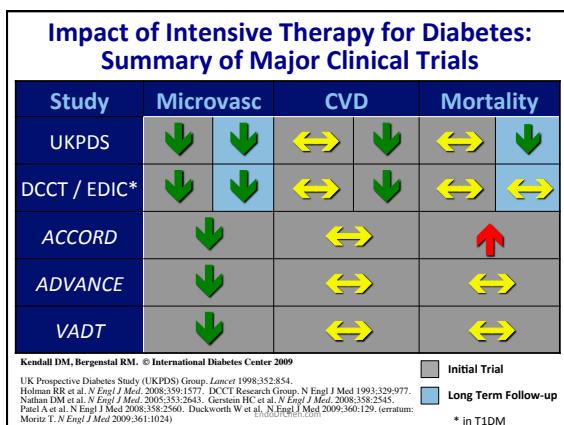
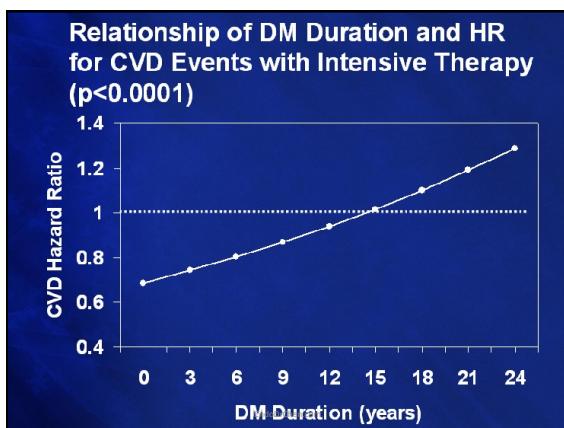
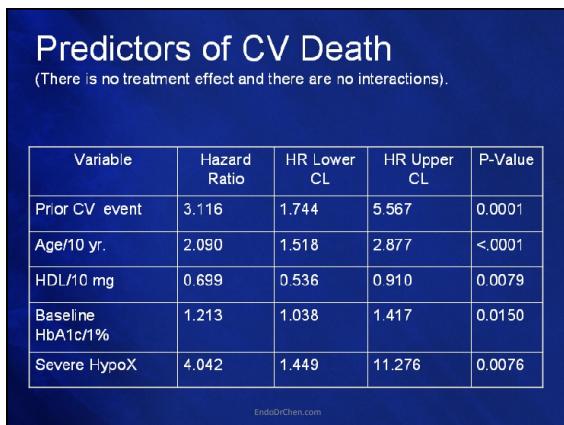












Y QUÉ HAY DE LA MODIFICACIÓN DE ESTILOS DE VIDA?

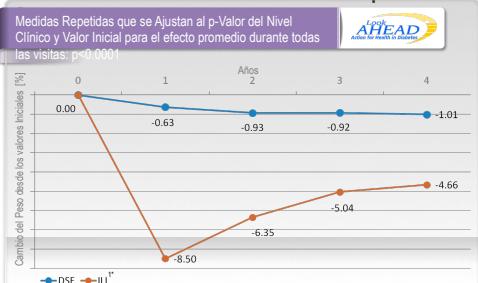
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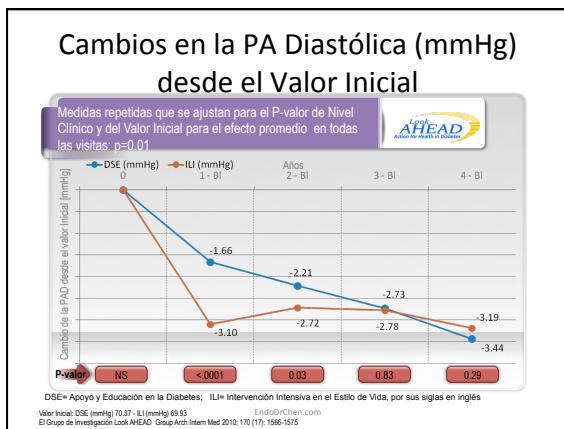
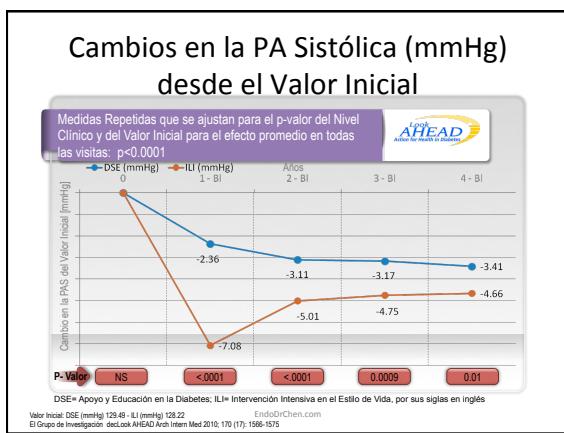
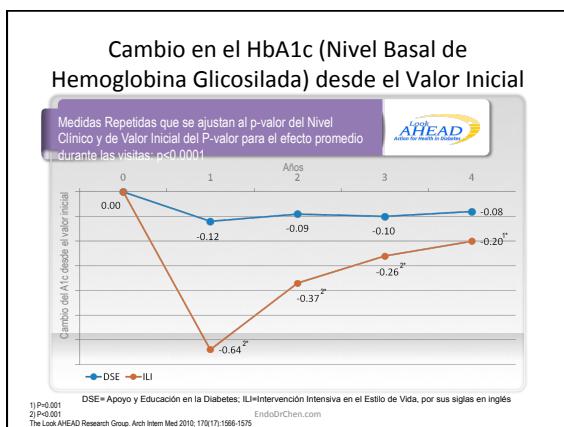
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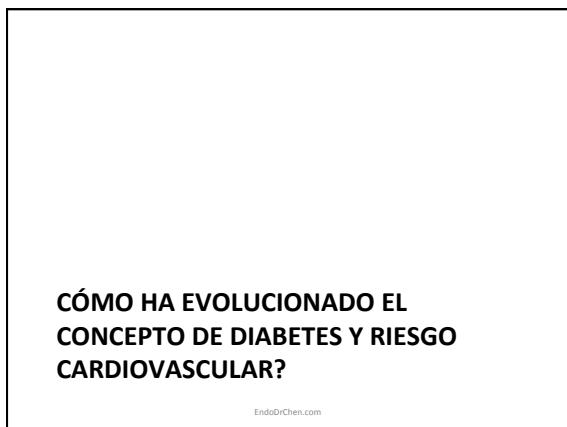
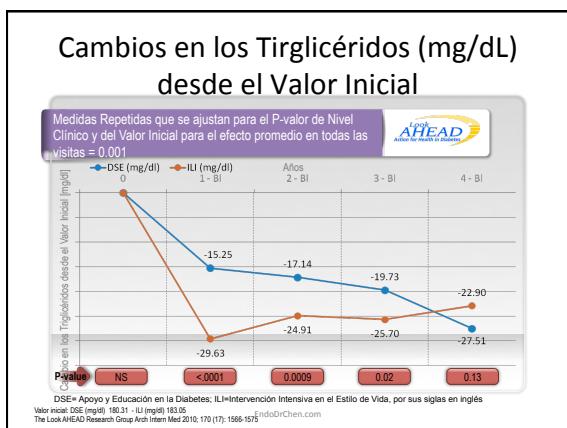
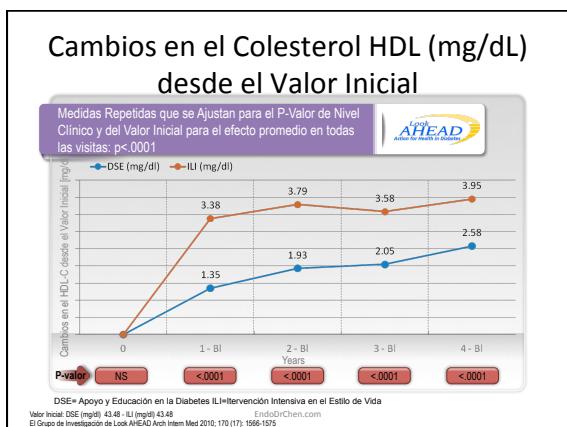
Cambio en el Porcentaje de Peso del Valor Inicial a 4 Años después

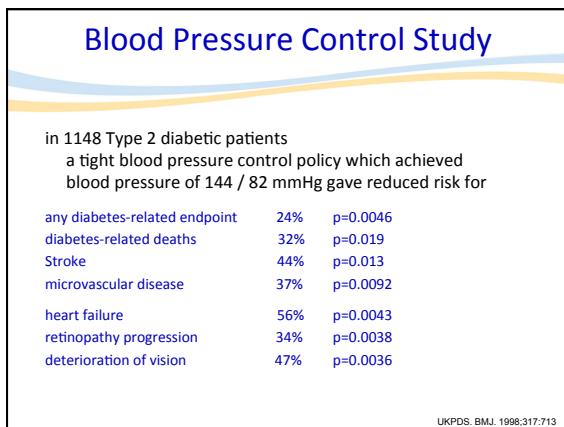
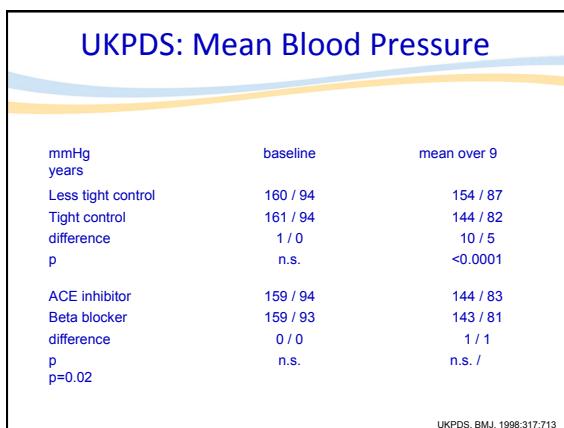
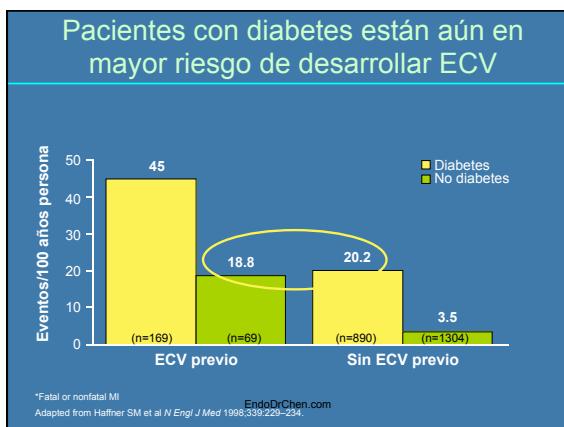


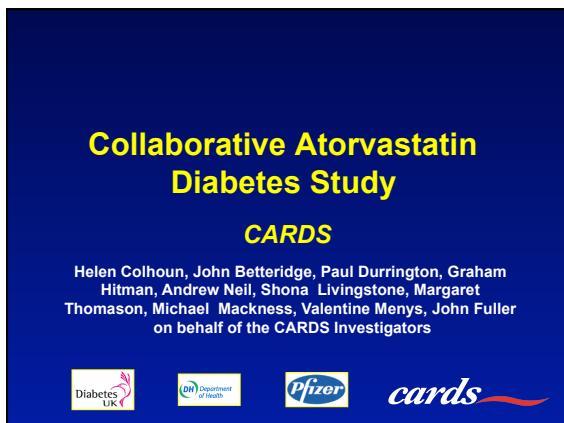
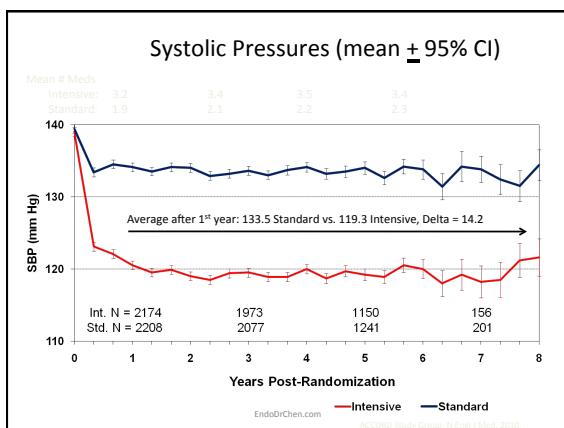
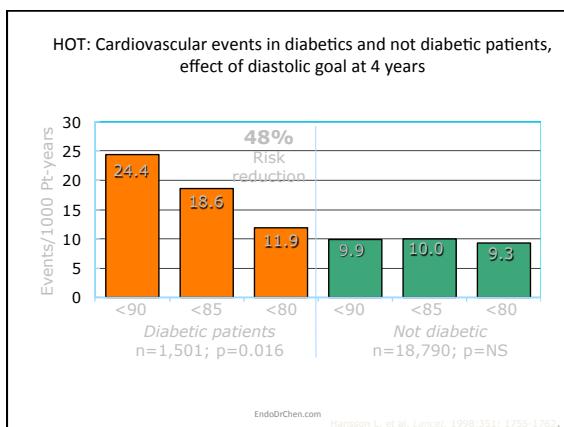
1) P<0.001
The Look AHEAD Research Group. Arch Intern Med 2010; 170(17):1596-1575

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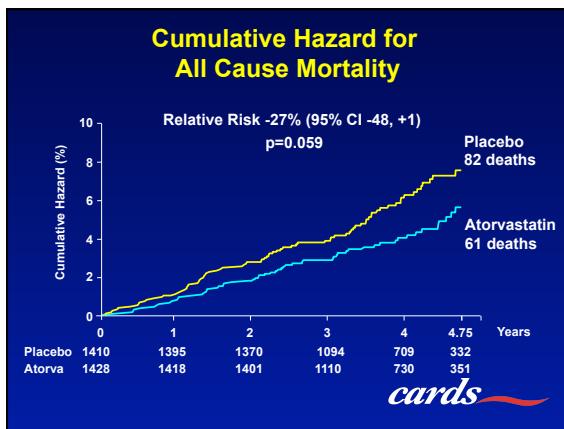
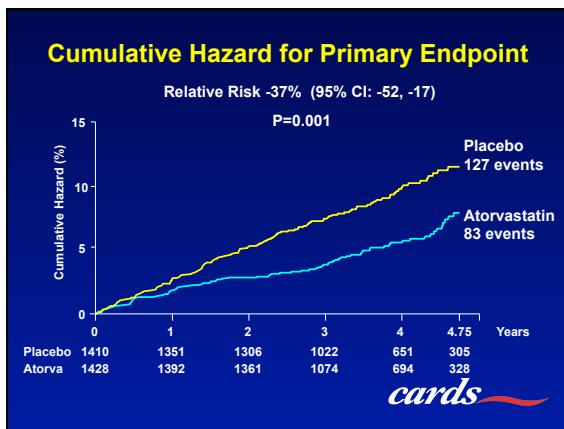


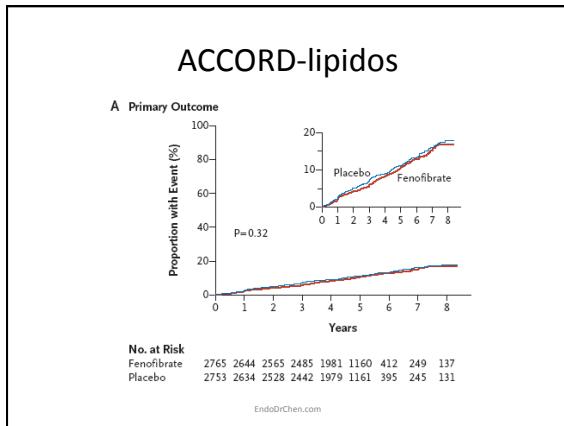
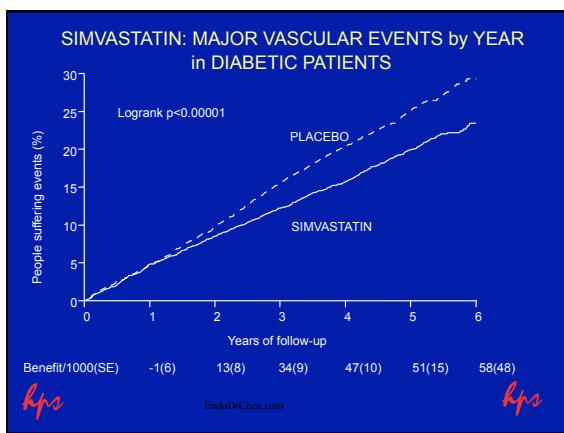
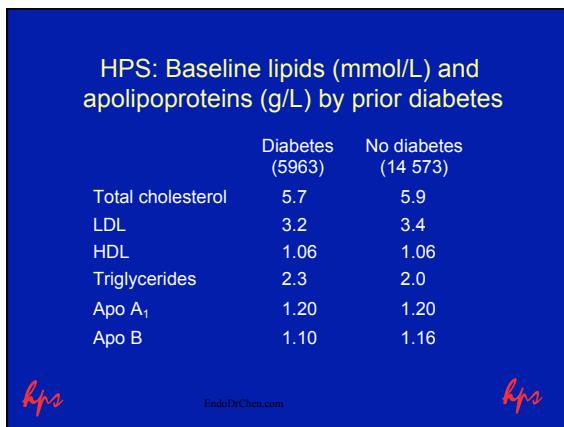


CARDS Patient Baseline Lipids		
	Placebo Median (IQR)	Atorvastatin Median (IQR)
Triglycerides (mmol/L) (mg/dL)	1.67 (1.17, 2.40) 148 (104, 212)	1.70 (1.20, 2.40) 150 (106, 212)
Non-HDL-C (mmol/L) (mg/dL)	3.93 (3.38, 4.50) 152 (131, 174)	4.00 (3.42, 4.50) 155 (132, 174)
Apolipoprotein A1 (mg/dL)	150 (132,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

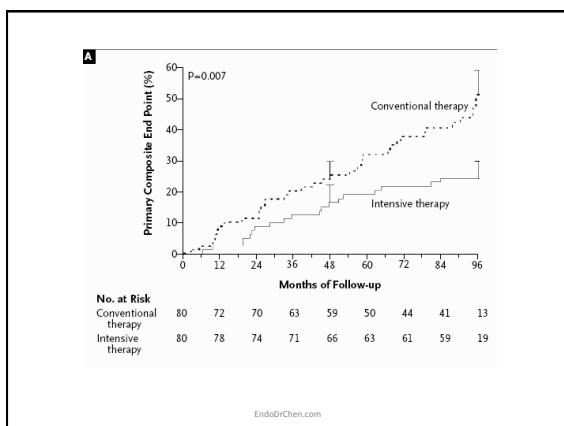
IQR = Interquartile range

cards

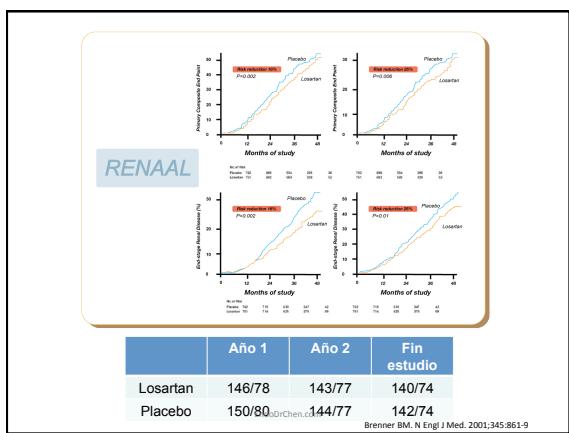
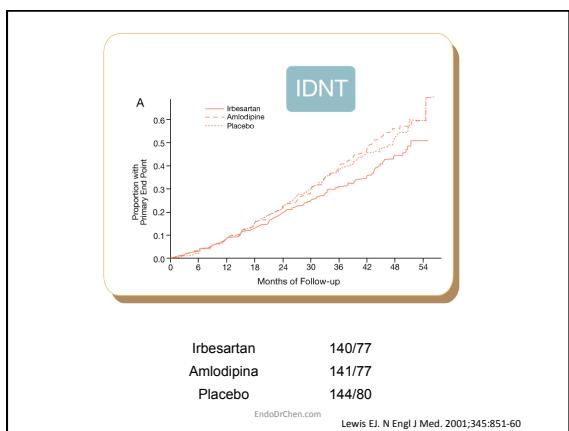






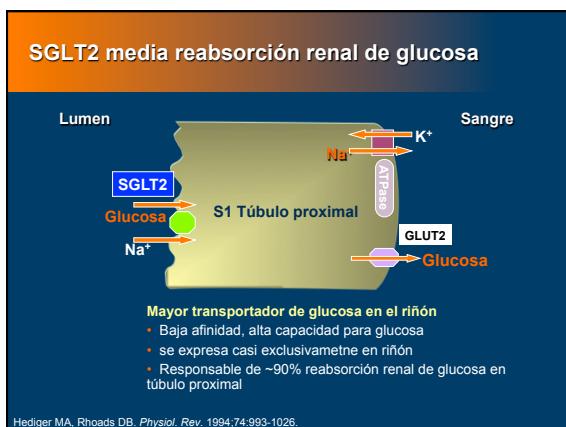
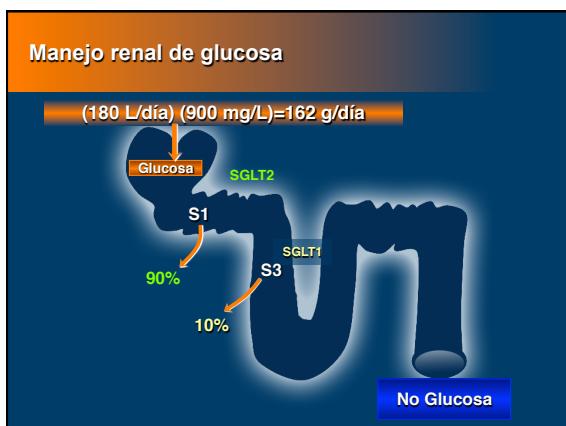
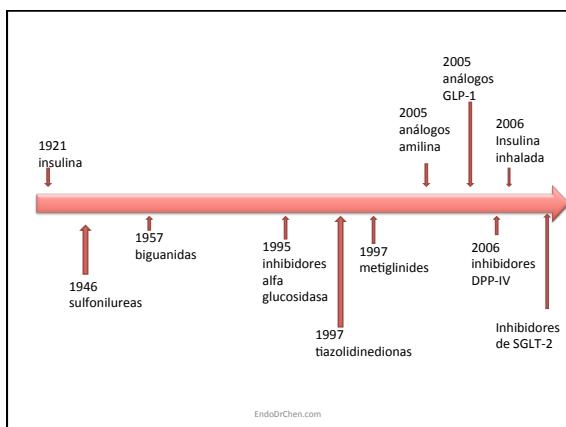


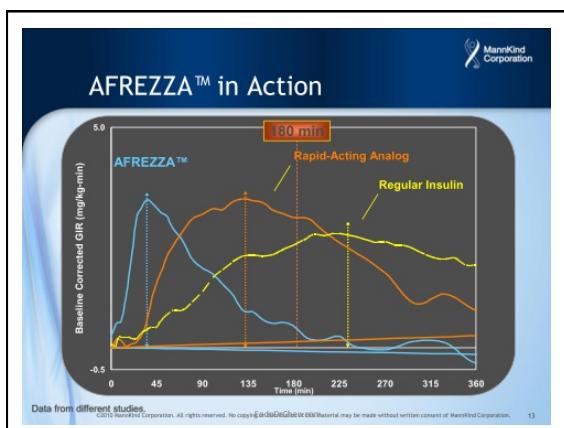




NUEVAS PERSPECTIVAS EN FÁRMACOS

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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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