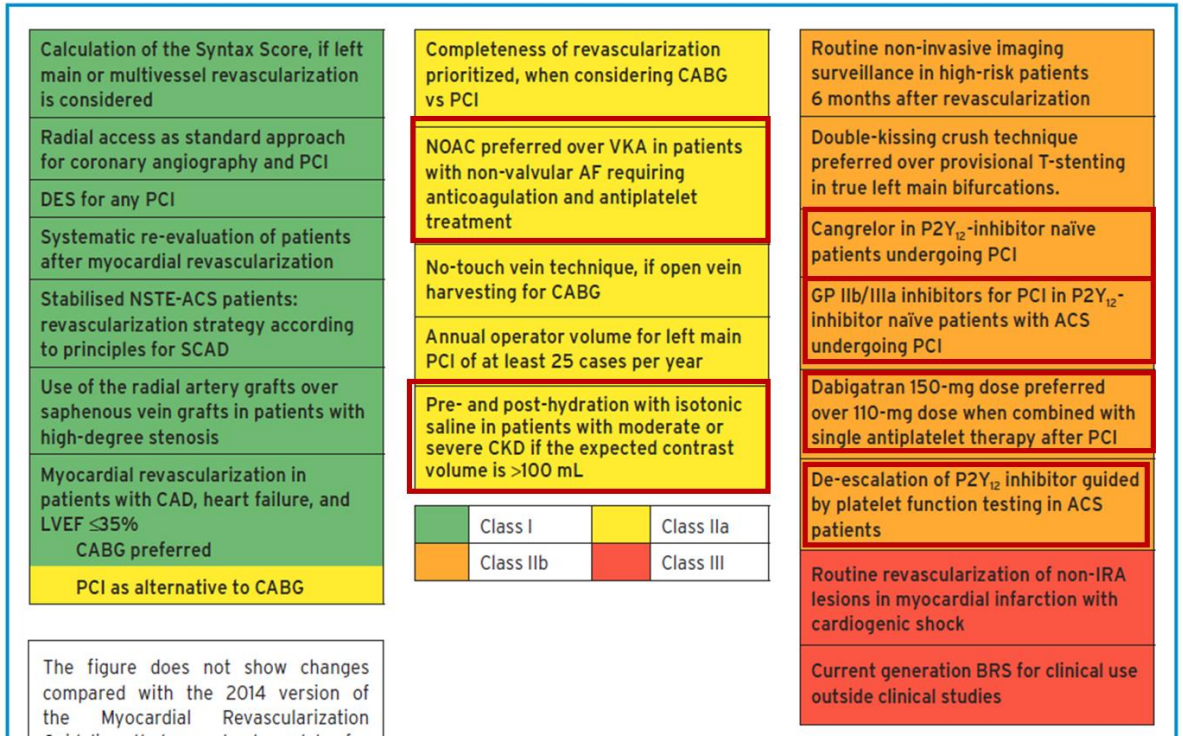
GRCI
GROUPE DE RÉFLEXION SUR LA CARDIOLOGIE INTERVENTIONNELLE
Groupe de Réflexion sur la Cardiologie Interventionnelle
PASSION, COMMUNICATION, EDUCATION
Mercredi 5 décembre 2018
Auditorium C
13:00 – 14:00
GRCI 2018 France

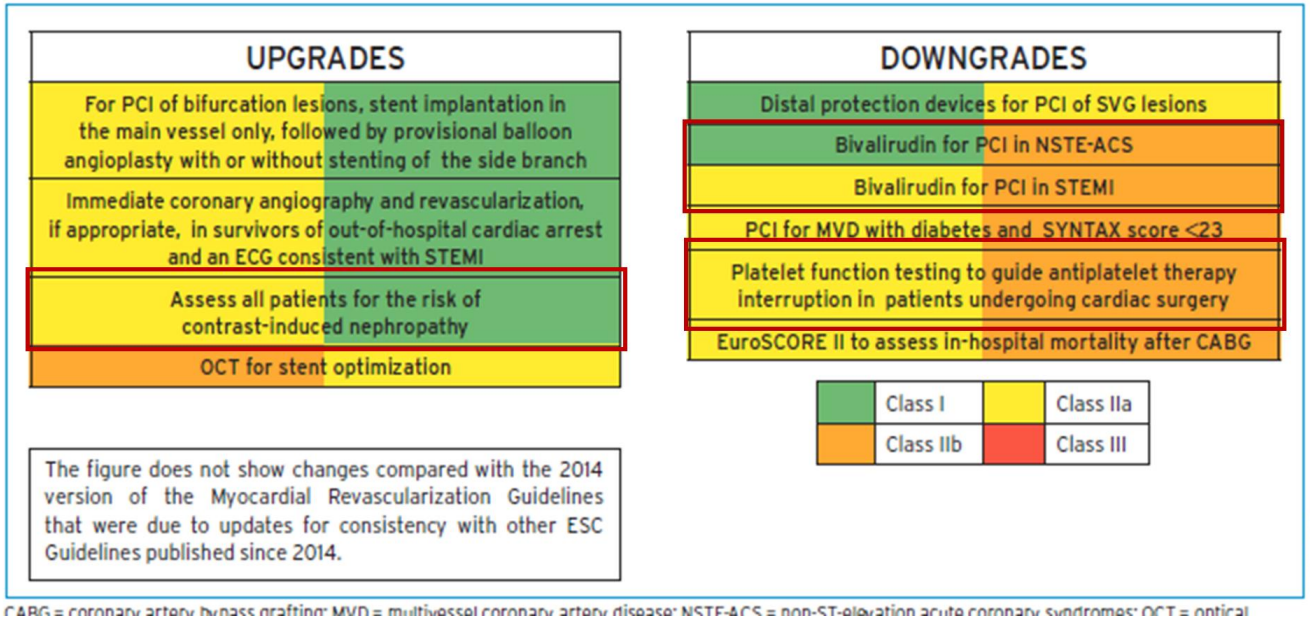
Recommandations ESC 2018 Revascularisation *Environnement Pharmacologique*

François Schiele
Université Bourgogne-Franche Comté
CHU de BESANCON

AstraZeneca

Recommandations ESC 2018 revascularisation
Environnement Pharmacologique





Recommandations concernant l'environnement pharmacologique = antiplaquettaires, anticoagulants, néphrotoxicité

Antiplaquettaires avant/pendant revascularisation

- PCI élective = Clopidogrel
- Pré-traiter P2Y12i en cas d'indication de PCI ou forte probabilité.
- Loading dose 600 mg si Clopido

- GPIIb/IIIa en bail out uniquement

- Prasugrel/Ticagrelor au cas par cas en PCI élective

- HNF pour élective PCI. Bivalirudine si notion de TIH

- Cangrelor si PCI urgente et pas de P2Y12i avant

Pre-treatment and antiplatelet therapy		
Treatment with 600 mg clopidogrel is recommended in elective PCI patients once the coronary anatomy is known and a decision is made to proceed with PCI.[667,679,680]	I	A
Pre-treatment with clopidogrel may be considered if the probability of PCI is high.	IIb	C
In patients on a maintenance dose of 75 mg clopidogrel, a new loading dose of 600 mg may be considered once the indication for PCI is confirmed.	IIb	C
Peri-interventional treatment		
Aspirin is indicated before elective stenting.[681–683]	I	A
An oral loading dose of aspirin (150–300 mg p.o. or 75–250 mg i.v.) is recommended if the patient is not pre-treated.	I	C
Clopidogrel (600 mg loading dose, 75 mg daily maintenance dose) is recommended for elective stenting.[684–688]	I	A
Glycoprotein IIb/IIIa antagonists should be considered only for bail-out.	IIa	C
Prasugrel or ticagrelor may be considered in specific high-risk situations of elective stenting (e.g. history of stent thrombosis or left main stenting).	IIb	C
Unfractionated heparin is indicated as the standard anticoagulant (70–100 U/kg).[670,671]	I	B
Bivalirudin (0.75 mg/kg bolus, followed by 1.75 mg/kg/h for up to 4 h after the procedure) is indicated in the case of heparin-induced thrombocytopenia.	I	C
Enoxaparin (i.v. 0.5 mg/kg) should be considered as an alternative agent.[672,689]	IIa	B
Cangrelor may be considered in $P2Y_{12}$-inhibitor naïve patients undergoing PCI.[673]	IIb	A

Antiplaquettaires après revascularisation, stable

- SAP = Aspirine Education des patients

- Durée type du DAPT en PCI élective = 6 mois

- Ballon actif: 6 mois DAPT

- Durée type du DAPT 3 mois…ou 1 mois si …

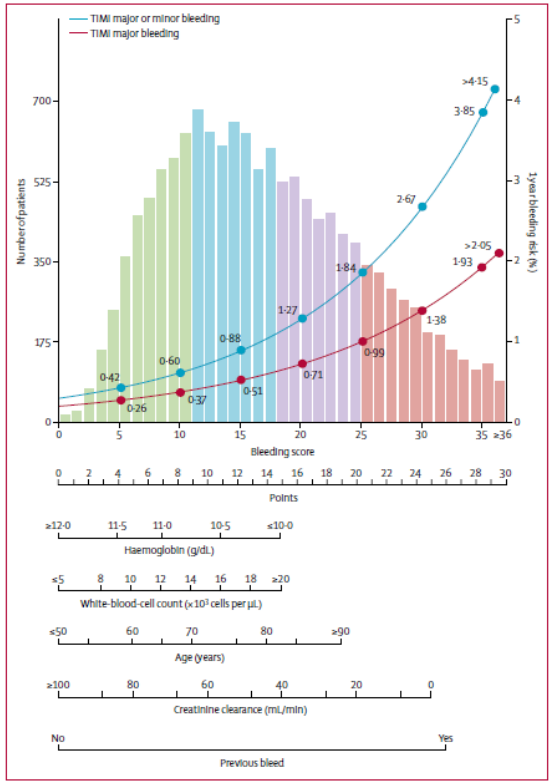
Post-interventional and maintenance treatment		
Life-long single antiplatelet therapy, usually aspirin, is recommended.[681,683]	I	A
Instruction of patients about the importance of complying with antiplatelet therapy is recommended.	I	C
In patients with SCAD treated with coronary stent implantation, DAPT consisting of clopidogrel in addition to aspirin is generally recommended for 6 months, irrespective of the stent type.[c 690–694]	I	A
In patients with SCAD treated with BRS, DAPT should be considered for at least 12 months and up to the presumed full absorption of the BRS, based on an individual assessment of bleeding and ischaemic risk.	IIa	C
In patients with SCAD treated with DCB, DAPT should be considered for 6 months.[369,371]	IIa	B
In patients with SCAD considered at high bleeding risk (e.g. PRECISE-DAPT ≥25), DAPT should be considered for 3 months.[d 695,696]	IIa	A
In patients with SCAD who have tolerated DAPT without a bleeding complication and who are at low bleeding risk but high thrombotic risk, continuation of DAPT with clopidogrel for >6 months and up to 30 months may be considered.[697–700]	IIb	A
In patients with SCAD in whom 3 month DAPT poses safety concerns, DAPT may be considered[illegible]onth.	IIb	C

- Durée type du DAPT 30 mois si…

DAPT plus court ?

Post-interventional and maintenance treatment		
In patients with SCAD considered at high bleeding risk (e.g. PRECISE-DAPT ≥25), DAPT should be considered for 3 months.[d 695,696]	IIa	A
In patients with SCAD in whom 3 month DAPT poses safety concerns, DAPT may be considered for 1 month.	IIb	C

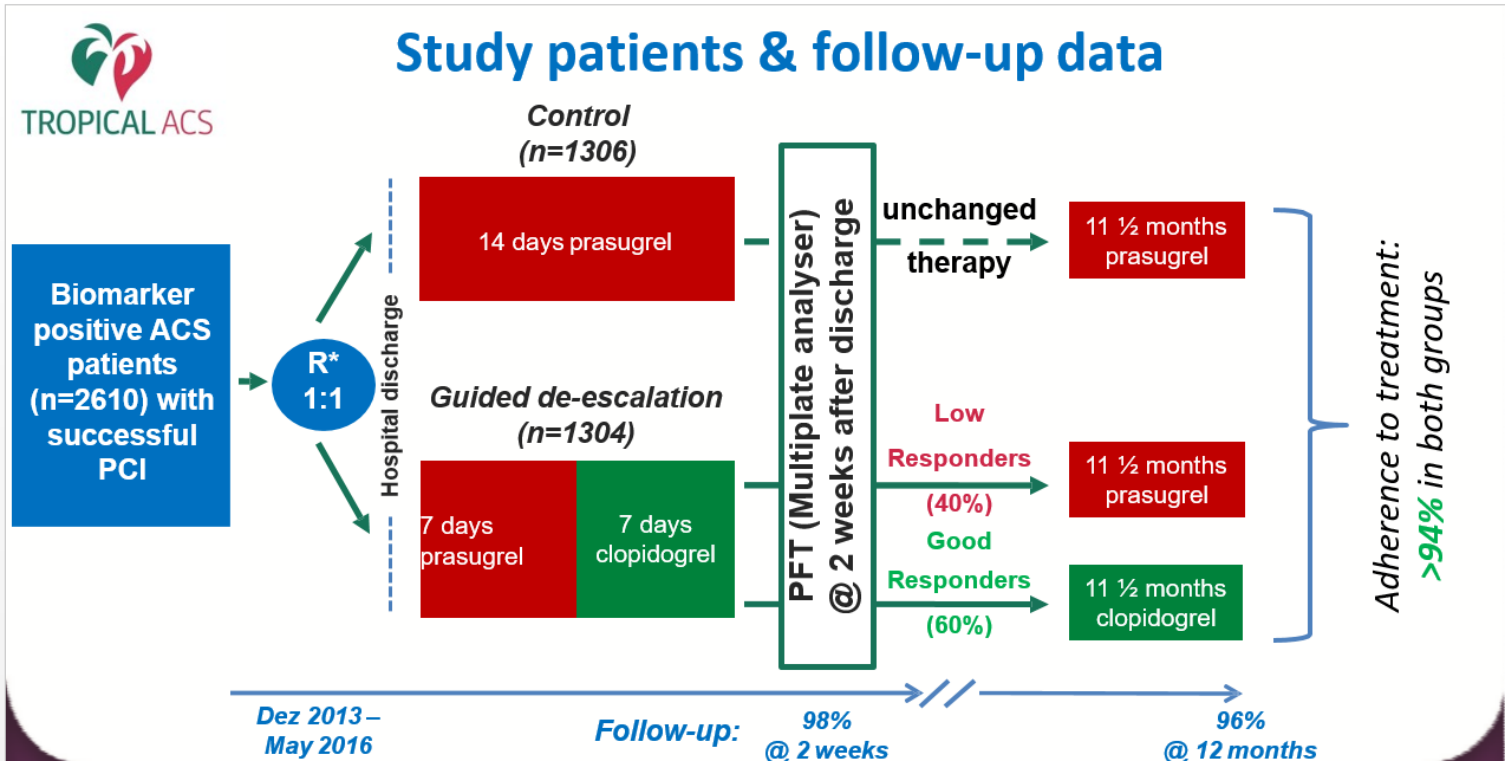
	PRECISE-DAPT score[18]
Time of use	At the time of coronary stenting
DAPT duration strategies assessed	Short DAPT (3–6 months) vs. Standard/long DAPT (12–24 months)
Score calculation[a]	HB ≥12 11·5 11 10·5 ≤10 WBC ≤5 8 10 12 14 16 18 ≥20 Age ≤50 60 70 80 ≥90 CrCl ≥100 80 60 40 20 0 Prior Bleeding No Yes Score Points 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30
Score range	0 to 100 points
Decision making cut-off suggested	Score ≥25 → Short DAPT Score <25 → Standard/long DAPT
Calculator	www.precisedaptscore.com



Costa ***Lancet*** 2017; 389: 1025–34

DAPT moins intense ?

Des-escalade de l'intensité du DAPT Prasugrel => Clopidogrel, TROPICAL



Based on PFT results in the guided de-escalation group, patients were

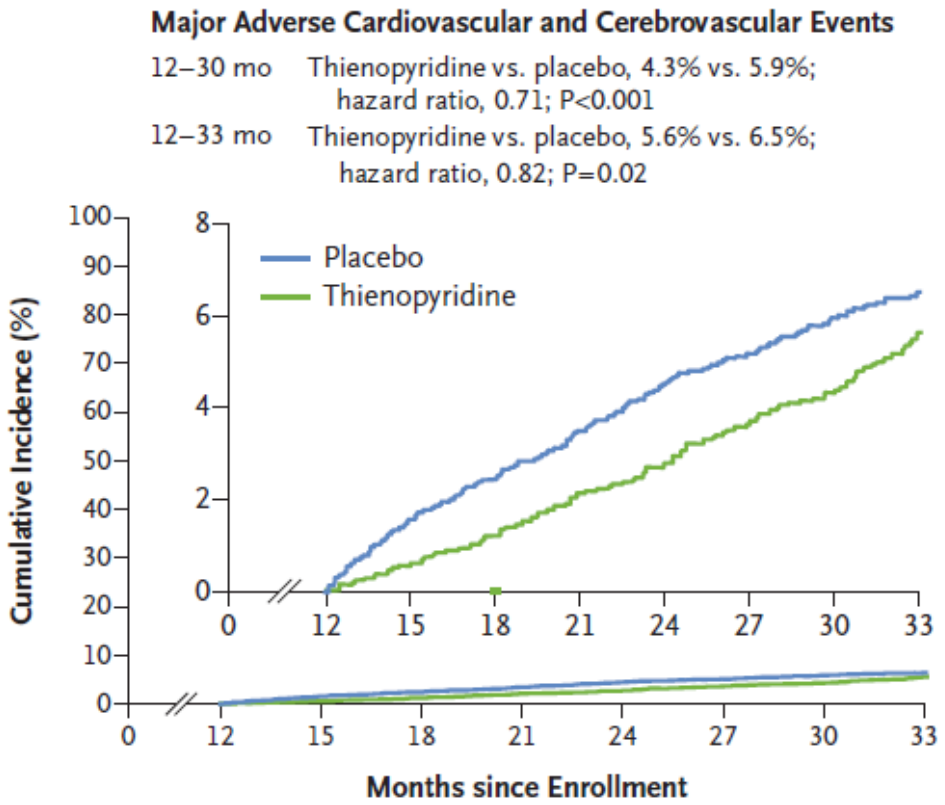
- either switched back to prasugrel, when a status of HPR with insufficient platelet inhibition was detected,
- whereas patients with sufficient platelet inhibition (no HPR) continued with clopidogrel.

Sibbing ***Lancet*** 2017; 390: 1747–57

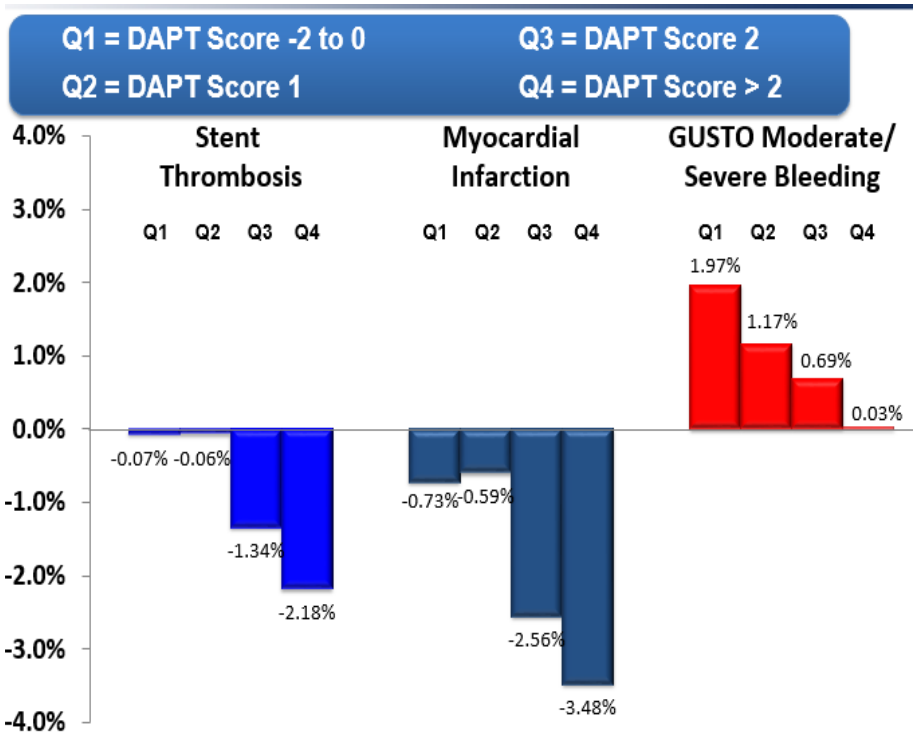
De-escalation of $P2Y_{12}$ inhibitor treatment (e.g. with a switch from prasugrel or ticagrelor to clopidogrel) guided by platelet function testing may be considered as an alternative DAPT strategy, especially for ACS patients deemed unsuitable for 12-month potent platelet inhibition.[717]	IIb	B

DAPT plus long: 30 mois au total ?

Post-interventional and maintenance treatment		
In patients with SCAD who have tolerated DAPT without a bleeding complication and who are at low bleeding risk but high thrombotic risk, continuation of DAPT with clopidogrel for >6 months and up to 30 months may be considered.[697–700]	IIb	A

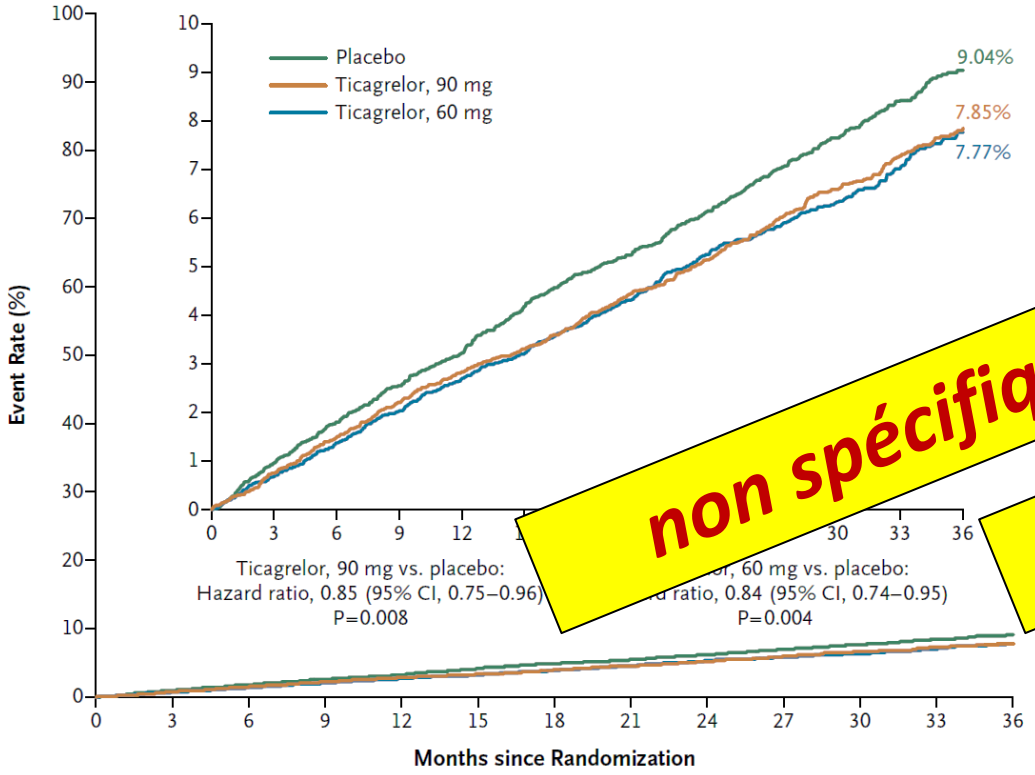


DAPT Mauri NEJM 2014;16 Nov



Yeh ***JAMA*** 2016

DAPT plus long: avec 60mg x 2 Ticagrelor ?



DAPT prolongé 3 ans a… grelor (90 ou 60mg x2) vs aspirine … an post MI

- ***P… post MI>1 an***, sélectionnée
- …que hémorragique et thrombotique)
- ***Réd… % les événement ischémiques.***
- ***…te le risque hémorragique,***
- ***…endance à la réduction de la mortalité CV à 3 ans (60mgx2/j)***

non spécifique de la revascularisation

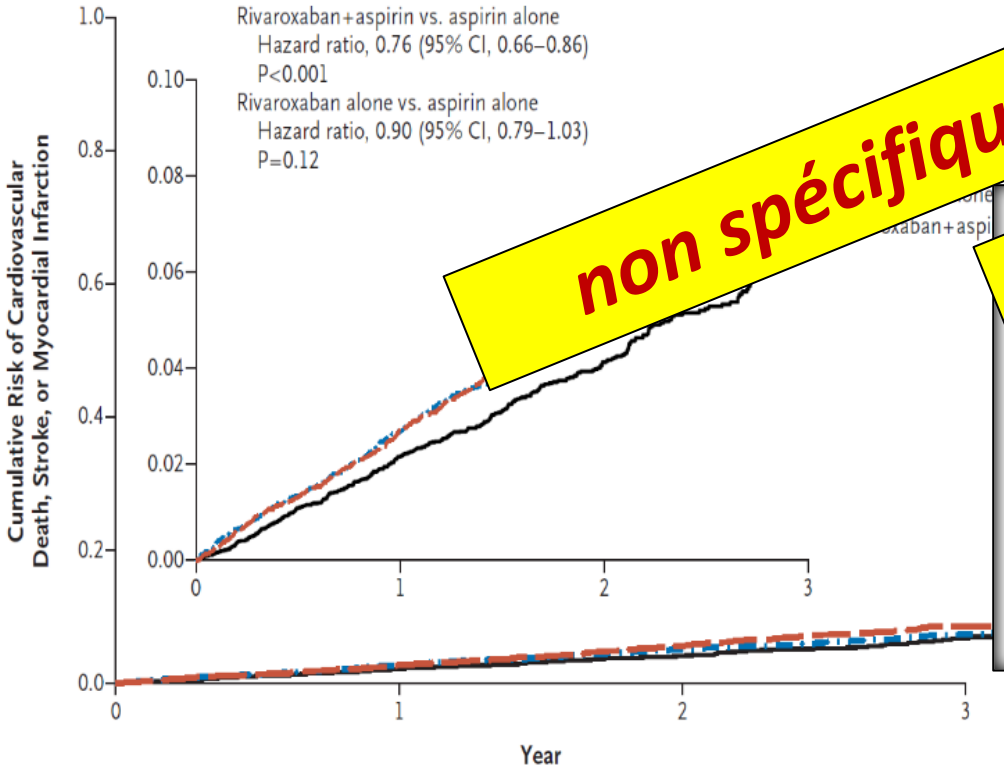
Pas en France

PEGASUS, Bonaca, ***NEJM*** 2015

In patients with MI and high ischaemic risk[c] who have tolerated DAPT without a bleeding complication, ticagrelor 60 mg b.i.d. for longer than 12 months on top of aspirin may be preferred over clopidogrel or prasugrel.[732–734]	IIb	B

Stratégie COMPASS: hors GL revascularisation

COMPASS (rivaroxaban): anti Xa, inhibe la génération de thrombine. Réduction de mortalité avec aspirine + RVX 2.5 chez les patients sélectionnés



Eikelboom COMPASS ***N Engl J Med*** 2017

non spécifique de la revascularisation

en France ??

…ity, the value of a vascular dose of rivaroxaban (2.5 mg …) in conjunction with aspirin was demonstrated in the large-scale COMPASS (Rivaroxaban for the Prevention of Major Cardiovascular Events in Coronary or Peripheral Artery Disease) trial.[678] However, its utilization in SCAD patients is a matter of secondary prevention and is not linked to myocardial revascularization procedures.

Patients sous Anticoagulants oraux

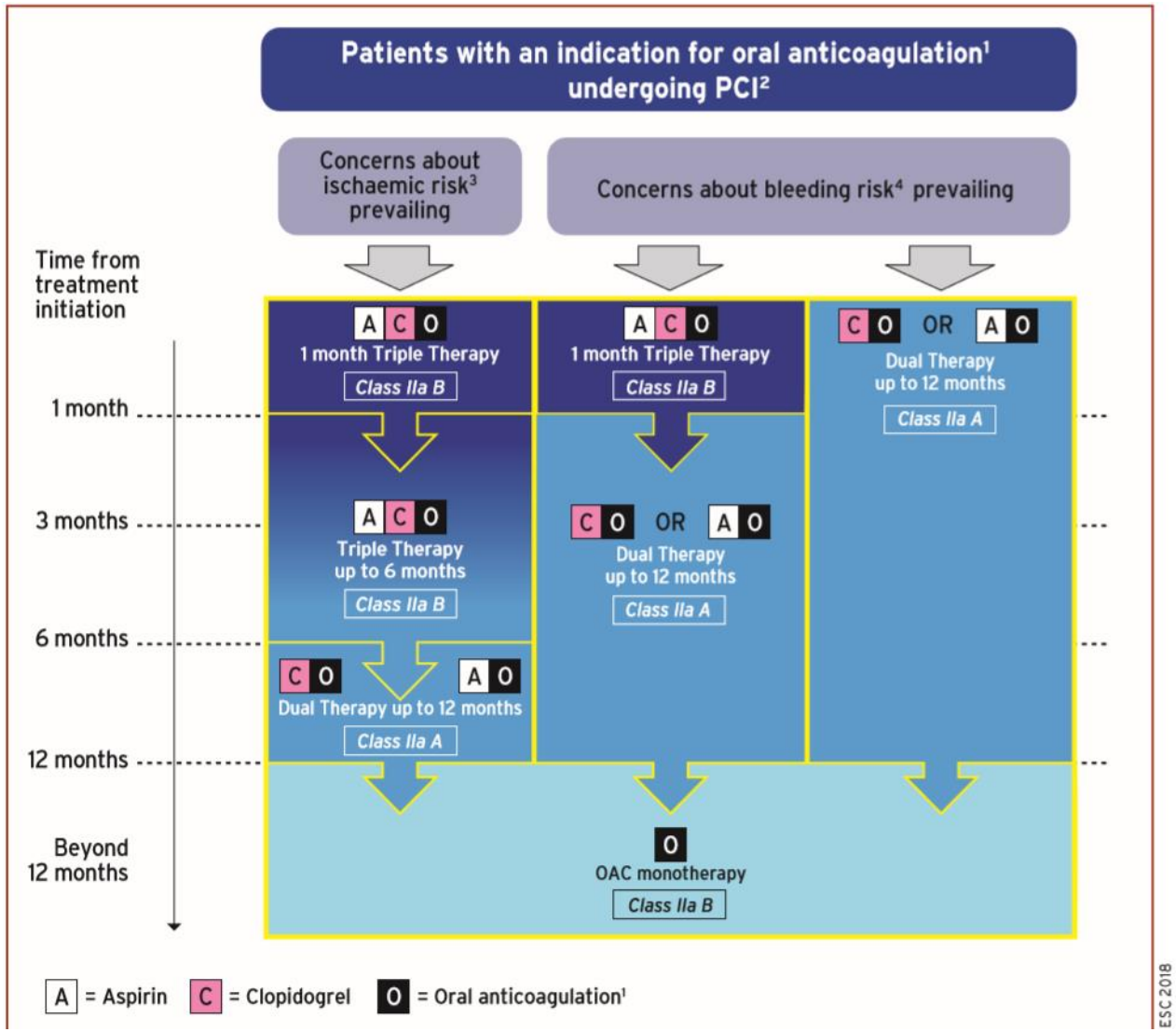


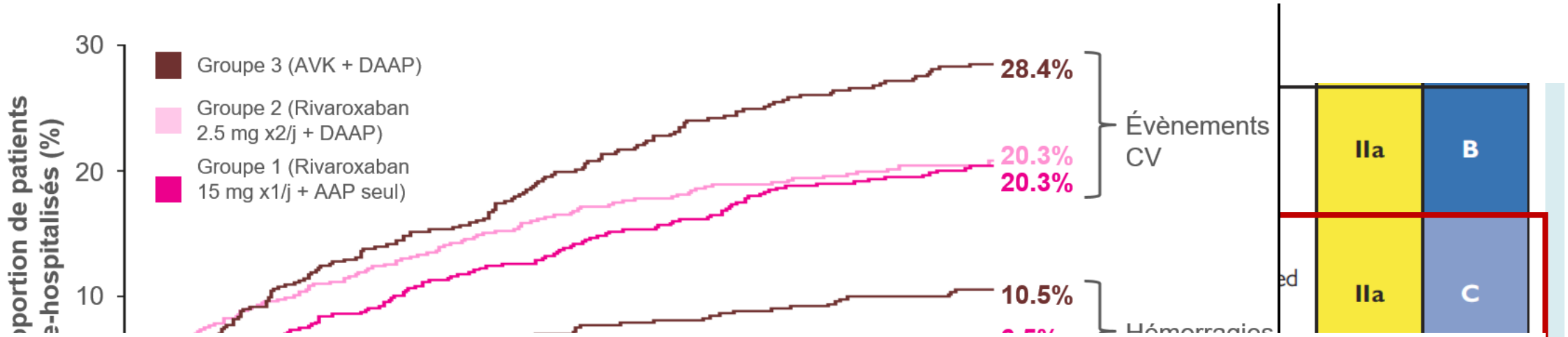
Table 9 High-risk features for ischaemic events

Prior stent thrombosis on adequate antiplatelet therapy
Stenting of the last remaining patent coronary artery
Diffuse multivessel disease, especially in diabetic patients
Chronic kidney disease (i.e. creatinine clearance <60 mL/min)
At least three stents implanted
At least three lesions treated
Bifurcation with two stents implanted
Total stented length >60 mm
Treatment of a chronic total occlusion
History of STEMI

Table 10 Unfavourable patient profile for a combination of oral anticoagulant and antiplatelet therapy

Short life expectancy
Ongoing malignancy
Poor expected adherence
Poor mental status
End-stage renal failure
Advanced age
Prior major bleeding/prior haemorrhagic stroke
Chronic alcohol abuse
Anaemia
Clinically significant bleeding on dual antithrombotic therapy

Particularités en cas d'anticoagulation orale



	Dabigatran 110 mg dual therapy (n=981) n (%)	Warfarin triple therapy (n=981) n (%)	D110 DT vs warfarin TT HR (95% CI)	D110 DT vs warfarin TT P value	Dabigatran 150 mg dual therapy (n=763) n (%)	Warfarin triple therapy (n=764) n (%)	D150 DT vs warfarin TT HR (95% CI)	D150 DT vs warfarin TT P value
All-cause death	55 (5.6)	48 (4.9)	1.12 (0.76–1.65)	0.56	30 (3.9)	35 (4.6)	0.83 (0.51–1.34)	0.44
Stroke	17 (1.7)	13 (1.3)	1.30 (0.63–2.67)	0.48	9 (1.2)	8 (1.0)	1.09 (0.42–2.83)	0.85
Unplanned revascularization	76 (7.7)	69 (7.0)	1.09 (0.79–1.51)	0.61	51 (6.7)	52 (6.8)	0.96 (0.65–1.41)	0.83
MI	44 (4.5)	29 (3.0)	1.51 (0.94–2.41)	0.09	26 (3.4)	22 (2.9)	1.16 (0.66–2.04)	0.61
Stent thrombosis	15 (1.5)	8 (0.8)	1.86 (0.79–4.40)	0.15	7 (0.9)	7 (0.9)	0.99 (0.35–2.81)	0.98

Risque Néphrotoxicité: *Contraste (ml) / eGFR (ml/min) > 3.7*

Choix du produit de contraste, limiter la quantité, hydratation avant et après avec sérum physiologique dès que > 50ml de contraste, à raison de 1ml/kg/j, 12 h avant et 24 h après.
Ni hémofiltration ni dialyse prophylactique.
Pas d'arrêt metformine, ni IEC, ni diurétiques avant PCI

Patients with moderate or severe CKD (National Kidney Foundation stages 3b and 4)			
Use of low-osmolar or iso-osmolar contrast media is recommended.[284–286]		I	A
It is recommended that the volume of contrast media be minimized.[287,288]	Total contrast volume/GFR <3.7.[c]	I	B
In statin-naïve patients, pre-treatment with high-dose statins should be considered.[293]	Rosuvastatin 40/20 mg or atorvastatin 80 mg.	IIa	A

Patients with moderate or severe CKD (National Kidney Foundation stages 3b and 4)			
Pre- and post-hydration with isotonic saline should be considered if the expected contrast volume is >100 mL.	1 mL/kg/h 12 h before and continued for 24 h after the procedure (0.5 mL/kg/h if LVEF ≤35% or NYHA >2).	IIa	C
As an alternative to the pre- and post- hydration regimen, tailored hydration regimens[d] may be considered.[295–297]		IIb	B