

Les dernières études dans l'infarctus avec élévation du ST

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Les dernières études dans l'infarctus avec élévation du ST en interventionnel

- ▶ Pré/Post conditionnement
- ▶ Thérapie cellulaire
- ▶ EPO
- ▶ Aspiration : AngioJet
- ▶ Antithrombotiques
 - OnTime 2
 - EVA-MI
 - Plato STEMI/Triton STEMI
- ▶ Voie radiale
 - Rival/registre SCAAR
- ▶ Stents

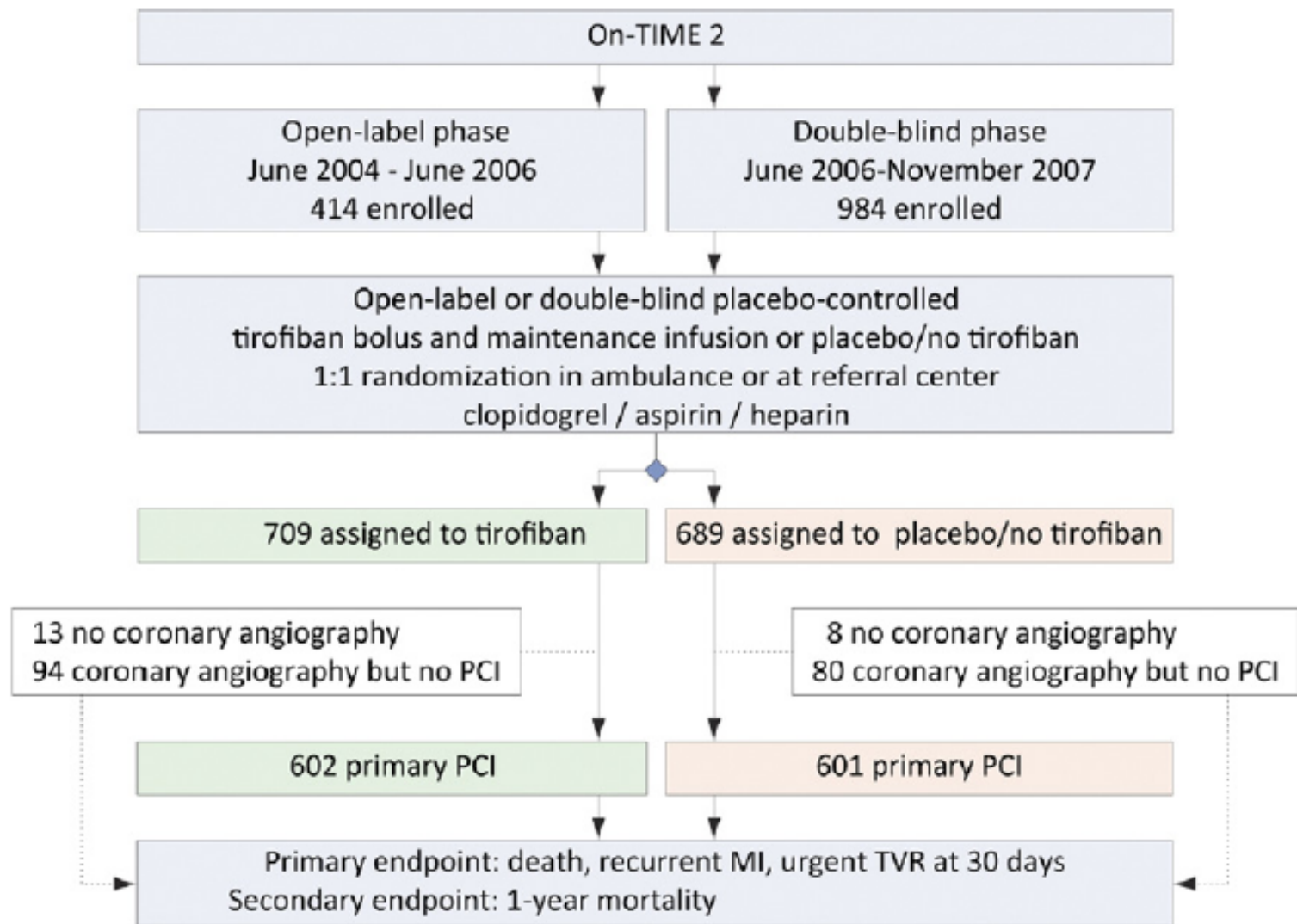
Antithrombotiques

- ▶ Plato STEMI/Triton STEMI
- ▶ OnTime 2
- ▶ EVA-MI

Apport des nouveaux inhibiteurs de l'ADP dans l'infarctus avec élévation du ST

	Triton			Plato		
	Clopidogrel 1765	Prasugrel 1769		Clopidogrel 3792	Ticagrelor 3752	
PEP*	12,4	10	0,022	10,8	9,4	0,07
DC CV DC ou IDM	3,4 11,5	2,4 8,8	ns 0,007	4,5 10,4	5,5 8,4	0,07 0,05
TS ARC 1 et 2	2,8	1,6	0,02	3,4	2,6	0,05
Timi Majeur	2,1	2,4	ns	2,2	2,5	ns
NACE**	14,6	12,2	0,021			

*DC, IDM, AVC, **idem+Timi majeur



	Placebo/No Tirofiban Infusion	Tirofiban	p Value
30 days	(n = 662)	(n = 677)	
Death, re-MI, or urgent TVR	57 (8.6%)	39 (5.8%)	0.043
Death	27 (4.1%)	15 (2.2%)	0.051
Recurrent MI	15 (2.3%)	13 (1.9%)	0.659
Urgent TVR	31 (4.7%)	20 (3.0%)	0.098
Urgent PCI	28 (4.2%)	12 (1.8%)	0.008
Urgent CABG	3 (0.5%)	8 (1.2%)	0.140
Major bleeding	19 (2.9%)	23 (3.4%)	0.580
Major CABG-related	8 (1.2%)	11 (1.6%)	0.520
Major non-CABG-related	11 (1.7%)	12 (1.8%)	0.876
Minor bleeding	29 (4.4%)	40 (5.9%)	0.206
Minor CABG-related	10 (1.5%)	12 (1.8%)	0.706
Minor non-CABG-related	19 (2.9%)	28 (4.1%)	0.208
Stroke within 30 days	9 (1.4%)	2 (0.3%)	0.031
Net clinical outcome*	77 (11.6%)	54 (8.0%)	0.024
1 year	(n = 656)	(n = 670)	
Death	38 (5.8%)	25 (3.7%)	0.078
Cardiac death	29 (4.4%)	17 (2.5%)	0.061
Noncardiac death	9 (1.4%)	8 (1.2%)	0.773

EVA-MI : résultats sur le critère de jugement principal

Variable	Eptifibatide (n = 198)	Abciximab (n = 183)	p Value
Sum ST-segment deviation at baseline (mm)	10.2 ± 7.0	11.3 ± 7.8	0.14
Findings before PCI			
Sum STR (%)	25.9 ± 32.0	21.2 ± 29.0	0.21
Complete STR	19 (13.1%)	12 (10.0%)	0.34
Partial STR	30 (20.7%)	23 (19.2%)	0.31
No STR	96 (66.2%)	85 (70.8%)	0.32
Single-lead complete STR	12 (9.7%)	7 (6.3%)	0.75
Sum ST-segment deviation before PCI (mm)	9.3 ± 9.5	10.5 ± 7.9	0.26
Findings 60 min after PCI			
Sum STR (%)	71.6 ± 27.2	66.3 ± 31.1	0.08
Complete STR	124 (62.6%)	103 (56.3%)	0.16
Partial STR	56 (28.3%)	51 (27.9%)	0.99
No STR	18 (9.1%)	29 (15.8%)	0.04
Single-lead complete STR	105 (59.7%)	82 (49.1%)	0.06
Sum ST-segment deviation (mm)	2.9 ± 3.6	3.9 ± 4.4	0.01

Voie radiale ou fémorale ?

- ▶ Etude RIVAL
- ▶ Registre SCAAR

7021 enrolled and randomised

STEMI 1958 (28%)
NSTEMI-ACS 5063 (72%)
Don't Tn+ 63%

3507 assigned to radial access 3514 assigned to femoral access

28 withdrew
 20 received femoral access
 10 physician decision
 9 physician error
 1 randomisation error
 8 did not have an angiogram

46 withdrew
 38 received radial access
 10 physician decision
 12 physician error
 16 patient refusal
 8 did not have an angiogram

3479 received radial access 3468 received femoral access

245 crossed over after failed radial access
 242 to femoral access
 3 to brachial access

32 crossed over after failed femoral access
 32 to radial access

3234 had successful radial access 3436 had successful femoral access

1 lost to follow-up

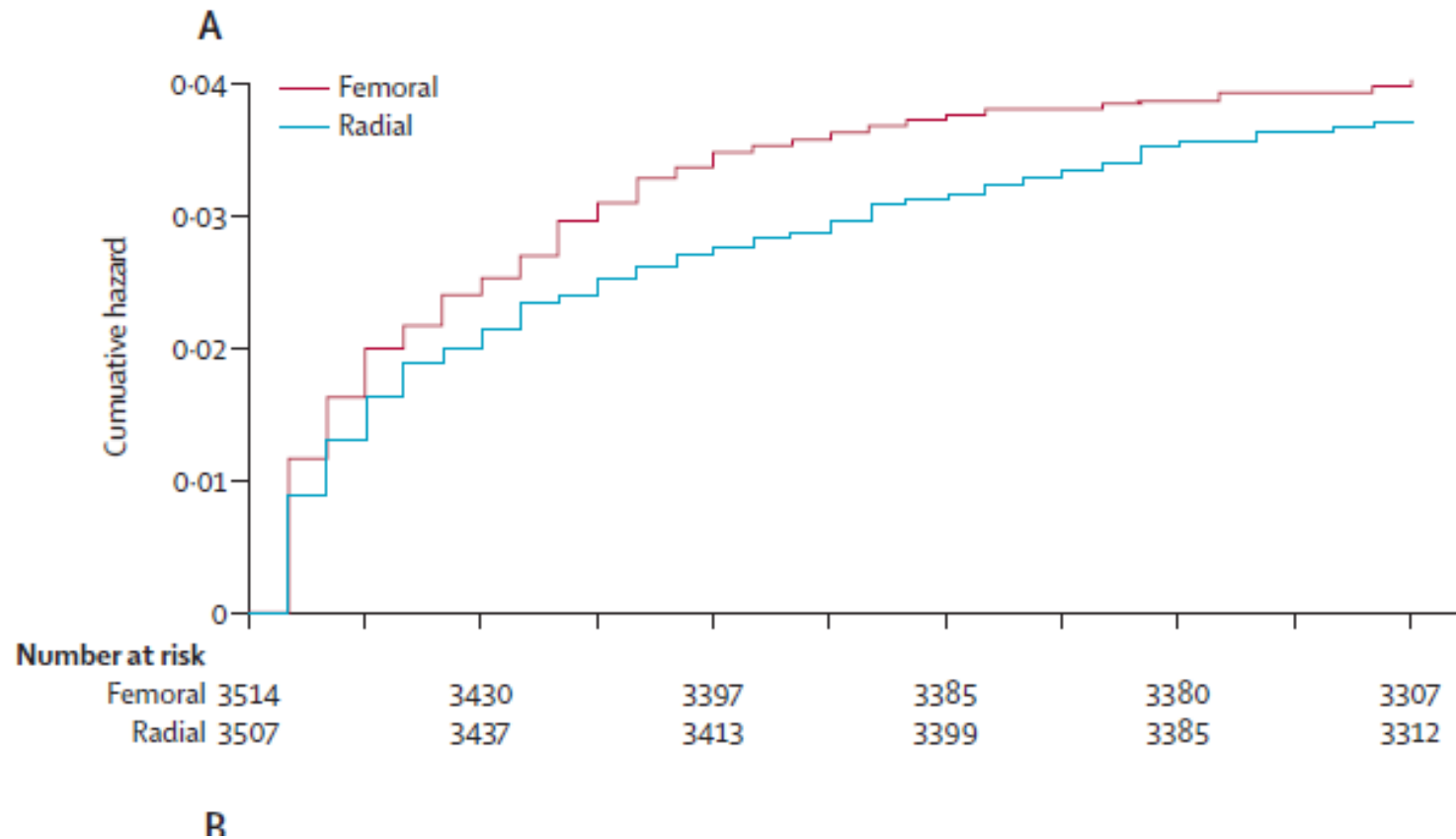
1 lost to follow-up

3507 included in analyses 3514 included in analyses

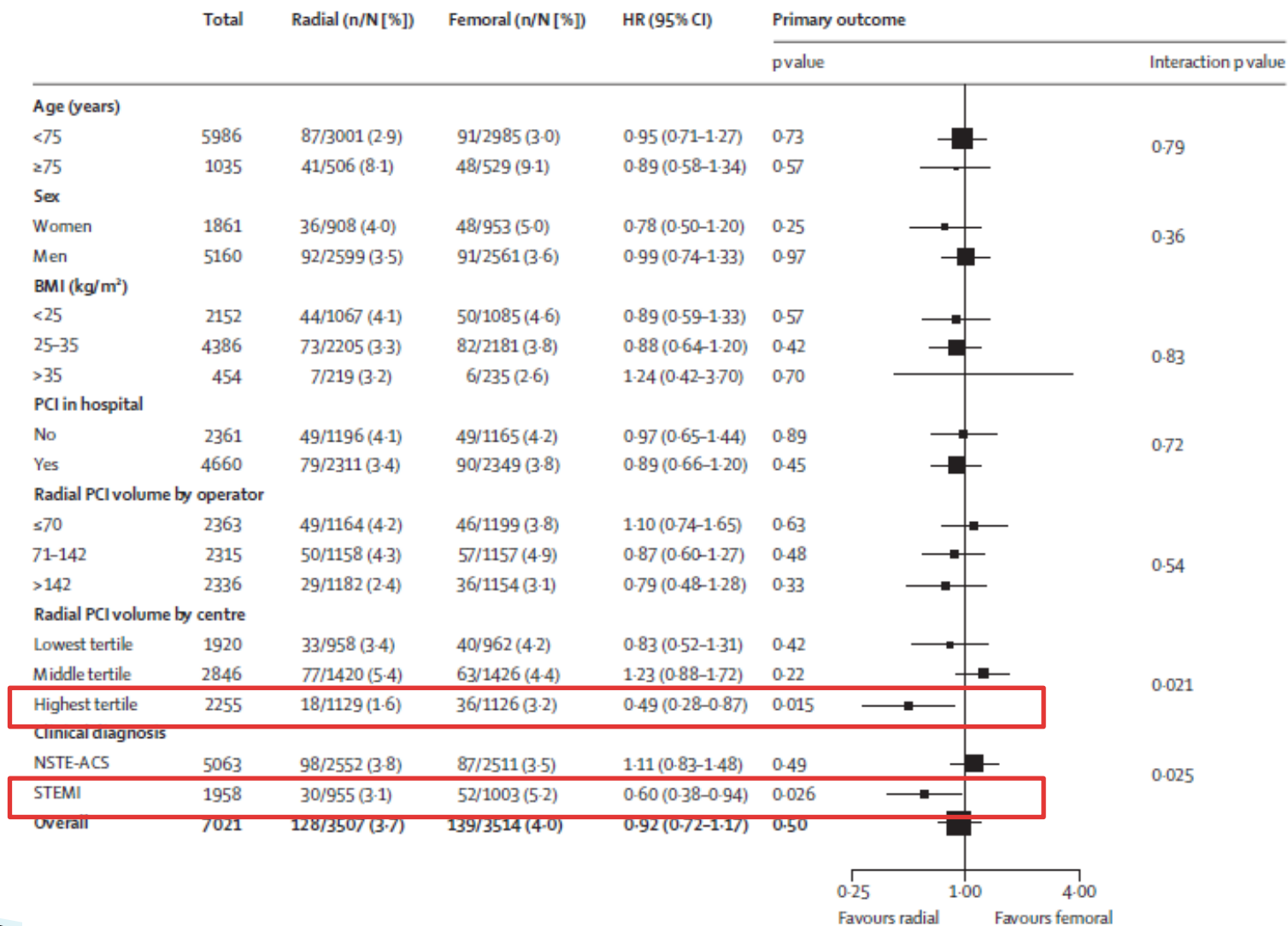
Antithrombotic treatment in hospital

Aspirin	3479 (99.2%)	3489 (99.3%)
Clopidogrel	3368 (96.0%)	3358 (95.6%)
Clopidogrel loading dose ≤300 mg before PCI†	893 (38.6%)	963 (41.0%)
Clopidogrel loading dose >300 mg before PCI†	1208 (52.3%)	1165 (49.6%)
Low-molecular-weight heparin	1806 (51.5%)	1819 (51.8%)
Intravenous unfractionated heparin	1168 (33.3%)	1110 (31.6%)
Fondaparinux	383 (10.9%)	381 (10.8%)
Bivalirudin	76 (2.2%)	109 (3.1%)
Glycoprotein IIb/IIIa inhibitor	887 (25.3%)	844 (24.0%)
Glycoprotein IIb/IIIa inhibitor in patients with STEMI‡	329 (34.5%)	312 (31.1%)

Pas de différence sur le critère principal DC/IDM/AVC/saignements



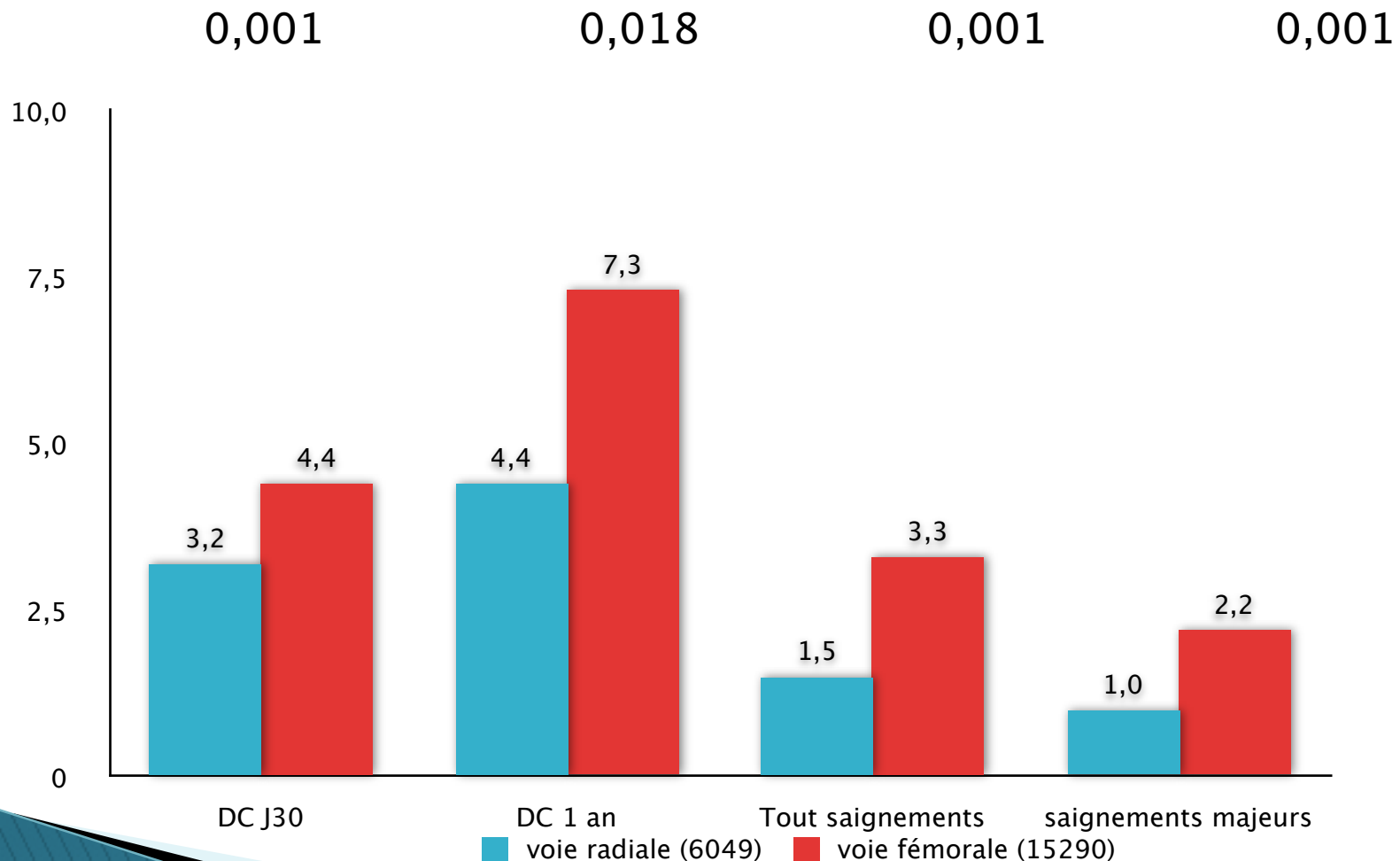
Etude RIVAL : interaction sur le critère principal des sous-groupes pré-spécifiés



Événements par sous-groupes

	Total	Radial (n/N [%])	Femoral (n/N [%])	HR (95% CI)	p value		Interaction p value
Primary outcome							
Clinical diagnosis							
NSTE-ACS	5063	98/2552 (3.8)	87/2511 (3.5)	1.11 (0.83-1.48)	0.49		
STEMI	1958	30/955 (3.1)	52/1003 (5.2)	0.60 (0.38-0.94)	0.026		0.025
Overall	7021	128/3507 (3.7)	139/3514 (4.0)	0.92 (0.72-1.17)	0.50		
Death, MI, or stroke							
Clinical diagnosis							
NSTE-ACS	5063	86/2552 (3.4)	68/2511 (2.7)	1.25 (0.91-1.71)	0.18		
STEMI	1958	26/955 (2.7)	46/1003 (4.6)	0.59 (0.36-0.95)	0.031		0.011
Overall	7021	112/3507 (3.2)	114/3514 (3.2)	0.98 (0.76-1.28)	0.90		
Death							
Clinical diagnosis							
NSTE-ACS	5063	32/2552 (1.2)	19/2511 (0.8)	1.66 (0.94-2.92)	0.082		
STEMI	1958	12/955 (1.3)	32/1003 (3.2)	0.39 (0.20-0.76)	0.006		0.001
Overall	7021	44/3507 (1.3)	51/3514 (1.5)	0.86 (0.58-1.29)	0.47		
Non-CABG major bleed							
Clinical diagnosis							
NSTE-ACS	5063	16/2552 (0.6)	24/2511 (1.0)	0.66 (0.35-1.23)	0.19		
STEMI	1958	8/955 (0.8)	9/1003 (0.9)	0.92 (0.36-2.39)	0.87		0.56
Overall	7021	24/3507 (0.7)	33/3514 (0.9)	0.73 (0.43-1.23)	0.23		
Major vascular complications							
Clinical diagnosis							
NSTE-ACS	5063	37/2552 (1.4)	96/2511 (3.8)	0.38 (0.26-0.55)	<0.0001		
STEMI	1958	12/955 (1.3)	35/1003 (3.5)	0.36 (0.19-0.70)	0.002		0.89
Overall	7021	49/3507 (1.4)	131/3514 (3.7)	0.37 (0.27-0.52)	<0.0001		

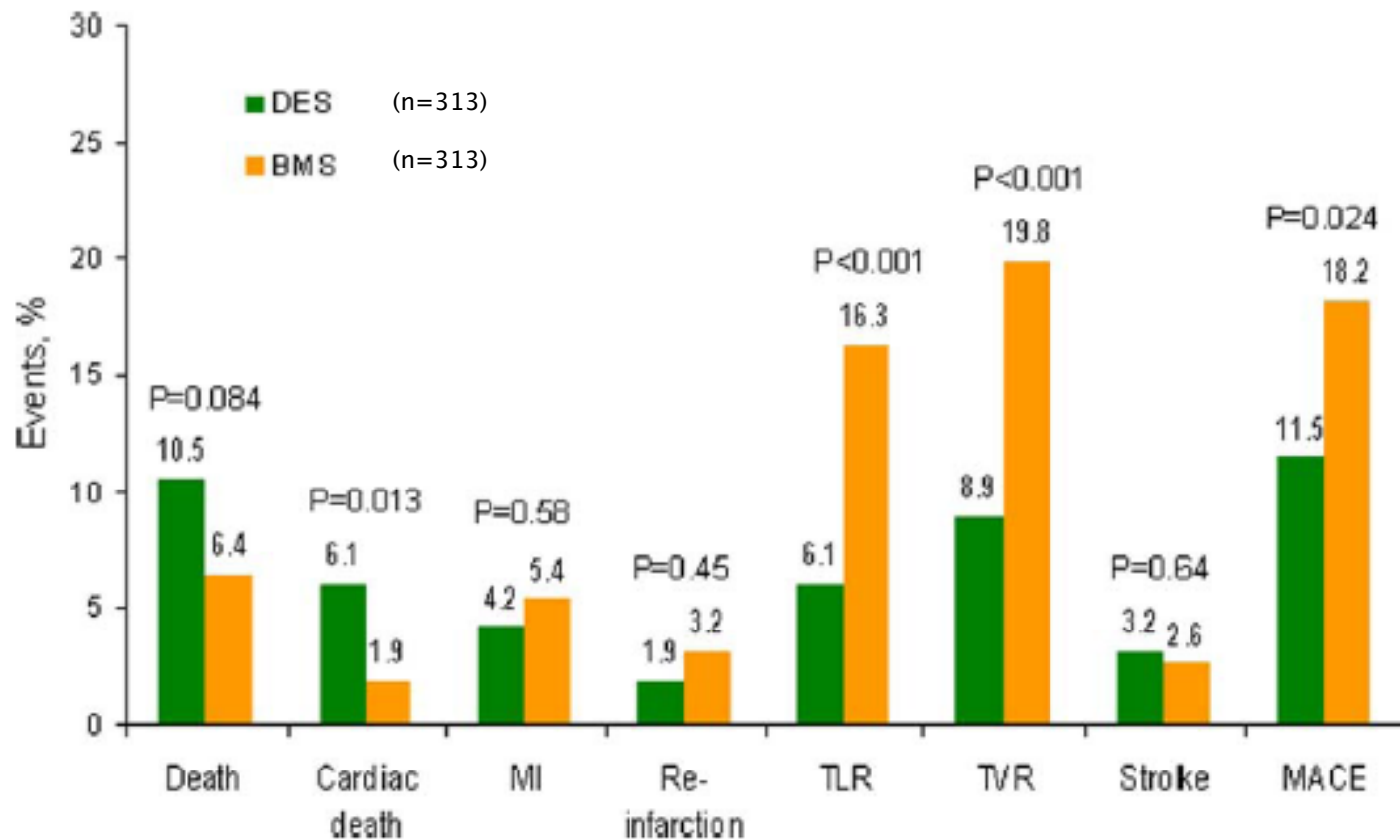
Registre SCAAR : impact de la voie d'abord sur le pronostic dans l'infarctus avec élévation du ST



Stents

- ▶ Dedication long terme
- ▶ Base ACS
- ▶ Registre CATS-AMI

Dedication : suivi à 3 ans



BASE-ACS

Patients presenting with
Acute Coronary Syndrome (ACS)

N = 827

14 International Sites
Randomisation 1:1

TITAN-2[®] stent

Titanium-Nitride-Oxide Coated
Bio-Active Stent (BAS)
417 Patients

XIENCE-V[™]/PROMUS[™] stent

Everolimus-Eluting Stent
(EES)
410 Patients

Clinical Follow-up

30d

6mo

12mo

18mo

2yr

3yr

4yr

5yr

Clinical endpoints

Primary Endpoint:

months

MACE (MI, TLR and Cardiac Death) at 12

Secondary Endpoints:

Thrombosis

All Cause Death; Cardiac Death/Non-Fatal MI, Stent

Investigators: P Karjalainen (Finland), Principal Investigator (PI)

A Ylitalo (Finland), co-PI

O Hess (Switzerland), co-PI

KEJ Airaksinen (Finland), co-PI

M Niemelä (Finland), co-PI

Baseline Demographics

	Titan-2 BAS (n=417)	Xience-V EES (n=410)	P value
Age (years)	63 ± 12	63 ± 12	0.93
Male	76.0%	76.1%	0.94
Diabetes	15.6%	18.3%	0.31
- Insulin treated	4.6%	4.1%	0.87
Hyperlipidemia	45.8%	48.0%	0.53
Hypertension	48.2%	51.7%	0.33
Current smoker	34.5%	32.7%	0.61
Prior myocardial infarction	13.4%	9.8%	0.10
Prior PCI^a	9.6%	10.5%	0.73
Prior CABG^b	4.8%	4.1%	0.74
NSTEMI^c	49.4%	45.6%	0.30
STEMI^d	38.8%	38.8%	1.0

^a Percutaneous Coronary Intervention

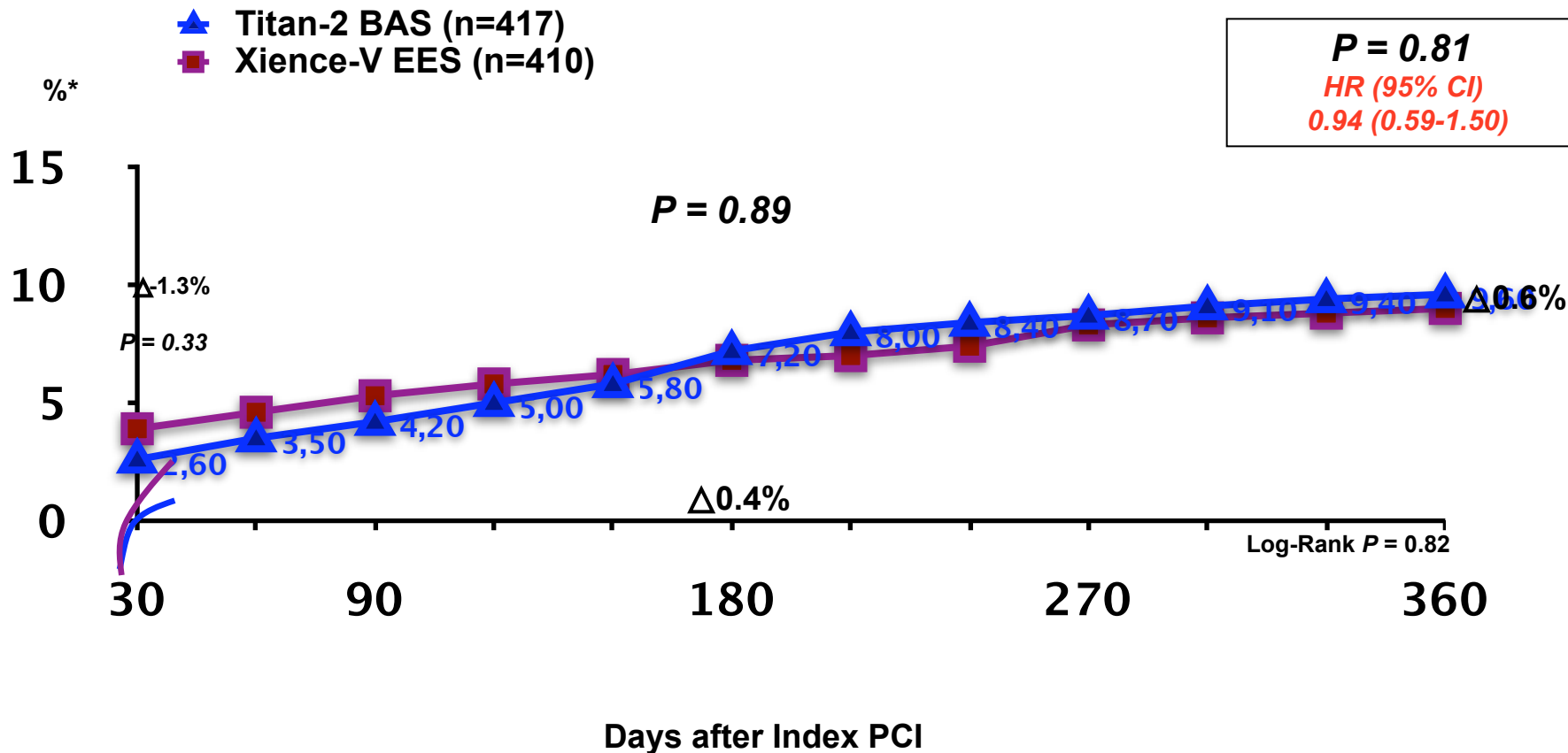
^b Coronary Artery Bypass Grafting

^c non-ST-elevation myocardial infarction

^d ST-elevation myocardial infarction

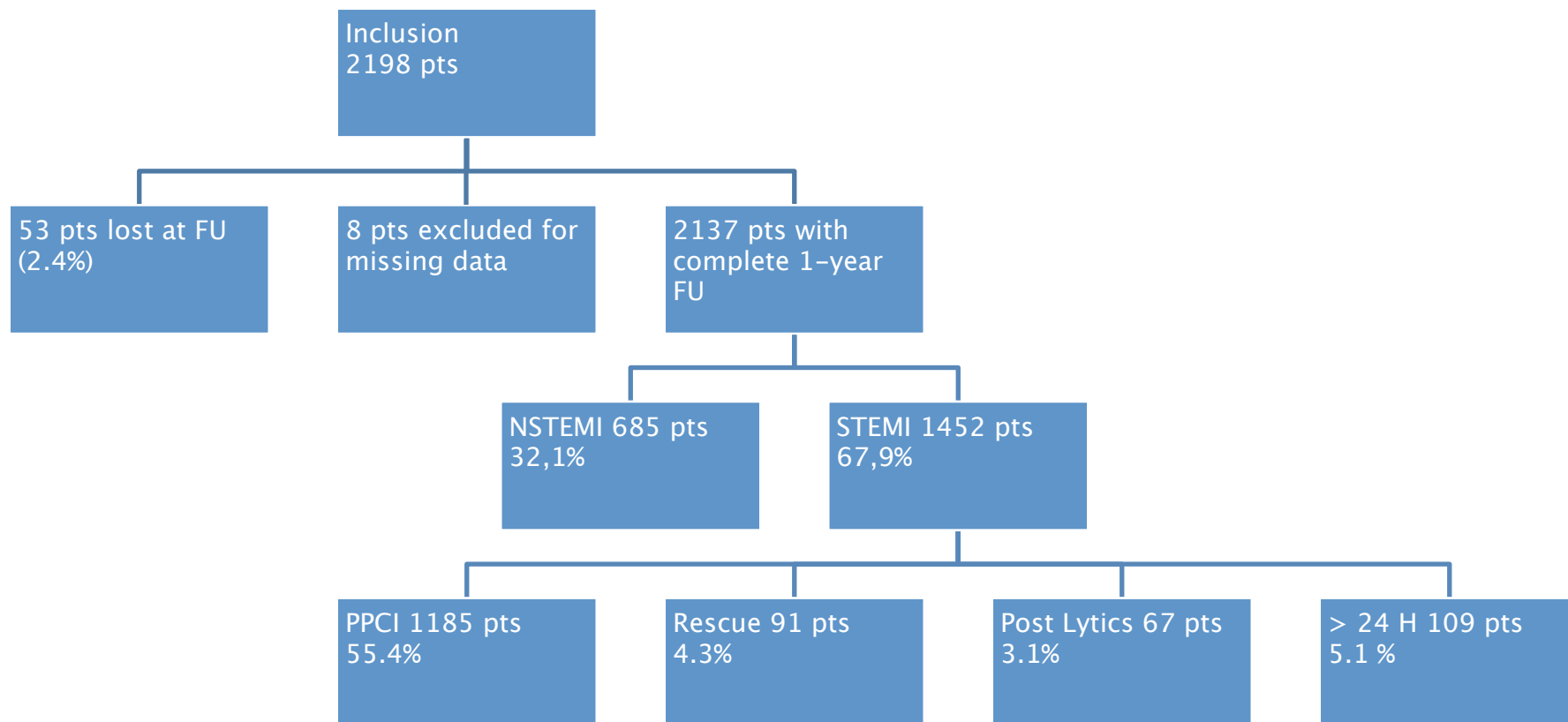
BASE-ACS

MACE at 12 months



* Cumulative incidence of events (%)

Coronary Angioplasty with the Titan-2 NO-coated Stent in



38 centres

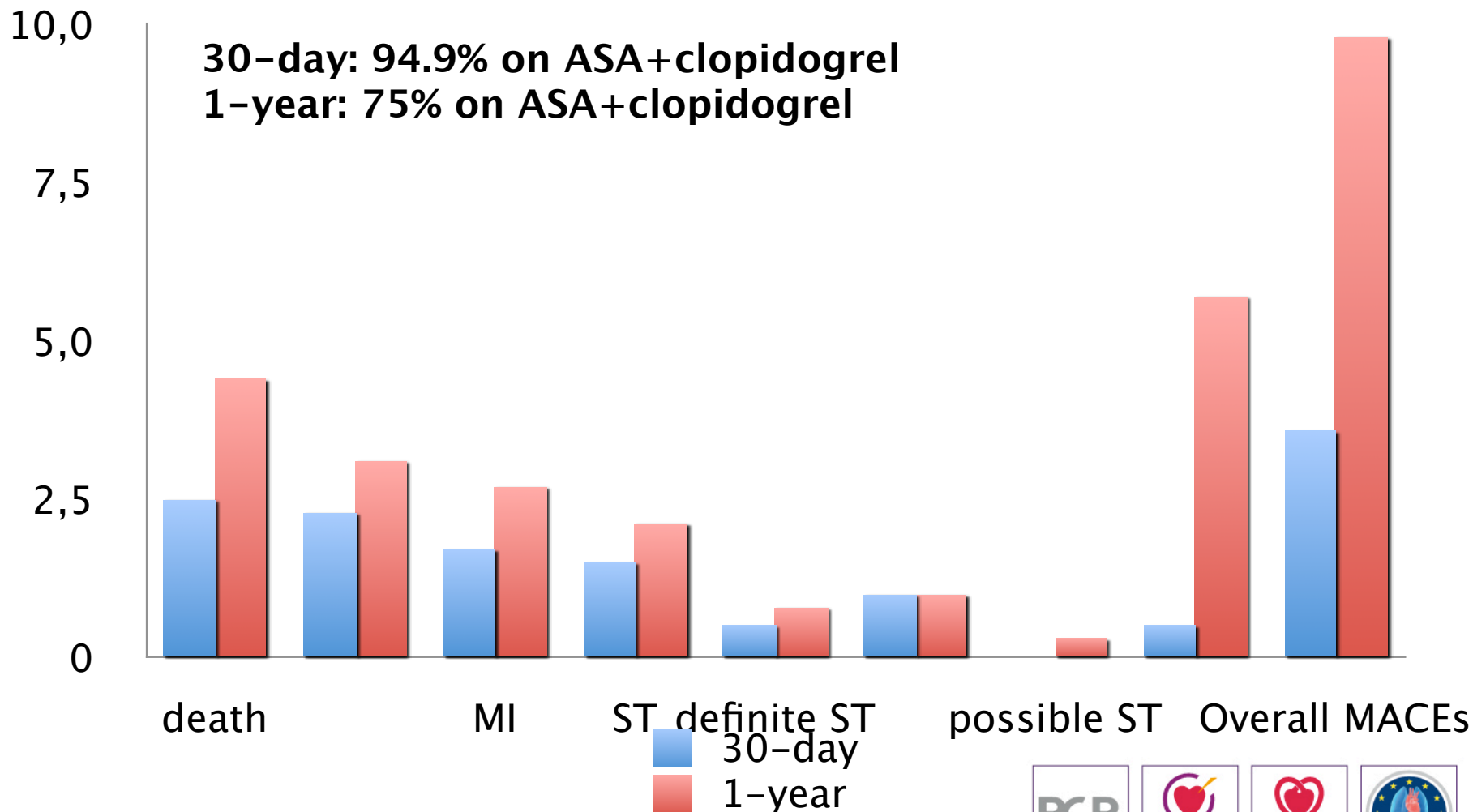
Inclusions from may 2008 to august 2010

Results: Baseline characteristics

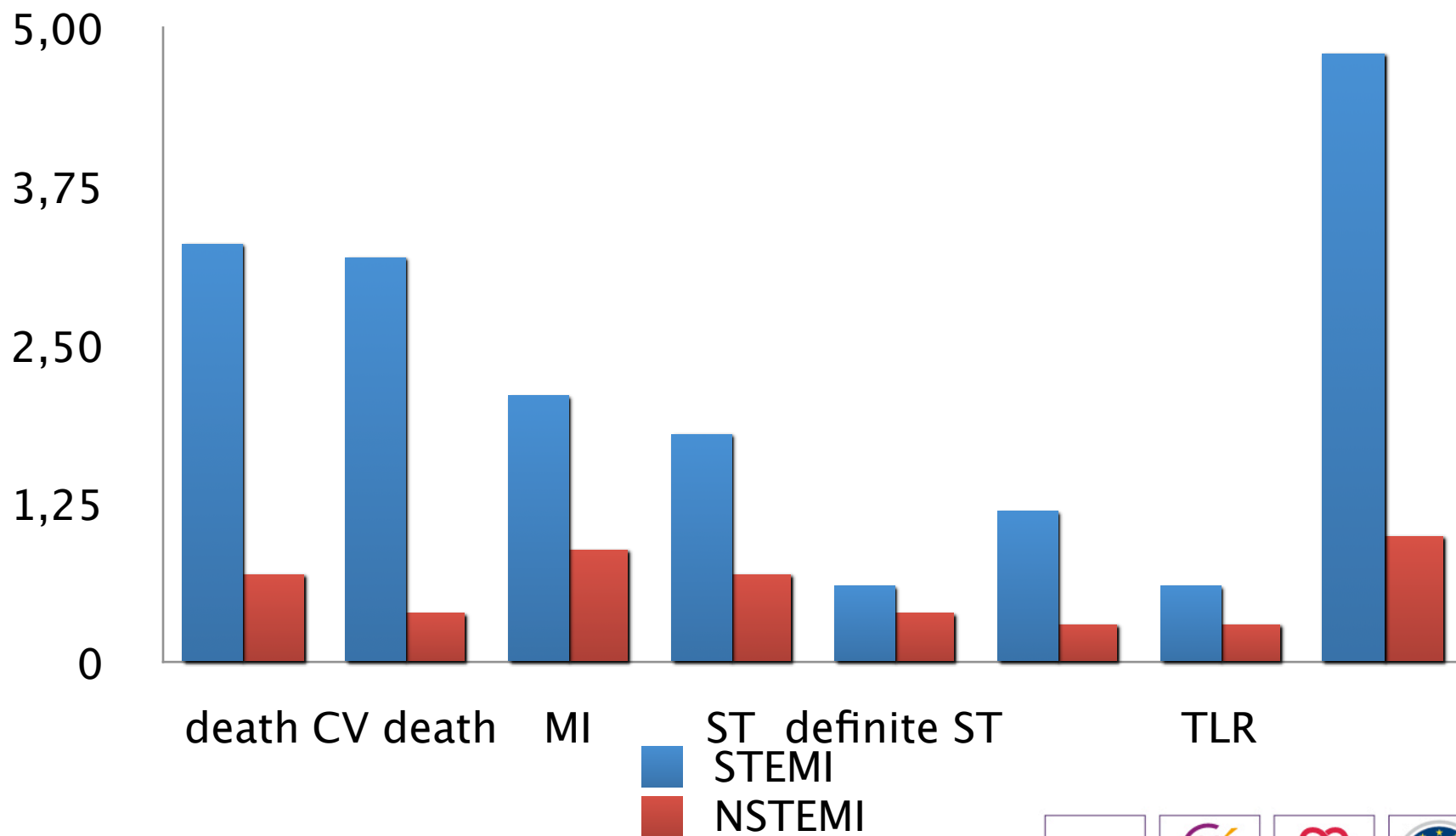
Results: Procedural characteristics (2437 lesions)

Results : Antithrombotic treatments

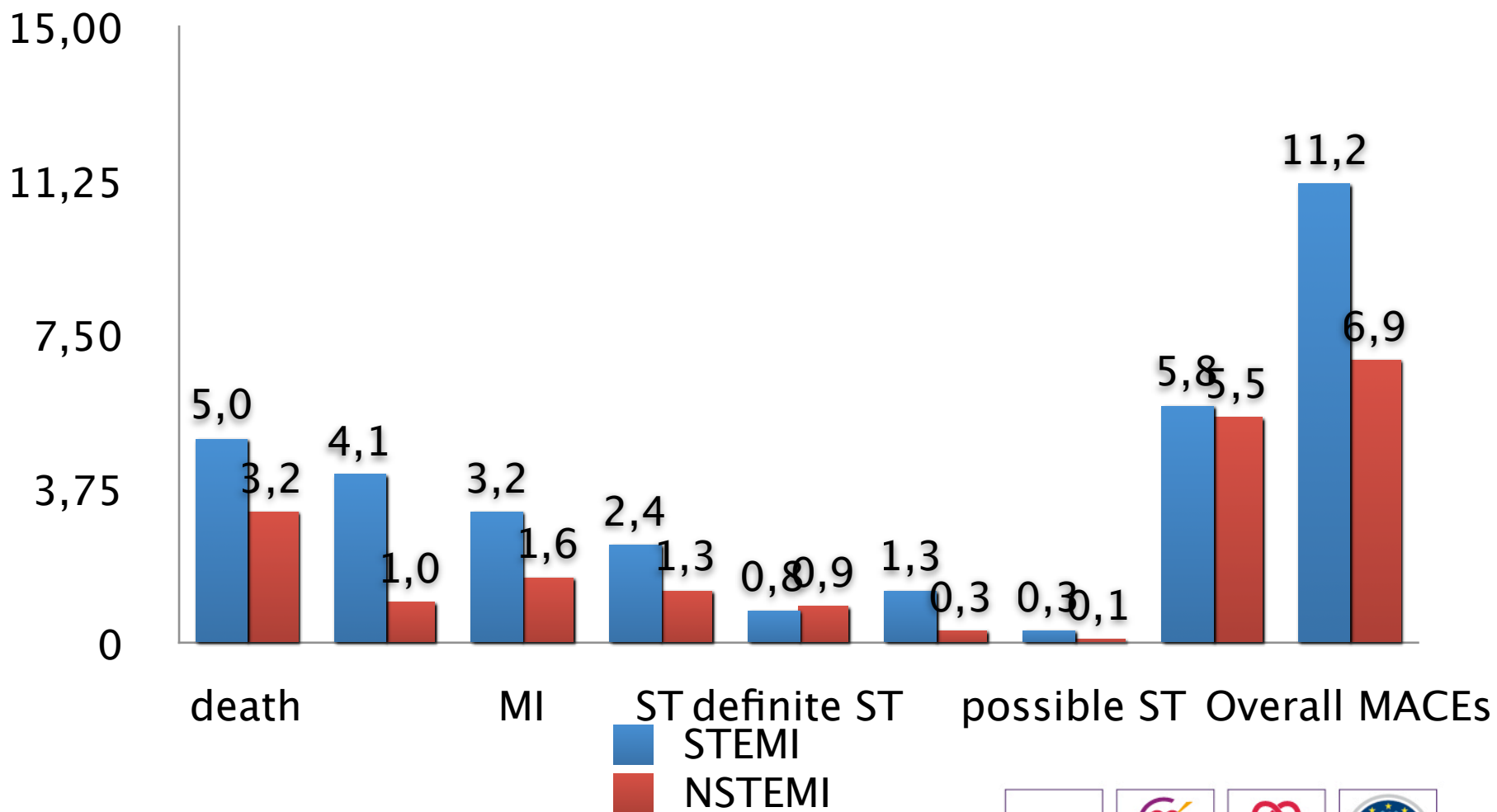
Overall population 30-day and 1-year MACEs



30-day results by STEMI/NSTEMI subgroups



1-year results by STEMI/NSTEMI subgroups



Conclusions

- ▶ L'optimisation des traitements antithrombotiques et la prévention des complications hémorragiques ont dorénavant une importance majeure dans la prise en charge de l'infarctus avec élévation du ST
- ▶ Les stents couverts à l'oxynitride de titane offrent une alternative intéressante aux DES dans cette indication