

# Monotherapie met antiplaatjestherapie

- Wanneer verminderen?
- Stop P2Y12 of ASA?

Prof.dr RJ van Geuns, interventional cardiologist  
Nationale antistollingsdag November 2020

# ESC guidelines



## 2019 ESC Guidelines for the diagnosis and management of chronic coronary syndromes

The Task Force for the diagnosis and management of chronic coronary syndromes of the European Society of Cardiology (ESC)

**Authors/Task Force Members:** Juhani Knuuti\* (Finland) (Chairperson), William Wijns\* (Ireland) (Chairperson), Antti Saraste (Finland), Davide Capodanno (Italy), Emanuele Barbato (Italy), Christian Funck-Brentano (France), Eva Prescott (Denmark), Robert F. Storey (United Kingdom), Christi Deaton (United Kingdom), Thomas Cuisset (France), Stefan Agewall (Norway), Kenneth Dickstein (Norway), Thor Edvardsen (Norway), Javier Escaned (Spain), Bernard J. Gersh (United States of America), Pavlos Parissis (Czech Republic), Martine Gilard (France), David Hasdai (Israel), Jiri Krizek (Czech Republic), Felix Mahfoud (Germany), Josep Masip (Spain), Marco Valgimigli (Italy), Marco Valgimigli (Switzerland), Steffen Hahn (Germany), and Jeroen J. Bax (Netherlands)

70 pages

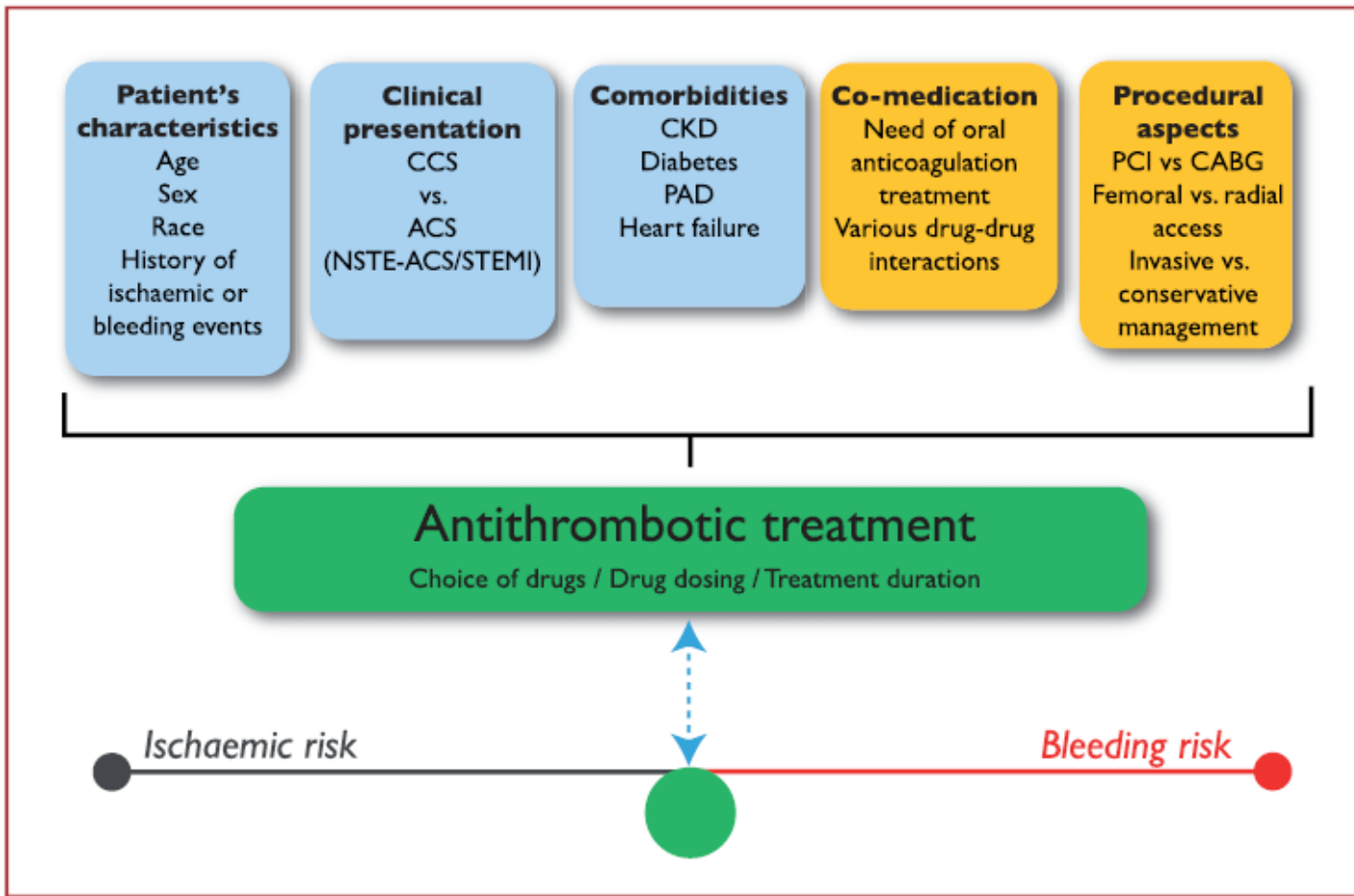
## 2020 ESC Guidelines for the management of acute coronary syndromes in patients presenting without persistent ST-segment elevation

The Task Force for the management of acute coronary syndromes in patients presenting without persistent ST-segment elevation of the European Society of Cardiology (ESC)

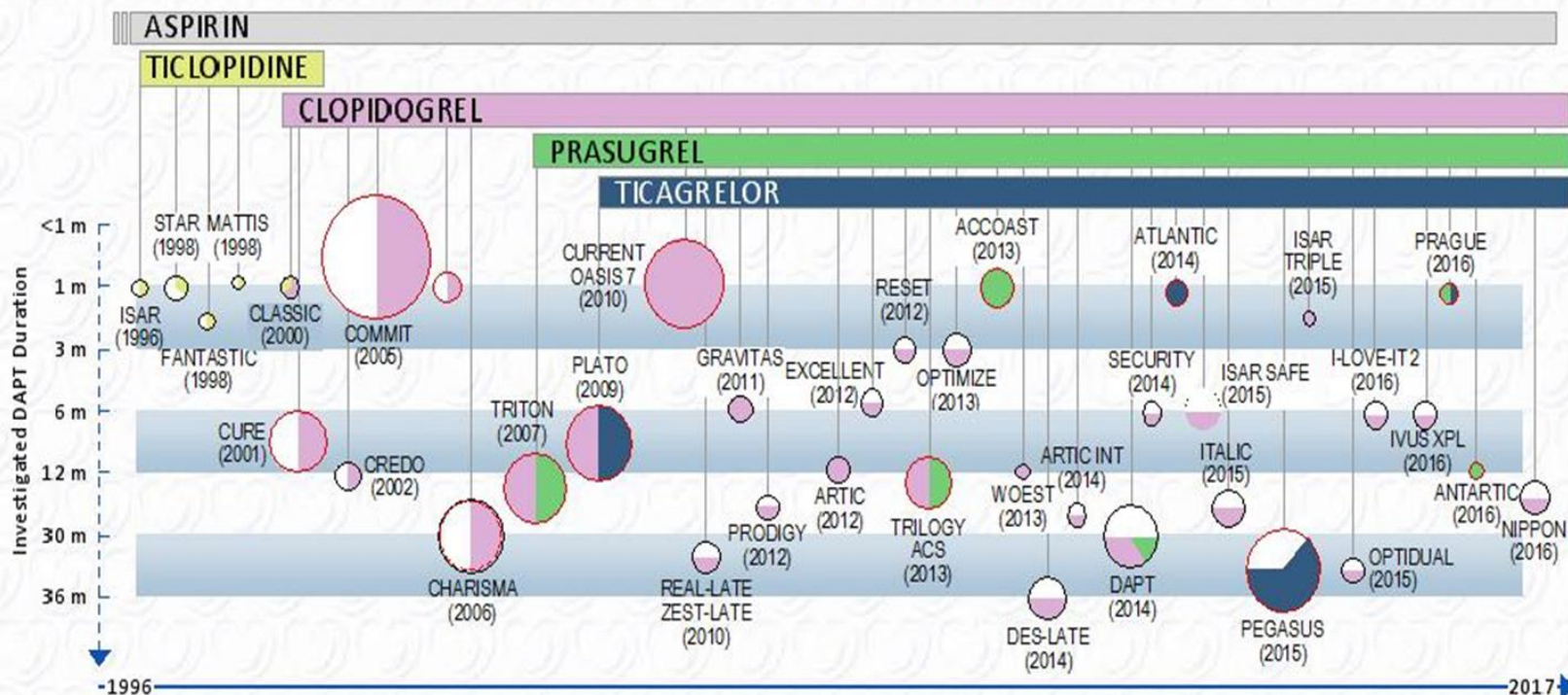
**Authors/Task Force Members:** Jean-Philippe Collet\* (France), Holger Thiele\* (Germany), Emanuele Barbato (Italy), Olivier Barthélémy (France), Johann Bauersachs (Germany), Deepak L. Bhatt (United States of America), Paul Dendale (Belgium), Maria Dorobantu (Romania), Thor Edvardsen (Norway), Thierry Fassin (Belgium), Chris P. Gale (United Kingdom), Martine Gilard (France), Ingrid Jobs (Germany), Peter Jüni (Canada), Ekaterini Deliogiorgaki (Greece), S. Lewis (Israel), Julinda Mehilli (Germany), Zoltan Nemes (Hungary), Beata Merkely (Hungary), Christian Mueller (Switzerland), Michael J. Reffel (Switzerland), Frans H. Rutten (Netherlands), Dierk Roffe (Netherlands), and George C.M. Siontis (Switzerland)

79 pages

# DAPT duration



# History of dual antiplatelet therapy (DAPT) in patients with coronary artery disease



Size of the circles denotes sample size

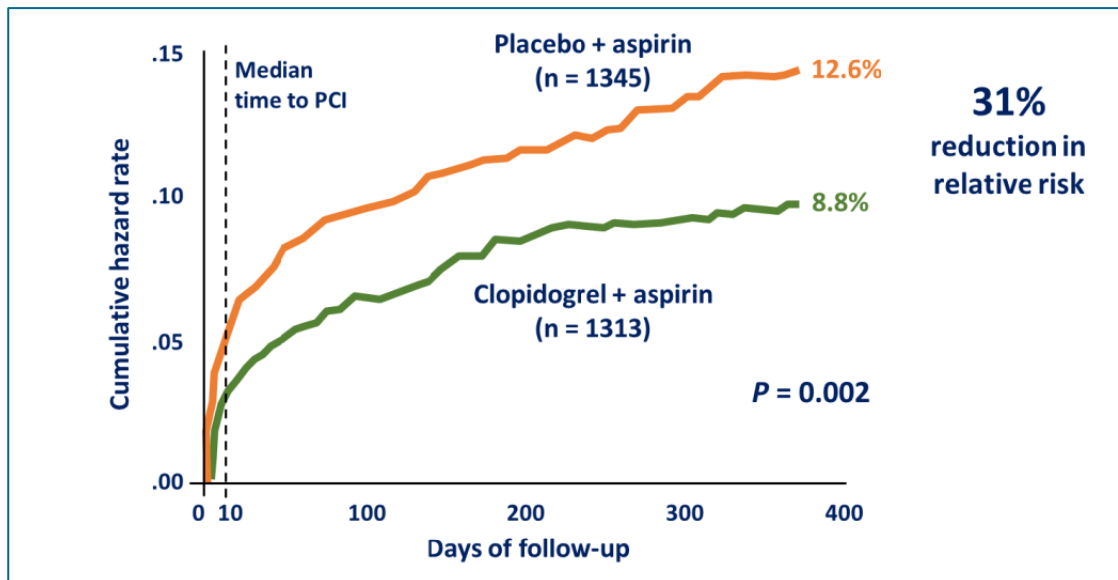
2 5 10 20 K pts

Perimeter of the circles denotes type of investigated population

- Mixed clinical presentation at the time of stent implantation
- Acute coronary syndrome at presentation
- DAPT initiated in patients with prior myocardia infarction
- DAPT for primary prevention

6

# PCI-CURE study: CV death or MI

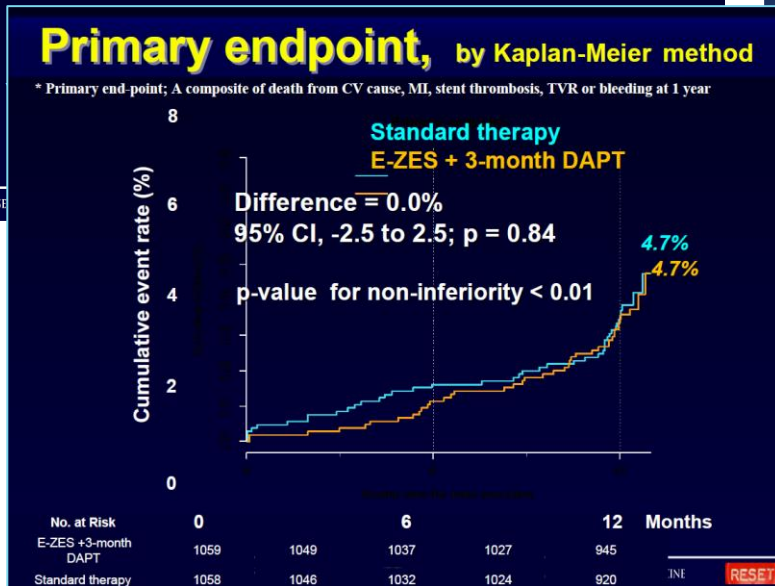


**DAPT duration: 12 months**

# Verkorte duur DAPT (stop P2Y12)

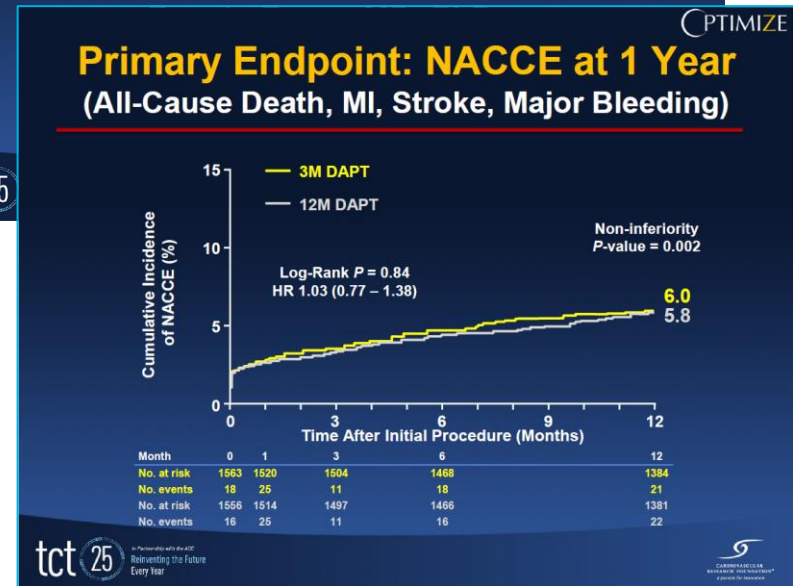
**A New Strategy for Discontinuation of Dual Antiplatelet Therapy: Real Safety and Efficacy of 3-Month Dual Antiplatelet Therapy Following Zotarolimus-Eluting Stent Implantation: RESET Trial**

Myeong-Ki Hong, MD, Ph D,  
on behalf of RESET investigators



Main Arena III - Plenary Sessions XVI  
Late Breaking Clinical Trials III - Featured Trial of the Day:

**OPTIMIZE:**  
**A Prospective, Randomized Trial of 3 Months Versus 12 Months of Dual Antiplatelet Therapy with the Endeavor Zotarolimus-Eluting Stent**



Byeong-Keuk Kim, Myeong-Ki Hong. RESET: J Am Coll Cardiol. 2012 Oct 9;60(15):1340-8

Feres et al. OPTIMIZE: JAMA. 2013;310(23):2510-2522

# Verkorte duur DAPT (P2Y12 duration)

RCT's gericht op verkorte DAPT duur (6 maanden of korter) na PCI (CAD/ACS):

EXCELLENT (2011): 6 versus 12 maanden

RESET (2012): 3 versus 12 maanden

OPTIMIZE (2014): 3 versus 12 maanden

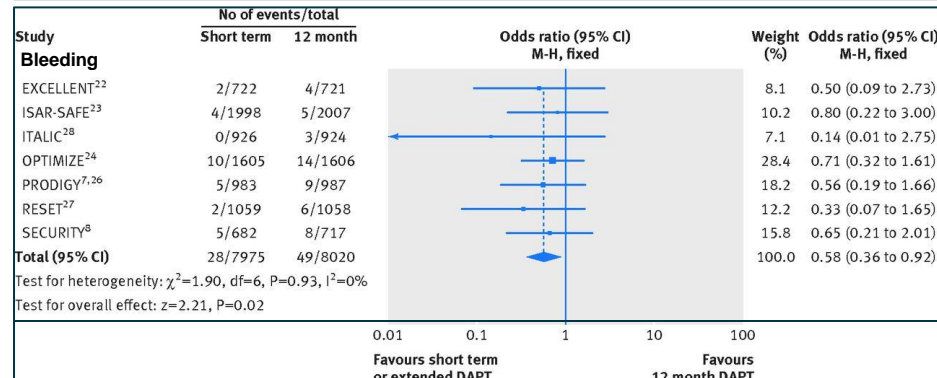
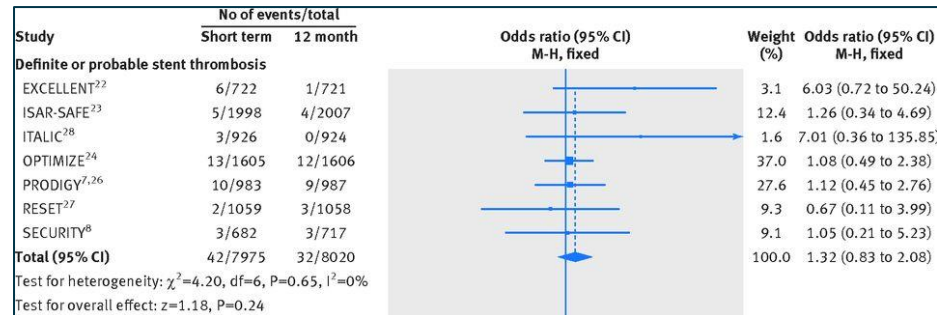
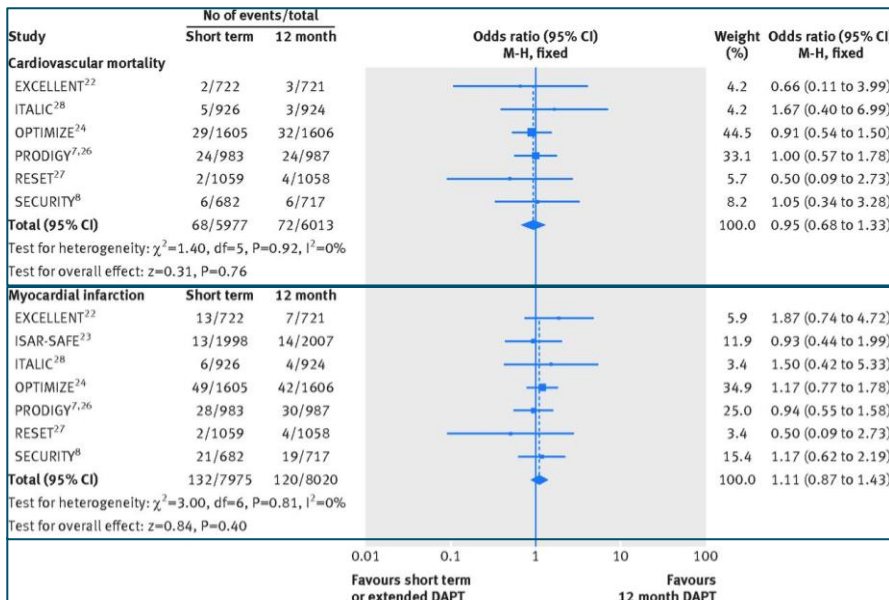
ISAR-SAFE (2014): 6 versus 12 maanden

SECURITY (2014): 6 versus 12 maanden

12 months data from:

ITALIC (2014): 6 versus 24 maanden

PRODIGY (2012): 6 versus 24 maanden



# Verlengde duur DAPT (P2Y12 duration)

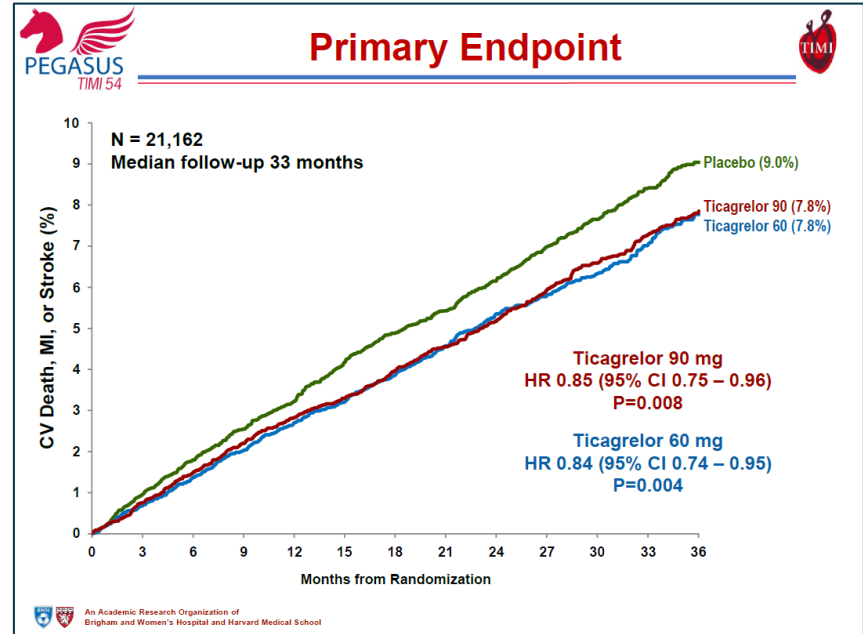
- PEGASUS-TIMI 54 trial: Ticagrelor 2dd 90mg/ Ticagrelor 60mg/ placebo (allen naast ASA) bij patiënten met **voorgeschiedenis van Myocardinfarct en ten minste 1 extra risicofactor voor ischemie**: (>65 jaar, DM, 2<sup>de</sup> MI, Multivessel, CrCl <60 mL/min)



Prevention of Cardiovascular Events  
in Patients With Prior Heart Attack Using  
Ticagrelor Compared to Placebo on a  
Background of Aspirin

Marc S. Sabatine, MD, MPH  
on behalf of the PEGASUS-TIMI 54  
Executive & Steering Committees and Investigators

NCT00526474

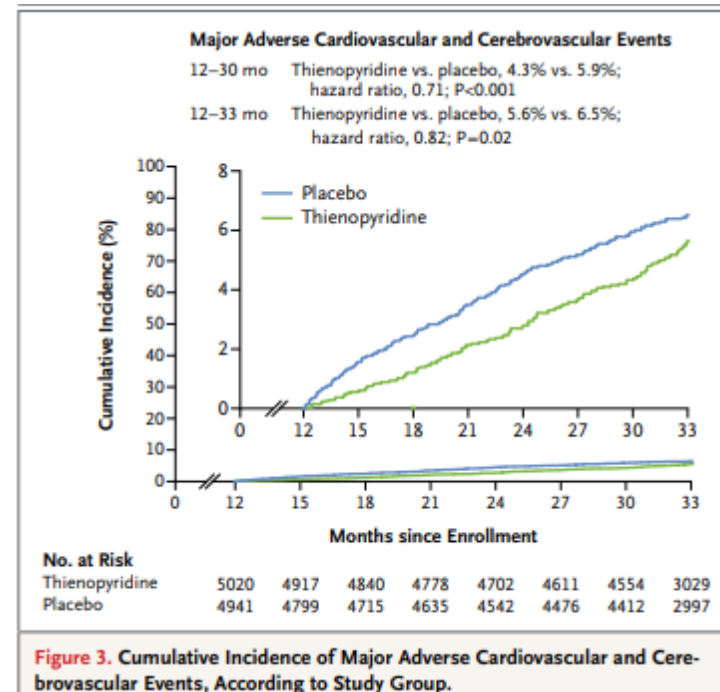
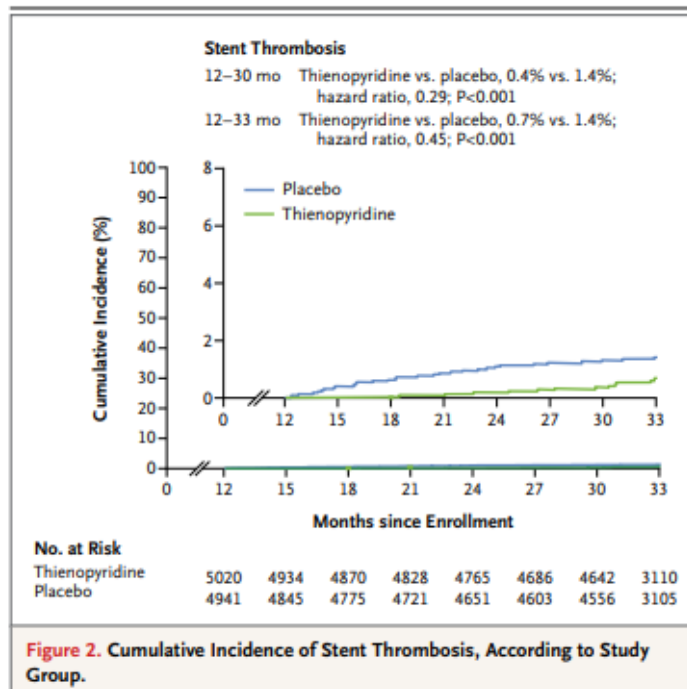




# Verlengde duur DAPT (P2Y12 duration)

- Vergelijking reguliere- met verlengde DAPT duur na DES
- Patienten die na 12 maanden DAPT “event-free” waren werden gerandomiseerd naar 18 maanden P2Y12 remmer of placebo (naast ASA).

## DAPT studie



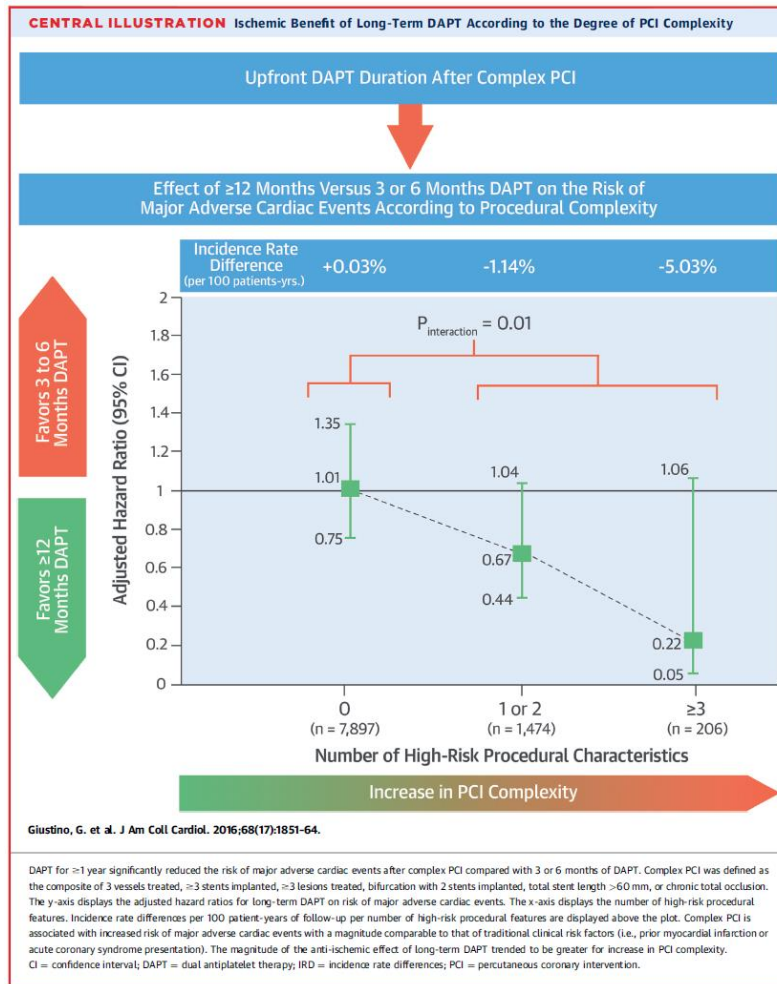
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# Personaliseren duur DAPT

- Conclusie RCT's:
  - Duur DAPT niet voor gehele PCI populatie eenduidig te maken
  - “Op maat gemaakte” DAPT duur gewenst



# Complex PCI



- Complex PCI**
- > 2 vessels treated**
- Or**
- > 2 stents implanted**
- Or**
- > 2 lesions treated**
- Or**
- Bifurcation with 2 stents**
- Or**
- Total stent length > 60 mm**
- Or**
- CTO as target lesion**

# DAPT score

Substudie: Ontwikkeling van scoremodel ten aanzien van bleedingsrisico en ischemisch risico bij verlengde DAPT tot 30 maanden (indien geen event in eerste jaar van DAPT).

**Table 2. Myocardial Infarction or Stent Thrombosis Prediction Model and Moderate or Severe Bleeding Prediction Model**

Predictors of Events <sup>a</sup>	Predictors of Myocardial Infarction or Stent Thrombosis <sup>b</sup>		Predictors of Moderate or Severe Bleeding <sup>c</sup>	
	HR (95% CI)	P Value	HR (95% CI)	P Value
Continued thienopyridine vs placebo	0.52 (0.42-0.65)	<.001	1.66 (1.26-2.19)	<.001
Myocardial infarction at presentation	1.65 (1.31-2.07)	<.001		
Prior PCI or prior myocardial infarction	1.79 (1.43-2.23)	<.001		
History of CHF or LVEF <30%	1.88 (1.35-2.62)	<.001		
Vein graft stent	1.75 (1.13-2.73)	.01		
Stent diameter <3 mm	1.61 (1.30-1.99)	<.001		
Paclitaxel-eluting stent	1.57 (1.26-1.97)	<.001		
Cigarette smoking	1.40 (1.11-1.76)	.01		
Diabetes mellitus	1.38 (1.10-1.72)	.01		
Age, per 10 y			1.54 (1.34-1.78)	<.001
Peripheral arterial disease	1.49 (1.05-2.13)	.03	2.16 (1.46-3.20)	<.001
Hypertension	1.37 (1.03-1.82)	.03	1.45 (1.00-2.11)	.05
Renal insufficiency/failure	1.55 (1.03-2.32)	.04	1.66 (1.04-2.66)	.03

Abbreviations: CHF, congestive heart failure; HR, hazard ratio; LVEF, left ventricular ejection fraction; PCI, percutaneous coronary intervention.

<sup>a</sup> Predictors of events from 12 through 30 months after coronary stenting.

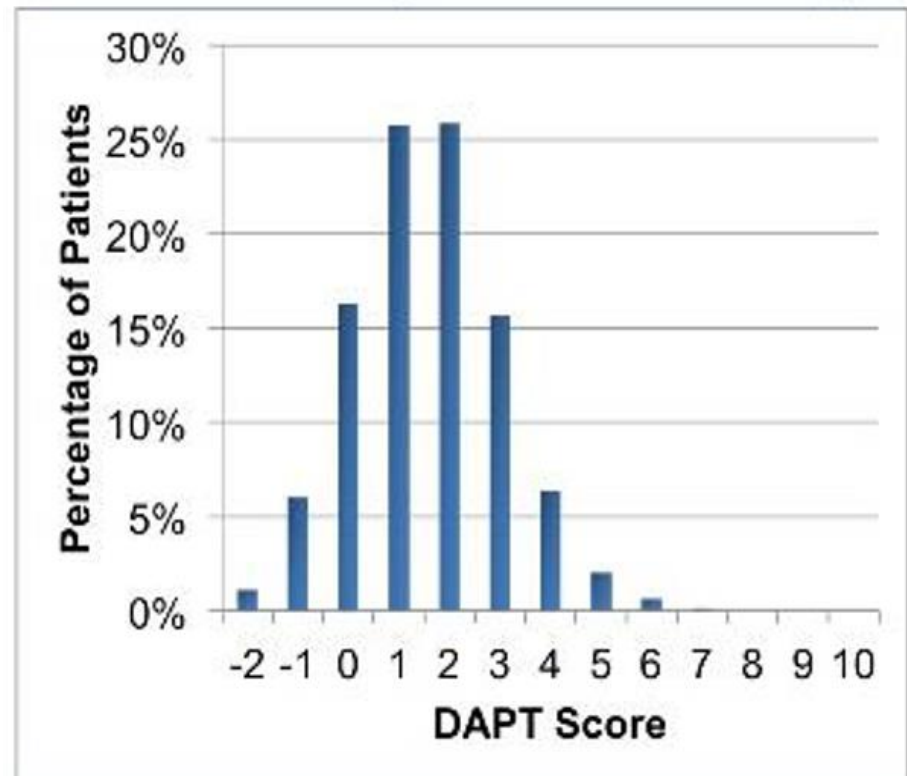
<sup>b</sup> The ischemia model had a c-statistic of 0.70 within the DAPT Study randomized population, and goodness-of-fit  $P = .81$ .

<sup>c</sup> The bleeding model had a c statistic of 0.68 within the DAPT Study randomized population, and a goodness-of-fit  $P = .34$ . Moderate or severe bleeding was defined by Global Utilization of Streptokinase and Tissue Plasminogen Activator for Occluded Arteries criteria. Blank table cells indicate no significant association.

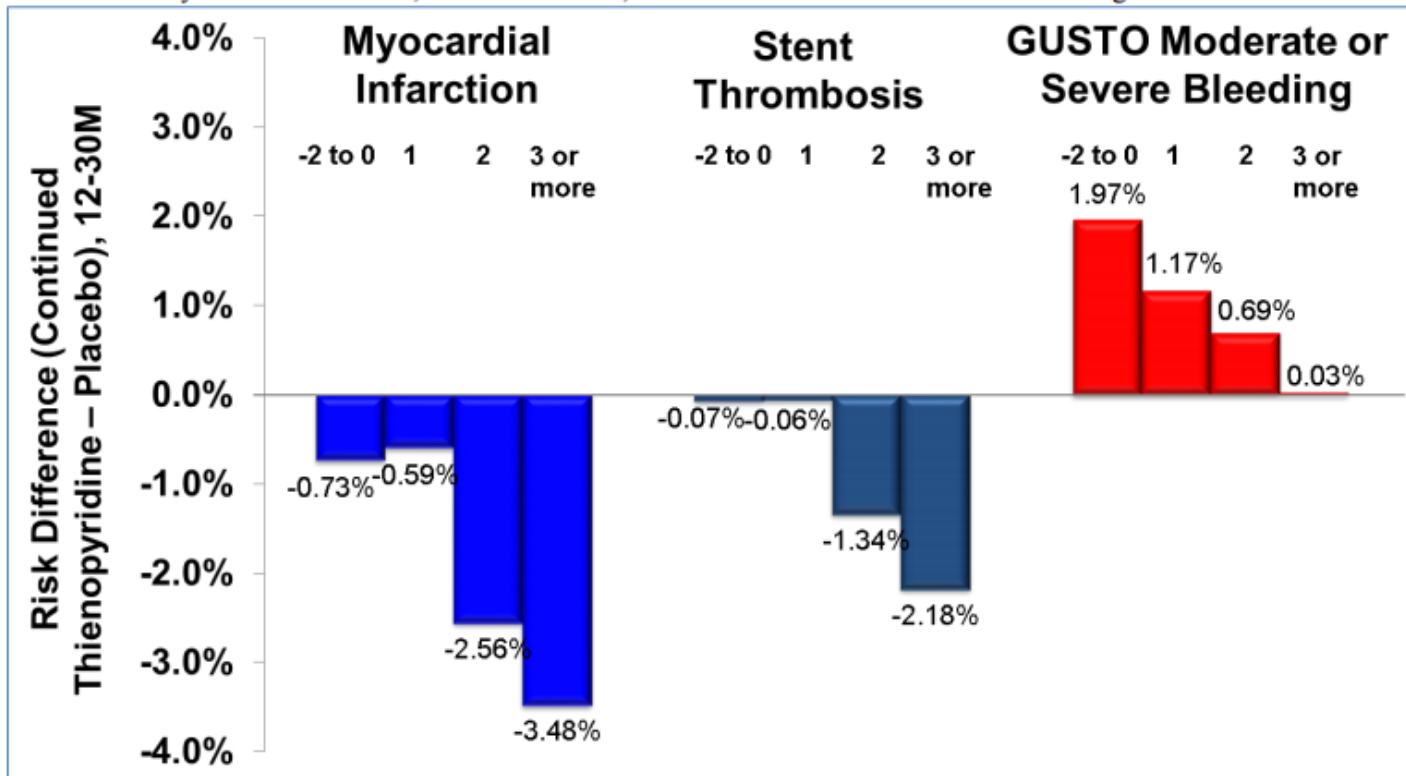
# Punten DAPT studie

Variable	Points
<b>Patient Characteristic</b>	
Age	
≥ 75	-2
65 - <75	-1
< 65	0
Diabetes Mellitus	1
Current Cigarette Smoker	1
Prior PCI or Prior MI	1
CHF or LVEF < 30%	2
<b>Index Procedure Characteristic</b>	
MI at Presentation	1
Vein Graft PCI	2
Stent Diameter < 3mm	1

Distribution of DAPT Scores among all randomized subjects in the DAPT Study



**eFigure 7. Continued Thienopyridine vs. Placebo Treatment Effect by Prediction Score Group.** Risk difference of continued thienopyridine minus placebo at 12-30 months in all randomized patients (N=11,648), stratified by prediction score quartile, for the outcomes of myocardial infarction, stent thrombosis, and GUSTO moderate or severe bleeding.



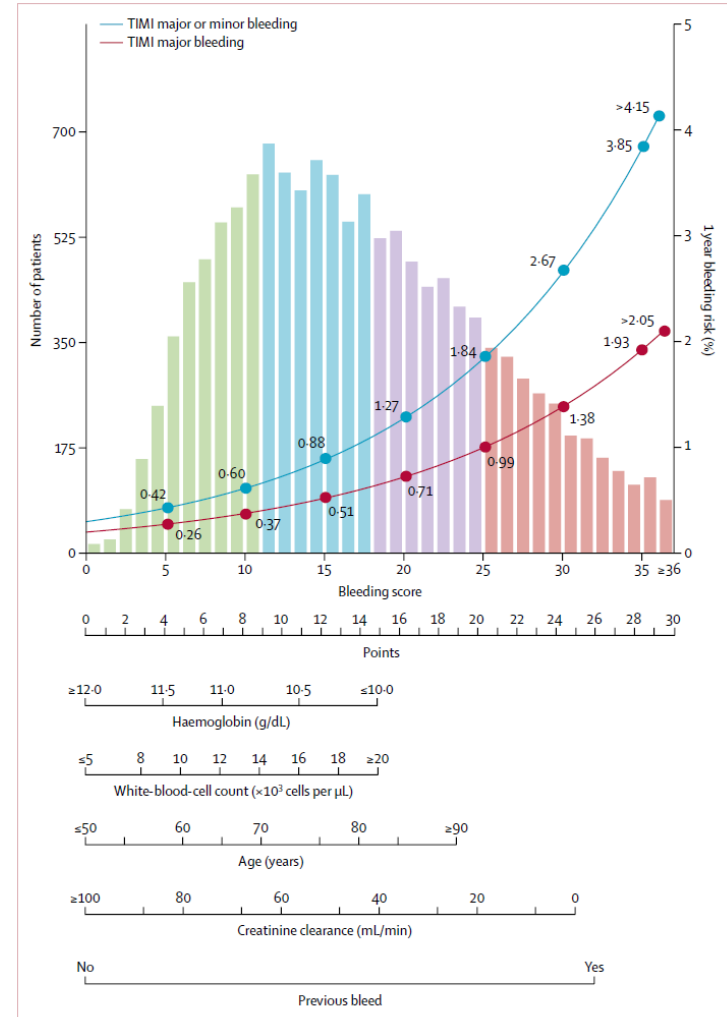
# PRECISE DAPT

## Risicofactoren

	Hazard ratio (95% CI)	p value
Age (for each increase of 10 years)	1.34 (1.11-1.48)	0.005
Previous bleeding	4.14 (1.22-14.02)	0.023
White-blood-cell count (for each increase of $10^3$ cells per $\mu\text{L}$ )	1.06 (0.99-1.13)	0.078
Haemoglobin at baseline (for each increase of 1 g/dL)	0.67 (0.53-0.84)	0.001
Creatinine clearance (for each increase of 10 mL/min)	0.90 (0.82-0.99)	0.004

Age was truncated above 90 years and below 50 years. Haemoglobin at baseline was truncated above 12 g/dL and below 10 g/dL. Creatinine clearance was truncated above 100 mL/min. White-blood-cell count was truncated above  $20 \times 10^3$  cells per  $\mu\text{L}$  and below  $5 \times 10^3$  cells per  $\mu\text{L}$ .

**Table 1: Multivariable analysis for out-of-hospital Thrombosis in Myocardial Infarction major or minor bleeding, study stratified with backward selection at an  $\alpha$  level of 0.1**



**Figure 1: The PRECISE-DAPT score nomogram for bedside application**  
Risk curves refer to out-of-hospital Thrombosis in Myocardial Infarction (TIMI) major or minor bleeding and TIMI major bleeding at 12 months while on-treatment with dual antiplatelet therapy (DAPT). Histogram refers to the PRECISE-DAPT score distribution in the derivation cohort: green bars, the first score quartile (very low risk); blue bars, the second score quartile (low risk); purple bars, the third score quartile (moderate risk); and red bars, the fourth score quartile (high risk).

# ESC high risk bleeding 2019

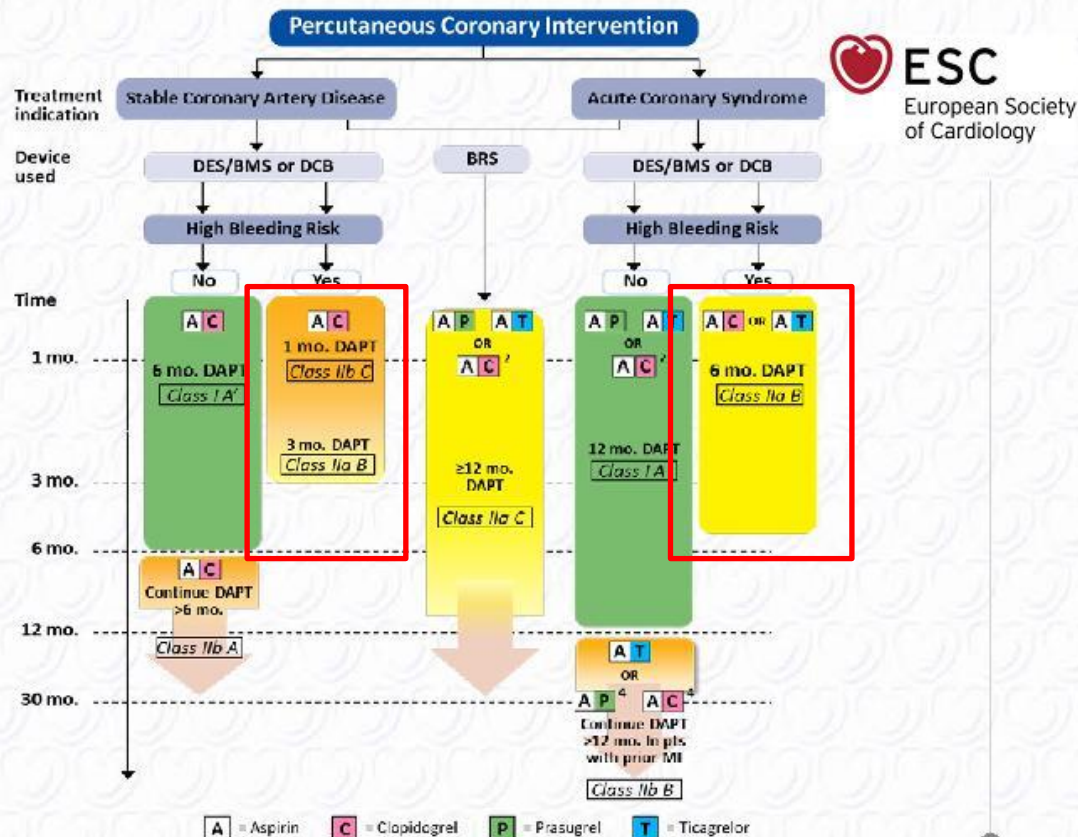
## Hoog bleedingsrisico: 1 major of 2 minor criteria

Major	Minor
Anticipated use of long-term oral anticoagulation*	Age $\geq 75$ y
Severe or end-stage CKD (eGFR $< 30$ mL/min)	Moderate CKD (eGFR 30–59 mL/min)
Hemoglobin $< 11$ g/dL	Hemoglobin 11–12.9 g/dL for men and 11–11.9 g/dL for women
Spontaneous bleeding requiring hospitalization or transfusion in the past 6 mo or at any time, if recurrent	Spontaneous bleeding requiring hospitalization or transfusion within the past 12 mo not meeting the major criterion
Moderate or severe baseline thrombocytopenia† (platelet count $< 100 \times 10^9/L$ )	
Chronic bleeding diathesis	
Liver cirrhosis with portal hypertension	Long-term use of oral NSAIDs or steroids
Active malignancy‡ (excluding nonmelanoma skin cancer) within the past 12 mo	Any ischemic stroke at any time not meeting the major criterion
Previous spontaneous ICH (at any time) Previous traumatic ICH within the past 12 mo Presence of a bAVM Moderate or severe ischemic stroke§ within the past 6 mo	
Nondeferrable major surgery on DAPT	
Recent major surgery or major trauma within 30 d before PCI	



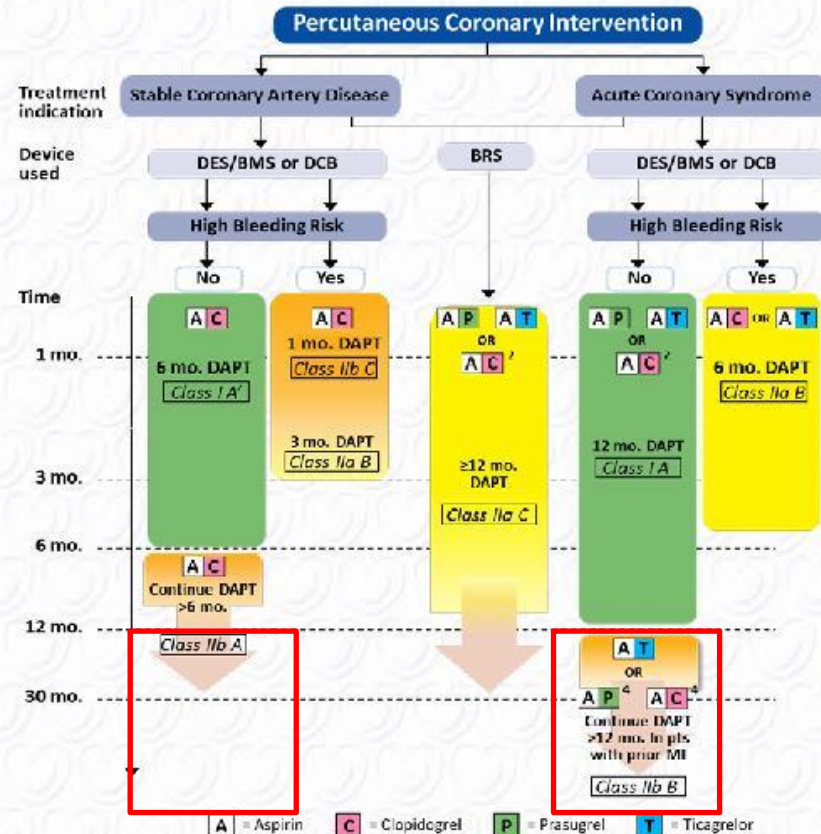
# Reduced platelet inhibition?

## Algorithm for dual antiplatelet therapy (DAPT) in patients treated with percutaneous coronary intervention



# Prolonged platelet inhibition?

## Algorithm for dual antiplatelet therapy (DAPT) in patients treated with percutaneous coronary intervention

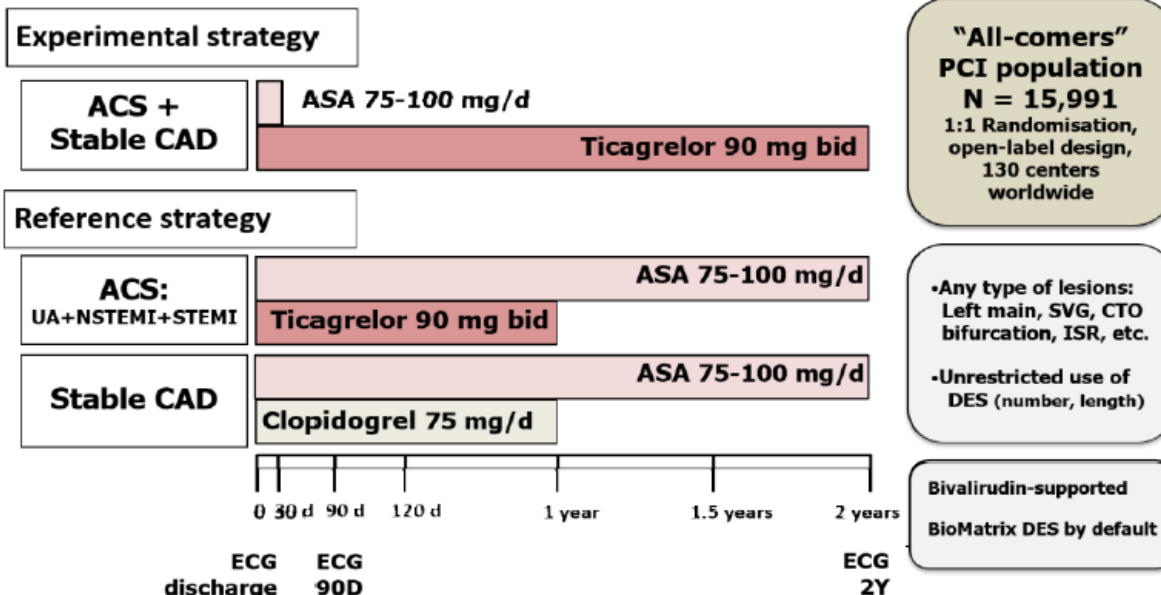


# Verkorte duur DAPT (Stop Aspirin, Tica mono)

## GLOBAL LEADERS

Ticagrelor plus aspirin for 1 month, followed by ticagrelor monotherapy for 23 months vs aspirin plus clopidogrel or ticagrelor for 12 months, followed by aspirin monotherapy for 12 months after implantation of a drug-eluting stent: a multicentre, open-label, randomised superiority trial

*Pascal Vranckx\*, Marco Valgimigli\*, Peter Juni\*, Christian Hamm, Philippe Gabriel Steg, Dik Heg, Gerrit Anne van Es, Eugene P McFadden, Yoshinobu Onuma, Cokky van Meijeren, Ply Chichareon, Edouard Benit, Helge Möllmann, Luc Janssens, Maurizio Ferrario, Aris Moschovitis, Aleksander Zurakowski, Marcella Dominici, Robert Jan Van Geuns, Kurt Huber, Ton Slagboom, Patrick W Serruys, Stephan Windecker, on behalf of the GLOBAL LEADERS Investigators*



**"All-comers" PCI population**  
**N = 15,991**  
 1:1 Randomisation, open-label design, 130 centers worldwide

- Any type of lesions: Left main, SVG, CTO bifurcation, ISR, etc.
- Unrestricted use of DES (number, length)

Bivalirudin-supported BioMatrix DES by default

### Primary endpoint:

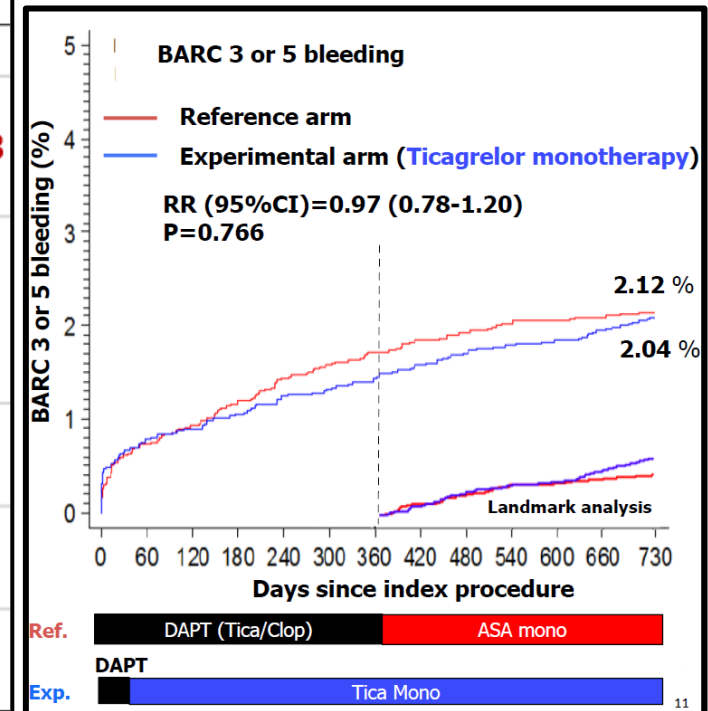
Composite of all-cause mortality or non-fatal new Q-wave MI up to 2 years post randomization

### Safety endpoint:

Investigator-reported BARC 3 or 5 bleeding up to 2 years

# Verkorte duur DAPT (Stop Aspirin, Tica mono)

	Experimental group	Reference group	Risk Ratio (95% CI)	p-value
Number of pts.	N=7980	N=7988		
All-cause mortality or new Q-wave MI	<b>3.81</b> %, (304)	<b>4.37</b> %, (349)	<b>0.87</b> (0.75-1.01)	<b>0.073</b>
All-cause mortality	<b>2.81</b> % (224)	<b>3.17</b> % (253)	<b>0.88</b> (0.74-1.06)	0.18
New Q-wave MI	<b>1.04</b> % (83)	<b>1.29</b> % (103)	<b>0.80</b> (0.60-1.07)	0.14
BARC 3 or 5 Bleeding	<b>2.04</b> %	<b>2.12</b> %	<b>0.97</b> (0.78-1.20)	0.77
BARC 5 Bleeding	<b>0.28</b> %	<b>0.30</b> %	<b>0.92</b> (0.52-1.64)	0.78
BARC 3 Bleeding	<b>1.88</b> %	<b>1.99</b> %	<b>0.95</b> (0.76-1.18)	0.63



# Verkorte duur DAPT (Stop Aspirin, Clopi mono)

## STOPDAPT-2

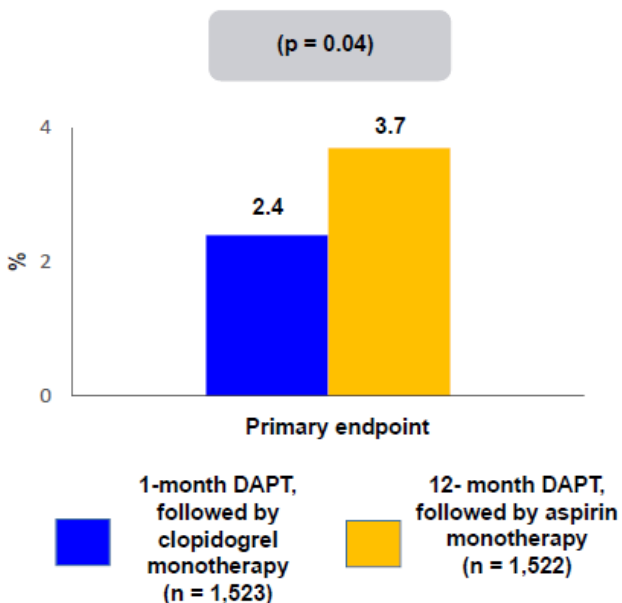
## ASA 1 months

#ACC19



AMERICAN  
COLLEGE of  
CARDIOLOGY

**Trial Description:** Patients undergoing PCI were randomized to 1 month of DAPT followed by clopidogrel monotherapy for 5 years versus 12 months of DAPT followed by aspirin monotherapy for 5 years.



### RESULTS

- Primary outcome, death, MI, stent thrombosis, stroke, TIMI major/minor bleeding at 1 year: 2.4% of 1-month DAPT group compared with 3.7% of 12-month DAPT group (p for superiority = 0.04)
- Death, MI, stent thrombosis, or stroke at 1 year: 2.0% of 1-month DAPT group compared with 2.5% of 12-month DAPT group (p for noninferiority = 0.005)

### CONCLUSIONS

- Among patients undergoing PCI for stable and unstable cardiovascular disease, 1-month DAPT followed by clopidogrel monotherapy was superior to 12-month DAPT followed by aspirin monotherapy at preventing net adverse clinical events
- 1-month DAPT was noninferior to 12-month DAPT at preventing major adverse ischemic events

Presented by Dr. Hirotoishi Watanabe at ACC 2019

# Verkorte duur DAPT (Stop Aspirin, Clopi mono)

## SMART-CHOICE

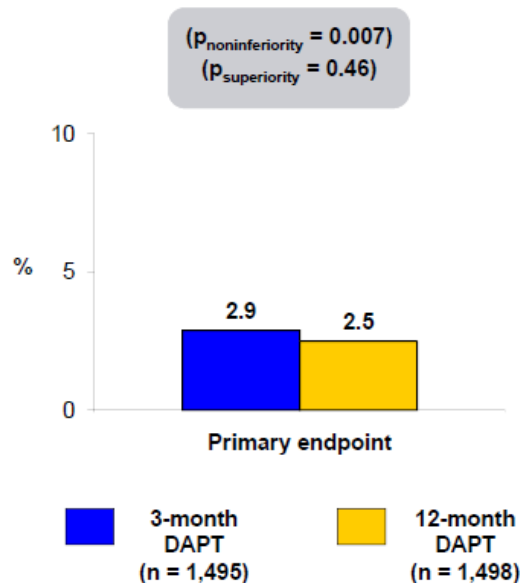
## ASA 3 months

### #ACC19



AMERICAN  
COLLEGE of  
CARDIOLOGY

**Trial Description:** Patients undergoing DES-PCI were randomized in a 1:1 fashion to either dual antiplatelet therapy (DAPT) for 3 months followed by P2Y12 inhibitor monotherapy for 9 months, or DAPT for 12 months. They were followed for 1 year.



### RESULTS

- Primary endpoint: MACCE (death, MI, stroke) at 12 months, for 3- vs. 12-month DAPT: 2.9% vs. 2.5%, p for noninferiority = 0.007; p for superiority = 0.46
- Death: 1.4% vs. 1.2%, p = 0.61; MI: 0.8% vs. 1.2%, p = 0.28; stent thrombosis: 0.2% vs. 0.1%, p = 0.65
- Bleeding BARC 2-5: 2.0% vs. 3.4%, p = 0.02

### CONCLUSIONS

- 3 months of DAPT followed by P2Y12 inhibitor use as monotherapy for 9 months is noninferior to 12 months of DAPT among unselected patients undergoing PCI with a DES; bleeding was lower with this strategy
- Interesting findings, adds to other trials seeking to drop aspirin rather than the P2Y12 inhibitor as antiplatelet agent long-term; outcomes may be different among patients with ACS vs. stable ischemic heart disease

Presented by Dr. Joo-Yong Hahn at ACC 2019

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# Verkorte duur DAPT (Stop Aspirin, Tica mono)

## *TWILIGHT - Trial Objectives*

### **Primary Objective:**

To determine the impact of SAPT (ticagrelor monotherapy) *versus* DAPT (ticagrelor plus aspirin) for 12 months in reducing **clinically relevant bleeding** (BARC 2, 3 or 5) among high-risk patients who have undergone successful PCI.

### **Secondary Objective:**

To determine the impact of SAPT (ticagrelor monotherapy) *versus* DAPT (ticagrelor plus aspirin) for 12 months on **major ischemic adverse events** (all-cause death, non-fatal MI or stroke) among high-risk patients who have undergone successful PCI.

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# Verkorte duur DAPT (Aspirin)

## *TWILIGHT Inclusion Criteria*

### Clinical criteria

Age  $\geq 65$  years

Female gender

Troponin positive ACS

Established vascular disease (previous MI, documented PAD or CAD/PAD revasc)

DM treated with medications or insulin

CKD (eGFR  $< 60$  ml/min/1.73m<sup>2</sup> or CrCl  $< 60$  ml/min)

### Angiographic criteria

Multivessel CAD

Target lesion requiring total stent length  $> 30$  mm

Thrombotic target lesion

Bifurcation lesion (s) with Medina X,1,1 classification requiring  $\geq 2$  stents

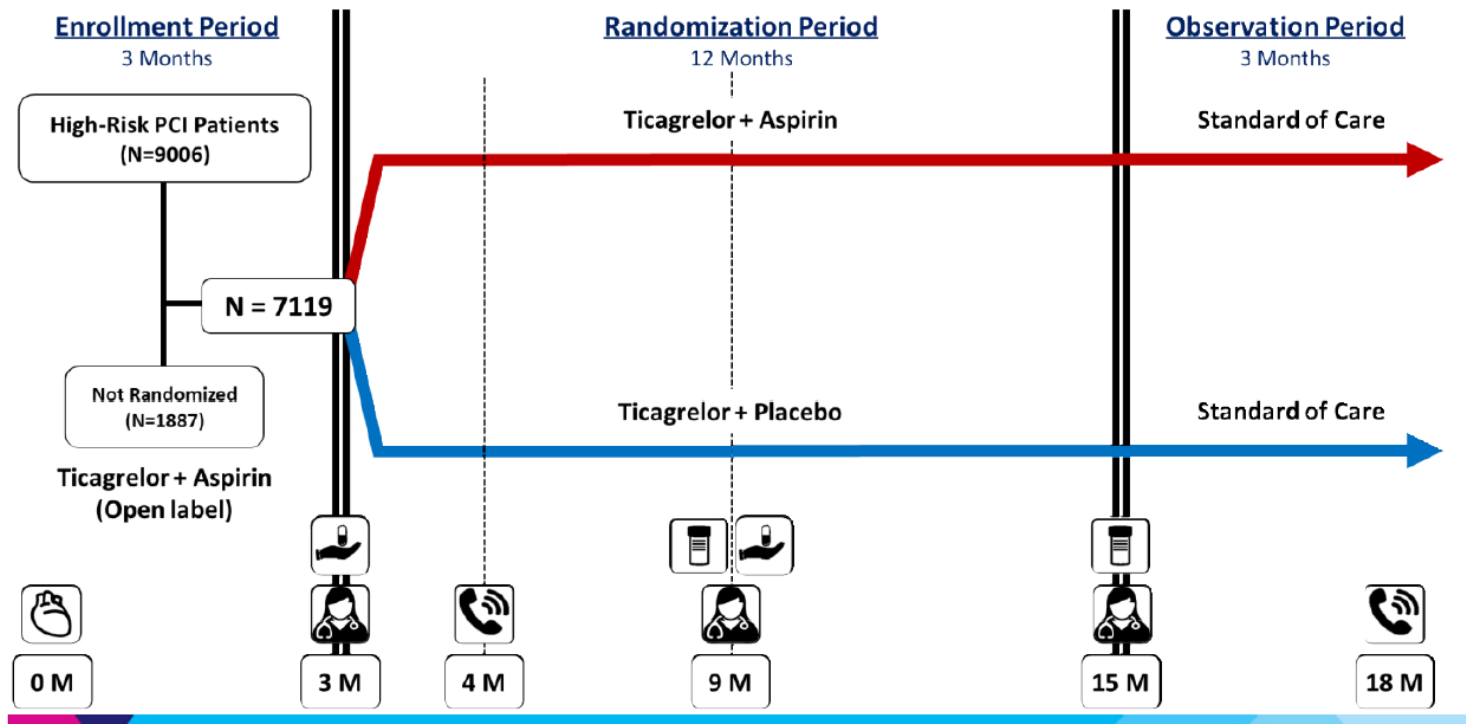
Left main ( $\geq 50\%$ ) or proximal LAD ( $\geq 70\%$ ) lesions

Calcified target lesion(s) requiring atherectomy



# Verkorte duur DAPT (Stop Aspirin, Tica mono)

## TWILIGHT - Study Design



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# *TWILIGHT Inclusion Criteria*

## Clinical criteria

Age  $\geq 65$  years

Female gender

Troponin positive ACS

Established vascular disease (previous MI, documented PAD or CAD/PAD revasc)

DM treated with medications or insulin

CKD (eGFR  $< 60$  ml/min/1.73m<sup>2</sup> or CrCl  $< 60$  ml/min)

## Angiographic criteria

Multivessel CAD

Target lesion requiring total stent length  $> 30$  mm

Thrombotic target lesion

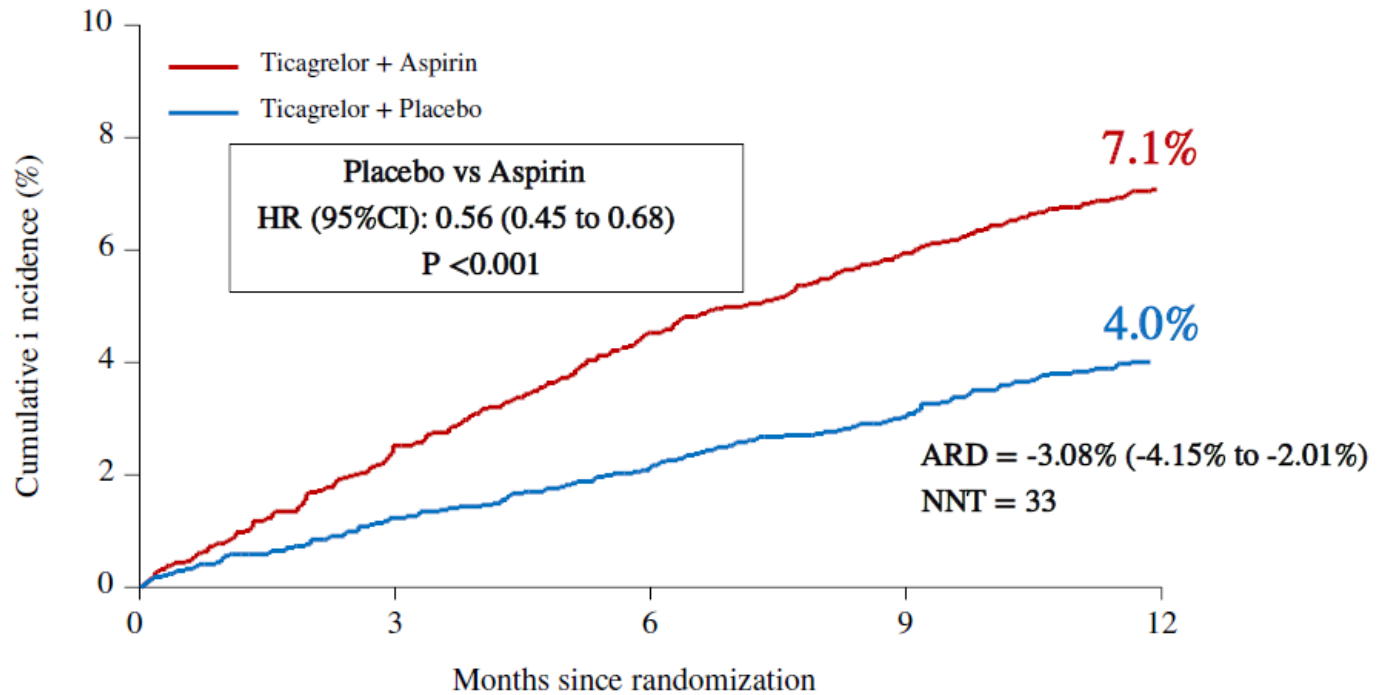
Bifurcation lesion (s) with Medina X,1,1 classification requiring  $\geq 2$  stents

Left main ( $\geq 50\%$ ) or proximal LAD ( $\geq 70\%$ ) lesions

Calcified target lesion(s) requiring atherectomy

# Primary Endpoint: BARC 2, 3 or 5 Bleeding

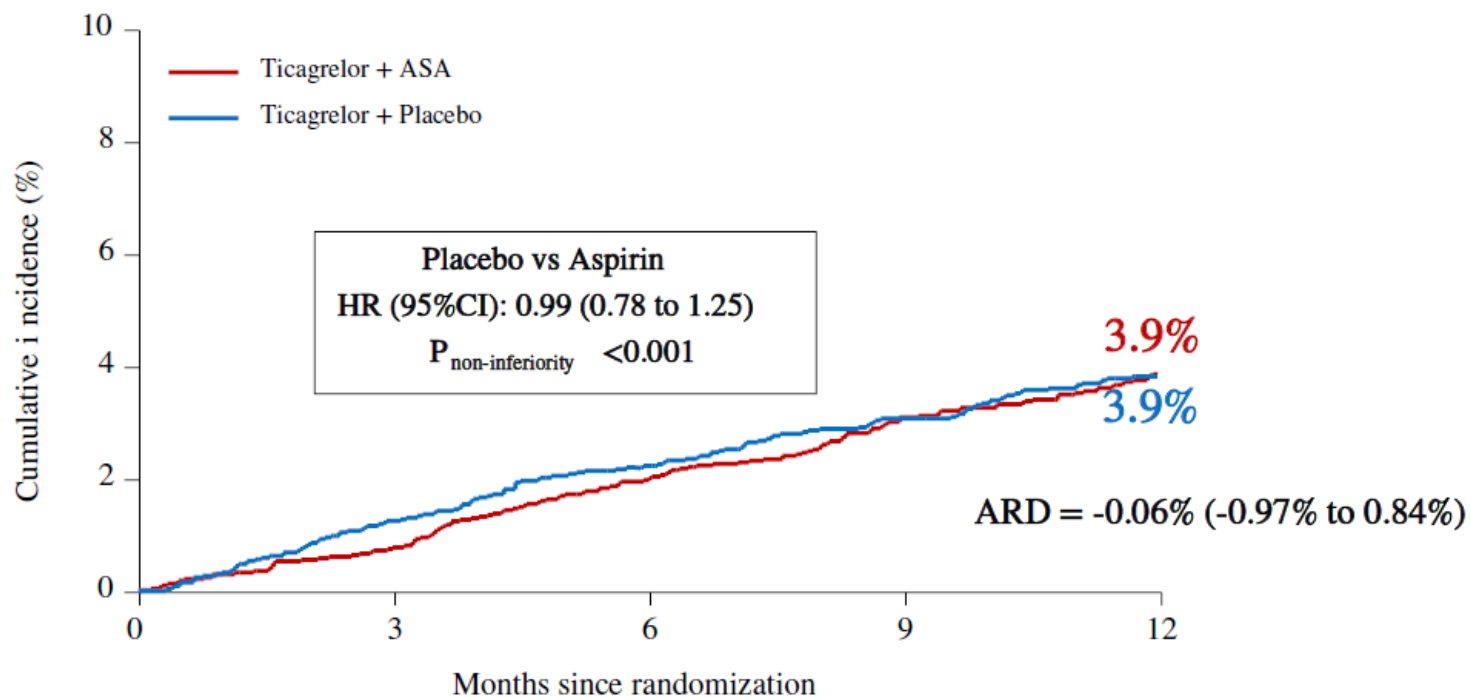
## ITT Cohort



	No. at risk				
Ticagrelor + Aspirin	3564	3454	3357	3277	3213
Ticagrelor + Placebo	3555	3474	3424	3366	3321

# Key Secondary Endpoint: Death, MI or Stroke

## PP Cohort



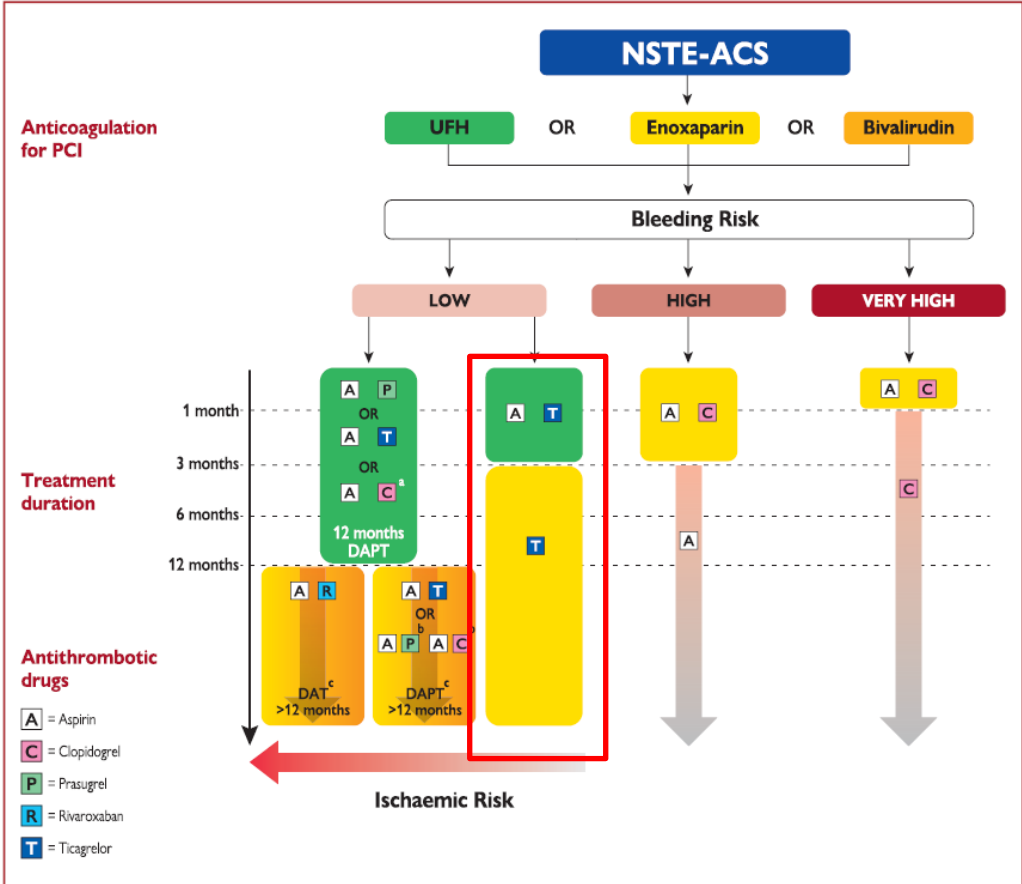
	No. at risk				
Ticagrelor + Aspirin	3515	3466	3415	3361	3320
Ticagrelor + Placebo	3524	3457	3412	3365	3330

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# Limitations DAPT vs SAPT studies

- Combined endpoints: MACE vs NACE
- Mixed durations
- Mixed P2Y12 inhibitors.
- Frequently selected patients.
  - Low risk patients
  - High Bleeding risk patients.

# ESC guidelines NSTE-ACS 2020



**Figure 7** Algorithm for antithrombotic therapy in non-ST-segment elevation acute coronary syndrome patients without atrial fibrillation undergoing percutaneous coronary intervention. HBR is considered as an increased risk of spontaneous bleeding during DAPT (e.g. PRECISE-DAPT score  $\geq 25$  or ARC-HBR<sup>15b</sup>). Colour-coding refers to the ESC classes of recommendations (green = class I; yellow = class IIa; orange = class IIb). Very HBR is defined as recent bleeding in the past month and/or not deferrable planned surgery. A = aspirin; ARC-HBR = Academic Research Consortium – High Bleeding Risk;

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# Risicofactoren

- Verhoogd bloedingsrisico:
  - Indicatie voor OAC
  - Intracraniële bloeding in voorgeschiedenis; Spontane bloeding in de laatste 12 maanden.
  - CKD (eGFR <30)
  - Bekende anaemie (Hb < 7mmol/l)
- Verhoogd Ischemisch risico:
  - Diabetes mellitus
  - Tweede ACS
  - Meervatslijden
  - CKD (eGFR <60)
  - Perifeer arterieel vaatlijden

No indication for OAC/NOAC

Elective PCI stable angina

PCI in ACS

High bleeding risk

STANDARD

Complex PCI

- CTO
- 2-stent bifurcation
- Stent venagraft
- >60 mm stent

High bleeding risk

STANDARD

High ischemic risk and Age <75:

One of:

- 2<sup>nd</sup> ACS
- DM
- PAD
- CKD (eGFR <60)
- Multivessel CAD

ASA  
+ 3 months  
Clopidogrel

ASA  
+ 6 months  
Clopidogrel

ASA  
+ 12 months  
Clopidogrel

ASA  
+ 6 months  
Ticagrelor

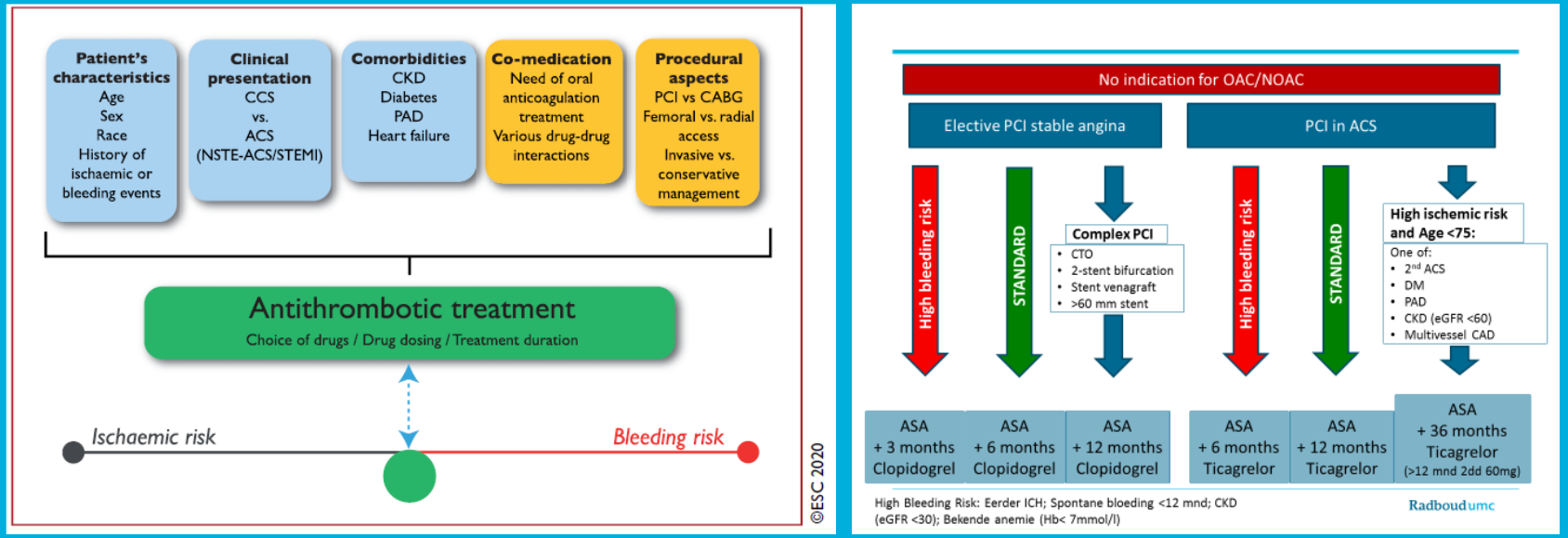
ASA  
+ 12 months  
Ticagrelor

ASA  
+ 36 months  
Ticagrelor  
(>12 mnd 2dd 60mg)

High Bleeding Risk: Eerder ICH; Spontane bleeding <12 mnd; CKD (eGFR <30); Bekende anemie (Hb < 7mmol/l)



# DAPT post ACS/PCI: Some shorter, some longer



Prof.dr RJ van Geuns, interventional cardiologist  
Nationale antistollingsdag November 2020

# ESC guidelines CCS 2019

## Antithrombotic therapy post-PCI in patients with CCS and in sinus rhythm

Aspirin 75–100 mg daily is recommended following stenting. <sup>284</sup>	I	A
Clopidogrel 75 mg daily following appropriate loading (e.g. 600 mg or >5 days of maintenance therapy) is recommended, in addition to aspirin, for 6 months following coronary stenting, irrespective of stent type, unless a shorter duration (1–3 months) is indicated due to risk or the occurrence of life-threatening bleeding. <sup>284</sup>	I	A
Clopidogrel 75 mg daily following appropriate loading (e.g. 600 mg or >5 days of maintenance therapy) should be considered for 3 months in patients with a higher risk of life-threatening bleeding. <sup>284</sup>	IIa	A
Clopidogrel 75 mg daily following appropriate loading (e.g. 600 mg or >5 days of maintenance therapy) may be considered for 1 month in patients with very high risk of life-threatening bleeding. <sup>284</sup>	IIb	C
Prasugrel or ticagrelor may be considered, at least as initial therapy, in specific high-risk situations of elective stenting (e.g. suboptimal stent deployment or other procedural characteristics associated with high risk of stent thrombosis, complex left main stem, or multivessel stenting) or if DAPT cannot be used because of aspirin intolerance.	IIb	C