Statines, faut-il diminuer nos prescriptions?
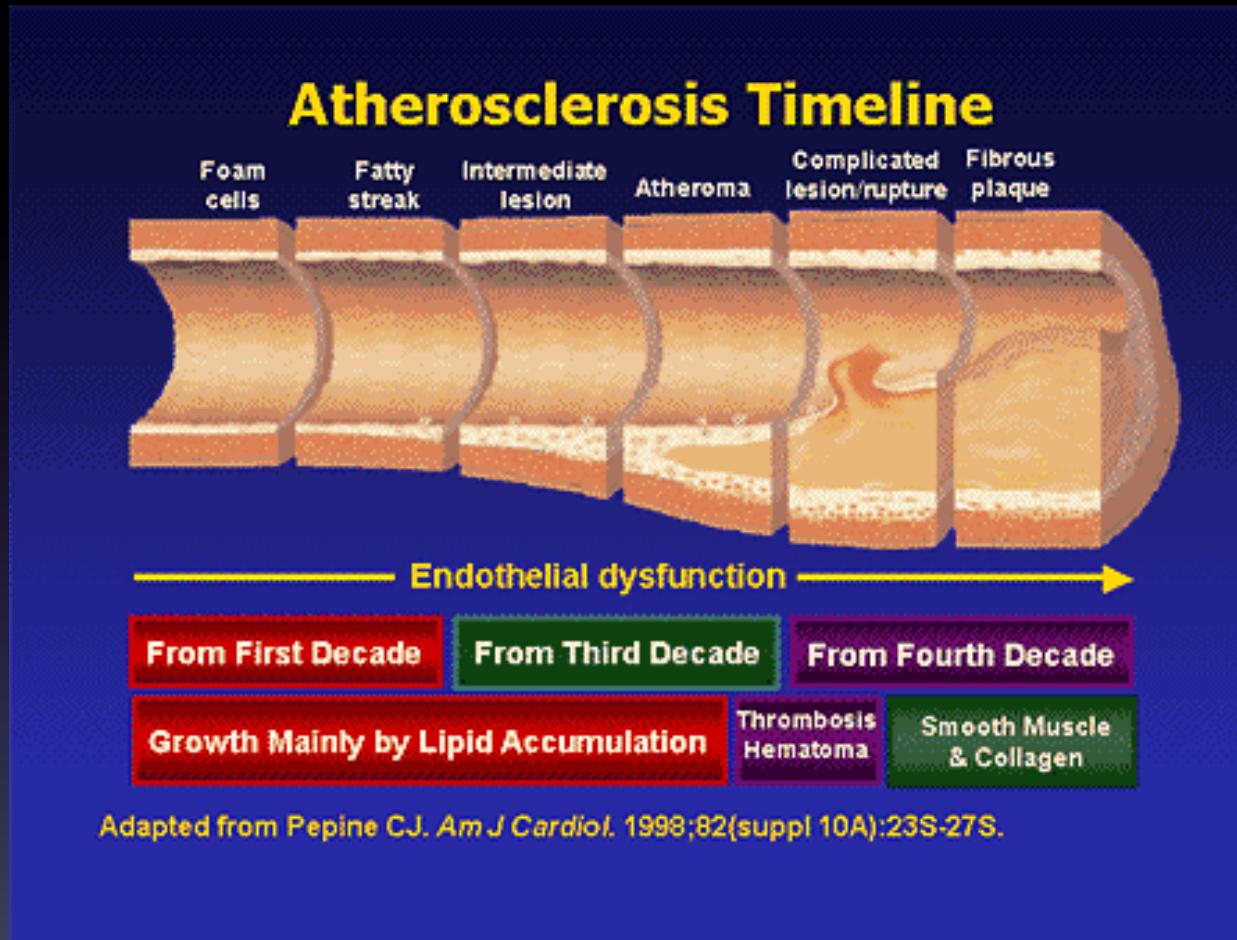
LDL: A Critical Player in Atherosclerosis
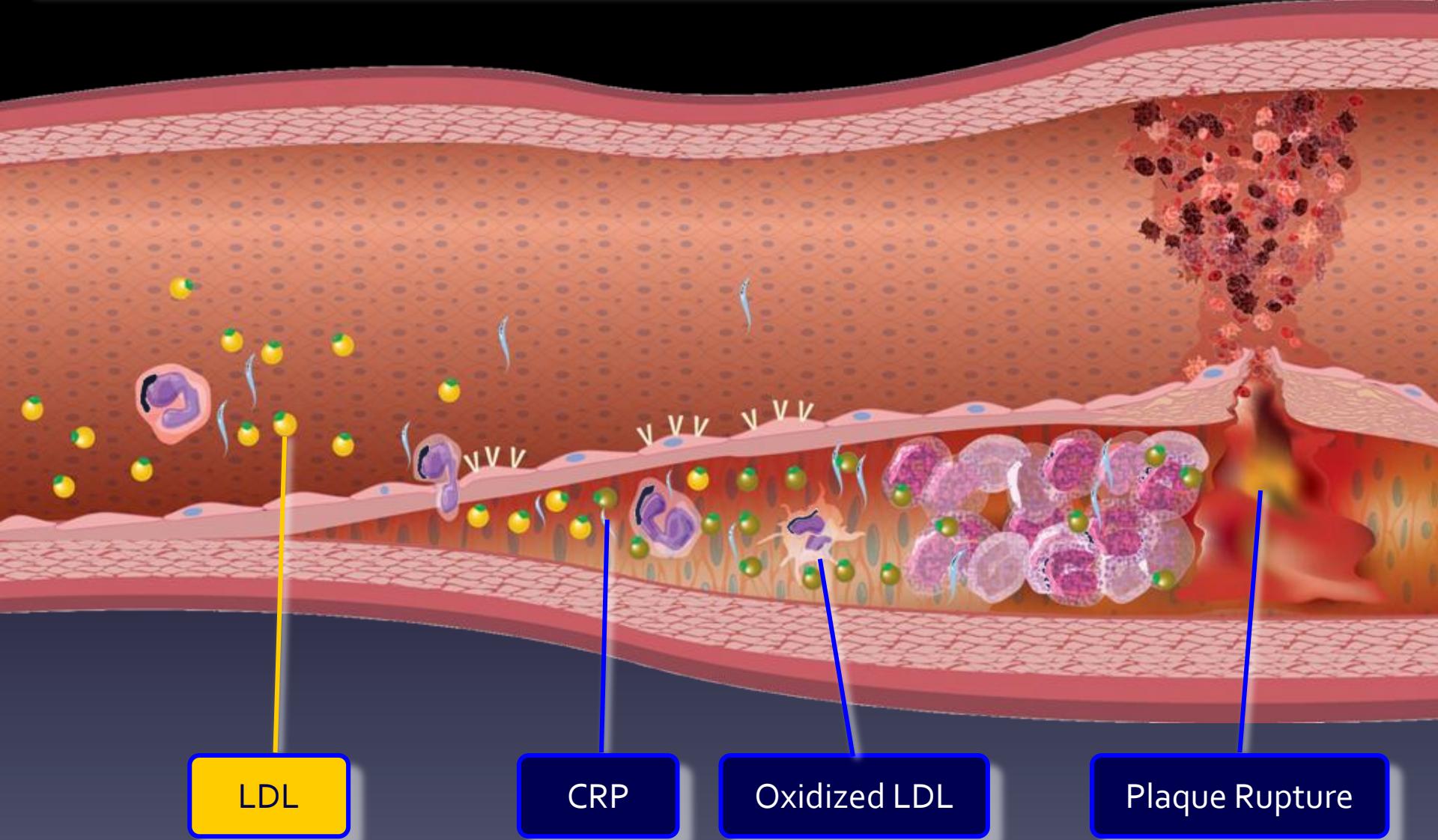
LDL

CRP

Oxidized LDL

Plaque Rupture

PREVENTION OF CORONARY HEART DISEASE WITH PRAVASTATIN IN MEN WITH HYPERCHOLESTEROLEMIA

James Shepherd, M.D., Stuart M. Cobbe, M.D., Ian Ford, Ph.D., Christopher G. Isles, M.D.,
A. Ross Lorimer, M.D., Peter W. Macfarlane, Ph.D., James H. McKillop, M.D.,
and Christopher J. Packard, D.Sc., for the West of Scotland Coronary Prevention Study Group*

Abstract *Background.* Lowering the blood cholesterol level may reduce the risk of coronary heart disease. This double-blind study was designed to determine whether the administration of pravastatin to men with hypercholesterolemia and no history of myocardial infarction reduced the combined incidence of nonfatal myocardial infarction and death from coronary heart disease.

Methods. We randomly assigned 6595 men, 45 to 64 years of age, with a mean ($\pm$SD) plasma cholesterol level of 272 ± 23 mg per deciliter (7.0 ± 0.6 mmol per liter) to receive pravastatin (40 mg each evening) or placebo. The average follow-up period was 4.9 years. Medical records, electrocardiographic recordings, and the national death registry were used to determine the clinical end points.

Results. Pravastatin lowered plasma cholesterol levels by 20 percent and low-density lipoprotein cholesterol levels by 26 percent, whereas there was no change with placebo. There were 248 definite coronary events (specified as nonfatal myocardial infarction or death from coro-

nary heart disease) in the placebo group, and 174 in the pravastatin group (relative reduction in risk with pravastatin, 31 percent; 95 percent confidence interval, 17 to 43 percent; $P<0.001$). There were similar reductions in the risk of definite nonfatal myocardial infarctions (31 percent reduction, $P<0.001$), death from coronary heart disease (definite cases alone: 28 percent reduction, $P=0.13$; definite plus suspected cases: 33 percent reduction, $P=0.042$), and death from all cardiovascular causes (32 percent reduction, $P=0.033$). There was no excess of deaths from noncardiovascular causes in the pravastatin group. We observed a 22 percent reduction in the risk of death from any cause in the pravastatin group (95 percent confidence interval, 0 to 40 percent; $P=0.051$).

Conclusions. Treatment with pravastatin significantly reduced the incidence of myocardial infarction and death from cardiovascular causes without adversely affecting the risk of death from noncardiovascular causes in men with moderate hypercholesterolemia and no history of myocardial infarction. (N Engl J Med 1995;333:1301-7.)

Relation entre la réduction de l'incidence des événements coronaires majeurs et la réduction moyenne du LDL-C à 1 an

Evènements coronaires majeurs

Réduction des évènements

50%
40%
30%
23%
20%
10%
0%
-10%

0.5   1.0   1.5   2.0   mmol/L
      (0.4 g/l)   (0.8 g/l)

Réduction du LDL-C
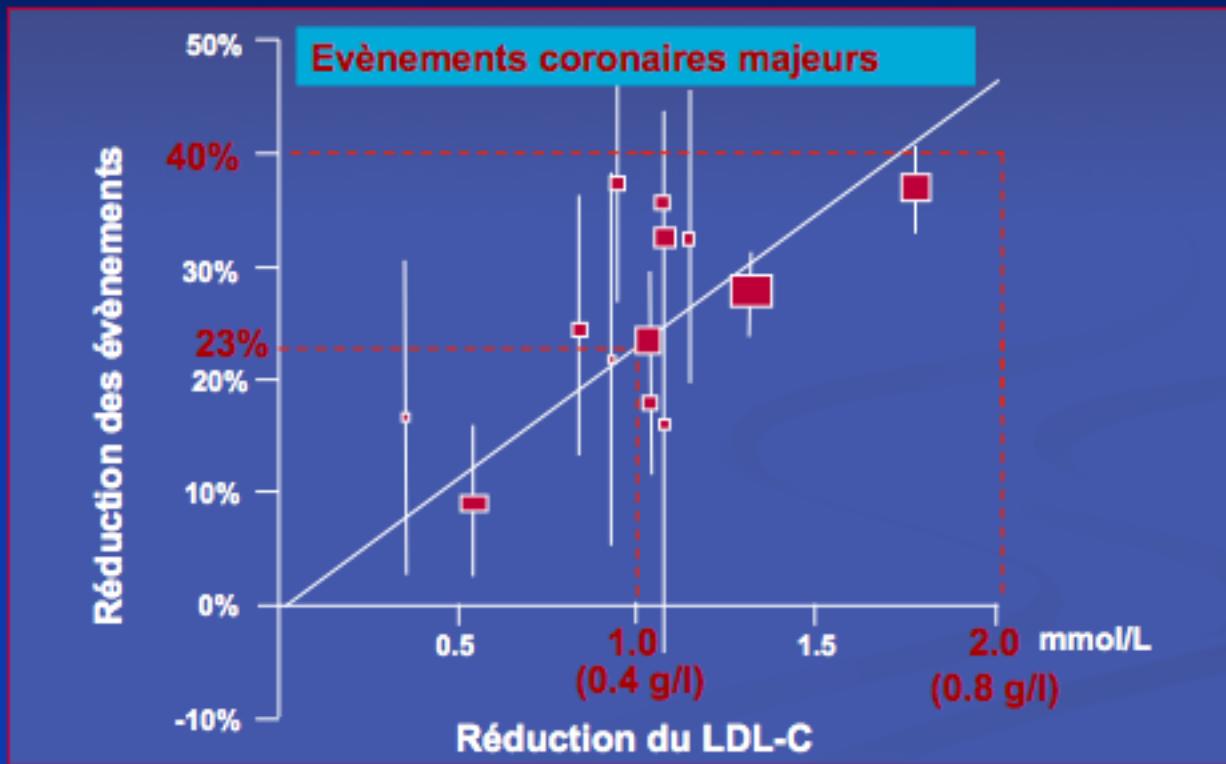
Lancet 2005; 366: 1267-78
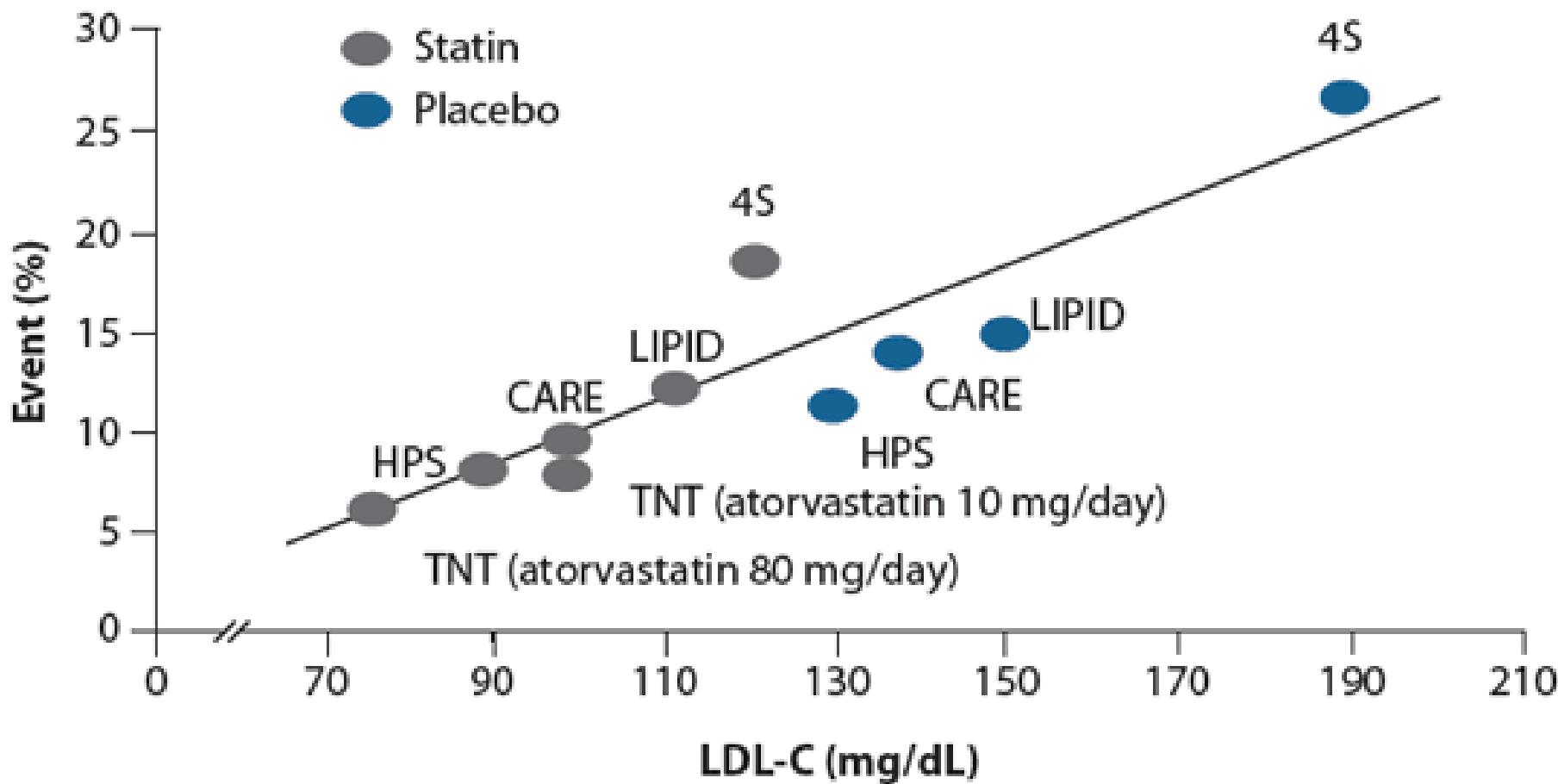
Baisse globale de la mortalité mais pas de l'incidence de la maladie coronaire en France de 1997 à 2002

Aline Wagner (aline.wagner@medecine.u-strasb.fr)[1], Michèle Montaye[2], Annie Bingham[3], Jean-Bernard Ruidavets[4], Bernadette Haas[1], Philippe Amouyel[2], Pierre Ducimetière[3], Jean Ferrières[4], Dominique Arveiler[1]

[1]Faculté de médecine, Strasbourg   [2]Inserm U508, Lille   [3]Inserm U258, Villejuif   [4]Inserm U558, Toulouse

Évolution du taux standardisé d'incidence des événements coronaires* de 1997 à 2002 dans les trois centres par sexe**

Sexe	Centre	1997	1998	1999	2000	2001	2002	%***	IC 95 %	p
Hommes	Lille	258 [246-271]	276 [263-288]	272 [259-285]	267 [255-280]	251 [239-264]	246 [234-259]	- 1,4	[- 3,7 ; + 0,8]	0,22
	Strasbourg	249 [237-261]	268 [255-281]	247 [235-259]	256 [244-269]	239 [227-251]	247 [234-259]	- 0,8	[- 3,0 ; + 1,4]	0,46
	Toulouse	197 [186-207]	209 [198-221]	196 [185-206]	196 [185-207]	209 [198-220]	230 [219-242]	+ 2,4	[+ 0,01 ; + 4,8}	< 0,05
Femmes	Lille	47 [41-52]	58 [52-64]	60 [54-66]	66 [60-73]	45 [40-50]	53 [47-59]	+ 0,1	[- 4,6 ; + 4,8]	0,98
	Strasbourg	56 [50-61]	60 [54-66]	59 [53-64]	61 [55-67]	63 [57-69]	61 [55-67]	+ 1,9	[- 2,6 ; + 6,3]	0,41
	Toulouse	33 [29-37]	31 [27-35]	26 [22-30]	30 [26-34]	42 [37-47]	34 [29-38]	+ 3,7	[- 2,3 ; + 9,6]	0,23

* Evénements coronaires = infarctus du myocarde, décès coronaires, décès en moins de 24 heures et décès avec données insuffisantes (catégories diagnostiques 1, 2, 3, 9)
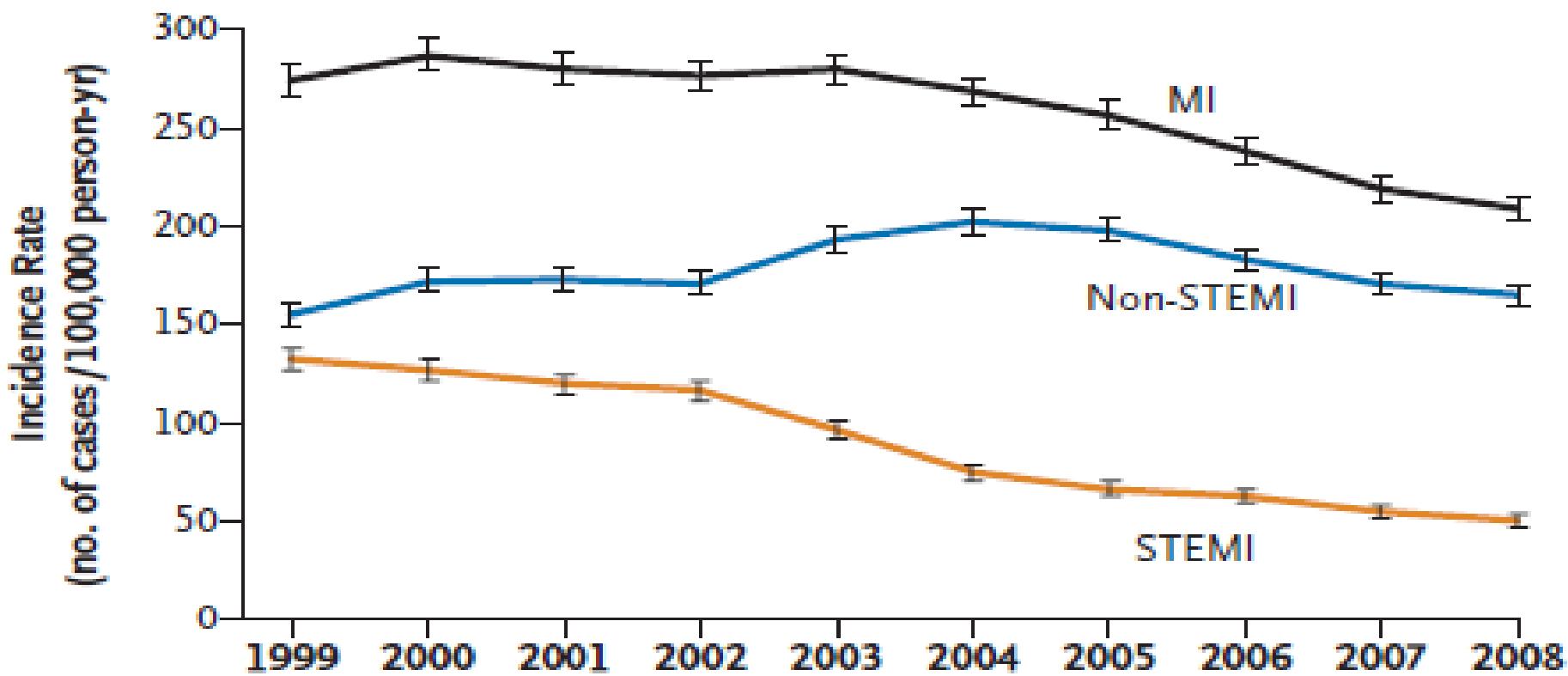
Figure 1. Age- and Sex-Adjusted Incidence Rates of Acute Myocardial Infarction, 1999 to 2008.

I bars represent 95% confidence intervals. MI denotes myocardial infarction, and STEMI ST-segment elevation myocardial infarction.

A Before MI

Medication Use (%) vs. year (1999–2008)

ACE inhibitors and ARBs

Statins

Beta-blockers

Nonstatin lipid-lowering agents

Thienopyridine

Yeh RW etal. N Engl J Med. 2010;362:2155-2165.
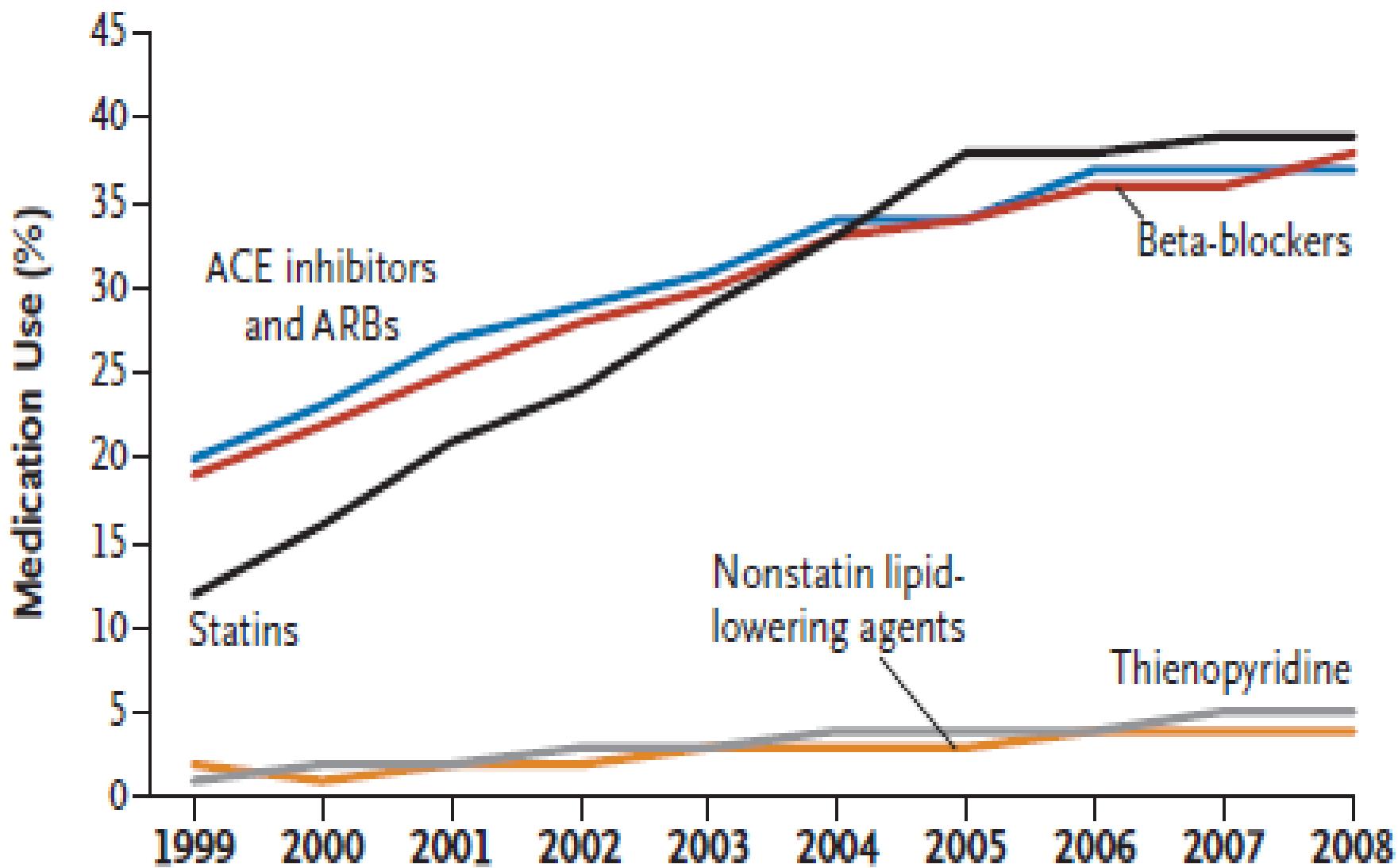
Méta-analyse statines en prévention primaire :
Pas d'augmentation du risque de cancer

Cancer

| Study	No of patients/No of events		Odds ratio (95% CI)	Odds ratio (95% CI)
	Statin group	Control group		
WOSCOPS[w9]	3302/44	3293/49		1.09 (0.84 to 1.43)
AFCAPS/TexCaps[w8]	3304/252	3301/259		0.97 (0.81 to 1.16)
ALLHAT-LLT[w7]	5170/378	5185/369		1.03 (0.89 to 1.19)
CARDS[w4]	1428/20	1410/30		0.65 (0.37 to 1.16)
MEGA[w2]	3866/119	3966/126		0.97 (0.75 to 1.25)
JUPITER[w1]	8901/333	8901/372		0.89 (0.77 to 1.04)
Total	25 971/1146	26 056/1205		0.97 (0.89 to 1.05)

Q statistic P=0.61, I^2=0%*

0.25 0.5 1 2

Favours statin   Favours control

a: Death or hospitalisation for MI or Stroke (Scottish Cohort)

Placebo	1260	1143	1019	873	737	619
Pravastatin	1260	1155	1037	898	742	629
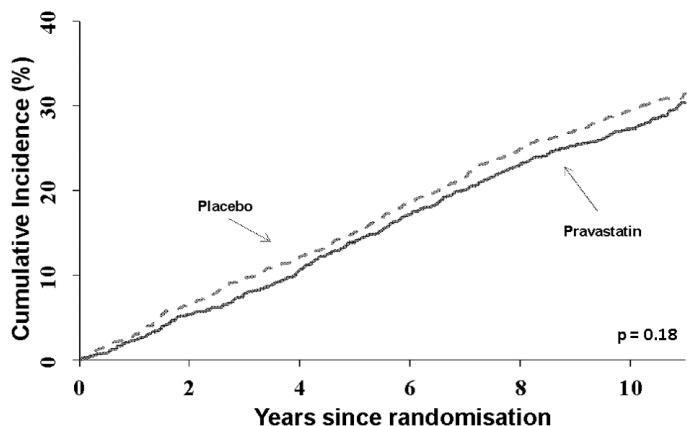
b: Death or hospitalisation for stroke (Scottish Cohort)

Placebo	1260	1163	1050	909	775	654
Pravastatin	1260	1165	1053	921	771	654
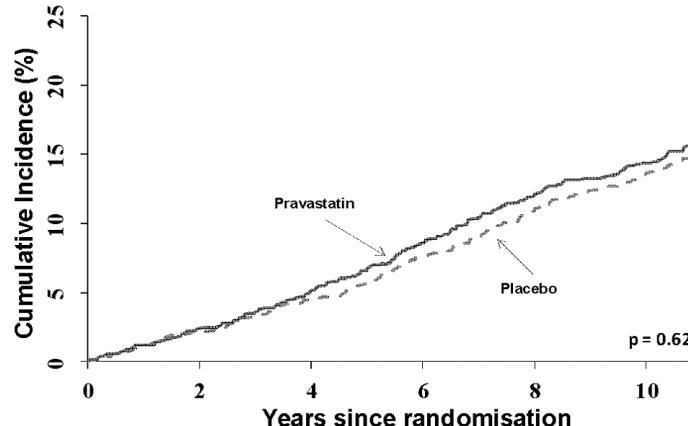
c: Coronary Death or hospitalisation for MI (Scottish Cohort)

Placebo	1260	1159	1052	927	797	675
Pravastatin	1260	1177	1081	956	812	686
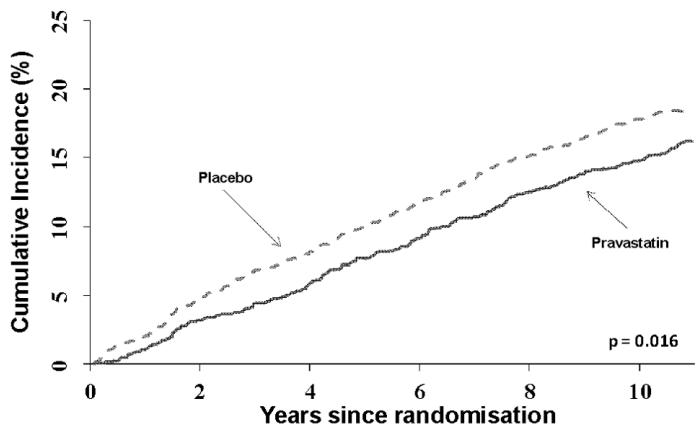
d: Coronary Death or Admission (Scottish Cohort)

Placebo	1260	1128	993	847	713	602
Pravastatin	1260	1153	1032	890	740	618
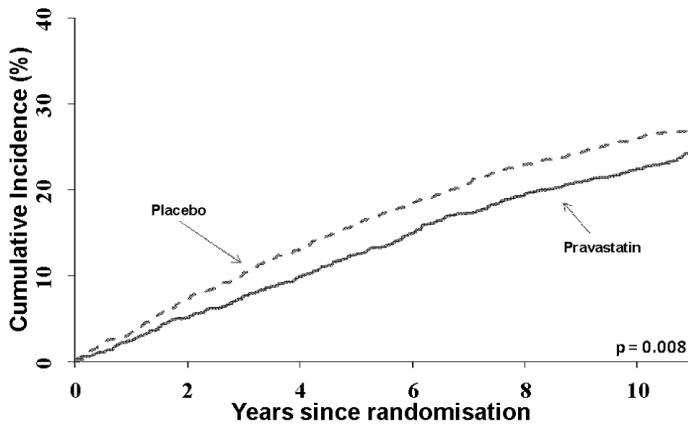
Long-Term Effects of Statin Treatment in Elderly People: Extended Follow-Up of the PROspective Study of Pravastatin in the Elderly at Risk (PROSPER)