



**Journée du RENAU 2019**

13 juin 2019

# RESURCOR : Actualités

Loïc Belle

FV



**Coronarographie urgente?**

# The NEW ENGLAND JOURNAL of MEDICINE

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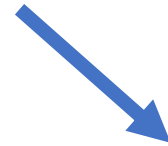
## Coronary Angiography after Cardiac Arrest without ST-Segment Elevation

J.S. Lemkes, G.N. Janssens, N.W. van der Hoeven, L.S.D. Jewbali, E.A. Dubois, M. Meuwissen, T.A. Rijpsstra,  
H.A. Bosker, M.J. Blans, G.B. Bleeker, R. Baak, G.J. Vlachojannis, B.J.W. Eikemans, P. van der Harst,  
I.C.C. van der Horst, M. Voskuil, J.J. van der Heijden, A. Beishuizen, M. Stoel, C. Camaro, H. van der Hoeven,  
J.P. Henriques, A.P.J. Vlaar, M.A. Vink, B. van den Bogaard, T.A.C.M. Heestermans, W. de Ruijter, T.S.R. Delnoij,  
H.J.G.M. Crijns, G.A.J. Jessurun, P.V. Oemrawsingh, M.T.M. Gosselink, K. Plomp, M. Magro, P.W.G. Elbers,  
P.M. van de Ven, H.M. Oudemans-van Straaten, and N. van Royen

# Out-of-Hospital Cardiac Arrest – FV No STEMI



Coronary catheterization < 2h

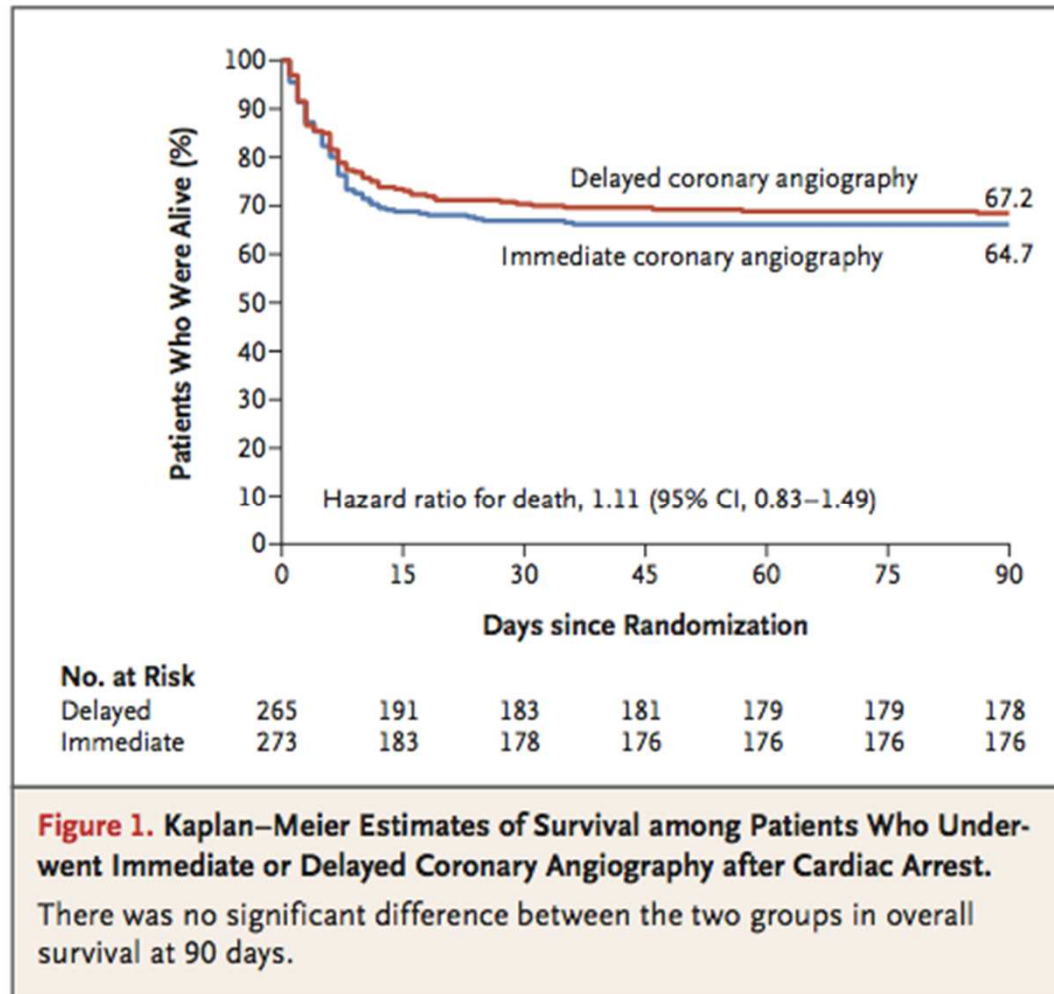


Coronary catheterization before  
ICU discharge

Table 2. Procedures, Treatments, and Characteristics of Coronary Artery Disease.*			
Variable	Immediate Angiography Group (N = 273)	Delayed Angiography Group (N = 265)	
Coronary angiography performed — no. (%)	265 (97.1)	172 (64.9)†	
Median time from arrest to coronary angiography (IQR) — hr	2.3 (1.8–3.0)	121.9 (52.0–197.3)	
Median time from randomization to coronary angiography (IQR) — hr	0.8 (0.5–1.2)	119.9 (47.2–203.7)	
Severity of coronary artery disease — no./total no. (%)			
No clinically significant disease	94/265 (35.5)	59/172 (34.3)	
One-vessel disease	72/265 (27.2)	49/172 (28.5)	
Two-vessel disease	54/265 (20.4)	35/172 (20.3)	
Three-vessel disease	45/265 (17.0)	29/172 (16.9)	
Acute unstable lesion — no./total no. (%)‡	36/265 (13.6)	29/172 (16.9)	
Acute thrombotic occlusion — no./total no. (%)	9/265 (3.4)	13/172 (7.6)§	
Chronic total occlusion — no./total no. (%)	100/265 (37.7)	58/172 (33.7)	
Revascularization treatment — no. (%)			
PCI	90 (33.0)	64 (24.2)	
CABG	17 (6.2)	23 (8.7)	
Pharmacologic or conservative treatment	168 (61.5)	179 (67.5)	



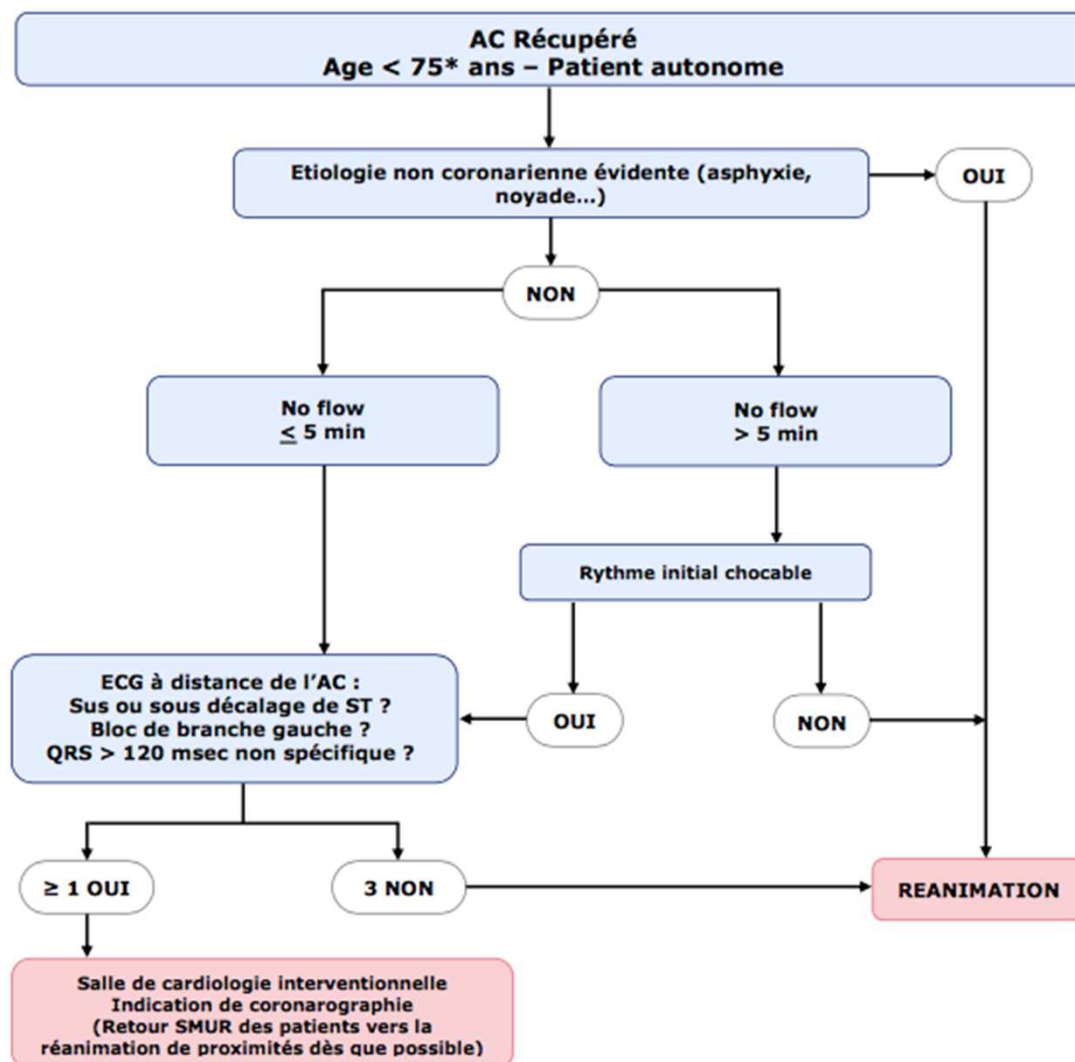
# Primary end points : alive at 90 days



A venir ...

- **EMERGE : 900 patients en France. Réponse decembre 2019.**
- **ACCESS : 800 patients aux US. Réponse en 2021.**
- **DISCO : 1000 patients en Suède. Réponse en 2024.**

# RESURCOR 2019





NDC 65293-003-10

**Kengreal™**  
**(cangrelor) for injection**

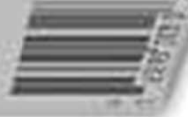
**50 mg per vial**

The  
Medicines  
Company

**Kengreal™**  
**(cangrelor) for injection**

**50 mg per vial**

For Intravenous Use Only



**Rx Only**

**10 Single Use Vials  
For Intravenous Use Only**

Store at 20-25° C (68-77° F)

Excursions 15-30° C permitted

[USP controlled room temperature]

Must be reconstituted and diluted prior to use

Reconstitution: Add 5 mL of Sterile Water for Injection

Usual dose: See package insert for dosing information

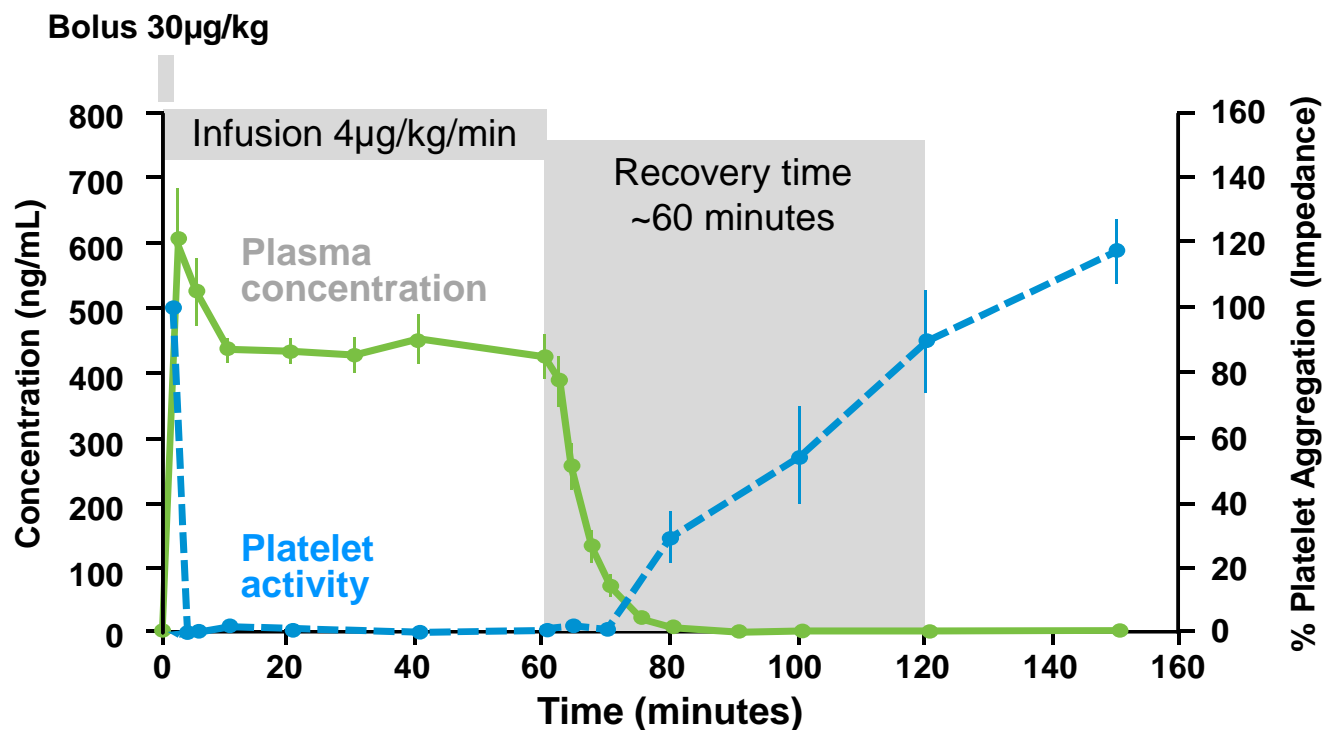


# Effect of Platelet Inhibition with Cangrelor during PCI on Ischemic Events

Deepak L. Bhatt, M.D., M.P.H., Gregg W. Stone, M.D.,  
Kenneth W. Mahaffey, M.D., C. Michael Gibson, M.D., P. Gabriel Steg, M.D.,  
Christian W. Hamm, M.D., Matthew J. Price, M.D., Sergio Leonardi, M.D.,  
Dianne Gallup, M.S., Ezio Bramucci, M.D., Peter W. Radke, M.D.,  
Petr Widimský, M.D., D.Sc., Frantisek Tousek, M.D., Jeffrey Tauth, M.D.,  
Douglas Spriggs, M.D., Brent T. McLaurin, M.D., Dominick J. Angiolillo, M.D., Ph.D.,  
Philippe Généreux, M.D., Tiepu Liu, M.D., Ph.D., Jayne Prats, Ph.D.,  
Meredith Todd, B.Sc., Simona Skerjanec, Pharm.D., Harvey D. White, D.Sc.,  
and Robert A. Harrington, M.D., for the CHAMPION PHOENIX Investigators\*

# Cangrelor

Blood levels of cangrelor and platelet activity with administration of a 30 µg/kg IV bolus followed by a 4 µg/kg/min IV infusion.





HAUTE AUTORITÉ DE SANTÉ

## COMMISSION DE LA TRANSPARENCE

Avis

16 mars 2016

Date d'examen par la Commission : 2 mars 2016

*cangrélor*

KENGREXAL 50 mg, poudre pour solution à diluer pour injection /

perfusion

B/10 flacons en verre (CIP : 34009 550 119 2 7)

Place dans la  
stratégie  
thérapeutique

La Commission estime que la place de KENGREXAL doit être strictement limitée aux patients qui doivent bénéficier d'une angioplastie en urgence :

- pour qui l'administration orale d'un inhibiteur des récepteurs P2Y<sub>12</sub> n'est pas faisable, à savoir les patients qui ne peuvent avaler (patients intubés ou sous sédation, dans un contexte tel que l'arrêt cardiaque ou le choc cardiogénique) et ceux dont l'absorption digestive est fortement altérée ;
- et qui n'ont pas reçu d'inhibiteur oral des récepteurs P2Y<sub>12</sub> avant cette intervention.

## Letter to the Editor

### Optimal platelet inhibition with cangrelor in comatose survivors of out-of-hospital cardiac arrest undergoing primary percutaneous coronary intervention

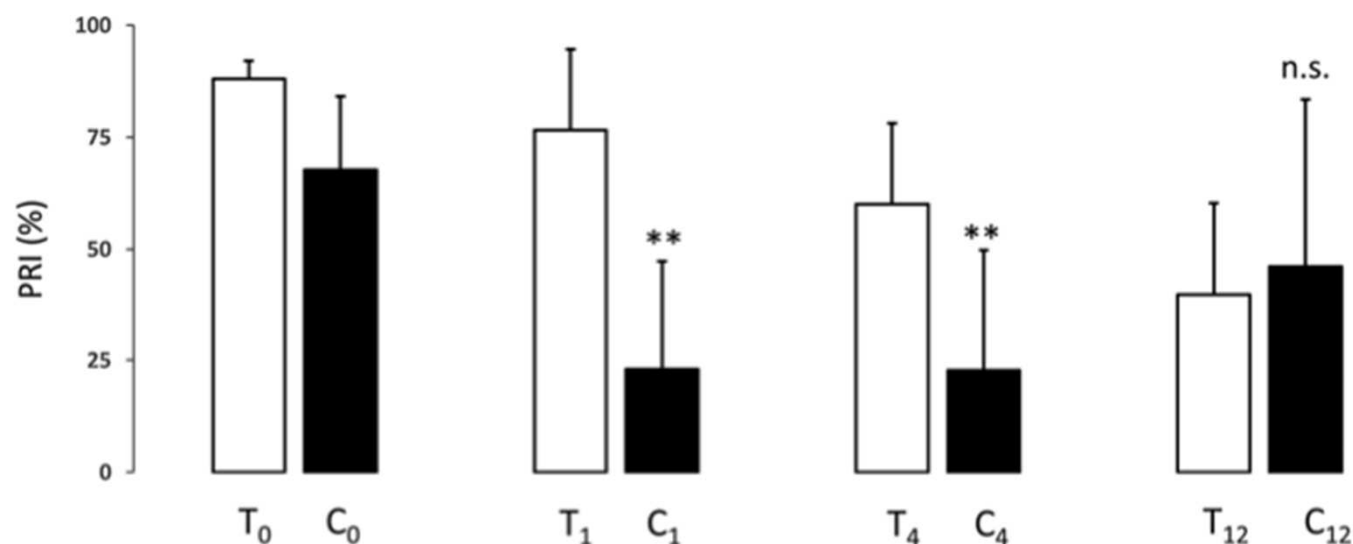


Fig. 1. Pharmacodynamic effect of add-on antiplatelet therapy with parenteral cangrelor (C) as compared to ticagrelor alone (T) in comatose survivors of out-of-hospital cardiac arrest undergoing primary percutaneous coronary intervention. Platelet reactivity was measured by vasodilator-stimulated phosphoprotein-phosphorylation (VASP-P) test at different time points after PCI (0, 1, 4 and 12 h). PRI: Platelet Reactivity Index. Comparisons were performed with the Mann-Whitney test; \*\*p < 0.01.

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Laboratory of Hematology, Reference Center for Platelet Disorders,

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E-mail address: mathieu.fiore@chu-bordeaux.fr

Edouard Gerbaud, Pierre Coste, Laura Cetran, Hugo Marchand<sup>1</sup>,

Benjamin Seguy

Cardiovascular Intensive Care Unit, Cardiologic Hospital, University

Hospital of Bordeaux, Pessac, France

June 2018

Resuscitation

# Emergency PCI and no P2Y12 pré-treatment

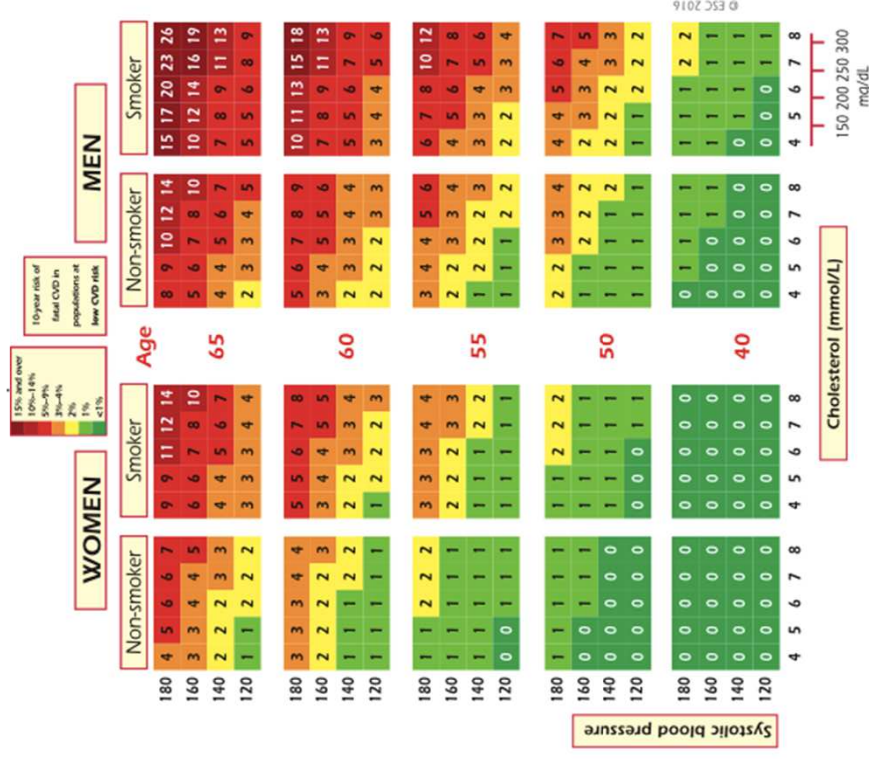
- Ticagrelor in the cath. lab. Or...
- Cangrelor, Or...
- GPI : Agrastat.

Risque  
coronarien.

Population générale.



# 2016 European Guidelines on cardiovascular disease prevention in clinical practice



# www.heartscore.org

## Vos résultats

Date de l'examen 01 June 2019


Nom du patient loic belle


Âge 55 (9/1963)

Sexe Masculin

Facteurs de risque	Vos résultats
Pression artérielle systolique	130
Cholestérol	251 mg/dl
Cholestérol HDL	50 mg/dl
Fumeur	Non
<b>Votre risque de MCV total*</b>	<b>2%</b>

\* Le risque total de MCV est le risque de mortalité sur 10 ans.

 **Score complet**

 **Score IMC**

Pression artérielle systolique:

130

Cholestérol:

251

mg/dl

Cholestérol HDL

50

Fumeur:

☐ Oui ☒ Non



**EAPC**  
European Association  
of Preventive Cardiology  
 European Society of Cardiology

# HeartScore<sup>®</sup>



# 2016 European Guidelines on cardiovascular disease prevention in clinical practice

Risque	Décès ischémiques CV à 10 ans	Cible LDL
Bas	<1%	1.9 g/l
Intermédiaire	1-5%	1.3 g/l
Haut	5-10%	1 g/l
Très haut	>10%	0.7 g/l

**Table 4** Examples of risk modifiers that are likely to have reclassification potential (see following sections for details)

Socio-economic status, social isolation, or lack of social support.
Family history of premature CVD.
BMI and central obesity.
CT coronary calcium score.
Atherosclerotic plaques determined by carotid artery scanning.
ABI.

ABI = ankle-brachial blood pressure index; BMI = body mass index; CVD = cardiovascular disease; CT = computed tomography.

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## Position Statement

# Consensus statement on the management of dyslipidaemias in adults<sup>☆</sup>

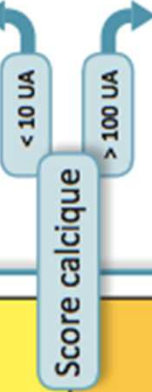
Working group commissioned by the the French Society of Endocrinology (SFE) Francophone Society of Diabetes (SFD), The New French Society of Atherosclerosis (NSFA), S. Béliard<sup>a</sup>, F. Bonnet<sup>b</sup>, B. Bouhanick<sup>c</sup>, E. Bruckert<sup>d</sup>, B. Cariou<sup>e</sup>, S. Charrière<sup>f</sup>, V. Durlach<sup>g</sup>, P. Moulin<sup>f,\*</sup>, R. Valéro<sup>a</sup>, B. Vergès<sup>g,h</sup>



<b>FRCV*:</b>	<b>Âge : H ≥ 50 ans, F ≥ 60 ans ou ménopausée</b>	<b>HTA</b>	<b>Tabac actif ou sevré depuis moins de 3 ans</b>	<b>HDL ≤ 0,4 g/L</b>	<b>Hérédité CV : H ≤ 55 ans, F ≤ 60 ans</b>
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\*considérés majeurs

<b>Niveau de risque</b>	<b>Critères</b>	<b>Cible LDL + Attitude</b>
<b>Bas risque</b>	≤ 1 FRCV	< 1,9 g/L
<b>Risque intermédiaire</b>	2 FRCV ou Diabète II sans syndrome métabolique <sup>1</sup> ni lésion d'organe <sup>2</sup>	< 1,3 g/L Score calcique
<b>Haut risque</b>	≥ 3 FRCV ou Diabète I (> 15 ans d'évol. ou âge > 40 ans) ou Diabète I ou II avec syndrome métabolique <sup>1</sup> ou IRC modérée (DFG < 60 mL/min)	< 1 g/L Score calcique
<b>Très haut risque</b>	Prévention secondaire ou Diabète I ou II avec atteinte d'organe cible <sup>2</sup> ou IRC sévère (DFG < 30 mL/min)	< 0,7 g/L <sup>3</sup> Aspirine <sup>4</sup> Recherche d'ischémie myocardique Echo doppler carotidien



si score calcique > 300 UA  
Très haut risque

**1** : critère obligatoire : - Tour de taille : H > 94 cm, F > 80 cm  
critères facultatifs : - TG ≥ 1,5 g/L  
- TA > 130/85 mmHg  
- HDL : H < 0,4 g/L, F < 0,5 g/L

**2** : DFG < 60 mL/min, protéinurie > 2 g/L, rétinopathie ≥ stade 2 ou neuropathie avérée

**3** : réajustement à prévoir en fonction des recos ESC/EAS 2019

**4** : selon l'évaluation du rapport bénéfice/risque en prévention primaire



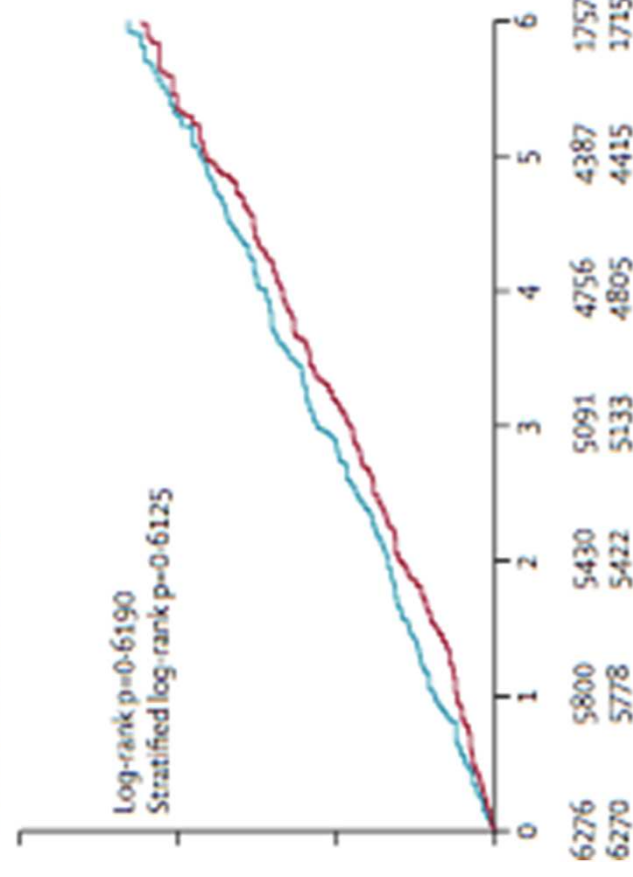
- Pas de corrélation sur score calcique sans test d'ischémie préalable  
- Évaluation à renouveler tous les 5 ans  
- Recherche d'ischémie myocardique requise chez les patients avec des symptômes à l'effort, avec ECG repos anormal ou pour la reprise du sport.

Bellard S. et al. Consensus statement on the management of dyslipidaemias in adults. Diabetis & Metabolism. 2016  
Catapano A. et al. ESC/EAS Guidelines for the management of dyslipidaemias, CVD Prevention. 2016

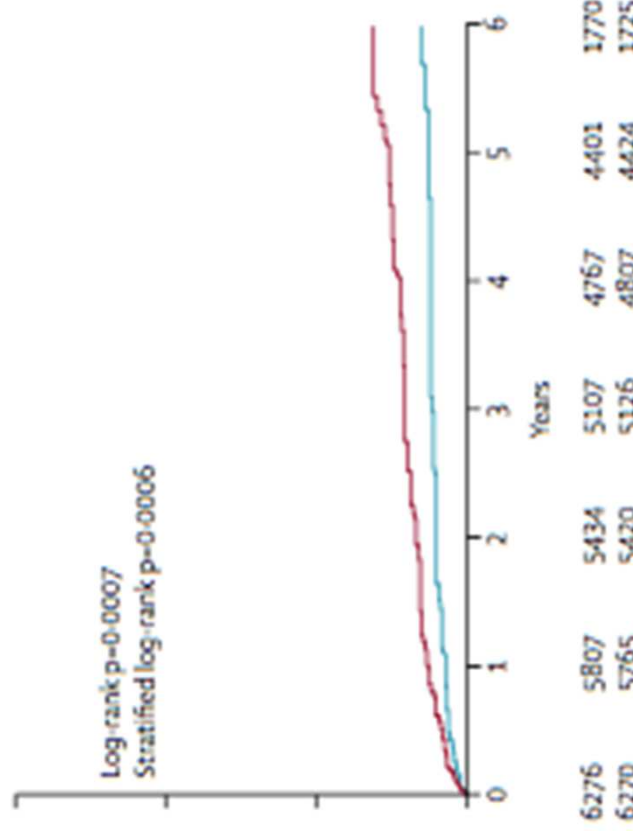
# Use of aspirin to reduce risk of initial vascular events in patients at moderate risk of cardiovascular disease (ARRIVE): a randomised, double-blind, placebo-controlled trial

J Michael Gaziano, Carlos Brotons, Rosa Coppolecchia, Claudio Cricelli, Harald Darius, Philip B Gorelick, George Howard, Thomas A Pearson, Peter M Rothwell, Luis Miguel Ruilope, Michal Tendera, Gianni Tognoni; the ARRIVE Executive Committee

Cardiovascular death, myocardial infarction, or stroke



Gastrointestinal bleeding

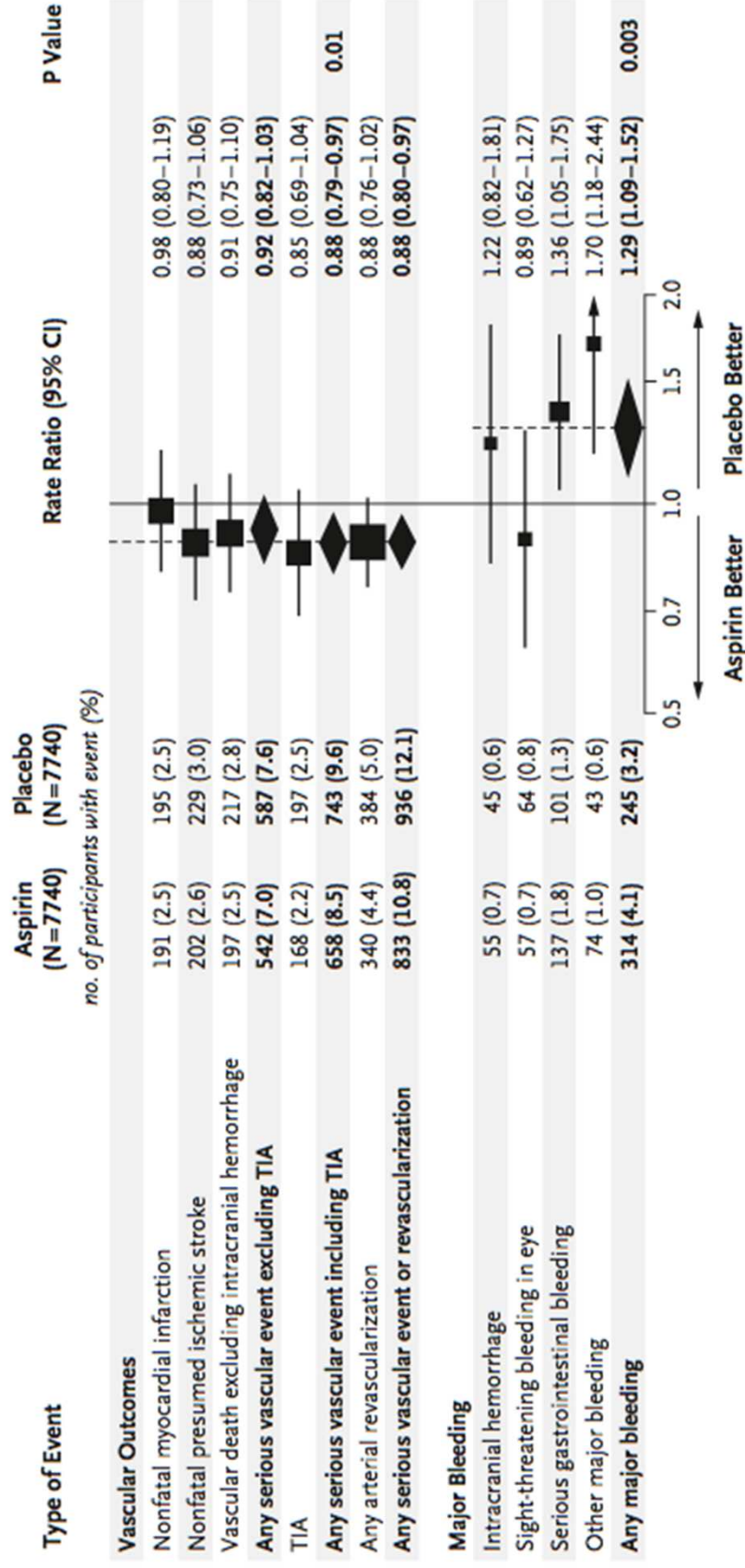


# Effects of Aspirin for Primary Prevention in Persons with Diabetes Mellitus

The ASCEND Study Collaborative Group\*

Table 1. Key Characteristics of the Participants at Baseline.*		
Characteristic	Aspirin Group (N = 7740)	Placebo Group (N = 7740)
Age		
Mean — yr	63.2±9.2	63.3±9.2
Vascular risk score — no. (%)¶		
Low	3128 (40.4)	3136 (40.5)
Moderate	3294 (42.6)	3254 (42.0)
High	1318 (17.0)	1350 (17.4)

## ORIGINAL ARTICLE



## Autres actus...

- Compass : Rivaroxaban 2.5 mg x 2 / j
- Augustus : FA et PCI : Plavix et apixaban 6 mois.
- Pegasus : P2Y12 > 1 an après SCA
- HF : si LDL > 1.9 g/l, si SCA jeune, si hérédité. Score de DUTCH
- PCSK9.
- Grippe et SCA : vaccination des coronariens