

# Best medical treatment

The #1 option for patients with asymptomatic carotid artery stenosis not randomized in clinical trials

# Why debate ?

Are there no guidelines available ?

# **Systematic Review of Guidelines for the Management of Asymptomatic and Symptomatic Carotid Stenosis**

Anne L. Abbott, PhD, MBBS, FRACP; Kosmas I. Paraskevas, MD, PhD;  
Stavros K. Kakkos, MD, PhD; Jonathan Golledge, MB, BChir, BA, MA, MChir;  
Hans-Henning Eckstein, MD, PhD; Larry J. Diaz-Sandoval, MD; Longxing Cao, MD, PhD;  
Qiang Fu, MD, PhD; Tissa Wijeratne, MD, FRACP; Thomas W. Leung, MD;  
Miguel Montero-Baker, MD; Byung-Chul Lee, MD, PhD; Sabine Pircher, BNutrDiet, MPH;  
Marije Bosch, PhD; Martine Dennekamp, PhD, MSc; Peter Ringleb, MD, PhD

***Stroke. 2015;46:3288-3301.***

Recommendation on medical therapy in only 68% of guidelines on asymptomatic stenosis

Current guidelines are still based only on trials of CEA versus medical treatment alone in which patients were randomized 12 to 34 years ago

Old stroke rates used as the “medical comparator”

EDITORIAL

How Many of You Can Read But Still Not See? A Comment on a Recent Review of Carotid Guidelines

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Comments on Abbott et al:

Medical treatment recommendations usually incomplete

Less than objective viewpoints of individual physicians and sponsoring groups writing them

Doctor self-interest should be eliminated

And that is why I already know I will not be able to convince you.....

# How is BMT changing ...

... and what are the consequences for CVD in general, and for asymptomatic carotid stenosis ?

**Table 1. Risk factor levels in CHD patients and individuals without CHD in 1986 and 2002.**



Year	Risk factor	CHD patients	Total Population
<b>1986</b>			
	Cholesterol, mmol/L	6.83	6.15
	Smoking, %	32.8	28.9
	Systolic Blood pressure, mm Hg	150.9	133.8
<b>2002</b>			
	Cholesterol, mmol/L	5.20	5.51
	Smoking, %	21.1	18.6
	Systolic blood pressure, mm Hg	137.8	131.2

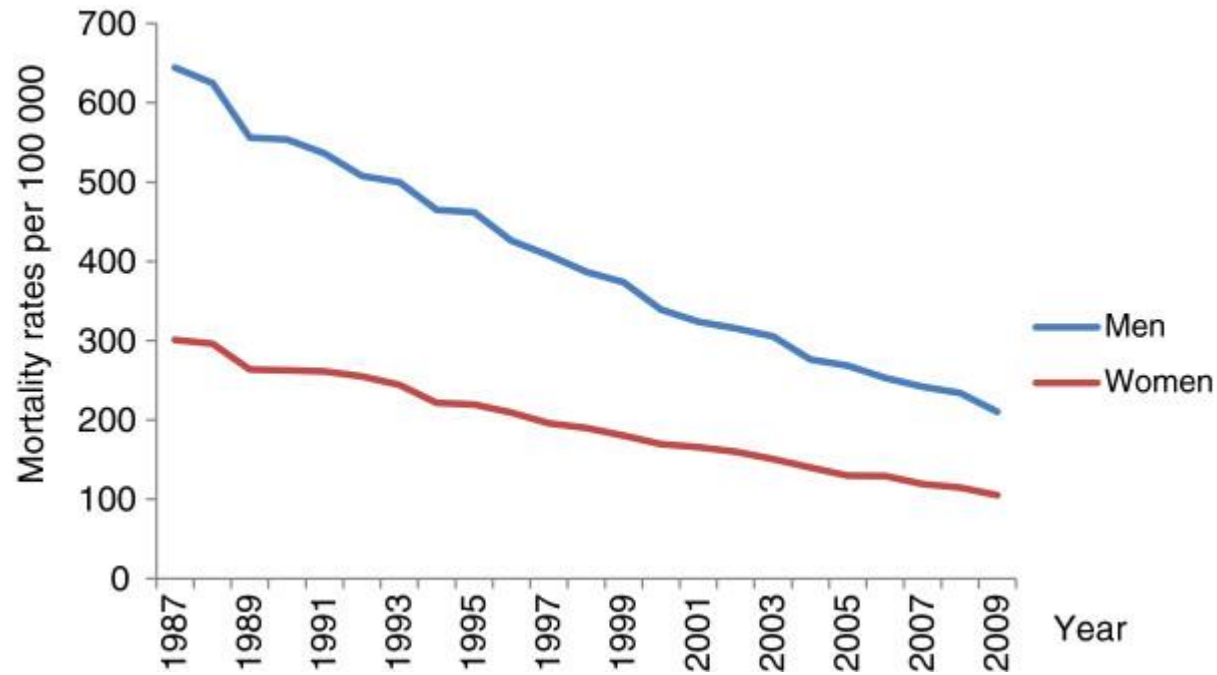
doi:10.1371/journal.pone.0124769.t001

Björck L, Capewell S, O’Flaherty M, Lappas G, Bennett K, et al. (2015) Decline in Coronary Mortality in Sweden between 1986 and 2002: Comparing Contributions from Primary and Secondary Prevention. PLoS ONE 10(5): e0124769. doi:10.1371/journal.pone.0124769 <http://journals.plos.org/plosone/article?id=info:doi/10.1371/journal.pone.0124769>

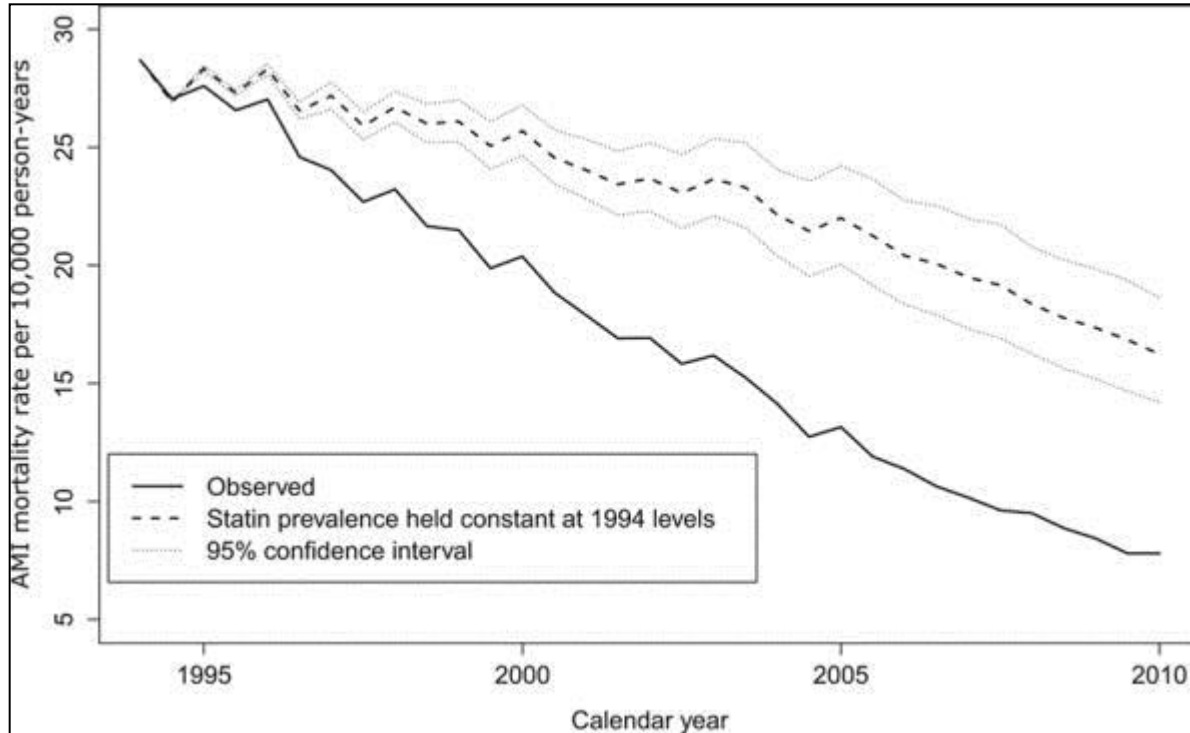
*CHD mortality in Sweden 1987-2009 among persons aged 35 to 84*



[BMC Cardiovasc Disord.](#) 2014 Jan 21;14:9



# FIGURE.



**Brief Report: Association Between Statin Use and Cardiovascular Mortality at the Population Level: An Ecologic Study.**

Bijlsma, Maarten; Janssen, Fanny; Bos, Jens; Kamphuisen, Pieter; Vansteelandt, Stijn; Hak, Eelko

Epidemiology. 26(6):802-805, November 2015.

DOI: 10.1097/EDE.0000000000000370

FIGURE. Observed AMI mortality and predicted AMI mortality if prevalence of statin use had remained constant in The Netherlands in the period 1994-2010, ages 50 to 83 years.







Clinical research

# Dynamics of cardiovascular and all-cause mortality in Western and Eastern Europe between 1970 and 2000

Hugo Kesteloot<sup>1\*</sup>, Susana Sans<sup>2</sup>, and Daan Kromhout<sup>3</sup>

## Stroke mortality in Europe

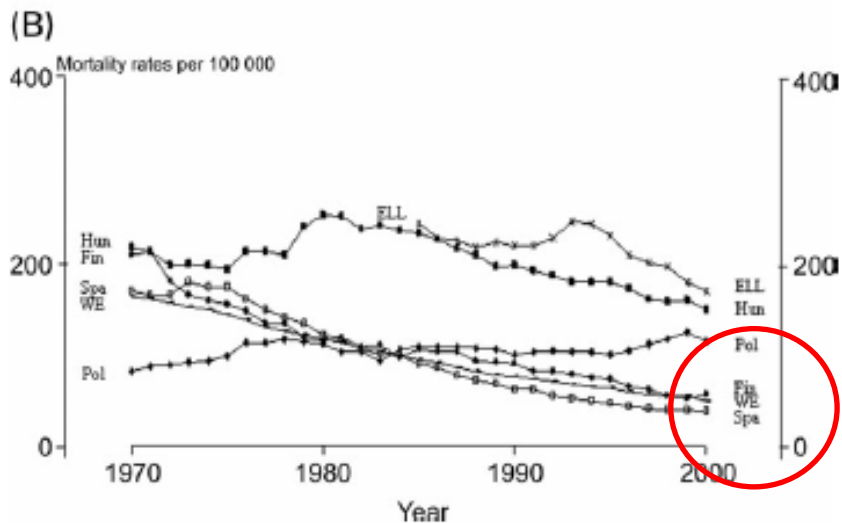
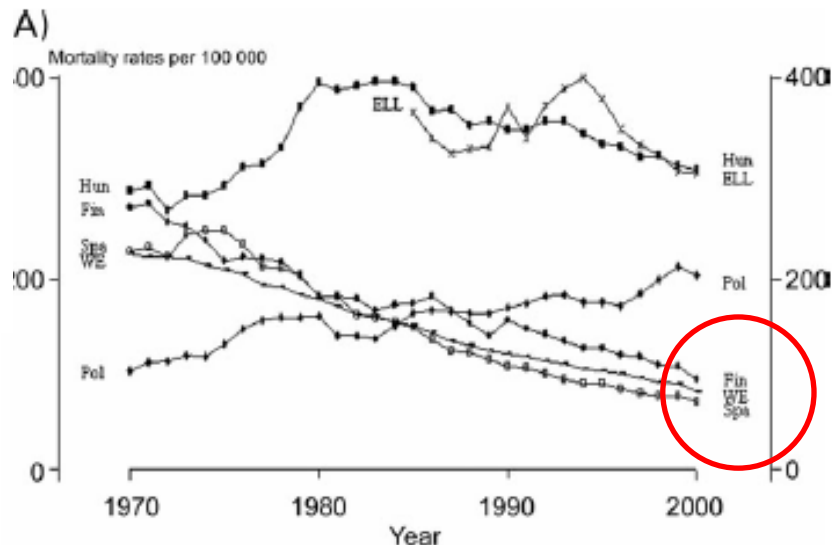


Figure 2 Time trends in stroke mortality in 1970–2000 (A) for men aged 45–74 years and (B) for women aged 45–74 years.

# Asymptomatic Carotid Artery Stenosis Treated with Medical Therapy Alone: Temporal Trends and Implications for Risk Assessment and the Design of Future Studies

Nira Hadar<sup>a,b</sup> Gowri Raman<sup>c</sup> Denish Moorthy<sup>c</sup> Thomas F. O'Donnell<sup>d</sup>  
David E. Thaler<sup>e</sup> Edward Feldmann<sup>e</sup> Joseph Lau<sup>a,b</sup> Georgios D. Kitsios<sup>f</sup>  
Issa J. Dahabreh<sup>a,b</sup> *Cerebrovasc Dis* 2014;38:163–173



Stroke



TIA and stroke

OK, I have to admit that medical therapy has improved.....

.....but the same must be true for surgery ??

# Outcomes of carotid endarterectomy for asymptomatic stenosis in Sweden are improving: Results from a population-based registry

Björn Kragsterman, MD,<sup>a</sup> Håkan Pärsson, MD, PhD,<sup>a</sup> Johan Lindbäck, MSc,<sup>b</sup> David Bergqvist, MD, PhD,<sup>a</sup> and Martin Björck, MD, PhD,<sup>a</sup> on behalf of the Swedish Vascular Registry (Swedvasc), Uppsala, Sweden

J Vasc Surg 2006;44:79-85

Perioperative morbidity and mortality at op for asymptomatic carotid artery stenosis (n=671) in Sweden 1994-2003

Stroke, TIA, cardiovascular complications, death 7.6% in 1994-1998

Stroke, TIA, cardiovascular complications, death 4.7% in 1999-2003

P=0.119



# What about the future ?



We are already there !



# The impact of proprotein convertase subtilisin-kexin type 9 serine protease inhibitors on lipid levels and outcomes in patients with primary hypercholesterolaemia: a network meta-analysis

Michael J. Lipinski<sup>1</sup>, Umberto Benedetto<sup>2</sup>, Ricardo O. Escarcega<sup>1</sup>, Giuseppe Biondi-Zoccai<sup>3</sup>, Thibault Lhermusier<sup>1</sup>, Nevin C. Baker<sup>1</sup>, Rebecca Torguson<sup>1</sup>, H. Bryan Brewer Jr<sup>1</sup>, and Ron Waksman<sup>1\*</sup>

European Heart Journal Advance Access published November 17, 2015

17 RCT, 13083 patients

LDL reduction 57% compared to placebo – as addition to statin

LDL reduction 36% compared to ezetimibe – as addition to statins

All cause mortality 0.43 (0.22-0.82)

Cardiovascular mortality 0.50 (0.22-1.13)

Major adverse cardiovascular events 0.67 (0.43-1.04)

# Best medical treatment

Already the #1 option for patients with asymptomatic carotid artery stenosis  
not randomized in clinical trials



# Best medical treatment

So please speed up randomization in ACST-2 before it's too late and both treatment arms are obsolete!

Lay down your  
scalpels, and behold  
the future for  
asymptomatic  
carotid artery  
stenosis patients

