Adherencia al tratamiento en la hipercolesterolemia y el riesgo cardiovascular

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Total Defunciones 424.523

- Enf. del sistema circulatorio:	122.466	(28,8 %)
- Tumores	113.266	(26,7 %)
- Enf. del sistema respiratorio	51.615	(12,2 %)
- Enf. del S. Nervioso y órg. de los sentidos	26.346	(6,2 %)
- Trast. mentales y del comportamiento	21.722	(5,1 %)

Instituto Nacional de Estadística 2017

El tratamiento con una combinación de distintos fármacos puede disminuir la incidencia de primeros episodios y de recurrencias en un 80%

La falta de adherencia al tratamiento puede suponer una elevada mortalidad coronaria en la población

Los fármacos no funcionan en los que no se los toman
— C. Everett Koop, M.D.

Naderi SH et al. The American Journal of Medicine (2012) 125, 882-887

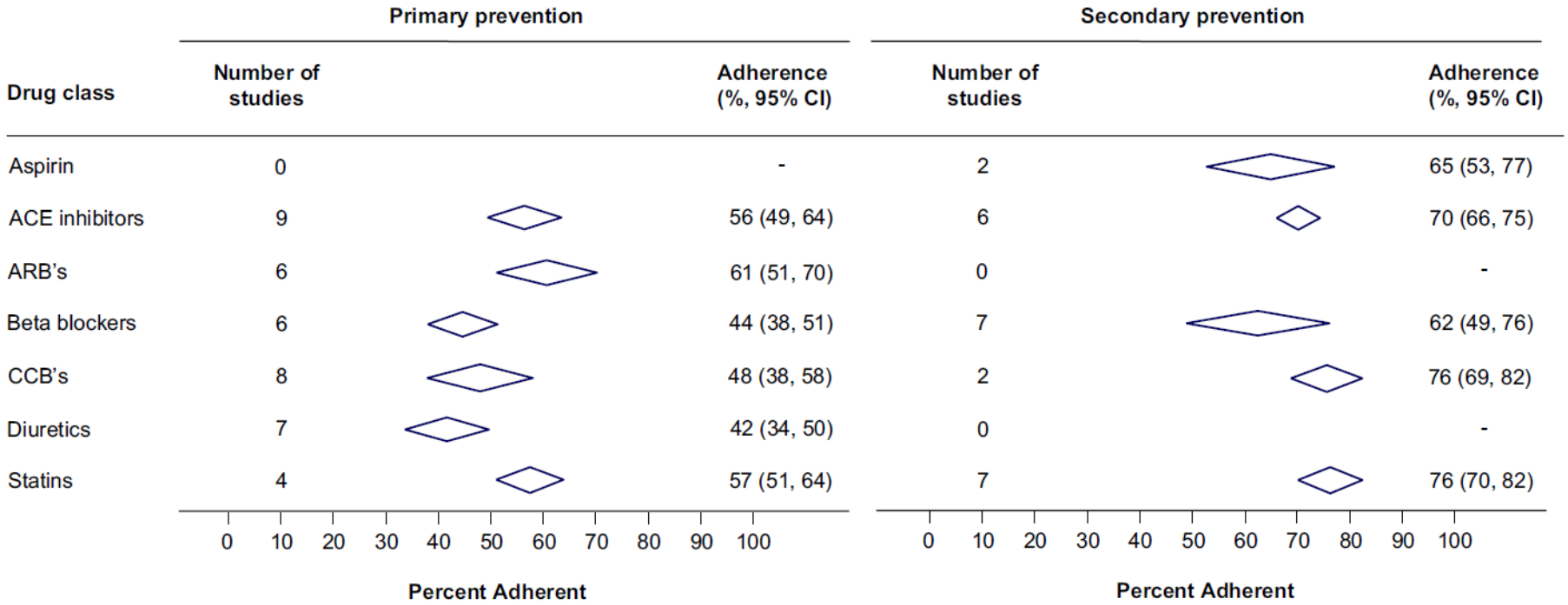
Coherencia en los datos de adherencia entre la anamnesis y el registro informático (ECAP)

36 pacientes atendidos en la Unidad de Riesgo Vascular del Hospital de Bellvitge

- Coincidencia ECAP/Anamnesis (Adherencia > 90%): 26/36 (72%)
- Coincidencia ECAP/Anamnesis (Adherencia < 10%): 2 (5%)
- Discordancia ECAP (< 90%)/Anamnesis (> 90%): 8 (22%)

Razones de la discordancia: viaje, compra sin receta, enfermedad

PERCENT ADHERENCE ACCORDING TO DRUG CLASS AND USE IN PRIMARY AND SECONDARY PREVENTION

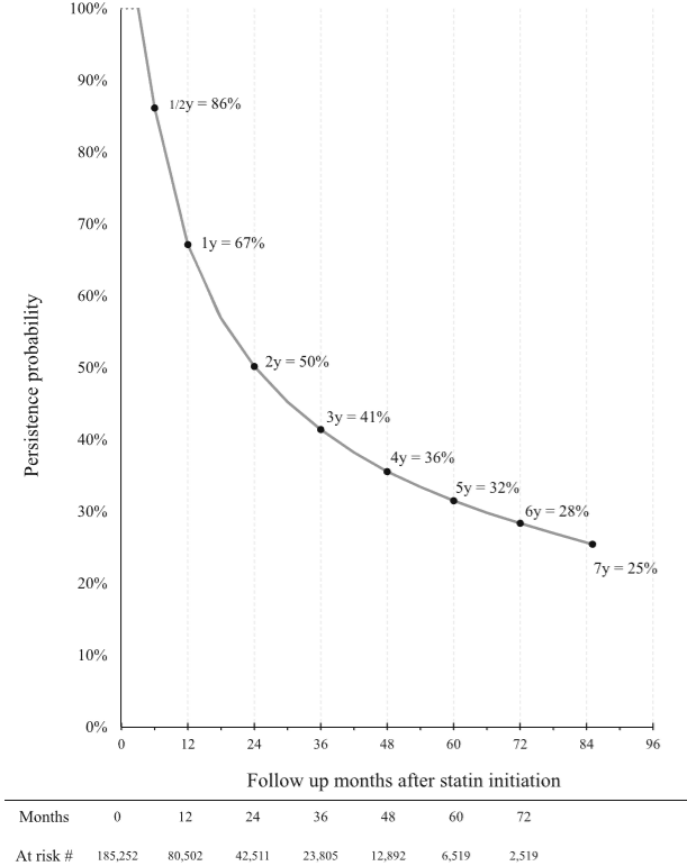


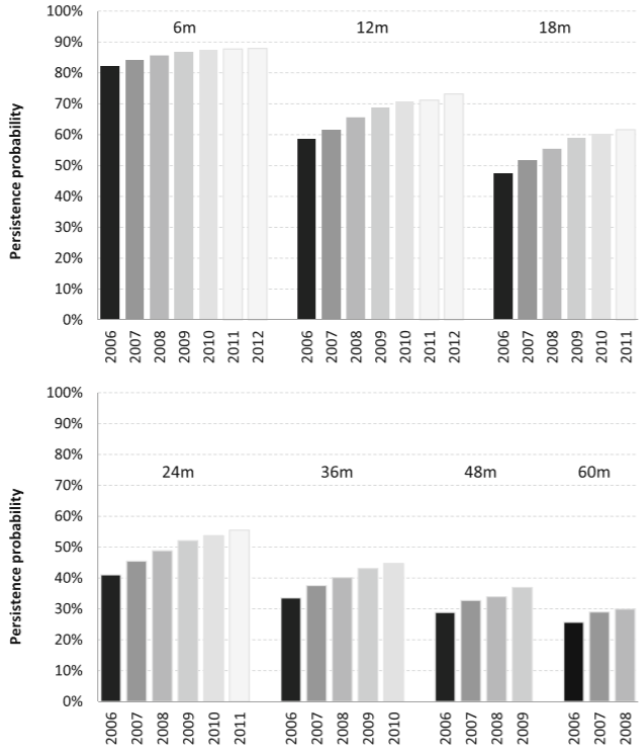
A meta-analysis of data on 376,162 patients from 20 studies assessing adherence using prescription refill frequency

Naderi SH et al. The American Journal of Medicine (2012) 125, 882-887

ADHERENCIA AL TRATAMIENTO CON ESTATINAS EN LOS PACIENTES DADOS DE ALTA DEL HOSPITAL POR UN PRIMER EPISODIO DE ENFERMEDAD CARDIOVASCULAR ATEROTROMBÓTICA

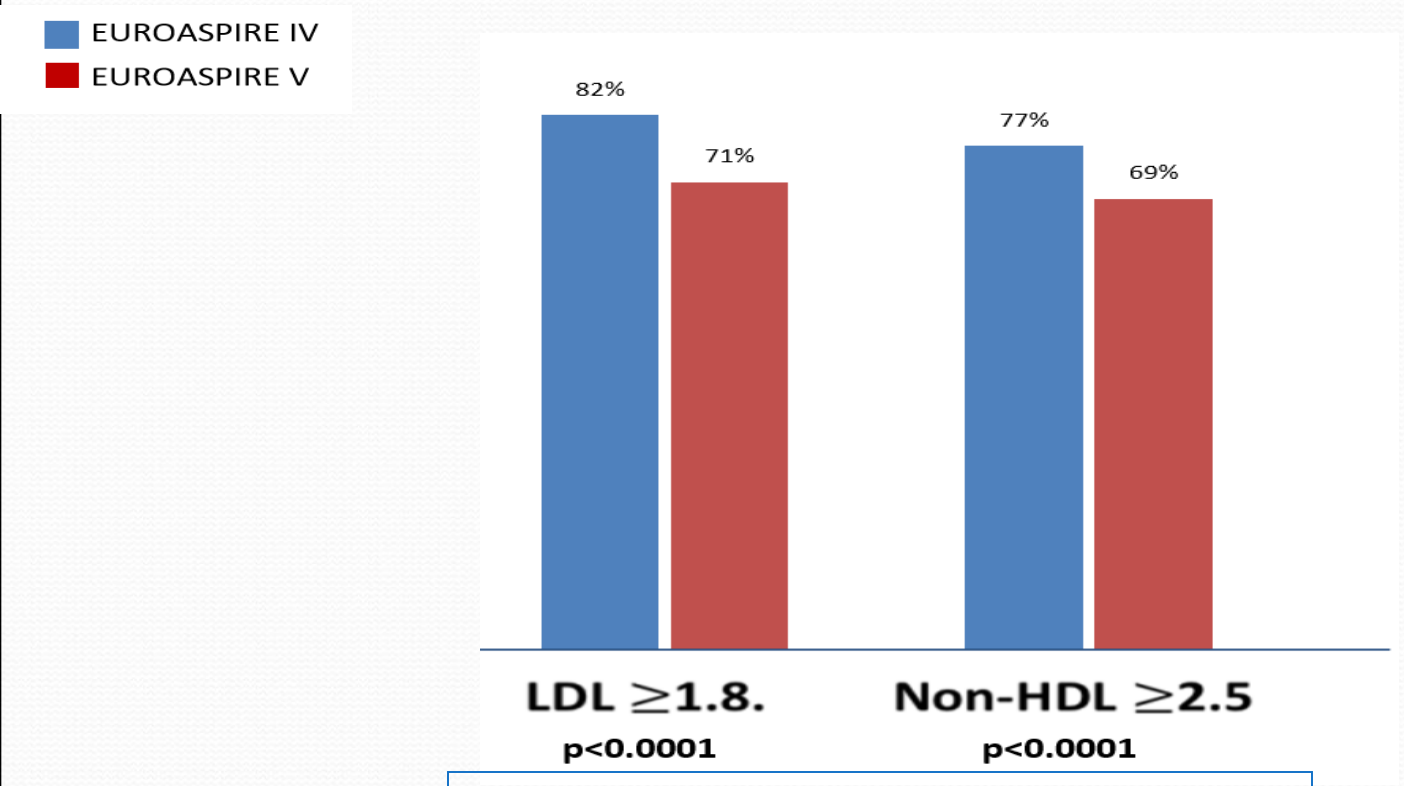
Un estudio de base poblacional y práctica clínica real





Chen et al. BMC Cardiovascular Disorders (2019) 19:62

EUROASPIRE IV and V
Cholesterol mmol/L; Total, LDL and HDL

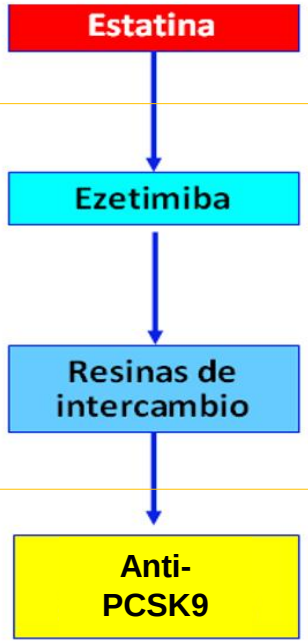


Euroaspire V: 84% treated with statins

ESC Congress Munich 2018

Kotseva K et al. ESC Munich 2018

FARMACOS PARA EL TRATAMIENTO DE LA HIPERCOLESTEROLEMIA



	Disminución del c-LDL	
	Monoterapia	Asociación
Estatina	- 20 – 50 %	
Ezetimiba / Resinas de intercambio	- 15 – 25 %	60 %
Anti-PCSK9	- 45 – 65 %	> 80 %

EAS

Modelando la intensificación de la terapia hipolipemiante en el mundo real: ¿cuántos pacientes con ECV necesitarían un iPCSK9?

Utilizando este modelo:

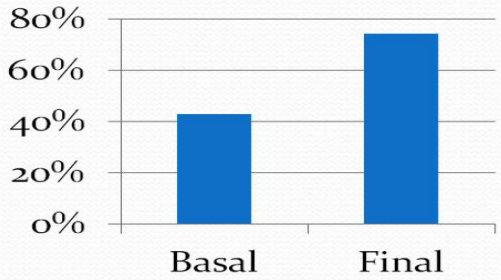
- Con estatina alta intensidad, ~70% de los pacientes alcanzaría cLDL <70 mg/dL (1,8 mmol/L)
- + Ezetimiba, ~86% de los pacientes conseguiría cLDL <70 mg/dL (1,8 mmol/L)
- ~14% de los pacientes requeriría la combinación con iPCSK9 para que > 99% de la población logre cLDL < 70 mg/dL (1,8 mmol/L)

Cannon CP, et al. JAMA Cardiol. 2017;2:959-66.

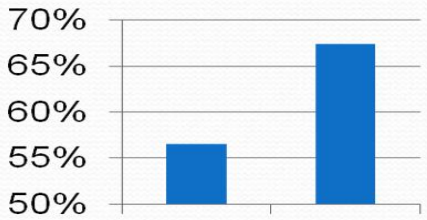
PROGRAMA DE PREVENCIÓN SECUNDARIA DEL H. de BELLVITGE

CONSECUCIÓN DE OBJETIVOS TERAPÉUTICOS

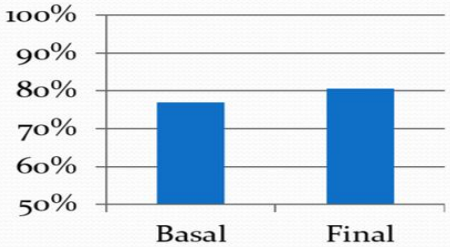
C-LDL < 70 mg/dL



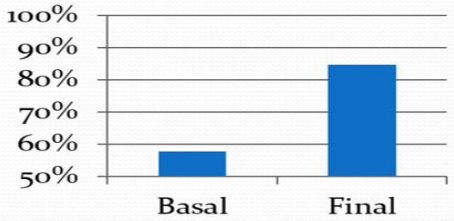
Actividad física
> 3h/semana



No fumadores



Dieta adecuada



Número de pacientes con ≥ 1 visita de seguimiento: **541;** Hombres: 394 (72.8 %)

Edad media: 50 +/- 6.3 años. Nº promedio de visitas: 3,2 +/-1.5 por paciente

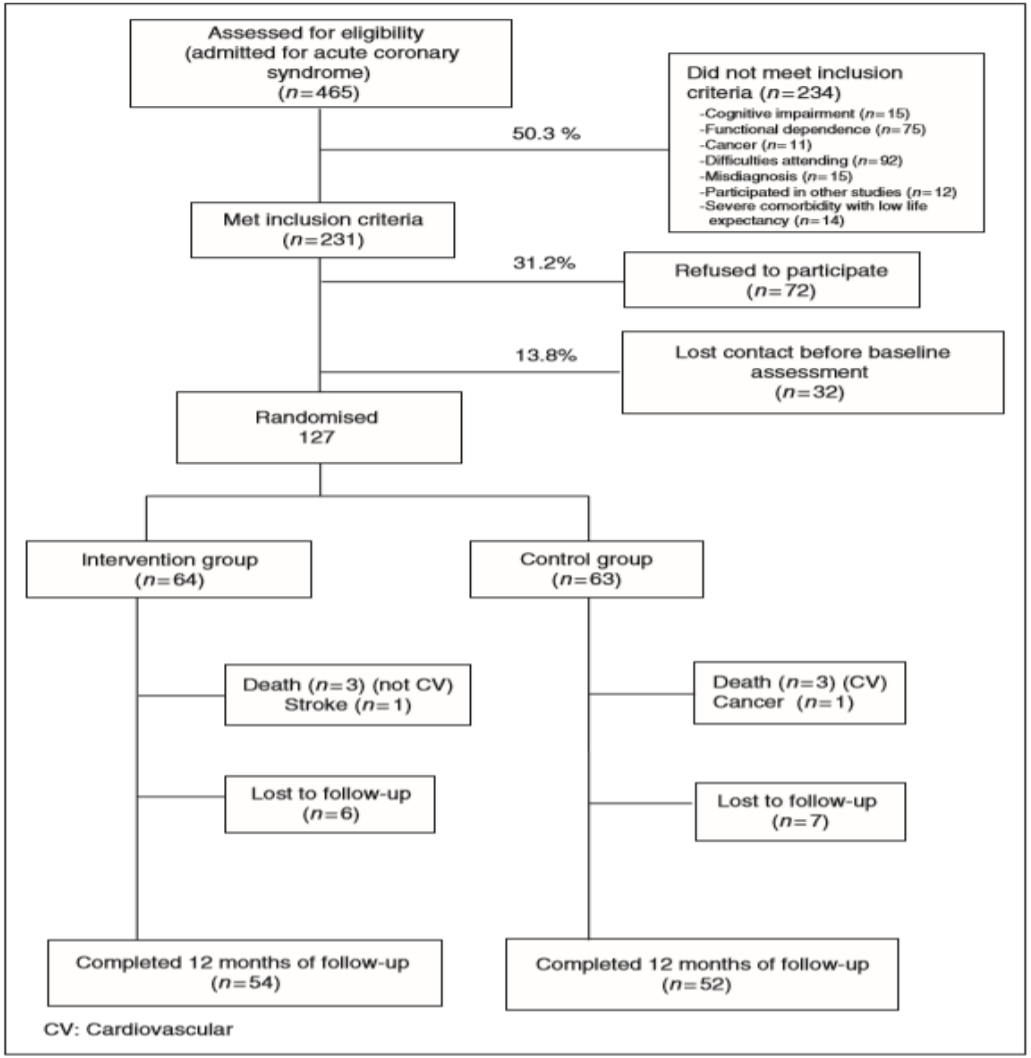
European Journal of Preventive Cardiology

Full research paper

Secondary prevention programme of ischaemic heart disease in the elderly: A randomised clinical trial

Elisenda Marcos-Forniol[1,2], José F Meco[1], Emili Corbella[1,3], Francesc Formiga[4] and Xavier Pintó[1,3,5]

Eur J Prev Cardiol 2018;3:278-6



PATIENTS WITH GOOD RISK FACTOR CONTROL AT THE END OF 12 MONTHS OF FOLLOW-UP

	Intervention $n = 54$	Control $n = 52$	Risk ratio (95% CI)
Primary outcome			
Good RF control[a]	34 (63.0)	15 (28.8)	2.18 (1.36–3.50)
Individual CVRF			
BP <140/90 mmHg	37 (68.5)	22 (42.3)	1.62 (1.12–2.33)
LDL-c <2.6 mmol/l	52 (96.3)	41 (78.8)	1.22 (1.05–1.42)
Smoking cessation	52 (96.3)	50 (96.2)	1.00 (0.93–1.08)
BMI <25 kg/m^2	14 (25.9)	9 (17.3)	1.50 (0.71–3.16)
METs ≥6 h/week	46 (85.2)	35 (67.3)	1.27 (1.02–1.58)
HbA1c, %[b]	20 (87.0)	14 (60.9)	1.43 (0.99–2.06)

At the end of intervention more patients in the intervention group had achieved optimal risk factor control with a NNT = 3 (relative risk 2.18, 95% confidence interval 1.36 to 3.50).

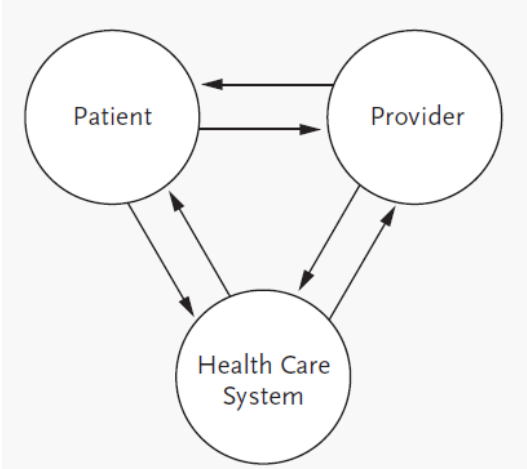
The intervention group improved adherence to the Mediterranean diet (p=0.013) and functionality assessed by the Short Physical Performance Battery (p=0.047). No differences in quality of life (Short-Form 36 Health Survey) or mortality after three years

Data presented as n (%). Good risk factor control: achievement of five or more of the six risk factor goals based on the current guidelines at the time the study was designed.15 These were BP<140/90mmHg, LDL-c<2.6mmol/l, smoking cessation, BMI<25kg/m2, physical activity at least 30min per day of moderate intensity three days per week (6 METs h/week) and HbA1c<7% in diabetic patients. bOnly for the 46 diabetic patients (23 in each group).

Marcos E et al. Eur J Prev Cardiol 2018;3:278-

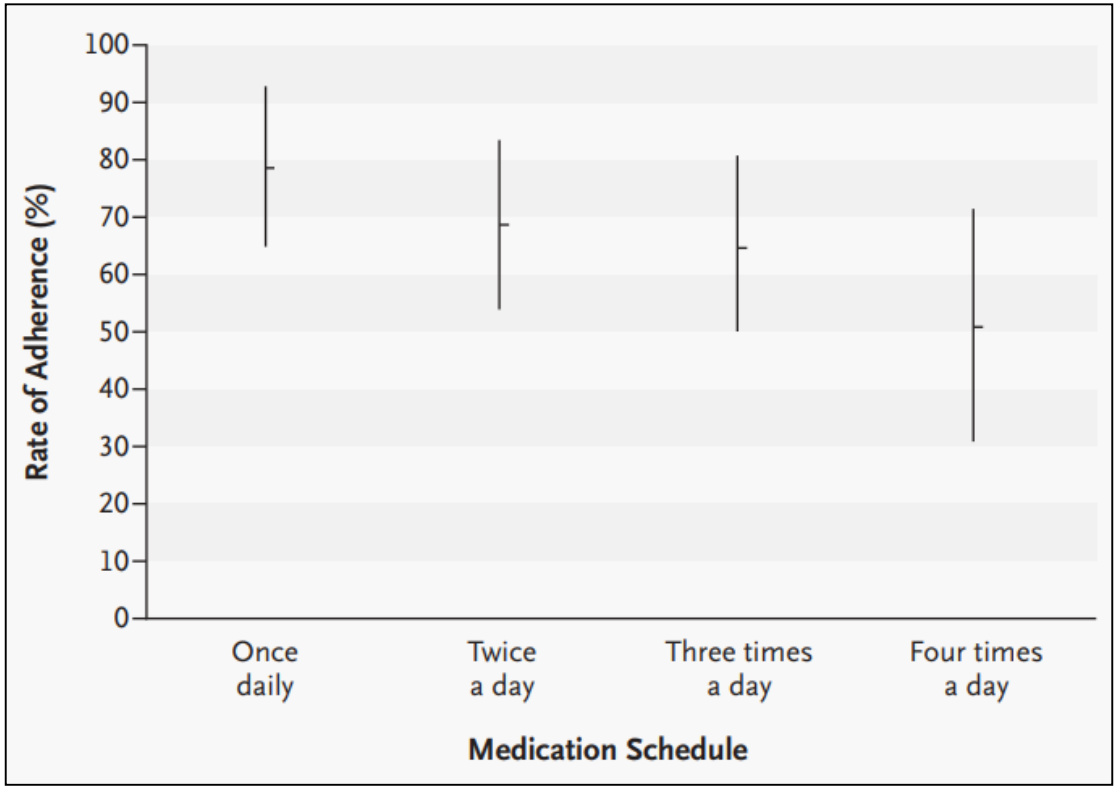
PRINCIPALES PREDICTORES DE MALA ADHERENCIA A LA MEDICACIÓN

- Problemas psicológicos/ déficit cognitivo
- Ausencia de síntomas o sensación de enfermedad
- Falta de confianza en el beneficio del tratamiento
- No adecuación o falta de plan de seguimiento al alta
- Intolerancia/efectos secundarios
- Escasa relación entre el paciente y el proveedor
- Barreras / Coste, copago
- Complejidad del tratamiento



Osterberg L et al. N Engl J Med 2005;353:487-97

Adherence to Medication According to Frequency of Doses

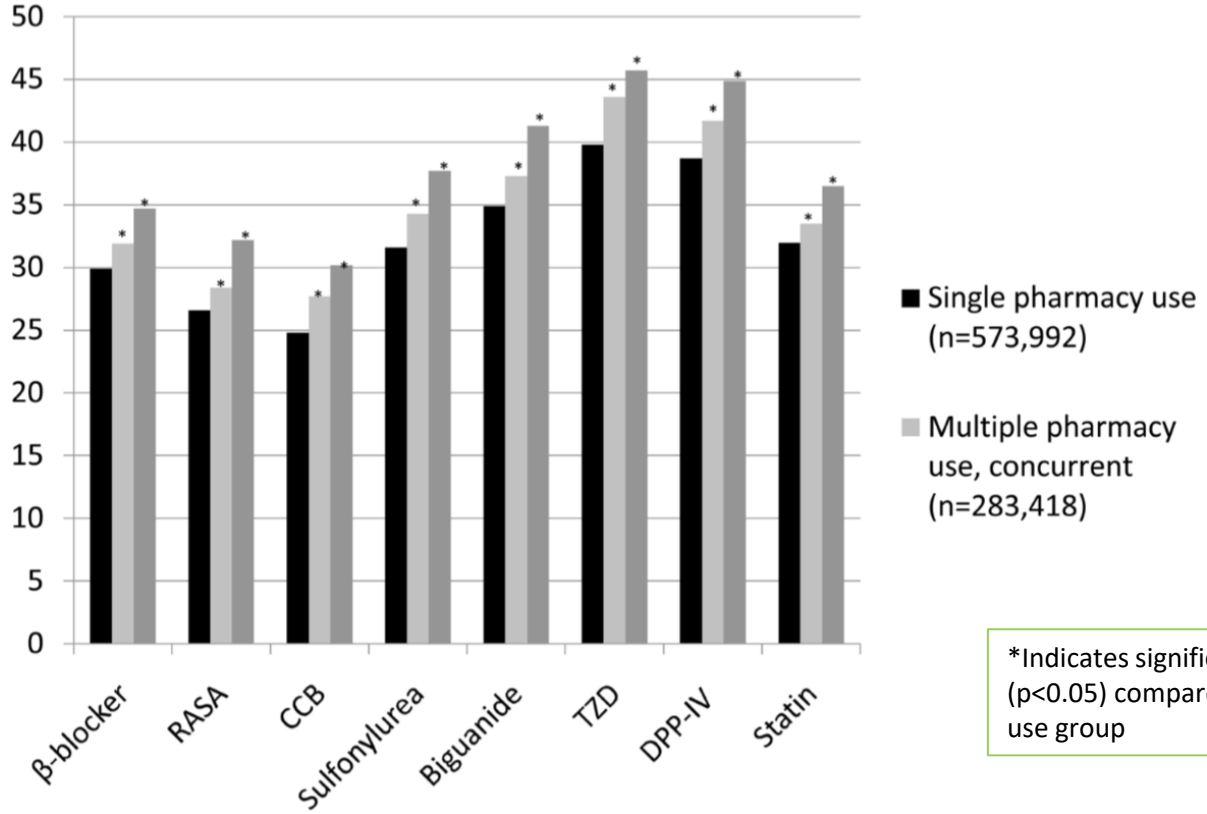


* Vertical lines represent 1 SD on either side of the mean rate of adherence (horizontal bars)

Osterberg L et al. N Engl J Med 2005;353:487-97

Association between multiple pharmacy use and medication adherence

Unadjusted rates of Medication Non-Adherence for 2009 Study Cohort (n=926,956)



*Indicates significant difference ($p<0.05$) compared to single pharmacy use group

Marcum ZA et al. J Am Geriatr Soc. 2014 February ; 62(2): 244–252

Tailored interventions by community pharmacists and general practitioners improve adherence to statins in a Spanish randomized controlled trial

Forty- six community pharmacies and 50 primary care centers of Spain. RCT (n=746)
Aged 18 years or older. A prescription of at least one statin within the previous 3 months

Description of interventions provided to the INT group patients

Nonintentional nonadherence

Disability Forgetfulness	• Adapt the dose regimen to the patient's situation. • Keep a record of medication intake. • Include pictograms, indication of posology in the box, etc., in the labeling. • Use dispensers, drug packaging, etc. • Other use reminders (alarms, etc.).

Oñatibia-Astibia A et al. Health Serv Res 2019;54:658–668

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Intentional nonadherence

Knowledge about the disease or treatment	• Not wanting to improve his/her condition • Not adequately considered the information received regarding pathology or treatment • Not aware of the severity of his/her illness • Not aware of the benefits of the treatment • Not aware of the consequences of not following treatment • Believe that generic drugs are less effective than brand name drugs	• Provide written and oral standardized information regarding: o pathology o benefits of treatment o nonpharmacological health education (diet, physical activity, etc.). • Adapt the dose regimen to the patient's situation.[b] • Keep a record of medication intake. • Include pictograms, indication of posology in the box, etc., in the labeling

Oñatibia-Astibia A et al. Health Serv Res 2019;54:658–668

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Description of interventions provided to the INT group patients

Intentional nonadherence		
Related to the medication	• Polymedication • Complicated dose regimen • The pharmaceutical form caused problems	• Refer to GP for dose/medication adjustment[a] • Provide standardized information about treatment
	• Adverse drug reactions	• Assess the risk-benefit of taking the drug. • Refer to GP for dose/medication adjustment.[a]

Oñatibia-Astibia A et al. Health Serv Res 2019;54:658–668

Tailored interventions by community pharmacists and general practitioners improve adherence to statins in a Spanish randomized controlled trial

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Aged 18 years or older. A prescription of at least one statin within the previous 3 months

Description of interventions provided to the INT group patients

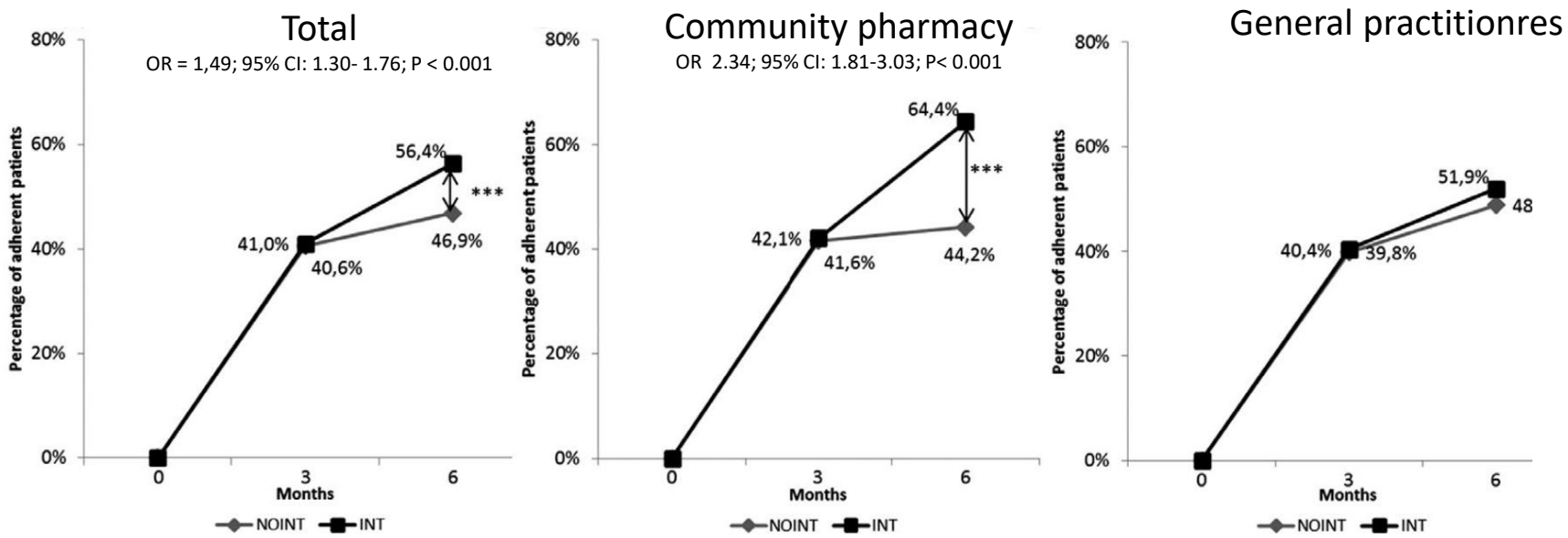
Intentional nonadherence

Psychological	• Cultural reasons or beliefs	• Refer to GP for alternative treatment.[a]
Related to health system	• Contradictory information received from doctor and pharmacist • Difficulties in receiving health care (change of doctor, schedules, distance, etc.)	• Encourage communication with the doctor or pharmacist. • Encourage communication with family members, caregivers, pharmacist, etc.
Economic	• Economic reasons (fees, etc.)	• Evaluate options to reduce the cost of the medicine (request for aid, changes in treatment, etc.)

Oñatibia-Astibia A et al. Health Serv Res 2019;54:658–668

Variation in adherence to statins in patients who were nonadherent at baseline

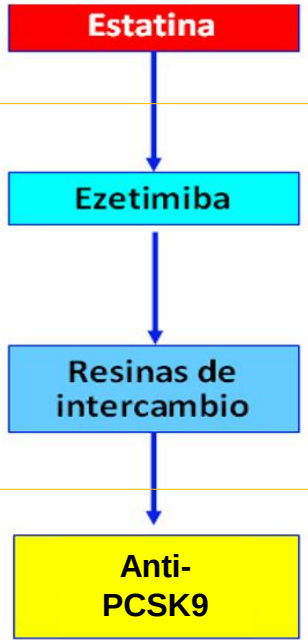
Forty- six community pharmacies and 50 primary care centers of Spain. RCT (n=746)



NOINT: nonadherent patients with usual care; INT: nonadherent patients with intervention. *** P < 0.01.

Oñatibia-Astibia A et al. Health Serv Res 2019;54:658–668

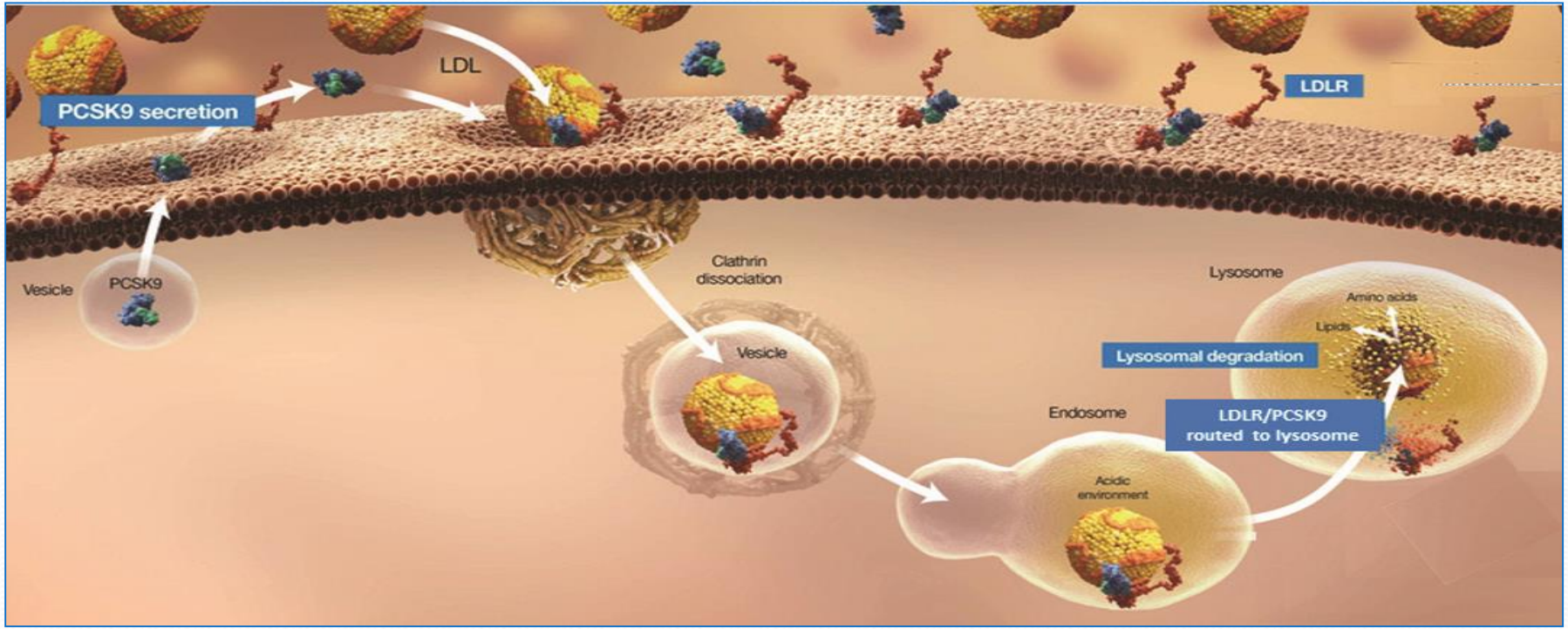
FARMACOS PARA EL TRATAMIENTO DE LA HIPERCOLESTEROLEMIA



	Disminución del c-LDL	
	Monoterapia	Asociación
Estatina	- 20 – 50 %	
Ezetimiba / Resinas de intercambio	- 15 – 25 %	60 %
Anti-PCSK9	- 45 – 65 %	> 80 %

EAS

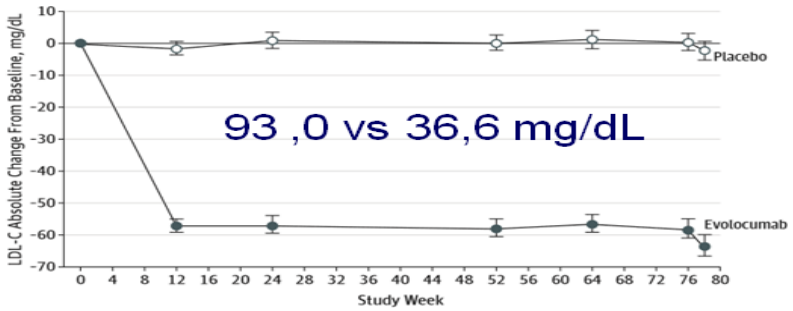
LA PROTEÍNA PCSK9



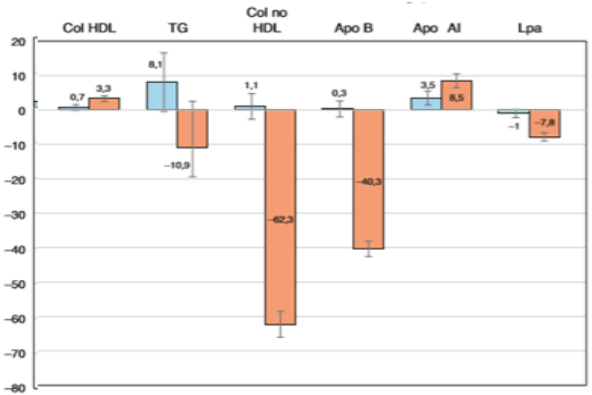
TRATAMIENTO CON EVOLOCUMAB Y EVOLUCIÓN DE LA ENF. CORONARIA

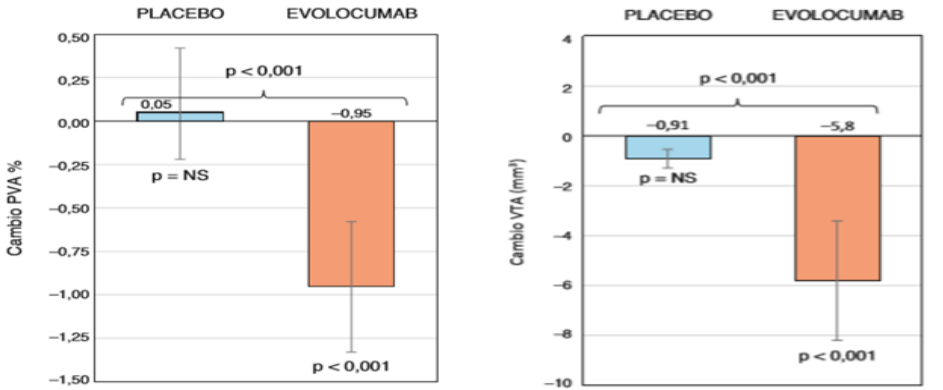
- El estudio Glagov -

Cambio medio absoluto en el C-LDL

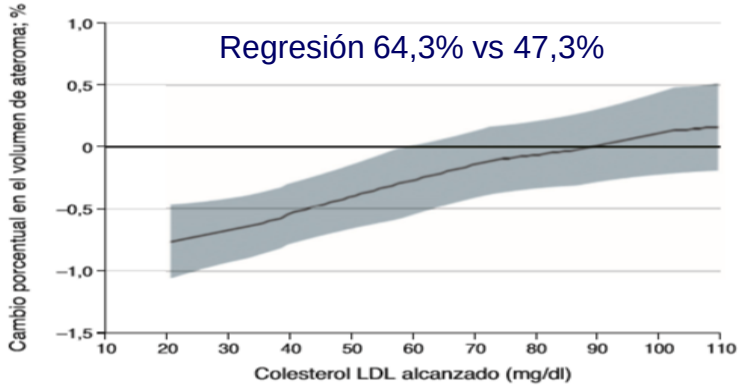


Otros cambios lipídicos (cambio absoluto en mg/dL)



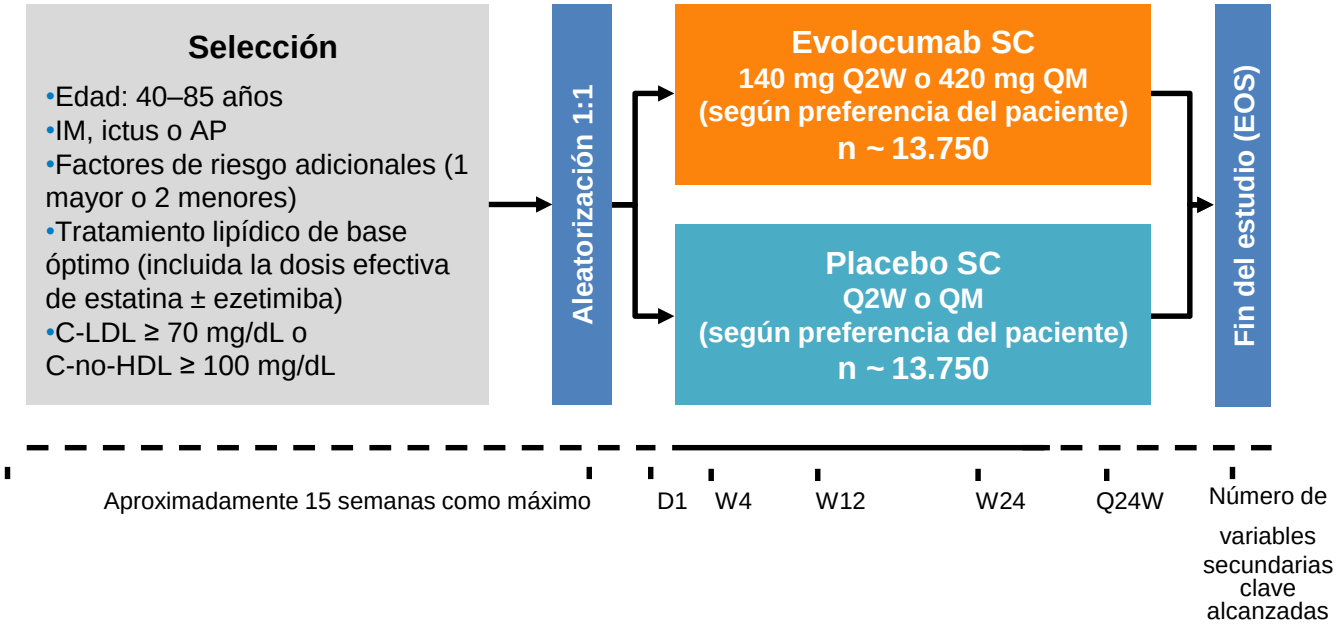


Evolución de las placas de ateroma de las arterias coronarias



Nicholls SJ et al. JAMA. 2016;316:2373-84.
Guijarro C. Clin Invest Arterioscl. 2017;29(Supl 1):9-15

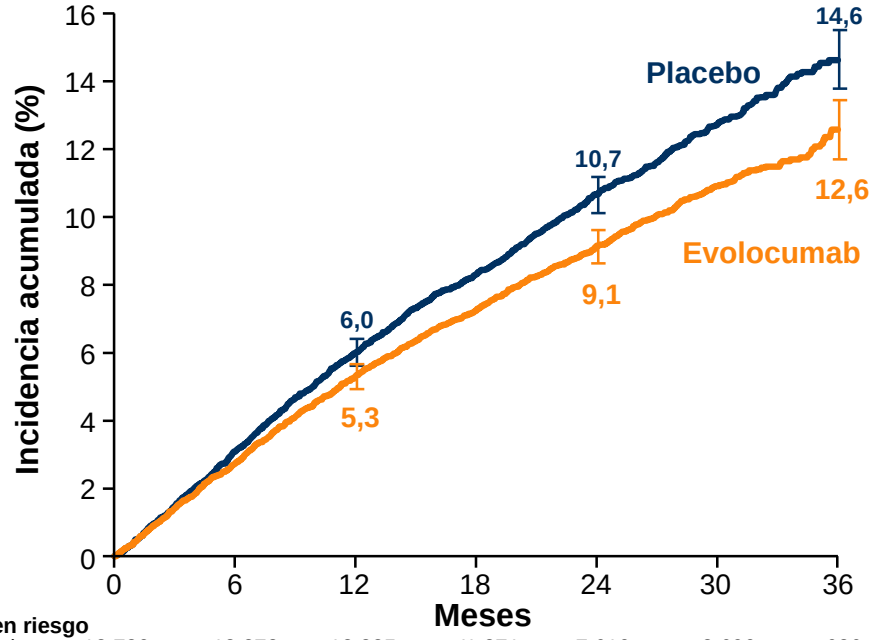
Estudio de eventos cardiovasculares con evolocumab. DISEÑO DEL ESTUDIO FOURIER



AP = arteriopatía periférica; C-HDL = colesterol ligado a lipoproteínas de alta densidad; C-LDL = colesterol ligado a lipoproteínas de baja densidad; D = día; IM = infarto de miocardio; Q2W = cada 2 semanas; Q24W = cada 24 semanas; QM = cada mes; SC = vía subcutánea; W = semana.

Sabatine MC et al. NEJM 2017 May 4;376(18):1713-1722

Variable principal: compuesto de muerte CV, IM, ictus, hospitalización por AI o revascularización coronaria



N.º en riesgo

Placebo	13.780	13.278	12.825	11.871	7.610	3.690	686
Evolocumab	13.784	13.351	12.939	12.070	7.771	3.746	689

HR 0,85 (IC del 95%: de 0,79 a 0,92); *p* < 0,001

AI = angina inestable; HR = hazard ratio; CV = cardiovascular; IM = infarto de miocardio

Sabatine MS, *et al*. *NEJM*. [publicado en línea antes de la impresión el 17 de marzo de 2017]. doi: 10.1056/NEJMoa1615664

Sabatine MC et al. NEJM 2017 May 4;376(18):1713-1722

RESULTADOS

NNT SEGÚN LAS CARACTERÍSTICAS DE LOS PACIENTES

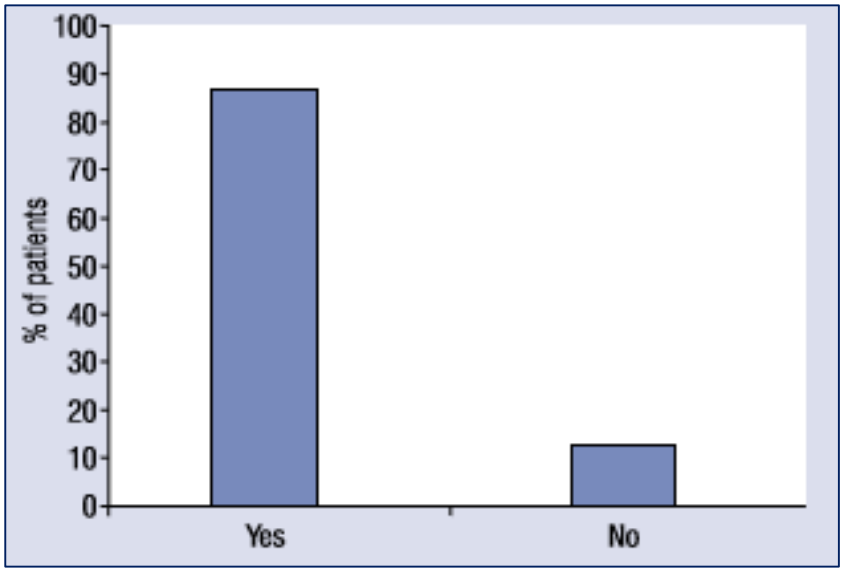
<2 Infartos de miocardio previos: 38
≥2 Infartos de miocardio previos: 60

Infarto de miocardio < 2 años: 35
Infarto de miocardio ≥ 2 años: 101

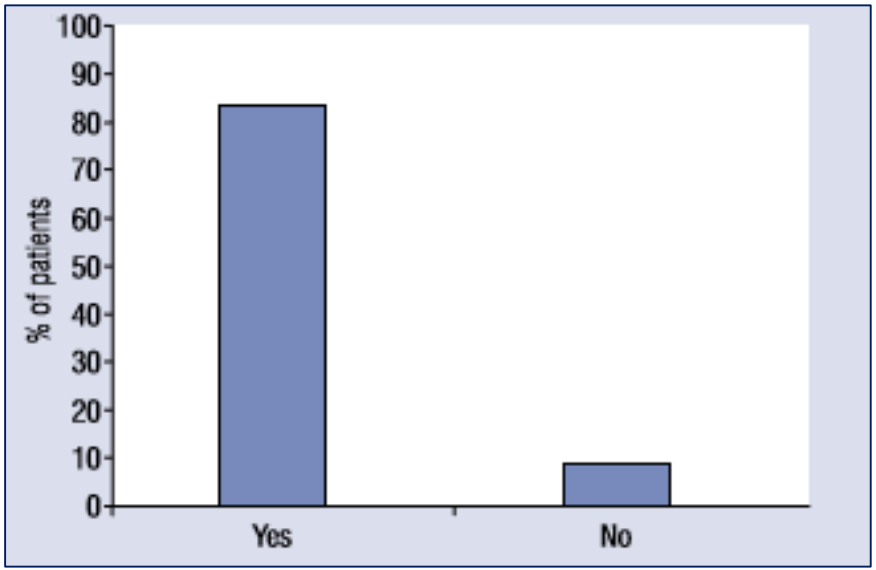
Con enfermedad multivaso: 29
Sin enfermedad multivaso: 78

Con enfermedad arterial periférica: 29
Sin enfermedad arterial periférica: 72

Percent of patients that injected the iPCSK9 as prescribed

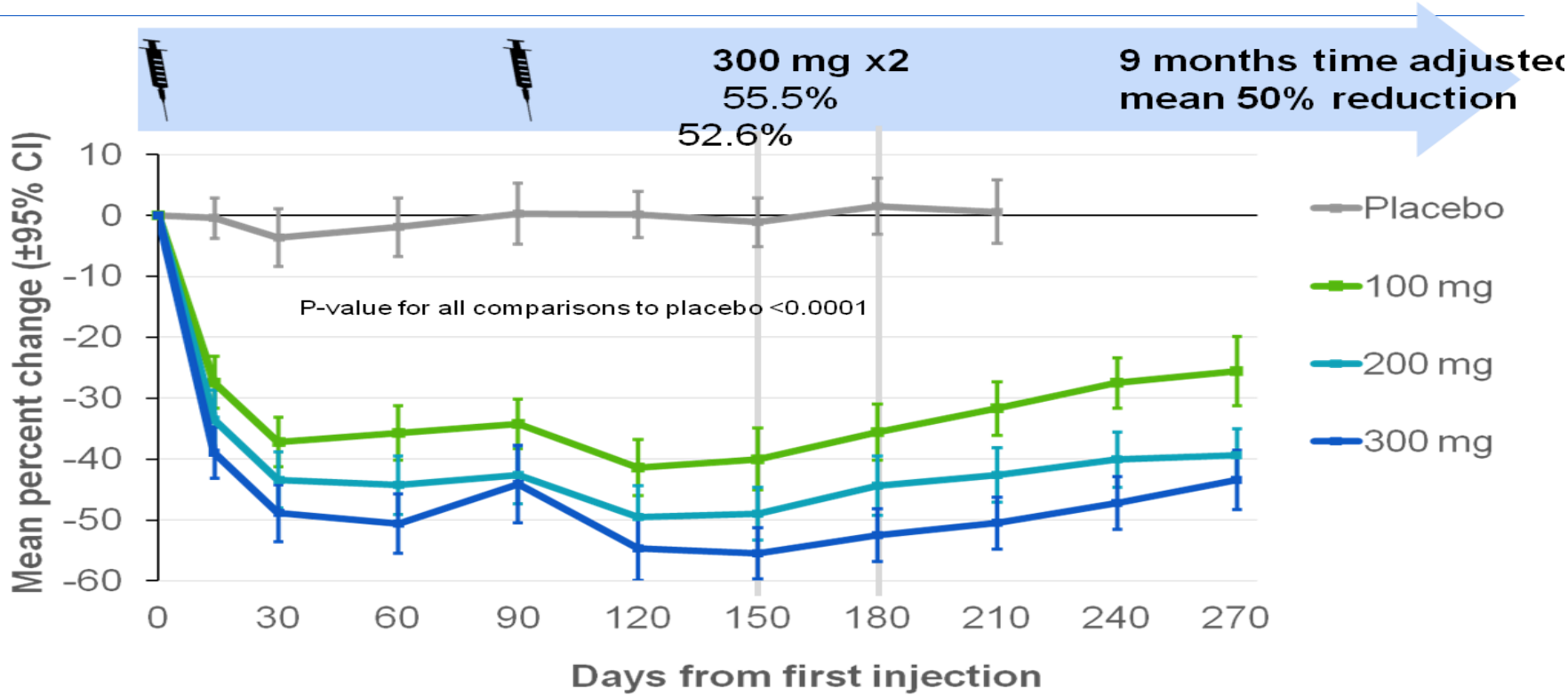


Percent of patients that felt safe using a iPCSK9



Saborowski M et al. Cardiol J 2018;25:32–41

Efficacy: Two dose starting regimen (Placebo vs. Inclisiran)
Robust, sustained LDL-C reductions – optimal start regimen



ACC.17
Imperial College London
amc
Alnylam
The Medicines Company

JAMA Dermatology | Original Investigation

Association of *APOA5* and *APOC3* Genetic Polymorphisms With Severity of Hypertriglyceridemia in Patients With Cutaneous T-Cell Lymphoma Treated With Bexarotene

Genetic Polymorphism	TG Concentration, Mean (SD), mg/dL		*P* Value
	Noncarriers	Carriers	
APOA5 c.-1131T>C			
TG level before treatment	121.24 (143.36)	125.66 (161.06)	.78
Maximal TG level after treatment	328.32 (188.50)	246.90 (188.50)	.12
Adjusted maximal TG level[b]	327.43 (169.91)	246.90 (172.57)	.10
APOA5 c.1131T>C and/or *APOC3* c.*40C>G			
TG level before treatment	119.47 (144.25)	130.97 (155.75)	.45
Maximal TG level after treatment	330.97 (192.04)	253.98 (176.99)	.12
Adjusted maximal TG level[d]	330.97 (169.03)	241.59 (169.91)	.02

N= 116. Gene variants included in the study: c.-1131T>C(rs662799,APOA5); c.56G>C(rs3135506,APOA5); c.*40C>G (rs5128, APOC3); c.388T>C (rs429358, APOE*E4); c.526C>T(rs7412,APOE*E2)

Cabello I, Alia P, Pintó X et al. JAMA Dermatol 2018;

Cochrane Database of Systematic Reviews : INTERVENTIONS TO IMPROVE ADHERENCE TO LIPID-LOWERING MEDICATION

La adherencia es un concepto complejo. Quizás un enfoque más centrado en el paciente es la mejor forma de afrontar esta complejidad

Han de tenerse en cuenta las preferencias, la actitud, las ideas y las circunstancias del paciente

Para aumentar la adherencia es necesaria la combinación de estrategias

Van Driel ML, et al. Heart 2018;104:367-9

2018 AHA/ACC/AACVPR/AAPA/ABC/ACPM/ADA/AGS/APhA/ASPC/NLA/PCNA Guideline on the Management of Blood Cholesterol

A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines

Recommendations for Implementation

Referenced studies that support recommendations are summarized in Online Data Supplements 42, 43, 44, 45, and 46.

COR	LOE	Recommendations
I	A	1. Interventions focused on improving adherence to prescribed therapy are recommended for management of adults with elevated cholesterol levels, including telephone reminders, calendar reminders, integrated multidisciplinary educational activities, and pharmacist-led interventions, such as simplification of the drug regimen to once-daily dosing (S6-1–S6-4).

"Adherence": n=39

Grundy SM et al. Circulation 2018. DOI: 10.1161/CIR.0000000000000625