Gérond'if
LE GERONTOPOLE D'ILE-DE-FRANCE

Quoi de neuf en cardio-gériatrie ?

Pr Olivier HANON

Hôpital Broca, Paris

Université de Paris

ASSISTANCE PUBLIQUE HÔPITAUX DE PARIS

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Liens d’intérêt

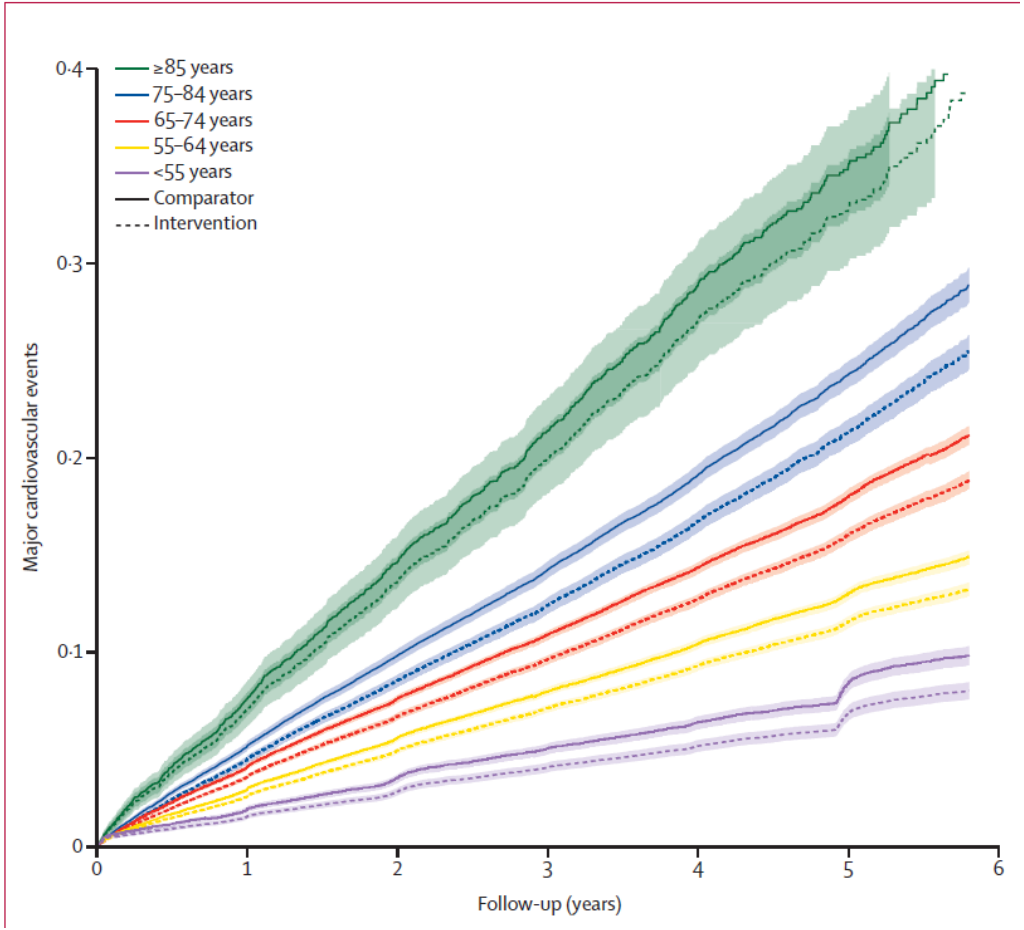
- Novartis, Boehringer-Ingelheim, Bayer, BMS, Pfizer, HAC pharma, Astra-Zeneca, Servier, Vifor, Boston scientific, Sanofi, Aspen, Leo Pharma

HTA

Age-stratified and blood-pressure-stratified effects of blood-pressure-lowering pharmacotherapy for the prevention of cardiovascular disease and death: an individual participant-level data meta-analysis

Major cardiovascular events per 5 mm Hg reduction in SBP

358 707 participants from 51 randomised clinical trials



Lancet. 2021 Sep 18;398(10305):1053-1064

Age-stratified and blood-pressure-stratified effects of blood-pressure-lowering pharmacotherapy for the prevention of cardiovascular disease and death: an individual participant-level data meta-analysis

	Intervention		Comparator		Absolute risk difference 95% CI) between treatment and comparator group
	Events	Total	Events	Total	
Major cardiovascular events					
<55 years	1485	21594	1742	20731	−0·015 (−0·020 to −0·010)
55–64 years	5636	59649	7080	67526	−0·010 (−0·014 to −0·007)
65–74 years	7413	59560	9551	67934	−0·016 (−0·020 to −0·012)
75–84 years	3825	24747	5174	28944	−0·024 (−0·031 to −0·017)
≥85 years	459	2247	582	2528	−0·026 (−0·052 to 0·001)
					Adjusted $p_{interaction}$=0·024

lancet September 18, 2021

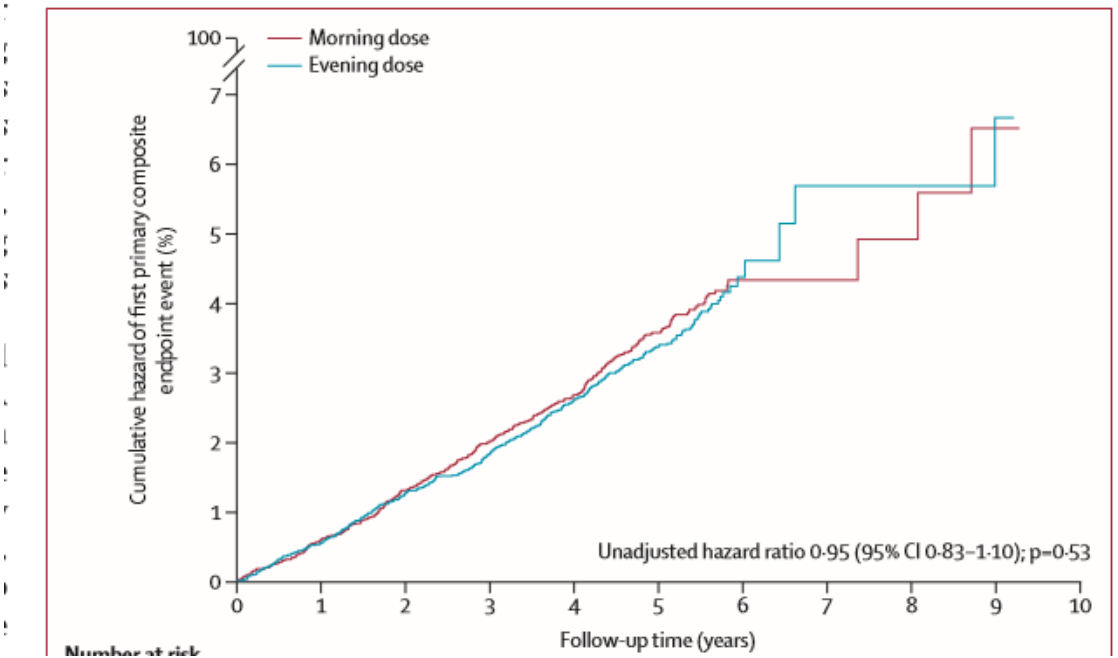
Age-stratified and blood-pressure-stratified effects of blood-pressure-lowering pharmacotherapy for the prevention of cardiovascular disease and death: an individual participant-level data meta-analysis

levels, down to less than 120/70 mm Hg. Although we found evidence for diminishing relative risk reductions with increasing age and limited statistical power for detection of an effect in the oldest age group in isolation (90 years at the end of the study), absolute risk reductions did not follow the same pattern and appeared to be even larger in the older age groups.

lancet September 18, 2021

Cardiovascular outcomes in adults with hypertension with evening versus morning dosing of usual antihypertensives in the UK (TIME study): a prospective, randomised, open-label, blinded-endpoint clinical trial

N=21 104 hypertensives were randomly assigned to **evening** (n=10 503) or **morning** (n=10 601)



www.thelancet.com Published online October 11, 2022

Cardiovascular outcomes in adults with hypertension with evening versus morning dosing of usual antihypertensives in the UK (TIME study): a prospective, randomised, open-label, blinded-endpoint clinical trial

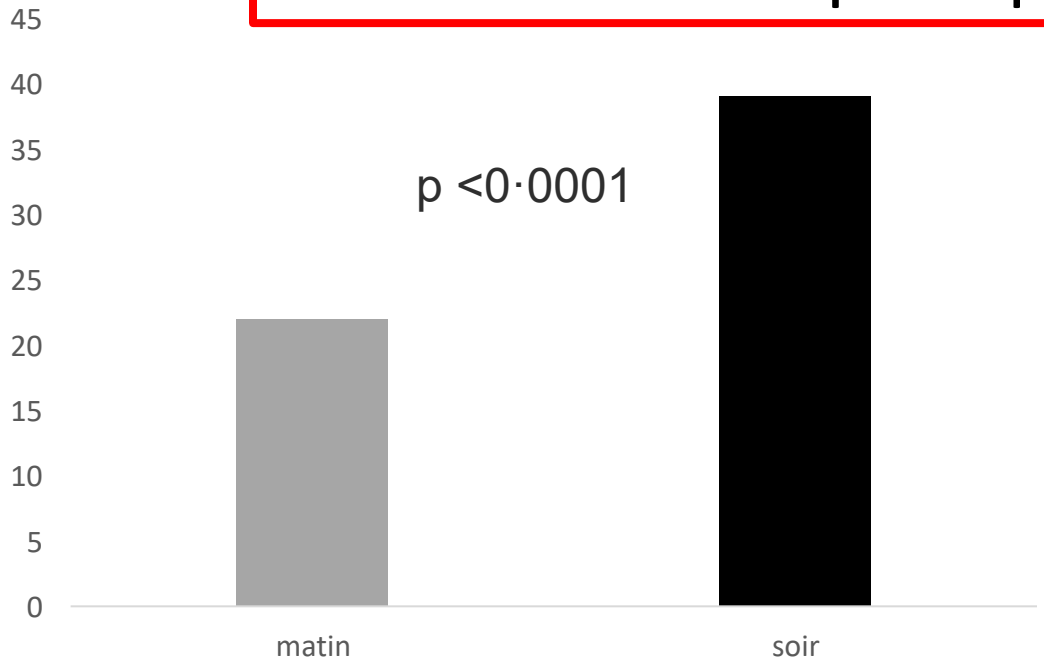
N=21 104 hypertensives were randomly assigned to **evening** (n=10 503) or **morning** (n=10 601)

	Evening dosing group (n=10 503)		Morning dosing group (n=10 601)		Hazard ratio (95% CI)	p value
	Participants, n (%)	Rate per 100 patient-years (95% CI)	Participants, n (%)	Rate per 100 patient-years (95% CI)		
Primary composite endpoint	362 (3·4%)	0·69 (0·62–0·76)	390 (3·7%)	0·72 (0·65–0·79)	0·95 (0·83–1·10)	0·53
Secondary cardiovascular and mortality endpoints						
Hospitalisation for non-fatal myocardial infarction	134 (1·3%)	0·25 (0·21–0·30)	150 (1·4%)	0·27 (0·23–0·32)	0·92 (0·73–1·16)	0·48
Hospitalisation for non-fatal stroke	129 (1·2%)	0·24 (0·20–0·29)	143 (1·3%)	0·26 (0·22–0·31)	0·93 (0·73–1·18)	0·54
Vascular death	115 (1·1%)	0·22 (0·18–0·26)	108 (1·0%)	0·20 (0·16–0·24)	1·10 (0·84–1·43)	0·49
All-cause death	437 (4·2%)	0·82 (0·74–0·90)	434 (4·1%)	0·79 (0·72–0·87)	1·04 (0·91–1·18)	0·59
Hospitalisation or death from congestive heart failure	76 (0·7%)	0·14 (0·11–0·18)	99 (0·9%)	0·18 (0·15–0·22)	0·79 (0·59–1·07)	0·12

www.thelancet.com Published online October 11, 2022

Cardiovascular outcomes in adults with hypertension with evening versus morning dosing of usual antihypertensives in the UK (TIME study): a prospective, randomised, open-label, blinded-endpoint clinical trial

Mauvaise observance : plus fréquente le soir



www.thelancet.com Published online October 11, 2022

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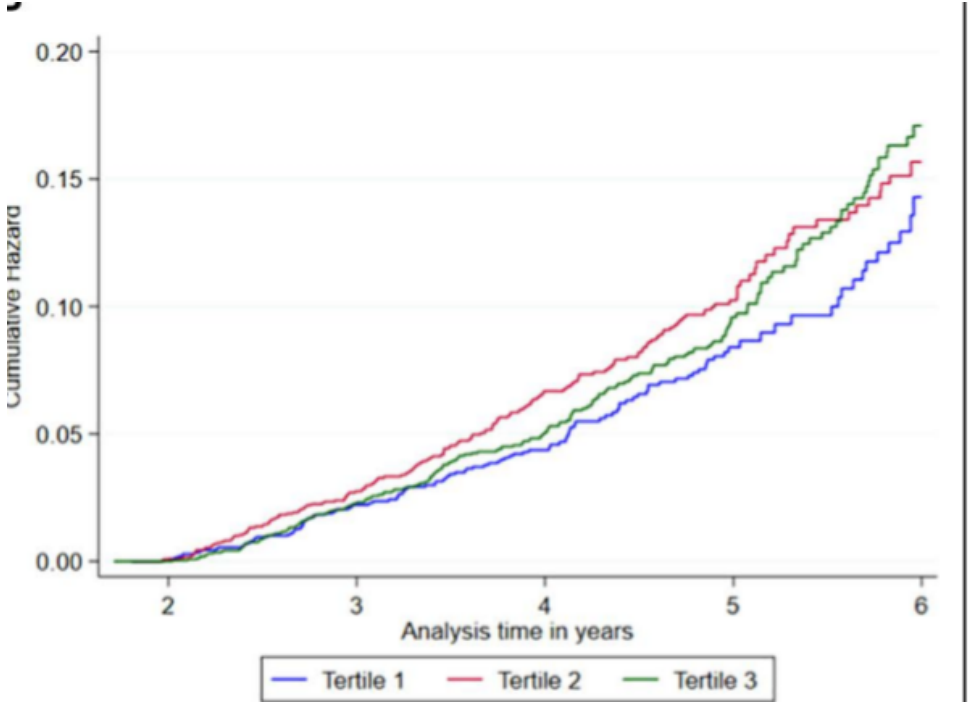
Moins de chutes si tt donné le soir +++

included in these analyses. Participants in the evening dosing group were slightly less likely to report falls than those in the morning dosing group (2016 [21·1%] of 9574 *vs* 2235 [22·2%] of 10 054; p=0·048). Furthermore,

www.thelancet.com Published online October 11, 2022

Variation in Mean Arterial Pressure Increases Falls Risk in Elderly Physically Frail and Prefrail Individuals Treated With Antihypertensive Medication

N = 16 703, suivis 7.3 ans



1.16 [95% CI, 1.02–1.33]).

Hypertension. 2022

Variation in Mean Arterial Pressure Increases Falls Risk in Elderly Physically Frail and Prefrail Individuals Treated With Antihypertensive Medication

N = 16 703, suivis 7.3 ans

risk of falls by 16% (hazard ratio, 1.16 [95% CI, 1.02–1.33]). Amongst the antihypertensive drugs studied, beta-blocker monotherapy (hazard ratio, 1.93 [95% CI, 1.17–3.18]) was associated with an increased risk of falls compared with calcium channel blockers.

Hypertension. 2022

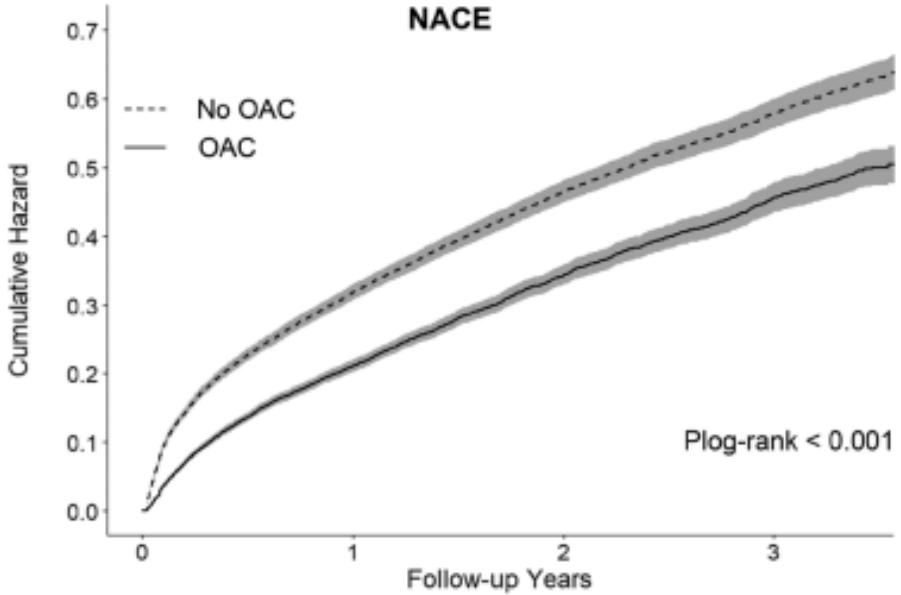
FA

Effectiveness and Safety of Anticoagulation Therapy in Frail Patients With Atrial Fibrillation

N = 83 635 patients, AF and frailty (≥5 Frailty Risk Score) between January and December 31, 2016 from the Korean National Health Insurance Service database.

Moins d'évènements sous anticoagulants (vs pas d'anticoagulant) chez les patients fragiles

Net adverse clinical event, defined as the first event of ischemic stroke, major bleeding, or cardiovascular death,



- 22%

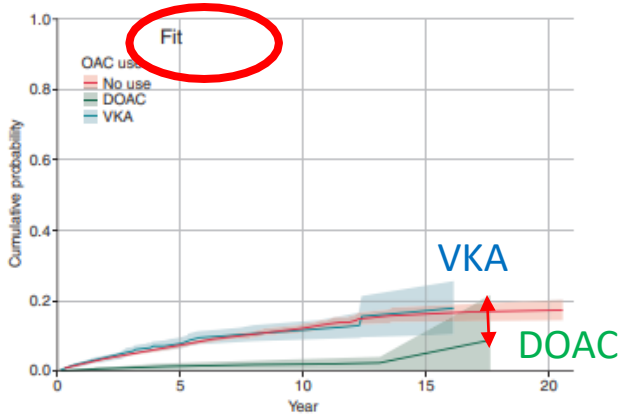
Stroke . 2022 Jun;53(6):1873-1882.

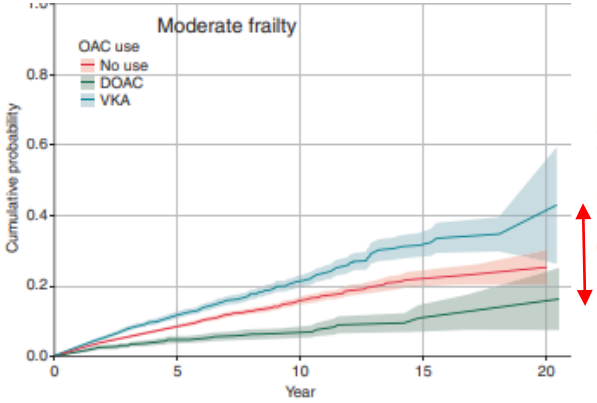
Impact of oral anticoagulation on the association between frailty and clinical outcomes in people with atrial fibrillation: nationwide primary care records on treatment analysis

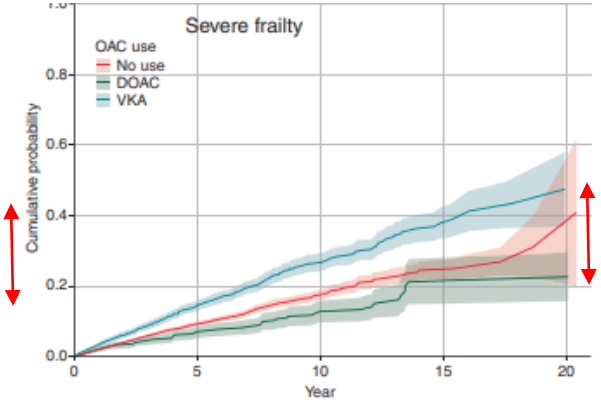
N = 89 996 Clinical Practice Research Datalink UK electronic frailty index (eFI)

Severe bleedings

Un bénéfice plus important chez les fragiles !







VKA

DOAC

Europace. 2022 Jul 21;24(7):1065-1075

IC

ESC European Society of Cardiology
European Heart Journal (2021) **00**, 1–128
doi:10.1093/eurheartj/ehab368

2021 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure

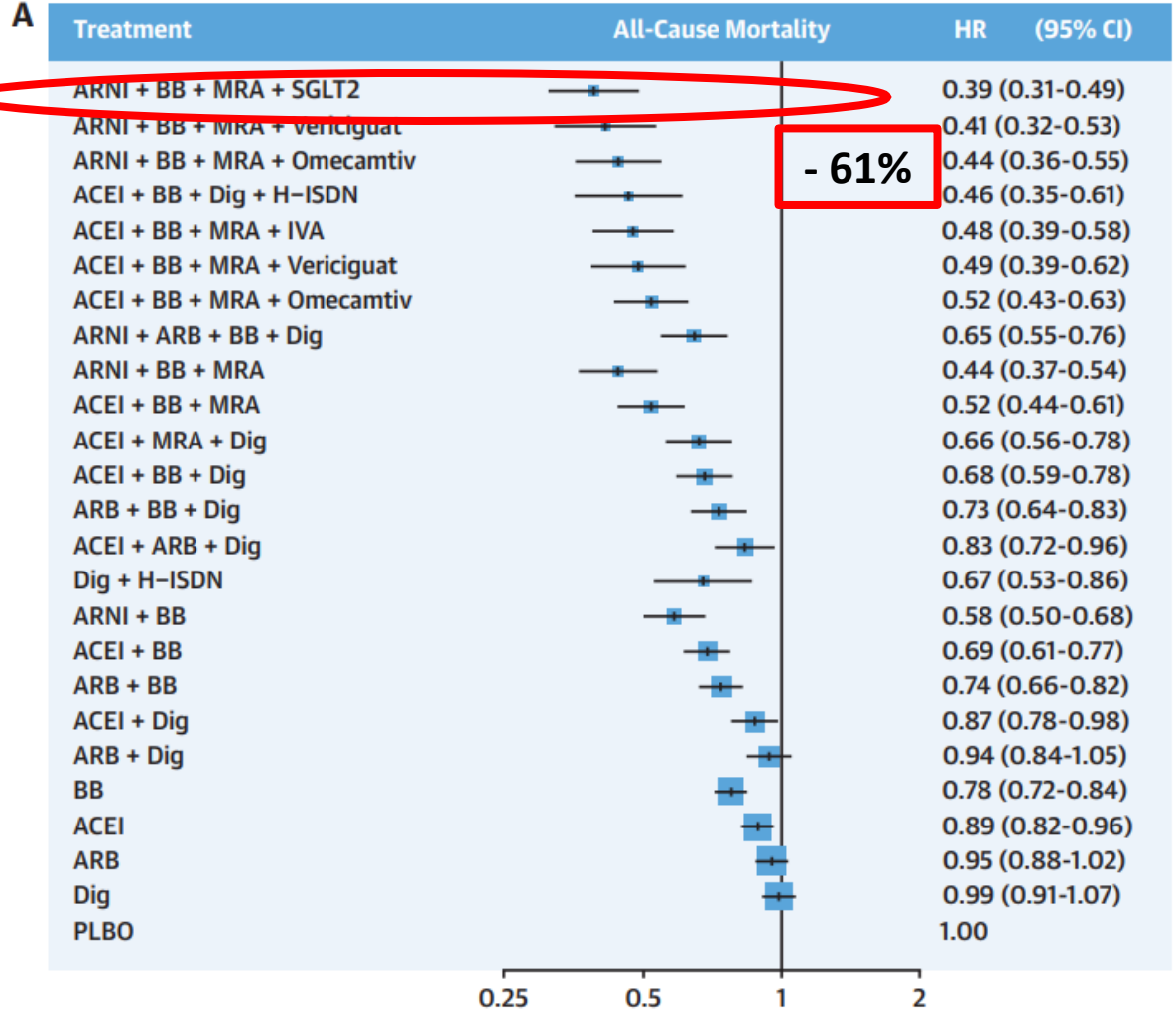
Management of HFrEF

To reduce mortality - for all patients			
ACE-I/ARNI	BB	MRA	SGLT2i

European Heart Journal (2021) 00, 1128

A Systematic Review and Network Meta-Analysis of Pharmacological Treatment of Heart Failure With Reduced Ejection Fraction

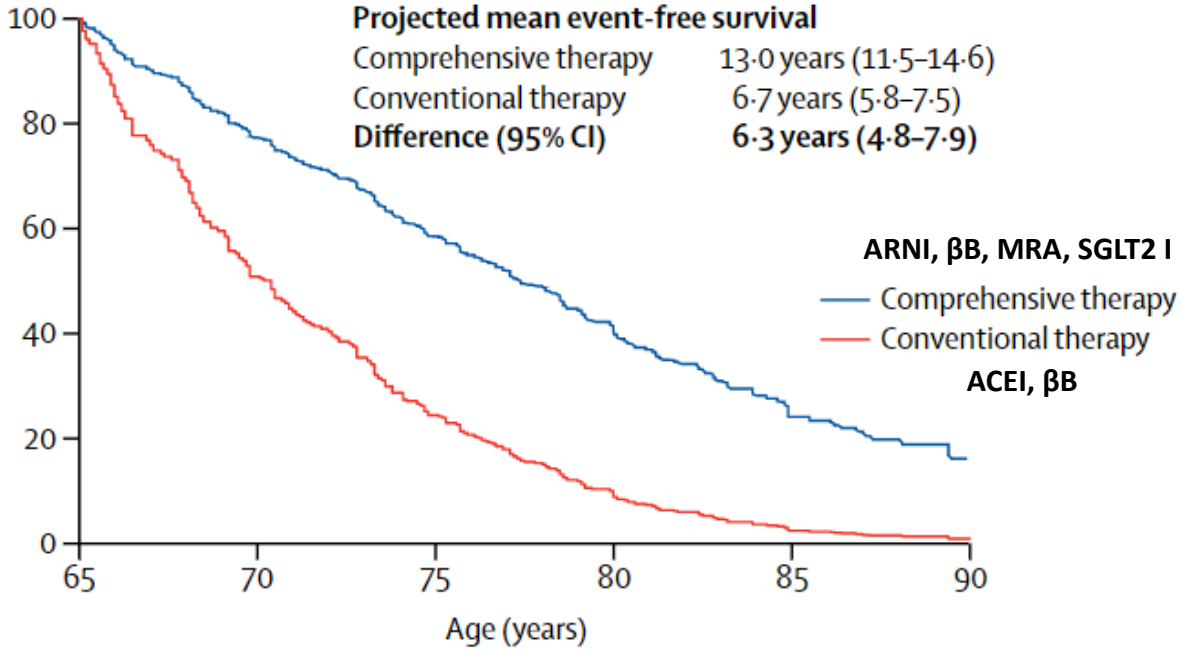
75 relevant trials, N = 95,444



JACC Heart Fail. 2022 Feb;10(2):73-84

Estimating lifetime benefits of comprehensive disease-modifying pharmacological therapies in patients with heart failure with reduced ejection fraction: a comparative analysis of three randomised controlled trials

CV death or hospital admission



Lancet. 2020 Jul 11;396(10244):121-128

The NEW ENGLAND JOURNAL of MEDICINE

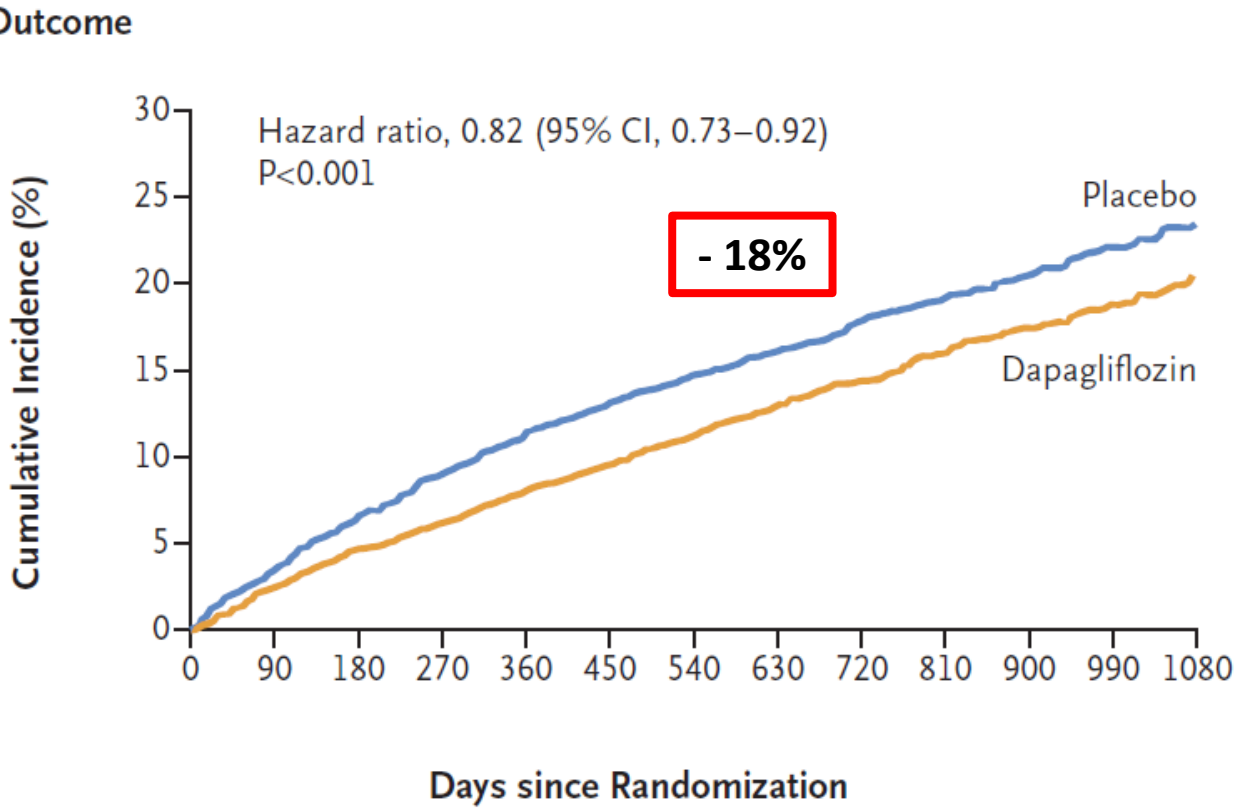
ORIGINAL ARTICLE

Dapagliflozin in Heart Failure with Mildly Reduced or Preserved Ejection Fraction

S.D. Solomon, J.J.V. McMurray, B. Claggett, R.A. de Boer, D. DeMets, A.F. Hernandez, S.E. Inzucchi, M.N. Kosiborod, C.S.P. Lam, F. Martinez, S.J. Shah, A.S. Desai, P.S. Jhund, J. Belohlavek, C.-E. Chiang, C.J.W. Borleffs, J. Comin-Colet, D. Dobreanu, J. Drozdz, J.C. Fang, M.A. Alcocer-Gamba, W. Al Habeeb, Y. Han, J.W. Cabrera Honorio, S.P. Janssens, T. Katova, M. Kitakaze, B. Merkely, E. O'Meara, J.F.K. Saraiva, S.N. Tereshchenko, J. Thierer, M. Vaduganathan, O. Vardeny, S. Verma, V.N. Pham, U. Wilderäng, N. Zaozerska, E. Bachus, D. Lindholm, M. Petersson, and A.M. Langkilde, for the DELIVER Trial Committees and Investigators*

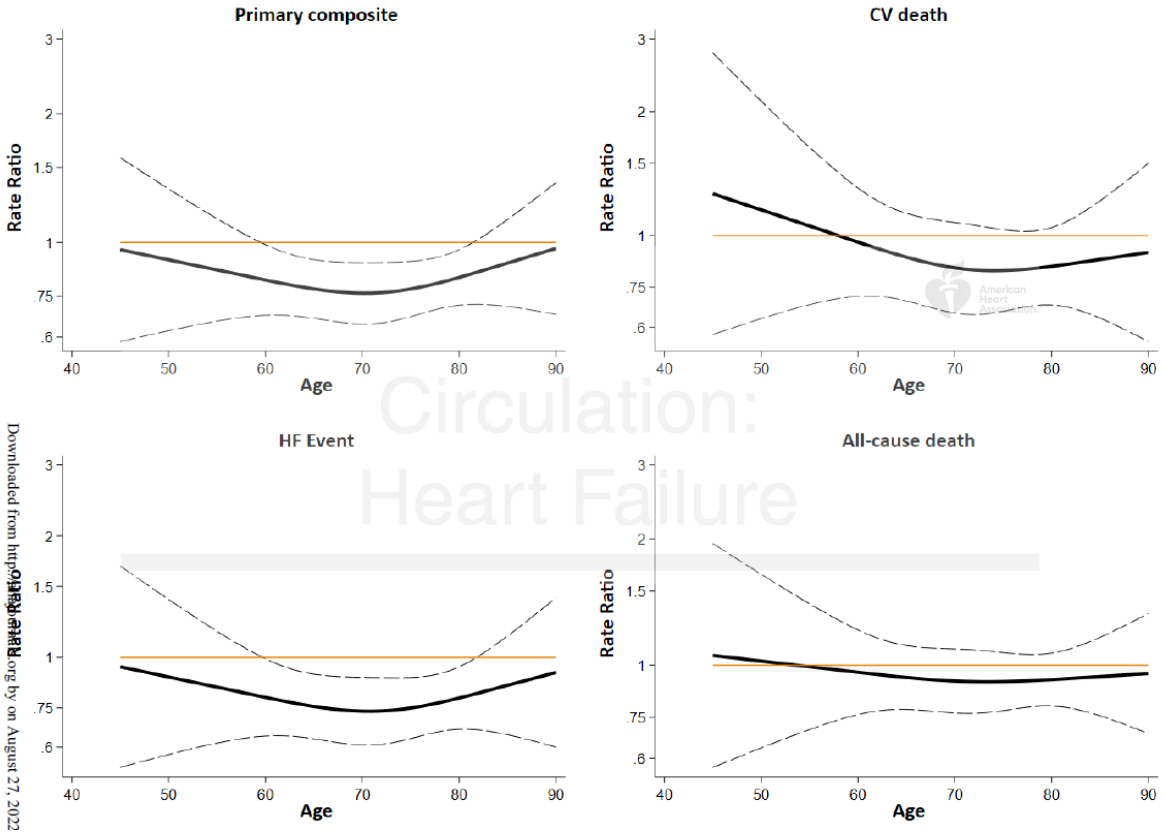
August 27, 2022, at NEJM.org.

Dapagliflozin in Heart Failure with Mildly Reduced or Preserved Ejection Fraction



August 27, 2022, at NEJM.org.

Efficacy and Safety of Dapagliflozin in Heart Failure with Mildly Reduced or Preserved Ejection Fraction According to Age: The DELIVER Trial

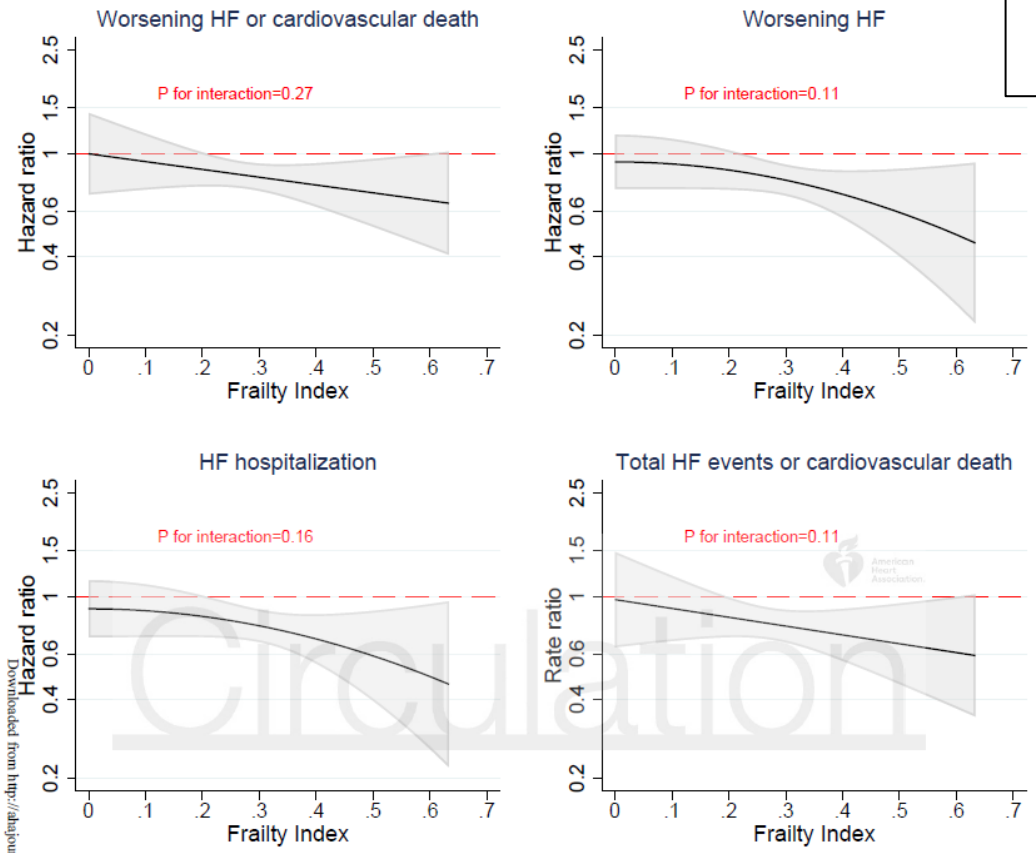


Un bénéfice observé quelque soit l'âge

10.1161/CIRCHEARTFAILURE.122.010080

Efficacy and Safety of Dapagliflozin According to Frailty in Patients with Heart Failure: A Prespecified Analysis of the DELIVER Trial

Of the 6263 patients randomized, a Frailty Index (FI) was calculable in 6258.
Frail 63% (more frail = 39%; most frail = 24%)



10.1161/CIRCULATIONAHA.122.061754

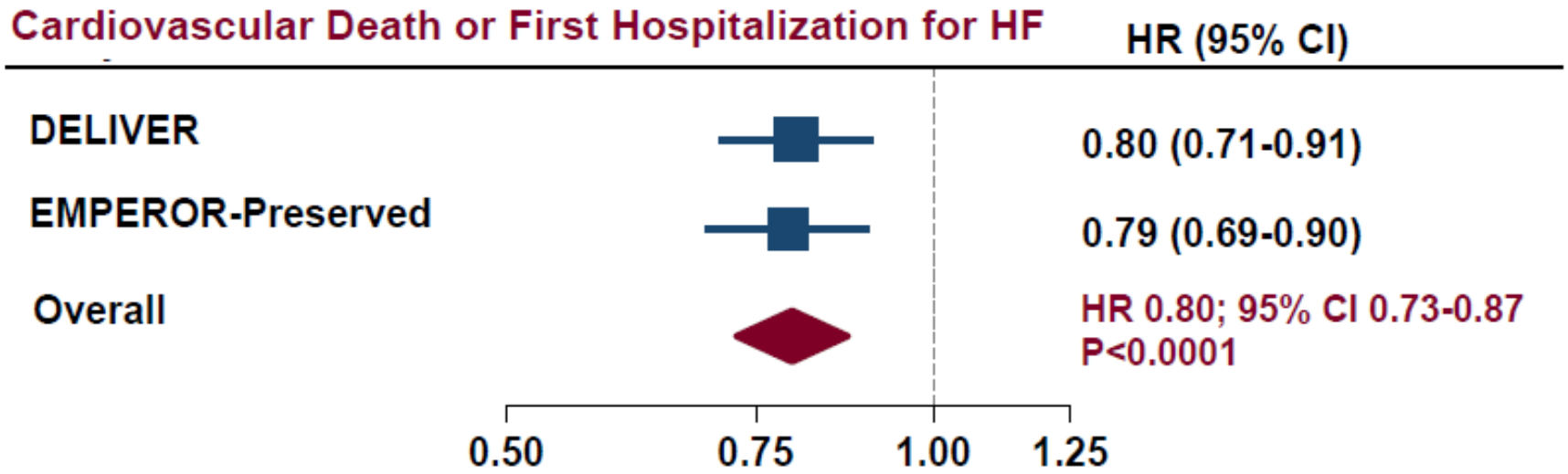
Adverse Events*

AE data collection of Serious Adverse Events, Adverse Events leading to treatment discontinuation and other selected adverse events

	Dapagliflozin* n=3126	Placebo* n=3127
Any SAE (including death)	1361 (43.5%)	1423 (45.5%)
Any AE leading to treatment discontinuation	182 (5.8%)	181 (5.8%)
Any AE leading to treatment interruption	436 (13.9%)	494 (15.8%)
Any amputation	19 (0.6%)	25 (0.8%)
Any definite or probable diabetic ketoacidosis	2 (0.1%)	0 (0.0%)
Any major hypoglycemic event	6 (0.2%)	7 (0.2%)
Events related to volume depletion	42 (1.3%)	32 (1.0%)
Renal Events	73 (2.3%)	79 (2.5%)

*On treatment (in patients receiving at least one dose and up to 30 days following last dose of IP)

IC à FECG preservée



Lancet. 2022 Aug 26;S0140-6736(22)01429-5

IDM

Influenza Vaccination After Myocardial Infarction

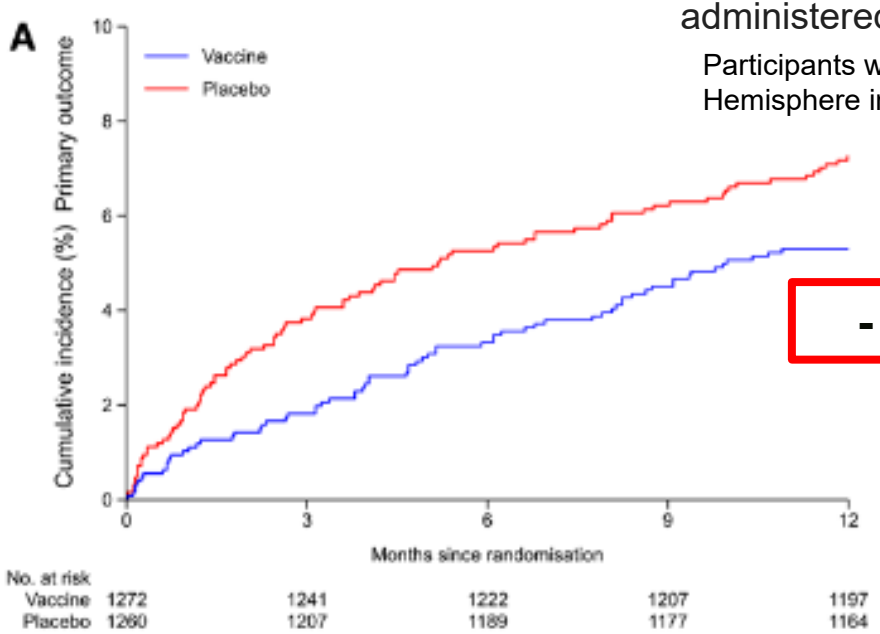
A Randomized, Double-Blind, Placebo-Controlled, Multicenter Trial

All-cause death, MI, or stent thrombosis

2571 participants

influenza vaccine or placebo administered shortly after MI

Participants were enrolled during the Hemisphere influenza season



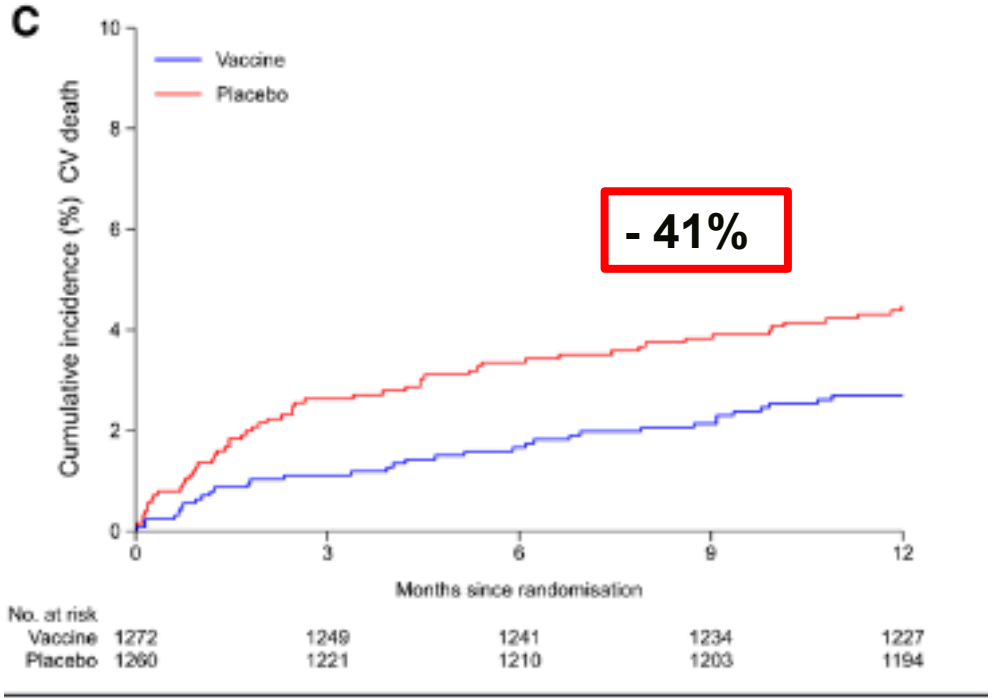
- 28%

Circulation. 2021;144:1476–1484

Influenza Vaccination After Myocardial Infarction

A Randomized, Double-Blind, Placebo-Controlled, Multicenter Trial

Cardiovascular death



Circulation. 2021;144:1476–1484

Influenza vaccine as a coronary intervention for prevention of myocardial infarction

Coronary intervention	Prevention	Intervention efficacy/effectiveness against acute myocardial infarction (%)
Smoking cessation[4 23–25]	Secondary	32–43
Statins[38]	Secondary	19–30
Antihypertensive drugs[26–29 32]	Secondary	17–25
Influenza vaccine[5 9 18]	Secondary	15–45

Heart. 2016 Dec 15;102(24):1953-1956.

Arrêt des statines ?

Statin Discontinuation and Cardiovascular Events Among Older People in Denmark

67 418 long-term statin users

Secondary prevention analysis (80 years)

Table 3. Summary of Results for the Primary and Secondary Prevention Cohorts

Outcome	Discontinuation group		Continuation group		Sub-hazard ratio (95% CI)[a]
	Crude events	Crude incidence rate, per 1000 person-years (95% CI)	Crude events	Crude incidence rate, per 1000 person-years (95% CI)	
Secondary prevention					
Person-years of follow-up[b]	12 350	NA	133 374	NA	NA
MACE	739	60 (56 to 64)	6472	49 (47 to 50)	1.28 (1.18 to 1.39)
MI	248	19 (17 to 21)	2326	17 (16 to 17)	1.25 (1.09 to 1.43)
Stroke	382	30 (27 to 33)	2953	21 (21 to 22)	1.34 (1.20 to 1.50)
Revascularization procedure	74	6 (4 to 7)	1416	10 (10 to 11)	0.73 (0.57 to 0.93)
Death from MI or stroke	211	16 (14 to 18)	1387	10 (9 to 10)	1.57 (1.35 to 1.83)

+ 57%

JAMA Network Open. 2021;4(12):e2136802.

Statin Discontinuation and Cardiovascular Events Among Older People in Denmark

67 418 long-term statin users

Primary prevention

Outcome	Discontinuation group		Continuation group		Sub-hazard ratio (95% CI)[a]
	Crude events	Crude incidence rate, per 1000 person-years (95% CI)	Crude events	Crude incidence rate, per 1000 person-years (95% CI)	
Primary prevention					
Person-years of follow-up[b]	11 709	NA	103 664	NA	NA
MACE	382	33 (30 to 36)	2481	24 (23 to 25)	1.32 (1.18 to 1.48)
MI	105	9 (7 to 11)	692	6 (6 to 7)	1.37 (1.11 to 1.70)
Stroke	230	19 (17 to 22)	1390	13 (13 to 14)	1.33 (1.14 to 1.54)
Revascularization procedure	47	4 (3 to 5)	477	4 (4 to 5)	1.12 (0.82 to 1.52)
Death from MI or stroke	76	6 (5 to 8)	433	4 (4 to 4)	1.43 (1.11 to 1.85)

+ 43%

JAMA Network Open. 2021;4(12):e2136802.

Le risque CV est associé à?

A. Taille du nez

B. Plis du front

C. Plis des oreilles

D. Taille des sourcils

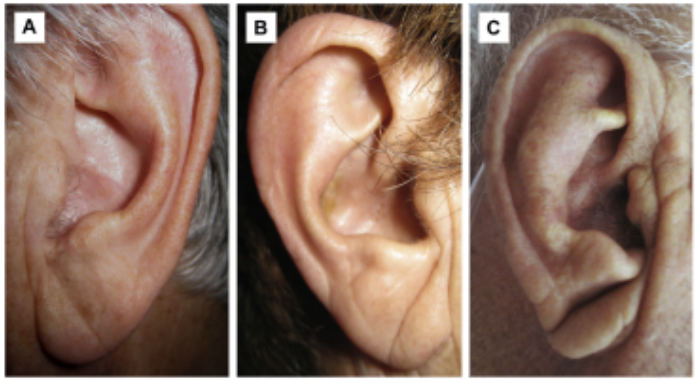
Le risque CV est associé à?

A. Taille du nez

B. Plis du front

C. Plis des oreilles

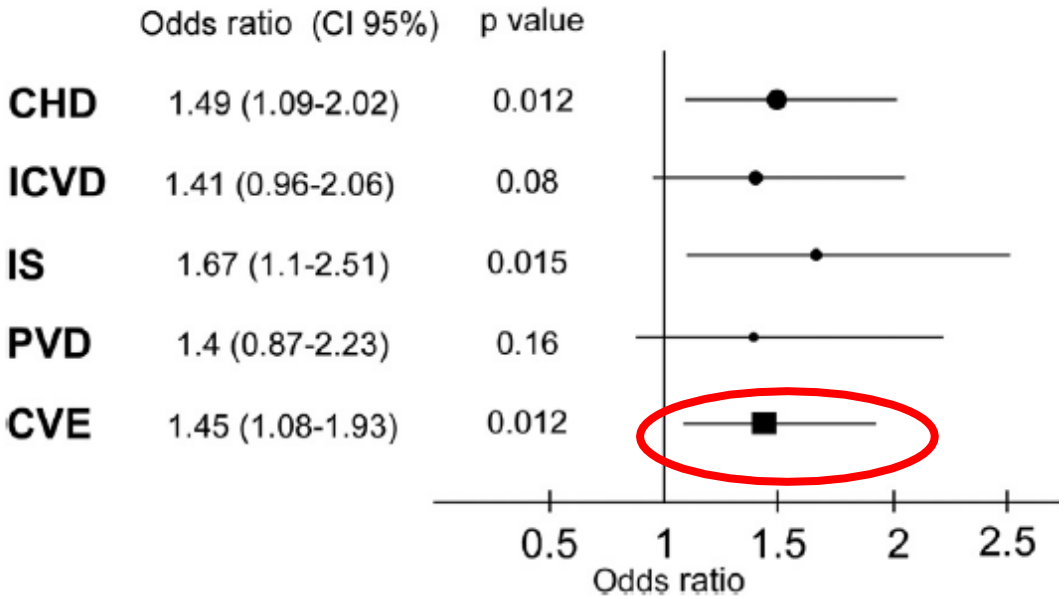
D. Taille des sourcils



. Classification of the ELC according to depth. *(A)* Mild (vaguely insinuated); *(B)* moderate (a fold where the base of the sulcus can be obse re (base of the sulcus cannot be seen).

Classification (LHYA)

lobe Crease Shapes and Cardiovascular Events



+ 45%

Am J Cardiol 2015;116:286e293

Table 4
Multivariate logistic regression of risk factors for cardiovascular event

	Cardiovascular event	
	OR (95% CI)	p
Male	2.32 (1.7-3.17)	<0.001
Age (</> 70 years)	1.45 (1.06-1.96)	0.018
Familiar history of early AMI	1.53 (0.98-2.38)	0.058
Hypertension	1.64 (1.18-2.27)	0.003
Diabetes mellitus	1.66 (1.22-2.25)	0.001
Hypercholesterolaemia	2.03 (1.53-2.7)	<0.001
Smoker	1.1 (0.81-1.5)	0.53
Atrial fibrillation	1.43 (1.03-2)	0.033
Bilateral ELC	1.45 (1.08-1.93)	0.012

AMI = acute myocardial infarction; CI = 95% confidence interval; ELC = earlobe crease; OR = odds ratio; 95%.

Mécanismes ?

. ELC association with CAD has been explained physiopathologically through atherosclerotic changes in the earlobe, such as prearteriole wall thickening,[16] or the resemblance between a repeating triplet of amino acids in the earlobe collagen and that present in the scavenger receptors of macrophages from atheromatous plaques.[17] A correlation between ELC and shortened telomeres, which are associated with premature aging and atherosclerosis, has also been suggested.[18]

Conclusions

ELC could be a useful screening test for atherosclerotic disease in routine medical examinations,